EXPLORING PUBERTY EXPERIENCES OF YOUNG MALES (18-21 YEARS) LIVING IN URBAN PAKISTAN: A QUALITATIVE INQUIRY

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Dedication

To my family

Originality statement

Declaration

This is the original work and has not been submitted for any other degree or award at this or any other university, is being submitted concurrently neither in accordance with any degree or another award.

Signed…….. (Noureen Shivji) Date: …….

Abstract

Background: Adolescence is a time of dynamic change during which puberty transition occurs, which is characterised as bringing profound psychological transformation to adolescents' identity, mental health and to impact on their overall behaviour. Literature has identified male adolescents to be less engaged in health promotion activities, and considered them a high risk population, particularly during puberty influencing their physical and psychological health outcomes, which may last longer. It is therefore essential that these young boys have good puberty experiences, as that will help to ensure better psychosocial adjustment in later life. However, socio-cultural factors play a significant role in Pakistan and other similar countries to create several barriers to puberty awareness and understanding of adolescent males, where only limited support is available for them in terms of enhancing their puberty experiences.

It is because of these cultural factors that puberty and related topics have not been adequately researched in Pakistan, despite having enormous significance of puberty transition in male adolescents' life. Instead, studies that are more general have been conducted to assess the sexual and reproductive health (SRH) knowledge, attitudes and behaviours of adolescents of both sexes. In case where reproductive health (RH) needs of adolescent males are explored, puberty has only been a small part of it.

It could be argued that understanding young males' puberty experience in predominantly patriarchal cultures such as Pakistan is particularly important in order to investigate and propose appropriate measures to provide good puberty experiences to adolescent males. As it may improve role-relationships in adult life, and reduces the cost of many preventable and chronic diseases, such as mental illnesses and sexually transmittable infections (STIs) as these adolescents make better choices regarding their SRH in the future.

Aim: This study aimed to explore how young males aged 18-21 years from an urban city of Pakistan perceived their puberty experiences, by addressing the following objectives:

1. To explore the overall experiences of puberty from young males living in Pakistan.
2. To explore the barriers/challenges/difficulties Pakistani young males encountered during puberty, and how they may have overcome these.
3. To explore potential facilitating factors for Pakistani young males during adolescence that contributed to positive puberty experiences.

Method: An exploratory, generic qualitative study using an interpretive-social constructionist approach was conducted. The study included 22 participants from two study sites using convenient sampling, followed by snowball technique. Data was collected through individual semi-structured face-to-face and Skype interviews, each interview lasted between 60-240 minutes. Interviews were transcribed verbatim into their original languages (English and Urdu both) and data analysed thematically. NVivo10 and 11 software was used to manage the data. Ethical approval was received from the University of Nottingham, UK and official permissions were granted by the respective institutions approached, with written informed consent received from all the participants.

Findings: The findings showed that the puberty phase was challenging for young males, and often resulted in negative psychological impacts, along with concerns related to their identity development.

The negative effects mainly resulted from being unprepared and uninformed about pubertal changes, which was due to the socio-cultural factors, considering puberty a ‘taboo’ subject. As a result of which, there was a lack of awareness about puberty and difficulties in accessing trustworthy information. Consequently, participants during puberty felt confused, fearful, anxious and embarrassed of their experiences, which often resulted in isolation and depression. Alongside these experiences, participants were found to have adopted several coping strategies; nevertheless, they highlighted the need for additional material and

health promotion programmes to aid the transition process.

Participants also described the diverse puberty experiences challenged by the societal expectations and gender norms, as they sought power, acceptance and defined their sexual orientation whilst gaining social status and identity development. Their concerns about masculinity, sexual identity and developing an adult outlook along with stereotyped gender roles and responsibilities were shared which often resulted in personal tensions while negotiating through these societal expectations.

Conclusion: This study is the first known study to explore the contextualised puberty experiences of young males in Pakistan. The study has established that young males' experienced and shared significant concerns regarding their puberty transition phase. These were related to information gathering, negative psychological impacts, coping strategies and identity formation in the patriarchal Pakistani context. The findings further demonstrated that currently the puberty transition does not necessarily provide positive experiences for the male adolescents, since the conjunction of personal and social worlds exposed participants to both negative and positive psychological impacts during their puberty and influenced their identity formation as an adult male.

Findings from this study provide a new theoretical insight into the complex social and ecological factors at play in Pakistan during male adolescents' puberty transition, using social and ecological model (SEM) of human development. These findings can therefore be used to

understand the gender appropriate educational needs of adolescent males around puberty and develop future health promotion programmes around male adolescents' puberty. Introducing and developing appropriate health promotion programmes around puberty could improve future male adolescents' experiences and may therefore impact positively on their long-term health and well-being, and assist them in developing a vibrant adult identity.

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Scholarly outputs

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Abbreviations

ALR	Adult Literacy Rate
ASRH	Adolescent Sexual and Reproductive Health
BHU	Basic Health Unit
FGDs	Focus Group Discussions
FLE	Family Life Education
GDR	Gross Domestic Rate
GoP	Government of Pakistan
GPI	Global Peace Index
GR	Growth Rate
HP	Health Promotion
IMF	International Monetary Funds
IP	Information Power
LSBE	Life Skills Based Education
MDGs	Millennium Development Goals
NIPS	National Institute of Population Studies
NGOs	Non-Government Organisations
ONS	Office for National Statistics
PC	Population Council
PRB	Population Reference Bureau
RHC	Rural Health Centre
RH	Reproductive Health
SAARC	South Asian Association for Regional Cooperation
SEM	Socio-Ecological Model
SHP	Sexual Health Promotion
SH	Sexual Health
SRH	Sexual and Reproductive Health
UK	United Kingdom
UN	United Nations
UNFPA	United Nations Population Fund
UNICEF	United Nations International Children's Emergency Fund
USAID	United States Agency for International Development
WHO	World Health Organisation
WPF	World Population Fund
YFRHS	Youth Friendly Reproductive Health Services

Glossary

Terms	Definition
Adolescence	Developmental transition between childhood and adulthood
Adolescent	Being comprised of an age-group of 10-19 years' old
Family Life Education	Educational effort to strengthen individual and family life through a family perspective
Gender	Socio-cultural dimension of being a male and female
Gender stereotyping	Overgeneralisations of characteristics, differences and attributes of a certain group based on their gender particular people or society
Gender role	Social role encompassing a range of behaviours and attitudes that are generally considered acceptable, appropriate or desirable for people based on their actual or perceived sex
Gender Identity	One's innermost concept of self as male, female, a blend of both or neither
Gender socialization	Gender socialization refers to the learning of behaviour and attitudes considered appropriate for a given sex. Boys learn to be boys and girls learn to be girls. This "learning" happens by way of many different agents of socialization.
LSBE	Abilities for adaptive and positive behaviour enabling individuals to deal with the demands and challenges of life effectively
Masculinity	Possession of qualities traditionally associated with men
Puberty	Stage of physical development during adolescence and able to gain the reproductive ability
Puberty education	Teaching and learning about physical and psychological maturation within the cultural context of the community

Sex	Biological dimension of being a male and female
Sexual Orientation	Inherent or immutable enduring emotional, romantic or sexual attraction to other people
Sexual Identity	Label that people adapt to signify to others with whom they are sexually attracted to (i.e. heterosexual, homosexual, bisexual)
SRH	State of physical, emotional and social well-being in all matters of reproductive and sexual health
Sex education	Teaching on issues related to human sexuality, including emotional relations and responsibilities, human sexual anatomy, sexual activity, sexual reproduction, safe sex and reproductive rights
Wet dreams	Erotic dream that causes involuntary ejaculation of semen
Young people	Those people between the beginning of puberty and attainment of adulthood. Fall between 10-24 years

CHAPTER 1: INTRODUCTION TO PAKISTAN: THE CULTURAL CONTEXT

1.1 Structure of thesis

This thesis sets out to explore the puberty experiences of young males aged 18-21 years, living in an urban city of Pakistan. This introductory chapter sets the scene by providing the cultural context of Pakistan within which the study was conducted. In addition, this first chapter presents a comparison of important data between Pakistan and other developing countries, and with the UK, to identify any similarities and/or differences that exist among them, due to the variation in their socio-cultural contexts.

Chapter two presents a narrative review of relevant literature and sets out the research aim and objectives. Chapter three describes the methodology and methods adopted for this study. Chapters four, five, six and seven present the results of this study under themes identified from the data, while chapter eight is concerned with reflexivity.

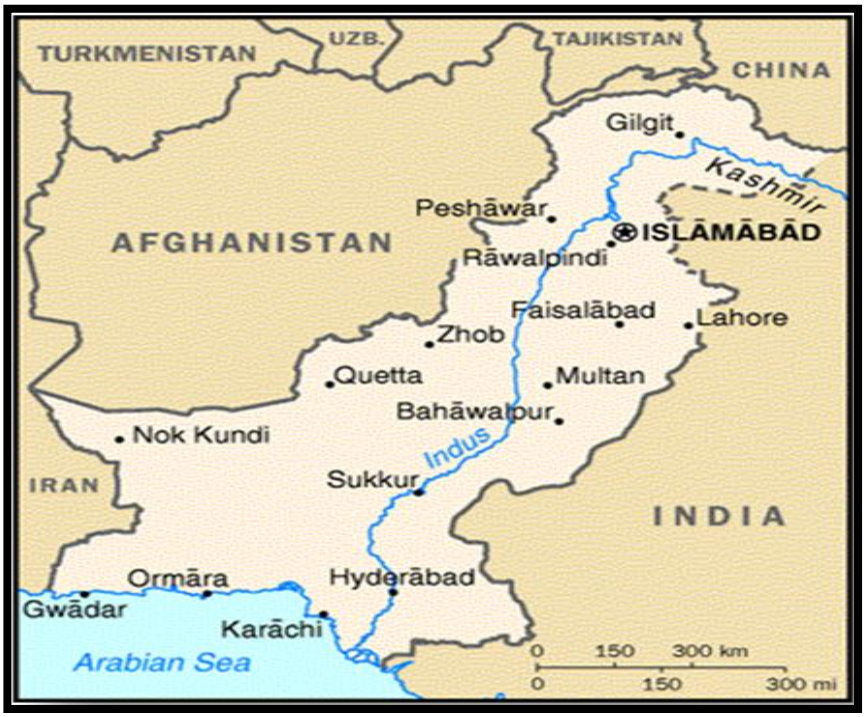
Chapter nine provides a critical discussion of the findings, selecting a theoretical framework within which the findings can be viewed. Within the conclusion, which is the last chapter (ten), the key contributions of this study to the field of adolescent health, puberty health promotion and sexual and reproductive health (SRH) in general are stated, highlighting the recommendations of the research findings for policy, education and future research.

1.2 Overview of Pakistan

1.2.1 Geographical and demographic profile

Pakistan, (officially 'The Islamic Republic of Pakistan'), founded in 1947 when the Indian sub-continent was divided into India and Pakistan. It is situated in the North Western part of the South Asian subcontinent, is a member of the South Asian Association for Regional Cooperation (SAARC) neighbourhood, and is a gateway country for accessing a number of landlocked countries including, Afghanistan and Tajikistan. Pakistan has a border on the Arabian Sea, between India to the East, China to the North, and Iran and Afghanistan to the West (Figure 1)

Figure 1: Map of Pakistan with surrounding borders



Source: (Fact Book, 2017c)

The country has an area of 796,095 km^2, and is the sixth most populated country in the world, with an estimated population of 203 million (Population Reference Bureau, 2016). Despite a reduction in the rate of population growth from approximately 2.68% to 1.45% over recent years, this remains higher than the population growth rates of other countries with similar socio-cultural contexts in the SAARC neighbourhood (Murtaza, 2011) (Table 1). Indeed, current estimates indicate that at existing population growth rates, the Pakistani population will reach a peak of around 344 million by 2050 (Population Reference Bureau, 2016).

The high population growth rate of Pakistan could be the result of both an increased birth rate and a decreased death rate. This could be due to improvements in the medical and healthcare services, which has led to an increased life expectancy of about 67.7 years (Fact Book, 2017c, Index Mundi, 2016). Despite the increase in life expectancy, this figure remains low when compared to developed nations such as, the UK, which has a life expectancy of 80.7 years (Fact Book, 2017e) (Table 1).

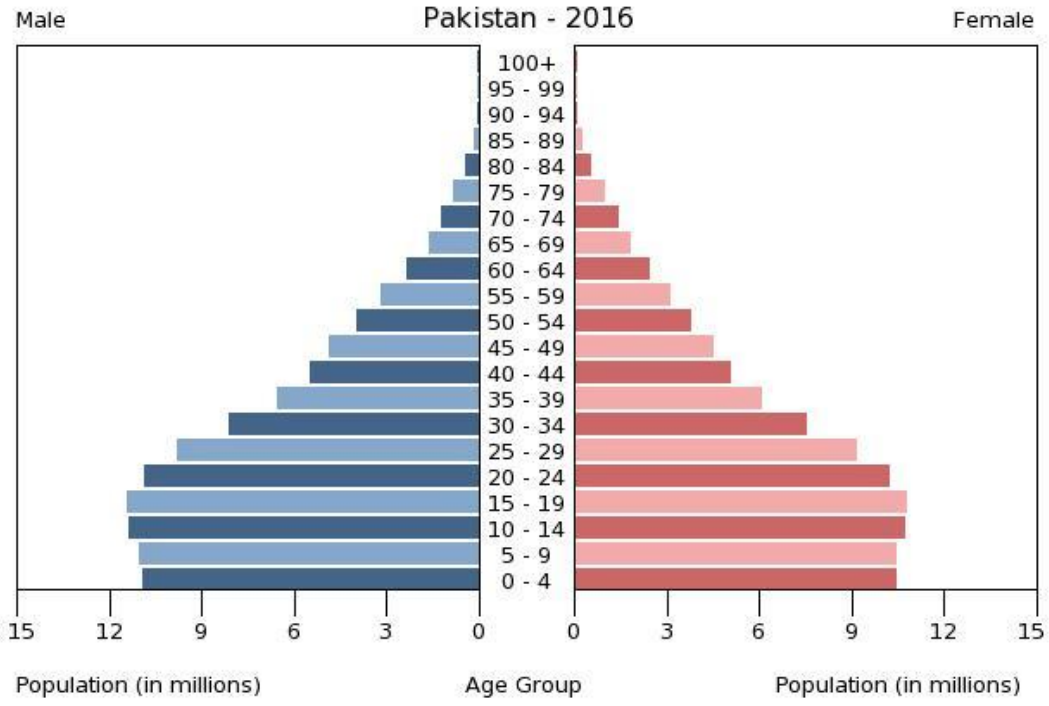
Table 1: Population growth rate and life expectancy in Pakistan and other countries

Country	Population Growth Rate (%)	Life expectancy at birth (years)
Pakistan	1.45	67.7
India	1.19	68.5
Bangladesh	1.05	73.2
Sri Lanka	0.80	76.8
United Kingdom	0.53	80.7

Source: (Fact Book 2017a-e, Murtaza, 2011)

The population pyramid of Pakistan (Figure 2) is typical of a developing country, a broad base indicating a high rate of population growth.

Figure 2: Population Pyramid of Pakistan, 2016



Source: (Fact Book 2017c)

Pakistan is comprised of four provinces: Sindh, Punjab, Baluchistan and North West Frontier Province (NWFP), with the capital city, Islamabad located in the province of Punjab (Figure 1)

(Fact Book, 2017c). The country is further divided into many geographical regions, each with local tribes, and consists of diverse ethnic cultures and backgrounds, distinguished by their language, food, cultural norms and traditions.

The most ethnically diverse city is Karachi, which is also considered as the capital of Pakistan's Sindh province (Paracha, 2014). It is the most populated city of Pakistan with approximately 23 million people (Kari, 2016), and is one of the most secular, liberal and religiously diverse cities in Pakistan, with communities from almost all the ethnic groups present in Pakistan, and with the largest number of immigrants from inside and outside the country (Kotkin and Cox, 2013, Fact Book, 2017c). Karachi has however, reported to be more unstable politically now than in earlier times (Firstpost, 2017, Acharya et al., 2015, Paracha, 2014, Ghosh, 2013, Shackle, 2015). Political unrest in Karachi is driven and influenced by ethnic affiliation, as political parties are often more tribal than democratic (Kundi, 2016). Over the last few decades, large groups of homogenous ethnic populations have formed specific clustered neighbourhoods in which they live in the city and spread unrest in the area (Paracha, 2014).

Notwithstanding this, there are people who still appreciate diversity and remain conflict free. These people are considered responsible to generate economic capital of the city and resides in neutral zones. Due to the comparable wealth in these neutral zones, they are the target of criminal activities in the city such as, robberies, muggings, kidnappings for ransom, extortion, etc. (Paracha, 2014, Shackle, 2015).

1.2.2 Social context of Pakistan

In Pakistan, the dominant religion is Islam, where 96.4% of people are Muslims, with further division into Sunni (85-90%) and Shia (10-15%) Muslims (Index Mundi, 2016, Fact Book, 2017c, National Institute of Population Studies (NIPS), 2013). Whilst the national language of Pakistan is Urdu, each of the four provinces has their own language (Fact Book, 2017c), and there are more than 10 other local and regional languages spoken in the country (National Institute of Population Studies (NIPS), 2013). English is spoken as a second language mainly by people from high socio-economic groups, those studying in the private sector and those working within official government ministries (Fact Book, 2017c).

In relation to education, the adult literacy rate is 57.9%, with males reported to be more literate (69.5%) than females (45.8%) (Fact Book, 2017c). The overall literacy rate is still lower than that of its neighbouring developing countries (Fact Book, 2017b, Fact Book, 2017d, Fact Book, 2017a) and the UK (Fact Book, 2017e), where the

literacy rate is 99% (Table 2).

Table 2: Adult literacy rate (%) of Pakistan and other countries

Country	Adult literacy rate (%) Male (M); Female (F)
Pakistan	57.9 M= 69.5 ; F= 45.8
India	71.2 M= 81.3 ; F= 60.6
Bangladesh	61.5 M= 64.6 ; F= 58.5
Sri Lanka	92.6 M= 93.6 ; F= 91.7
UK	99 M= 99 ; F= 99

Source: (Fact Book, 2017a-e)

While the majority (70%) of the population live in rural areas, the rate of urbanisation is expanding with people migrating from rural to urban areas for better jobs and living options (Fact Book, 2017c, Index Mundi, 2016). Between 1950 and 2011, Pakistan's urban population expanded sevenfold (National Institute of Population Studies (NIPS) (Pakistan) and ICF International, 2013). With this rapid urbanisation, the telecommunication and infrastructure have improved with 125.9 million people using the mobile cellular network and 90% of the population living in areas within mobile coverage (Fact Book, 2017c).

Improved communication is also evident through the expansion of availability of the broadcast media and increased construction of the fibre broadband throughout the country. Despite these improved

facilities however, only around 18% of the population have access to the internet (Fact Book, 2017c), slightly more than Bangladesh (Fact Book, 2017a), but lower than other neighbouring developing countries compared within this chapter (Table 3). However, it contrasts significantly with the UK where 90% of the population use the internet (Fact Book, 2017e).

Table 3: Internet users in Pakistan and other countries

Country	Internet Users (%)
Pakistan	18
India	26
Bangladesh	14.4
Sri Lanka	30
UK	90

Source: (Fact Book, 2017a-e)

1.2.3 Political context of Pakistan

Pakistan gained independence from British rule in 1947. The purpose of gaining independence was to achieve an independent, well-governed, stable and peaceful nation. However, most recently Pakistan has been ranked 152nd in the global state of peace report, indicating that it was the least peaceful country of 2017 among all countries of the world (Global Peace Index (GPI), 2017).

Despite the Pakistani government crackdown on domestic terrorism, the country remains affected by the influence of the Taliban from Afghanistan and remains sixth out of seven in the South Asian rankings for unstable countries (Global Peace Index (GPI), 2017). Data from the year 2016 suggests that Pakistan spent 12.9% of Gross Domestic Product (GDP) on violence containment in contrast with 5.3% for the UK (Global Peace Index (GPI), 2017) (Table 4). Similarly, in relation to the 2017 ongoing domestic and international conflict domain of the Global Peace Index (GPI), Pakistan ranks very high i.e. 161/163 countries, with a score of 3.599, indicating a significantly high rate of conflicts within the country.

Pakistan also ranks 138/163 countries in terms of low societal safety and security compared to the UK ranking of 27/163. Pakistan was also ranked 10th most dangerous country by criminality index of 2016. These rankings and scores demonstrate the high level of internal conflicts, security threats and political instability in the region (Global Peace Index (GPI), 2017). According to the South Asian Terrorism Portal (SATP) database, increased numbers of suicide attacks, approximately 67 in 2017, have constantly been in the media during recent years depicting the unrest and politically volatile situation in Pakistan (South Asian Terrorism Portal (SATP), 2017).

The political instability of Pakistan may have greatly affected the social and economic development of the country. As a result of the political instability and terrorism threats, Pakistani government claims to invest more on military resources and armed forces as compared to other sectors such as health or education. For example, data from the year 2016 reports that Pakistan spent 3.56% of GDP on military expenditure (Fact Book, 2017c, Murtaza, 2011, Global Peace Index (GPI), 2017), demonstrating more amount of money spent on defence as compared to health. This value is high when compared to the UK according to the data of 2016, (2.2%), depicting the UK as a politically stable nation, and hence, spending less on military expenditure and more on other developing sectors (Fact Book, 2017e).

Moreover, other similar developing countries also spent less on military expenditure compared to Pakistan, regardless of the political instability in those countries (Table 4). This may be because these countries, particularly Sri Lanka improved its militarisation and social security, and thus manage well in terms of the country's economic and social development (Global Peace Index (GPI), 2017, Murtaza, 2011, Fact Book, 2017d).

Table 4: Global Peace Index scores and domains-Comparison of Pakistan with other countries

Country	Global Peace Index domains scores		Violence containment cost/ Economic cost of violence (%)	2017 Peaceful Index (n/163 countries)	Military Expenditure (GDP) (%)
	Societal safety and security	Ongoing domestic and International Conflict			
	Higher score=least peaceful - Lower score=more peaceful				
Pakistan	3.09	3.599	12.9	152	3.5
India	2.4	3.053	8.6	137	2.4
Bangladesh	2.617	1.691	4.1	84	1.09
Sri Lanka	2.343	1.604	7.1	80	
United Kingdom	1.864	1.109	5.3	41	
Iceland	1.232	1.028	2.4	1	

Source: (Global Peace Index (GPI), Fact Book, 2017a-e)

1.2.4 Economic context of Pakistan

Pakistan is a low-income country with a Gross Domestic Product (GDP) per capita of US $5,100. A lack of growth has been present since 2008, with growth averaging to about 4.7% per year (Fact Book, 2017c, National Institute of Population Studies (NIPS), 2013). The political instability of Pakistan has greatly influenced the level of foreign investment in the country, which has led to the slow growth and underdevelopment in Pakistan (Murtaza, 2011). This also has significantly affected health, education and other related sectors of Pakistan, where only 2.6% and 2.7% of GDP contributes towards health and education expenditures respectively (Fact Book, 2017c).

This contrasts with developed countries such as, the UK where 9.1% and 5.8% of GDP are spent on health and education respectively (Table 5) (Fact Book, 2017e), indicating the availability of higher funding on health and education services in the UK.

Table 5: Indicators (%) related to economic context of Pakistan and other countries showing expenditures on different sectors

Country	GDP per capita (PPP)	Health (GDP)	Education (GDP)	Population below poverty line	Unemployment Rate	Unemployment among youth (10-24 years
Pakistan	$5,100	2.6	2.7	22.3	6.1	10.4
India	$6,700	4.7	3.8	29.8	5	10.7
Bangladesh	$3,900	2.8	2.2	31.5	4.9	8.7
Sri Lanka	$11,200	3.5	2.2	8.9	4.5	20.1
UK	$42,500	9.1	5.8	15	4.8	16.9

Source: (Fact Book, 2017a-e)

The majority of the Pakistani population (70%) still live in rural areas, out of which, approximately two-fifths (43.7%) of the employed population belong to the agriculture sector. The remaining urban employed population belong to services (33.9%), and industry (22.4%) where textile and clothing account for most of Pakistan's export earnings (Fact Book, 2017c). Over the past few years, Pakistan's economy has strived for improvement, which was evidenced in the form of embarking towards economic reforms in 2013 with the collaboration of the International Monetary Fund (IMF) (Fact Book, 2017c). Although

the reforms process has been mixed and the privatisation of state-owned enterprises remains an unresolved issue, the country has re-established stability in the macro-economy, improved its credit rating, and boosted economic growth.

The main source of revenue generation is the remittances (i.e. act of sending money) from overseas workers, contributing approximately $1.5 billion per month on average, somewhat compensating for a lack of foreign investment. Nevertheless, at present, unemployment remains a key challenge to Pakistan's economy, affecting many people and youths in particular. Overall, in 2016, the official reported unemployment rate of Pakistan was 6.5%, although it could be much higher due to underreporting (Fact Book, 2017c). Unemployment remains high mostly in urban populations due to over urbanisation, immigration and increases in urban population, especially among people under the age of 25 (Rizvi, 2015). Data from the year 2014 suggested that 10.4% of the population aged 10-24 years old in Pakistan were unemployed (Fact Book, 2017c).

Given these demographic challenges, Pakistan's leadership is pressed to implement economic reforms, promote future development of the energy sectors, and attract more foreign investments in order to have sufficient economic growth necessary to give employment to its rapidly growing urbanising population, much of which is under the age of 25 (Rizvi, 2015). Other long term challenges include improvement in

health, particularly sexual and reproductive health (SRH) and health promotion sectors, coping with natural disasters and adaptation to the effects of climatic change, improving the country's business and export sectors, and reducing reliance on foreign donors (Fact Book, 2017c).

1.3 Pakistani family values

The culture of Pakistan is clearly divided along gender lines regarding roles and responsibilities, where sharp differences can be observed between the experiences of men and women (Shaw, 2000). These gender roles are culturally specified within the family where men, particularly fathers, are presented as the main decision makers in families and managing the interface between the home and the outside world. Women, however, are mainly expected to take care of the household needs, even if they work outside for a living (Shaw, 2000, Jiloha, 2009).

The Pakistani family system comprises of an extended and joint family system, with strong family ties and kinship, even to extended family members (Chattoo et al., 2004). The family system is hierarchical in nature, with parents being the decision makers and with substantial emphasis on young people, obeying parents and respecting elders. Following the traditional norms, parents generally take responsibility of socialising of their children and ultimately make decisions on their marriages. However, the modern trend of globalisation has opened the doors for young people to become more involved in the decisions of choosing partners and marrying sometimes according to their own wishes (Griffiths, 2015).

Despite this increased autonomy, there is severe criticism attached to any form of sexual desire or sexual relationship, which may occurs between young men and women prior to getting married (Chattoo et al., 2004, Yip, 2004). Sexuality and sexual relationships are only acceptable within official marital relationships and are only legal for heterosexual relationships. Similar to many South Asian cultures, homosexuality is not acceptable within the cultural boundaries of Pakistan (Jiloha, 2009). Free interaction and mixing with members of the opposite gender is restricted especially for young people when they are undergoing puberty, in order to prevent any 'risky' sexual behaviours. Therefore, there is a strict social and moral policing of young people in relation to becoming socialised and mixing with members of the opposite sex within a Pakistani culture (Chattoo et al., 2004).

Religion is significant in the life of many Pakistanis, since the socio-cultural norms of Pakistan are deeply rooted in the principles of Islam. It is argued that due to religious influence, at times, it can be difficult to extricate cultural traditions from religious principles, especially where family values and intergenerational relations are concerned (Griffiths, 2015). The behaviour of young people can therefore be influenced by religious principles and cultural heritage. One may also influence the other, for example, religious values and principles often play a role in shaping cultural practices, while cultural norms and traditions can influence the interpretations and experiences of Islam (Griffiths, 2015).

There are often mixed approaches of young people and different stakeholders towards puberty education and SRH of young people (Griffiths, 2015, Pakistan Voluntary Health and Nutrition Association (PAVHNA) and Raasta Development Consultants, 2000). It is therefore necessary to recognise the influence of social change, social attitudes, and the wider role of religious education in understanding the different interpretations of Islam towards puberty and its related developmental changes. As a result of all these influences, young people constantly restructuring and negotiating their health related needs, including puberty within Pakistan and other similar settings (Mitchell et al., 2012, Pramod et al., 2011, Jiloha, 2009).

However, there is a significant influence of secularisation and modernisation on young people's lives, particularly in urban areas, where social media, the internet and modern television programmes can influence the puberty experiences of young people. Yet, young people are reported remaining poorly educated with little knowledge regarding their SRH, particularly in relation to puberty (Pakistan Voluntary Health and Nutrition Association (PAVHNA) and Raasta Development Consultants, 2000).

1.4 Healthcare delivery in Pakistan

Pakistan's health care system is comprised of public and private sectors. The public sector offers Primary healthcare delivery, starting at the Basic Health Unit (BHU) and Rural Health Centres (RHC), and these are extensively used in rural settings (Nizar and Chagani, 2016). Secondary healthcare in Pakistan is provided by Tehsil (administrative divisions) headquarters and district headquarter hospitals, whereas tertiary care is provided through both public and private teaching hospitals located mostly in large cities (Nizar and Chagani, 2016).These hospitals offer specialised care and referral services and are managed by medical doctors and specialised teams of health care professionals (HCPs).

There is a major discrepancy in terms of the distribution of healthcare workers and resources, which contributes to the poor health care and delivery in the public sector of both urban and rural health care settings. This forces people to seek care from private facilities despite incurring out of pocket expanses (Global Health Workforce Aalliance (GHWA), Khowaja, 2009). As a result of the lack of resources and mismanagement among authorities, the health services in Pakistan are struggling to achieve the same quality of health care standards seen in other developing countries and have failed to achieve the target of ''Health for all'' 2000 (Nizar and Chagani, 2016, p.22). Pakistan is also listed among those countries that have made the least progress towards reaching the Millennium Development Goals 2015 particularly

goals 2, 4 and 5 around child health, and maternal and reproductive health respectively (Nizar and Chagani, 2016, Jehangir and Mankani, UNFPA, 2014).

Additionally, there are difficulties maintaining healthcare records and analysing health care indicators in the Pakistani Health Information and Management System (HIMs) because of a lack of appropriate functionality. This further affects the decision making processes and the ability to deliver effective health services to the Pakistani population (Nizar and Chagani, 2016). Along with all these issues, 80% of the allocated health care budget is used for curative purposes in secondary and tertiary services (rather than investing in prevention and health promotion services), which may increase the burden of chronic diseases in the future (Shaikh et al., 2010, Shaikh et al., 2012).

1.4.1 Puberty and SRH of young people in Pakistan

In Pakistan, young people's puberty and SRH education has been neglected over many decades. In fact, the concept of SRH care services and sex education, including puberty education for adolescents, are relatively new concepts. This has resulted from the general discomfort around the discussion of puberty changes and SRH topics (Qazi, 2000). However, recently in many developing countries including Pakistan puberty education for adolescents, which is a significant component of SRH has become the focus of public health initiatives (UNESCO, 2012).

This focus on SRH might be as a result of the increasing sexually transmitted infections (STIs) (Devrajani et al., 2010) and teenage pregnancies among young Pakistani's and other countries with similar cultures (UNFPA et al., 2015), as an outcome of risk-taking sexual behaviours (Dixon-Mueller, 1993).

In addition, increased accessibility to media, urbanisation and globalisation has made young people in Pakistan and elsewhere, more vulnerable to SRH issues, particularly when there is a lack of appropriate information and effective services available to them during puberty (Pramod et al., 2011, Rutgers World Population Fund (WPF)). To acknowledge the importance of adolescents' SRH, in 1994, an international conference on population and development (ICPD) was held in Egypt. The most appropriate strategy recognised at the conference was to provide adolescents with youth friendly reproductive health services (YFRHS), also aimed at facilitating good puberty experiences (UNFPA et al., 2015).

Thus, a considerable amount of work has been started to advocate for young people's SRH and their rights in Pakistan with the help of NGOs and private sector funding (UNFPA et al., 2015). In this regard, guidelines were developed by an NGO, Rutgers, formerly called World Population Fund (WPF) (Rutgers World Population Fund (WPF)), illustrating the need for puberty and sex education in relation to understanding the YFRHS. Introducing the concept of SRH and rights

was the fundamental aspect of these guidelines, and considered part of basic human rights, which every individual should be able to achieve without discrimination of age, gender, culture, life experiences, social economic conditions and disabilities.

While listing down the SRH and rights in the guiding principles of YFRHS, the ‘right to information and education’ has been included in the SRH rights of young people (Rutgers World Population Fund (WPF), p.5). Despite recognising information as one of the fundamental SRH rights by policymakers, it has been recognised that many young people remain uninformed regarding puberty and SRH during adolescence in Pakistan and similar settings (UNFPA et al., 2015).

Looking at this need, Rutgers, WPF has initiated sexuality education for school going adolescents (of both sexes) in a certain catchment area of Pakistan in the form of life skills based education (LSBE) programmes. However, the report produced on this programme by Svanemyr et al. (2015) mentioned improvement in indicators which, mostly were related to the SRH and rights of female adolescents (e.g. reduction in early marriages, early pregnancy, increased access to contraception and decline in intimate partner violence (IPV)). There were no significant positive results mentioned specific to adolescent males’ puberty experiences and information on how that may have influenced their SRH behaviours.

This indicates that a more focused work may need to be done with adolescent males in order to understand their puberty and related SRH experiences, since they may have been ignored in the culture, where SRH is mostly linked with female gender responsibility (Qidwai, 1999). Exploring male adolescents' SRH needs, especially during puberty would facilitate in understanding their sexual behaviours while they grow up as adult males during puberty. As a result, policymakers may be able to develop efficient health promotion (HP) programmes for adolescent males to provide them a good puberty experiences that may positively impact on their adult lives.

1.5 Significance of the study

Adolescents are considered the future of any society and their development, specifically during puberty is a complex phenomenon within socio-cultural contexts (Blakemore and Mills, 2014). The majority of adolescents find the transition from childhood to adulthood a time of physical, cognitive, and social development, which brings not only challenges, but opportunities, and developmental growth (Santrock, 1998, UNFPA et al., 2015). It is claimed that the physical changes that occur in this stage of development, can bring about the profound psychological transformation of adolescents' adult identity, affecting their mental health and overall behaviour (Finlay et al., 2002, Santrock, 1998).

According to the United Nations (2015), approximately 1.2 billion, or 16%, of the world's population is comprised of young people 10-24 years of age, (United Nations, 2015), with most of them living in less developed countries (UNFPA, 2014). Approximately 1 billion young people are reported to live in the Asia-Pacific region with 85% of these living in developing countries, including Pakistan (UNFPA et al., 2015). According to the Pakistan Census data sheet (1998), the population of Pakistan is comprised of 52% males and 48% females, out of which approximately 23% (almost 44 million) are adolescents (10-19 years) with 23 million of these being adolescent males (Government of Pakistan, 2001, Fact Book, 2017c).

Despite considering young people being the leaders of our global future, in the world of adults, they are often overlooked (UNFPA, 2014). Indeed, a number of studies in Pakistan (Farid-ul-Hasnain et al., 2012, Talpur and Khowaja, 2012, Ali et al., 2004) have demonstrated that despite a large population of adolescent males, their specific needs have been neither adequately researched nor sufficiently addressed, especially in terms of growth, including puberty transition. In order to try to overcome these highlighted needs, policy makers and researchers at international and national levels have emphasised to explore the health and education needs of adolescent males especially in terms of their growth and development (Gray et al., 2013, Bott et al., 2003).

The cultural context of Pakistan, where women are responsible for fertility and contraception has resulted in the small literature base of published studies focused on SRH for adolescents in Pakistan. These being largely focused on the understanding of female puberty, because of the cultural traditions of associating females with reproductive health care, since healthy mothers produce healthy children, and may ultimately held responsible for healthy family and community. Indeed, Pachauri and Santhya (2002) concluded in their multi-country study of Asia, which included Pakistan, that all the national health and demographic surveys conducted in the last decades on adolescents' SRH care had excluded data pertinent to male adolescents. Thus, the voice of young males and their pubertal needs are neglected within the existing research of SRH of adolescents.

Therefore, there is a need to understand male adolescents' needs in terms of their growth and development during puberty. In turn, examining this important area may affect their physical health, particularly SRH and mental wellbeing during their adulthood. This will be discussed in detail in the next chapter on literature review.

1.6 Conclusion

This chapter has described the cultural context in which this research took place, highlighting the political instability of the Pakistan. It has also provided a brief overview of the health care system of Pakistan, focusing on the importance of understanding puberty transition and SRH needs among young people, globally and within the context of Pakistan. The concluding part of the chapter has illustrated the significance of the study, where the importance of understanding male adolescence development during puberty is emphasized.

The next chapter presents the literature review surrounding the significance of puberty experiences on adolescents' lives and understanding the experiences, perceptions, beliefs and attitudes of adolescents, particularly males regarding their puberty transition.

CHAPTER 2: BACKGROUND AND LITERATURE REVIEW

2.1 Introduction to the chapter

An initial scoping of the current literature identified appreciable evidence exploring the puberty experiences of female adolescents across a number of cultures including literature related to Pakistan. However, there was a dearth of literature exploring male adolescents' puberty experiences. Thus, the literature review presented here has focused on the puberty experiences of male adolescents, particularly those living in Pakistan and other countries with similar cultures. Conducting this review facilitated the identification of gaps in the evidence and assisted the researcher to finalise the research question for this study.

Relevant articles were identified using a systematic process. The literature was searched using a strategy, which included multiple search terms and databases to identify all relevant papers (empirical and review articles), as presented in the next section.

2.2 A research strategy

2.2.1 Selection criteria

Prior to starting searching the articles, criteria for inclusion were considered, as presented in Table 6.

Table 6: Inclusion criteria for selection of relevant papers

Inclusion criteria	
Language	English
Year of Publication	1990-onwards
Article Types	Review papers (systematic and other types of reviews) Papers reporting empirical research (all research designs)
Phenomenon	Pubertal experiences and SRH containing puberty related information Growth and development including SRH of adolescents Views, perceptions and opinions of other stakeholders on puberty and SRH of adolescents knowledge, attitudes and behaviour of adolescents regarding puberty and related phenomenon (SRH)
Population	9-25 years
Context	Studies conducted in hospital, community, school or any other settings relevant to health promotion field. Papers published at government, private and NGOs level Studies conducted in western or eastern settings, including Pakistan and similar cultural settings
Publication status	Published in peer reviewed journals, international and national reports, if applicable

Searches were limited to articles published from 1990-onwards since after conducting the scooping review on puberty experiences of young males, nothing significant was found prior to 1990. Moreover, an age range from 9-25 years was selected, since the focus of the study was mainly on this population. Although initially, the search began by looking at both English and Urdu articles in the field, this review only considered studies published in the English language because nothing significant was found in the Urdu language via the initial scooping search. The other languages were excluded from this review due to the

limited funding associated with this study, which did not allow for translation of articles in languages other than English.

There was no restriction for gender in the initial search of the review, although the search terms included male gender specific terms; and the articles related to both male and female adolescents and their puberty experiences were retrieved. However, when inclusion criteria were formulated to select the relevant papers, articles covering only female puberty experiences with no relevance to the research aim and objectives were not included in the review and only used to support the relevant arguments within this review.

2.2.2 Literature scope and search strategy

An in-depth literature was reviewed to understand the meanings, perceptions, views, beliefs and experiences of adolescent males towards their puberty transition. Analysis of literature related to the puberty experiences of adolescent males revealed that the majority of the literature addresses sexual and reproductive health (SRH) needs of adolescent males and young people broadly where they also address issues, which specifically related to puberty transition. Moreover, a number of terms (sex education, sexuality health promotion, life skills based education (LSBE)) are used synonymously when talking about puberty related education. This review will, therefore, capture literature using the above mentioned terms and concepts, which describe puberty education and the relevant experiences related to this transition

process. Hence, puberty experiences of adolescent males will be understood by covering the broader literature on SRH of young males.

The search strategy was developed by contacting the expert librarian as well as reading broader literature, which assisted in deriving search terms relevant to the subject area. Several electronic databases (MEDLINE, OVID (1996-present), EMBASE, Web of Knowledge, Web of Science, ASSIA, PUBMED, Science Direct, Psych Info, the Cochrane library and CINHAAL) were chosen to search for literature as they cover the wide range of literature appropriate to the topic from medicine, nursing, social sciences, psychology and health promotion etc. fields. These databases were used to search the key terms mentioned in Table 7.

Table 7: Search terms

Key concepts	Related terms/Synonyms/alternative forms of key words
Phenomenon of interest (Puberty and adolescence)	***Pubescent*, puberty transition*, pubertal changes*, puberty experience*, growth of reproductive organs*, Spermarche*, masturbation*, sexual growth*, teenagers*, youth*, young people*, adolescence*, young adults*, youngsters*, adulthood*, childhood****
Gender specific terms	***young boys*, young male adults*, males*, young men*, adolescent boys*, male adolescents*, manhood*, boyhood*, masculinity*, male health care needs*,***
Other puberty related phenomenon of interest	***reproductive and sexual health*, sexual health*, reproductive health*, sexuality*, sex education*, sexually transmissible infections*, masturbation*, growing up*, adulthood*, transition from childhood to adulthood*,***
Perspectives/opinions/behaviours	***Perceptions*, experiences*, understanding*, exploration*, effects*, knowledge*, attitude*and behaviour****
Contextual background	***Western countries*, developed countries*, Asian countries*, developing countries*, low income countries*, religion and puberty*, Islamic countries*, Muslim countries*, Pakistan*, similar socio-cultural background to Pakistan*, parental factors*, socio-cultural context****
Other related concepts	***E-health promotion*, interventions in sexual health*, sex education*, media*, health promotion programs*, puberty knowledge*, information*, education on reproductive health*, long term impacts of puberty****

The truncation symbol (*) was also used during the search for multiple terms that have alternate spellings. The search terms used either separately on in combinations, as shown in Table 11 within the Appendix 1.

Further details on the literature search process is presented in Appendix 1. Published literature, key textbooks covering the topics relevant to puberty transition and adolescence development, and relevant reports were also retrieved manually from Google web, Google Scholar and other applicable international and national websites, such as Population Council (PC), UNICEF, Population Reference Bureau (PRB), World Health Organisation (WHO), the Demographic profile of Pakistan and the World Bank. A manual search was also completed by reviewing the reference lists of the identified literature for any additional and related papers, which were relevant to the review.

As this study concerns puberty experiences of young males, the first section of this chapter will provide a brief overview regarding puberty and its associations with adolescents and their sexual development. The subsequent sections present a narrative review of the available literature under thematic headings. The chapter concludes by uncovering the gaps in the existing literature from which the research question, aim and study design emerged.

2.3 Understanding puberty

2.3.1 Defining puberty

Before discussing the puberty experiences of adolescent males, it is important to understand what is meant by the term, ‘puberty’. Literature sources have proposed several definitions of the term, ‘puberty’, and mostly described it in physiological terms as the period during which physical changes occur and adolescents reach sexual maturity (American Academy Of Family Physician, 2010, Al wan et al., 2010, American Academy Of Paediatrics, 2015, Rutter, 1995). Professor James M Tanner (Tanner, 1965), describing puberty as a stage of development in which a series of predictable events and changes in the secondary sexual characteristics occur, proposed one of the oldest definitions of puberty. All these variations during puberty occur in sequence, therefore, conceptually Tanner described ‘pubertal maturation in terms of sequence, timing and tempo’ (Tanner, 1962, p.1). The sequence of these physical changes commonly referred to as, ‘Tanner stages’, illustrates various stages of growth and development that occur during puberty (Appendix 2).

No matter how puberty is defined, it is composed of a complex series of biologic transitions, with resulting bodily changes having intense psychological impacts on male and female adolescents (American Academy Of Family Physician, 2010, Steinberg, 2011). It is an important aspect of life when an individual develops a sense of self and begins forming an adult identity (Finlay et al., 2002). It has therefore

been concluded that conceptualising puberty only as part of the biological development of an individual can be misleading (Finlay et al., 2002).

Therefore, in this thesis, puberty is understood by the description proposed by Al wan et al. (2010), who introduced puberty as, ‘the period of transition between childhood and adulthood during which the growth spurt occurs, secondary sexual characteristics appear, fertility begins and profound psychological changes take place in the individual’ (Al wan et al., 2010, p.20). A key aspect of puberty is its beginning with a surge in hormone production, which is mainly responsible for a number of the physical changes, such as, voice changes and development of external genitalia in boys, development of breast in girls and growth in stature and appearance of pubic hair in both boys and girls (Tanner, 1962, Tanner, 1965).

These changes may influence the psychosocial factors of adolescent development and impact on how adolescents develop psychologically and interact socially. The World Health Organisation (WHO) (2007) in its review mention that, alongside biological differences present in the timing of puberty for boys and girls, there are also socially constructed gender differences that boys and girls experience in understanding the meaning of puberty. Thus, commenting on puberty, World Health Organisation (WHO) (2000) argue, ‘puberty means intense social pressure for both boys and girls to ascribe to gender norms’ (World

Health Organisation (WHO), 2000, p.12). It is because of these societal pressures present in any society on young people (both boys and girls), psychosocial factors play an essential role in adolescent development during puberty (World Health Organisation (WHO), 2000) . This association between puberty and adolescent development in which psychological and social transitions occur alongside the physical is further explored in the next section.

2.3.2 Association between puberty and adolescence

This section illustrates the association between puberty and adolescent development and describes how the changes that occur during puberty influence the lives of many adolescents. Within the literature, puberty and adolescence are often used synonymously to refer to the developmental transition from childhood to adulthood (Ahmadi et al., 2009, Santrock, 1998). Despite shared association, both terms have distinct meanings.

Puberty is generally documented as the beginning of adolescence and is comprised of the years of the adolescence phase when physical and hormonal changes occur influencing adolescents' psychological development. In contrast, adolescence is defined as the entire 10-12 years of a transformation phase that occurs when a dependent child becomes a more functionally independent young adult (Pickhardt, 2010, Curtis, 2015). More recently, the adolescence stage has been redefined as occurring between ages 10-24, in contrast to the 20th century

definition of 10-19 years (Sawyer et al., 2018). This is due to the contemporary pattern of adolescents' growth where there are huge transitions noticed in their social roles and responsibilities (Patton et al., 2014).

During adolescence, while there are physiological developments that occur in the form of pubertal changes (Adeokun et al., 2009), there are also profound emotional, psychological and behavioural changes (Sawyer et al., 2012, Patton et al., 2014) that occur along with interpersonal developments and social role improvements (World Health Organisation (WHO), 2000). Alongside biological maturation, adolescents also experience cognitive (i.e. formal operational thought development) and psychosocial maturation during puberty (Santrock, 1998). This may be the reason that with biological changes and sexual maturation, adolescents are expected to incorporate their reproductive capacity, body image and emerging sexual desires into their identity and learn to live with how others' react to their maturing bodies (World Health Organisation (WHO), 2000).

Various authors suggest that the hormonal changes during puberty play an important role in triggering emotional, cognitive and behavioural changes in young people (Patton et al., 2007, Holder and Blaustein, 2013, Hayatbakhsh et al., 2009, Lewis, 2002, Pickhardt, 2010). Specifically, testosterone, a male hormone is linked with certain behaviours in adolescent males during puberty, indicating an

association between pubertal changes with adolescence development, such as masturbation, mood swings, aggressiveness, conflicts with adults, sleepiness, fantasizing about sex and wet dreams (Forbes and Dahl, 2010).

Literature also identifies that the same hormone is responsible for motivational tendencies to attain higher status in life during puberty, specifically in young males (e.g. decision-making, abstract reasoning and emotional well-being) (Forbes and Dahl, 2010, Sawyer et al., 2012, Rutter, 1995). It has been proposed that during puberty, adolescents experience a wide range of advancement in their cognition and intellectual abilities. Thus, adolescent males often seem to set personal goals for their lives and develop moral reasoning as part of their cognitive development during puberty (Steinberg, 2011).

These biological and social-role changes, accompanied by puberty transition may influence male adolescents' health-related high-risk behaviours, such as substance abuse or healthy behaviours (i.e. safe sex) (Sawyer et al., 2012, Cheng et al., 2012). As a result, authors have described people viewing the adolescence phase differently, some as a time of opportunity (Steinberg, 2011), and others as a time of vulnerability, with adolescents being involved in high-risk behaviours (Steinberg, 2011, Choukas-Bradley et al., 2014, Fortenberry, 2013, Adhikari and Tamang, 2009, Mir et al., 2013). It is therefore important; to try to understand whether there is an association between puberty

and adolescence, which subsequently influences male adolescents' behaviours, either positively or negatively.

2.3.3 Association between puberty and sexual development

Understanding puberty through the definitions and descriptions provided in section 2.2.1 indicates that the biological maturation that occurs during puberty plays a pivotal role in the sexual development of adolescents. The production of the sex hormone testosterone begins during puberty and acts to further promote the puberty process and the development of secondary sex characteristics, which has been considered responsible for the sexual development of adolescent males (American Academy Of Paediatrics, 2015).

In many societies, adolescents' sexuality, though it emerges during puberty, is perceived to be distinct from that of adults and considered undeveloped until they reach adulthood (Schalet, 2004, Sennott and Mollborn, 2011, Fortenberry, 2013). As a result, engaging in sexual behaviours is often considered inappropriate for adolescents in societies with strict cultural norms such as Pakistan (Pakistan Voluntary Health and Nutrition Association (PAVHNA) and Raasta Development Consultants, 2000). Regardless of these cultural norms, Fortenberry (2013) describes the puberty period as the time at which, cognitive markers responsible for sexual desire start emerging. These markers induce conscious sexual thoughts, fantasies and attractions, making adolescent males think a lot about sex and sexual behaviours (e.g.

masturbation, partnered sex) during puberty (Fortenberry, 2013).

A number of studies (Lam et al., 2002, Campbell et al., 2005, Fortenberry et al., 2010) have postulated that male hormonal changes during puberty are thought to influence the earlier involvement of male adolescents in sexual behaviours than those found in females. As a result, often-young boys' engagement in sexual behaviours, particular masturbation is found much higher than young girls. Similarly a study by Fortenberry et al. (2010), investigating recent and lifetime prevalence of a variety of sexual behaviours among adolescents of 14-17 years determined that solo masturbation was described as the most common sexual behaviour among 80% of boys (n=414), as compared to 48% of girls (n=406). Indeed masturbation has been stated as one of the most common sexual behaviours among boys during puberty (Fortenberry, 2013).

The changes in male adolescents' hormones during puberty that have contributed in increasing their involvement in sexual behaviours indicate the need for a better understanding of the sexual development among male adolescents during puberty. It may also help to understand how adolescent boys' sexual behaviours may impact on their future health, particularly SRH. Considering the association between puberty and sexual development, which possibly impacts on SRH of adolescent males, this review of the literature around puberty also includes a broader literature that has investigated the knowledge, attitudes and

practices of adolescent males during puberty, as part of their SRH and reproductive health (RH) needs.

2.4 The importance of puberty

The adolescent years in which puberty transition occurs are often conceptualised as ‘setting the stage’ for adult life (Taga et al., 2006 p.401). The pubertal changes have consequences not only in adolescence but also throughout the lifetime (World Health Organization (WHO), 2014, Taga et al., 2006). The experiences during puberty are thought to be significant, since researchers and policy makers (Zare et al., 2016, Mamdani and Hussain, 2015, World Health Organization (WHO), 2014) have suggested that good health during adolescence ensures good health in adulthood and ultimately in the future generations. It has been highlighted that pubertal changes have special implications for male identity formation since masculinity concepts are formed and sexual identity develops as part of the identity exploration process during puberty (Finlay et al., 2002).

As previously stated in many parts of the world where adolescents’ health is concerned, studies have primarily focused on girls/females, ignoring the male health perspective (section 1.5) . In Pakistan, there are several studies (Bhatti et al., 2017, Bhatti et al., 2016, Ali et al., 2006, Ali and Rizvi, 2010), which have explored the needs of female adolescents during puberty transition and related SRH issues. The amount of published literature in relation to adolescent females,

particularly in the context of Pakistan, implies that females are given more attention, perhaps because their pubertal needs are considered more important than those of male adolescents are.

Therefore, compared to males, there is more data available on puberty experiences of females, specifically their needs during menarche (i.e. onset of puberty) and managing menstruation (Ali et al., 2006, Bhatti et al., 2017, Bhatti et al., 2016). This is possibly because of the perceived impacts of puberty transition on females' future maternal and child health (MCH) since adolescent girls have been reported to have higher rates of morbidity and mortality due to reproductive and pregnancy-related causes. As a result, the MDGs and subsequent sustainable goals prioritise women' health worldwide (World Health Organisation (WHO), 2000).

The momentum of these international bodies could be the underpinning drive for NGOs and other official bodies in Pakistan and elsewhere, to unpack pubertal needs of females more than males. However, within the patriarchal culture of Pakistan, more research needs to explore adolescent and young males' perceptions on engaging with their own puberty related concerns. As a result, they may get privilege to involve efficiently in certain decisions (related to SRH) that women might not be entitled, in Pakistani culture (Sadiq et al., 2011, Khan, 1999). Engaging with young men in understanding their pubertal needs may also help them to recognise the importance of issues normally perceived to be

‘female’ issues, such as RH and MCH. This may increase male involvement in improving the well-being and status of women and girls in the future (Sadiq et al., 2011, Yargawa and Leonardi-Bee, 2015). A recent meta-analysis conducted by Yargawa and Leonardi-Bee (2015) concluded that male involvement during the antenatal and postnatal period offers significant MCH benefits and reduces postpartum depression, particularly in developing countries.

Thus, there is a large volume of published studies (Fotso et al., 2015, MacDonald et al., 2013, Mullany et al., 2007) that have documented the achievement of positive outcomes when male members are involved in the health and well-being of their partners and children. However, data presented by international organisations (UNICEF, 2009, World Health Organisation (WHO), 2007) identify that young and adolescent males’ engagement in their own health care needs including RH needs (e.g. puberty) is more or less absent. As a result, there is little evidence about engagement with health care and insights into risk, lacking health-seeking behaviour in male adolescents during puberty.

2.4.1 Males' (men and boys) engagement with healthcare

It is now well established in the wider literature that males are difficult to engage within health promotion campaigns and healthcare in general due to the differences created in a society based on gender socialisation (Bell et al., 2013, Jatrana and Crampton, 2009). This lack of engagement with health care is similar in both developed (Robertson and Williamson, 2005, Jatrana and Crampton, 2009) and developing (Yazici et al., 2011, Scandurra et al., 2016, Areemit et al., 2012) countries despite the socio-cultural and health care differences.

The literature on male adolescents also focuses mainly on problematic and risk-taking behaviours of them during puberty (section 2.3.2) when compared with adolescents of both sexes. As a result, adolescent males are labelled as more aggressive, troublesome and hard to work with and therefore, may not be involved in many of the healthcare programmes targeting both sexes (World Health Organisation (WHO), 2000). This may explain why in most parts of the world, health outcomes (particularly related to preventable causes) among boys and males are reported to be significantly poorer than among girls and women (World Health Organization (WHO), 2014).

In addition, literature has acknowledged that often young boys and men do not engage in research related to sensitive topics, including puberty due to gender-related norms (Qidwai, 1999, World Health Organization (WHO), 2014) and the socio-cultural factors compromising their

masculinity (Scandurra et al., 2016). These gender norms will be discussed later in section 2.3.3 in the light of gender socialisation theory and masculinity concepts, influencing male adolescents' health-seeking and high-risk behaviours. Therefore, an in-depth understanding of gender specific needs during puberty may inform an effective policy formation and programme development for adolescent males' positive puberty transition.

2.4.2 Puberty-a high risk period for boys

Much of the literature has described puberty as the key stage for adolescents to acquire behaviours, which, if not avoided, can ultimately result in various physical health problems in adolescence and later adult life (Patton et al., 2014, World Health Organization (WHO), 2014, Santrock, 1998). As pubertal changes provide new insights of self, and lay the foundations for adult life. World Health Organization (WHO) (2014) supports this argument and suggests that there are certain behaviours, specifically risk-taking behaviours that adolescent males adopt more often than females are. This section focuses on literature that describes puberty as a high-risk period, particularly for adolescent males, affecting their physical health outcomes and causing gender specific morbidity and mortality.

In recently published data (Office for National Statistics (ONS), 2015), young males accounted for approximately 63 percent of avoidable deaths in England and Wales, which indicates the potential greater

involvement of males in risk-taking behaviours. The notion that young males are more vulnerable to high-risk behaviours is also supported by data published by World Health Organization (WHO) (2014) with mortality rates being higher in young males than in young females. WHO estimates that 70 percent of premature deaths among adult males occur due to gender-specific behavioural patterns often acquired during adolescence including smoking, violence, and unsafe sexual behaviours (World Health Organization (WHO), 2014). Similarly, Areemit et al. (2012) shared the results of a Thailand national survey of health care systems, in which it was revealed that the majority of inpatient and outpatient admissions and deaths of adolescents (13-18 years) could have been prevented through controlling psychosocial and behavioural circumstances of adolescents, thought to result from the biological changes occurring during puberty.

Traditionally, it has been argued that the biological propensity to risk-taking behaviours among male adolescents is most frequently associated with the increasing testosterone levels during puberty (Duke et al., 2014). However, existing evidence suggests there are social and developmental factors that explain adolescent boys' variation in getting involved in violent and high-risk behaviours (including sexual risk-taking). These developemntal factors, in litearture are particularly highlighted in the context of developing good relations with peers (Vermeersch et al., 2008, Rowe et al., 2004, Kirillova et al., 2008) and family members (parents in particular) during puberty (Booth et al.,

2003, Fang et al., 2009).

Supporting this argument, Vermeersch et al. (2008) found that as levels of testosterone rise, adolescent boys are involved with risk-taking peers and eventually adopt high-risk behaviours. Likewise, studies have identified that the low levels of parental warmth (Ng-Knight et al., 2016, Shelton et al., 2008); high levels of parental monitoring (Winer et al., 2016); higher parent-child conflicts (Shelton et al., 2008, McCormick et al., 2016); and poor parent-child communication (Winer et al., 2016) are associated with youths internalizing behaviour and poor self-control in terms of regulating emotions and impulsivity.

In the literature, various studies illustrated these high risk behaviours, which can result in a variety of short-term and long-term physical health outcomes. For example, sexual behaviours contributing to STIs, including HIV (World Health Organization (WHO), 2014, Marston and King, 2006); reckless behaviours leading to accidental injuries that may cause disability for lifetime (Laura et al., 2014); and engaging in unhealthy social habits, and behaviours, which are associated with chronic diseases that may develop later in the adult life (e.g. cardiovascular disease, asthma, cancer, obesity and diabetes) (World Health Organisation (WHO), 2000).

These evidences suggest that male adolescents indulge in risk-taking behaviours during puberty, often result in physical health problems. However, they remain narrow in focus, as they did not deal with or explore the male adolescents' perspectives of puberty transition. Hence, in order to understand how puberty may influence risk-taking behaviours in adolescent males and what factors may have contributed to this; there is a need to conduct studies that are more exploratory in nature. These studies need to involve male adolescents and young males themselves, in order to make a useful contribution in this field of study.

2.4.3 Factors influencing health-related behaviours

Factors that influence male adolescents' health seeking and risk-taking behaviours will be presented in the following sections.

2.4.3.1 Masculinity and gender socialisation norms

Masculinity is a term used in a society for possessing attributes and qualities that are regarded as the characteristics of men (Haywood and Mac an Ghaill, 2003). It has been argued in the literature that during puberty, male adolescents become more mature, competent and independent, developing masculinity, establishing social status, determining sexual identity and performing more adult roles (Scandurra et al., 2016, Forbes and Dahl, 2010, McNeely and Blanchard, 2009). However, adolescent males' sense of masculinity is mostly driven by gender socialisation theory. According to which, social norms and

stereotypes often do not encourage males to seek health care (O'Brien et al., 2005, Marcell et al., 2007, Rothgerber, 2014), particularly for stigmatised conditions (Way, 2013) (Moller-Leimkuhler, 2002), which in some cultures also include puberty and related SRH concerns (Garcia et al., 2014).

According to gender socialisation concepts, boys are mainly socialised to be independent, not to show emotions, and not to complain about their physical health nor seek assistance for their mental health (O'Brien et al., 2005, Moller-Leimkuhler, 2002, Gilmore, 1990). Instead, these masculine norms, originated from the gender socialisation concept, which encourages adolescent males to adopt certain behaviours that may be highly risk-taking (Rothgerber, 2014). This may be because during puberty, male adolescents strive to fit into society (Fields et al., 2015) and as a result often exposed to susceptibilities, as discussed in previous section 2.3.2.

Moreover, according to this masculine culture and gender socialisation principles, men are pressurised and expected to behave in a certain manner that shows their dominance and power, especially with regard to their SRH (Shrestha et al., 2016). Various authors have acknowledged that men have false beliefs and misconceptions regarding themselves (Kalmuss and Austrian, 2010, Marcell et al., 2007, Haywood and Mac an Ghaill, 2003). Men often consider themselves more powerful, resilient, and capable of resolving their

health issues, including puberty related concerns, instead of seeking external help (Ahmadi et al., 2009, Scandurra et al., 2016). As a result of these norms, it has been identified that the general population consider that male adolescents have fewer health-related needs, specifically in relation to their SRH and developmental risks as compared to adolescent girls (World Health Organisation (WHO), 2000).

These traditional societal norms have been identified in the literature as one of the factors for young boys not seeking advice related to their puberty issues and its associated changes in almost all cultures, including Pakistan (Ali et al., 2004, Flaming and Morse, 1991, Scandurra et al., 2016). This may be because it has been found in literature that adolescent and young males may not share their puberty concerns because they engage less in service provision than young women do (Garcia et al., 2014).

Indeed, the literature review presented by World Health Organisation (WHO) (2000) suggests that adolescent males are less likely than females to report health problems or seek help for these, due to gender based cultural norms associated with gender socialisation. A qualitative study involving Muslim Males (aged 24-65) explored misconceptions and rumours regarding family planning in Ghana, where Sakara et al. (2015) have concluded that men were afraid to discuss the subject (family planning) because of the social construction of what is

considered to be ‘manly’ in their culture. Thus, they do not talk openly about their RH or access facilities providing SRH care; instead associating these facilities with women.

Thus, the process of gender socialisation that constructs masculinity exerts social pressures on adolescent boys, especially during puberty to define and prove their masculinity publicly, especially within peer group. In this regard, they often exaggerate their masculine identity loudly to make it obvious to the people around them that they are a real man (Chodorow, 1978). The details regarding the role of peer pressure associated with gender socialisation and how that may influence male adolescents health related behaviours is discussed in the next section.

2.4.3.2 Peer pressure and gender socialisation

This section explains the most central role peers play in following a masculine culture and how they influence adolescent males’ health-related behaviours.

Various theories exist regarding gender socialisation, explaining that male adolescents’ shape their personalities during puberty in such a way that make them more susceptible to peer pressure. Indeed various authors (Acharya et al., 2015, Marston and King, 2006, Scandurra et al., 2016, Prinstein et al., 2011, Choukas-Bradley et al., 2014) suggest that peer-pressure is responsible for some adolescent and young males, experimenting with drugs, alcohol, tobacco and sex. In this regard, the work of Marston and King (2006) demonstrated that young

males visited commercial sex workers with their peers, in order to demonstrate their masculinity.

Thus, another significant and challenging aspect of puberty, influencing health-related behaviours of adolescent males, is the anxiety and strain produced on them at this age by their peers (Marston and King, 2006, Steinberg, 2011, Hebert et al., 2013). During adolescence, peer group become increasingly influential social agents in shaping adolescent males' experiences. This may be due to the way adolescent males socialise with their peers and are exposed to outside environments under the influence of gender social norms (Evan, 1997). These norms may negatively influence adolescent males', determining their health-risk behaviours (World Health Organisation (WHO), 2000).

It has been concluded that boys spent more time unsupervised outside the home than girls. This exposure to outside environments often increases during puberty, when many adolescent males often start earning for economic purposes, particularly in developing countries (World Health Organisation (WHO), 2000) and may be exposed to unsafe environments (Emler and Reicher, 1995). The reason for this exposure, identified in literature is, due to being negatively socialised with peers when exposed to outside world (Grasmick, 1995, World Health Organisation (WHO), 2000).

Additionally, adolescent males are found strongly motivated to increase their social status among their peer group, and one of the ways to do that is to gain access to sexual partners (Choukas-Bradley et al., 2014 , Marston and King, 2006). In some societies, the more sexual partners that male adolescents have, the higher the social status within their peer group. An interesting study by Widman (2016) using a simulated chat room, demonstrated relationship between peer influences on adolescent male' sexual behaviour. In this study, it was demonstrated that peer influence increased sexual risk-taking behaviour among male adolescents. Moreover, Widman showed a significant interaction between pubertal status and gender. According to this interaction, later maturing boys were reported to be significantly more susceptible to peer influence than earlier maturing boys or girls. Widman et al. (2016) proposed that this could be because later-maturing boys were trying to demonstrate their masculinity and display their power, strength and prowess to their peers through engaging in sexual activity, irrespective of the risk factors associated with it. The above-mentioned study was however, conducted in the South-eastern part of the United States and is not necessarily transferable to other cultural contexts.

Indeed, masculine norms and the influence of peer-pressure on boys' transition to young adulthood (during puberty) in South Asia, and in Pakistan particularly are not well explored or understood. In a study conducted with adolescent males in rural Pakistan, Ali et al. (2004) reported peers, as the most approachable people for obtaining

information in relation to puberty. This indicates that peers may be an influencing agent for adolescent males in Pakistan. However, there were no significant findings shared related to peer pressure and the impact of them on the health-related behaviours of these rural male adolescents.

Considering all of the above evidence, it is evident that the puberty phase is a high-risk period for male adolescents due to gender socialisation impacts, which inhibits them from engaging in health-seeking behaviours and encourages them to adopt more risk-taking behaviours. As a result, male adolescents are considered more vulnerable during puberty to a range of short and long-term physical health outcomes. The impacts on physical health due to risk-taking behaviours, coupled with not actively seeking health care, particularly related to pubertal changes may also cause psychological impacts. This will be discussed in the next section.

2.4.4 Impacts of puberty

2.4.4.1 Short-term psychological impacts

This section synthesises literature regarding the short-term psychological impact of puberty on adolescent males. It has been found through limited empirical studies that adolescent boys go through strong emotional responses during puberty (Ahmadi et al., 2009, Flaming and Morse, 1991, Pickhardt, 2010). However, these boys have been found to have difficulties in balancing emotions and behaviours due to the

mismatch between their emotional reactions and cognitive capacities (Pickhardt, 2010). They are, therefore, perceived to be at risk of poor mental health (Rutter, 1995) and anti-social and risk-taking behaviours (Patton et al., 2007).

From the physiological point of view, literature identifies that stress during puberty affects the development of the brain (Qu et al., 2015, Van Duijvenvoorde et al., 2014). Stress, which is medically defined to be a medical state causing bodily or mental tension and can be due to the external (i.e. environment, psychological, or social situations) or internal (i.e. illness, or from a medical procedure) factors, impacts on puberty (Holder and Blaustein, 2013) .As a result of being anxious during puberty, susceptible adolescent males can have psychological illnesses. These include anxiety, depression (Winer et al., 2016), eating disorders (Presnell et al., 2007) and exhibit suicidal behaviours (McQueen and Henwood, 2002, Rutter, 1995) during, as well as after, puberty.

Stress during puberty can occur in both male and female adolescents (Golchin et al., 2012, Adegoke, 1993, Ahmadi et al., 2009). However, the studies conducted by Ahmadi et al. (2009) and Flaming and Morse (1991) have identified male adolescents as more sensitive and conscious regarding pubertal changes. In these above-mentioned qualitative studies, male adolescents have expressed several psychological experiences during puberty, as part of the physical

changes, which included shame, embarrassment, depression, anxiety, fear and confusion.

There are various factors identified in the literature, which are thought to influence the short-term psychological impacts of puberty. Firstly, the higher level of preparedness for puberty has a significant positive effect on a male adolescents' psychological and emotional reaction to their spermarche/first-ejaculation experience (Adegoke, 1993). Adolescent boys who were more prepared are reported to feel happier, excited, and grown up, independent and proud to enter into this transitional state of adulthood. In contrast, boys who were unprepared for the changes induced by puberty, experienced embarrassment, unhappiness, fear and anxiety and remained confused on how to manage these changes (Ahmadi et al., 2009, Flaming and Morse, 1991).

Increased anxiety among adolescent boys during puberty is also caused by comparing themselves with their peers (Flaming and Morse, 1991, Ahmadi et al., 2009). The variation in the puberty experiences of peers can negatively impact adolescent males' self-esteem and may make them anxious and worried during puberty. This is particularly true when male adolescents view themselves to be different from their peers in appearance and development (Flaming and Morse, Ahmadi et al., 2009). The activity of comparing themselves to their peers during puberty is often a result of the cultural ideals of masculinity (e.g. having a muscular body, tall height and beard) imposed by gender socialisation

norms, already presented in section 2.3.3.1.

Thus, adolescent males who do not exhibit pubertal changes, as their peers do may experience lower self-esteem and lower self-concept than peers and this may continue into adulthood (Presnell et al., 2007, Shomaker and Furman, 2010). Alternatively, these same cultural ideals can become the cause of happiness and acceptance if pubertal changes occur within the societal expectations and norms. Benjet and Hernandez-Guzman (2002) supported this argument and shared that Mexican adolescent boys demonstrated more positive psychological wellbeing as compared to before, when voice changes occurred during puberty.

Some of the short-term psychological impacts reported in literature (Ali et al., 2004, Mamdani and Hussain, 2015, Ahmadi et al., 2009, Flaming and Morse, 1991) are suggested to be because of the lack of awareness of puberty. This implies that although a lack of puberty awareness is thought to result in short-term psychological effects, there is not enough evidence of the established health promotion programmes that may have dealt with this aspect and prevented further long-term psychological impacts. Further research in this area needs to be strengthened, where adolescent male's perceptions on how to cope with the emotional reactions and prevent long-term impacts can be explored.

2.4.4.2 Long-term psychological impacts

Some of the short-term psychological impacts of puberty may result in long-term psychological impacts, mentioned briefly in this section. It is felt that emotional dysregulations (e.g. anxiety and confusion) that occur during puberty can cause peer-rejection. This can affect the adolescents' lives in longer term through the development of poor mental health outcomes such as depression and psychological stress (Mendle et al., 2012).

Various studies (Shelton et al., 2008, Kirillova et al., 2008, Vermeersch et al., 2008).have demonstrated that many of the physical health outcomes and long-term psychological problems could be prevented if, during puberty, male adolescents' social and learning environments are improved and modified. In addition, knowledge of body changes at the time of puberty can help to ensure better psychosocial adjustment for male adolescents (Ahmadi et al., 2009), and prevent distress and anxiety. An insight into the psychological transition from the young males' perspective would be helpful in preventing longer-term psychological impacts.

Although there is significant evidence showing short-term effects during puberty, there is limited research in relation to potential long-term psychological impacts. A possible explanation for this is that, not many prospective observational studies on adolescent and young males have been undertaken. Empirical data gathered in Pakistan (Ali et al., 2004,

Bhatti et al., 2016, Talpur and Khowaja, 2012), and elsewhere (Ahmadi et al., 2009, Flaming and Morse, 1991, Al wan et al., 2010, Ahmed et al., 2008, Chayal et al., 2016) on puberty related research was mostly on females' experiences (Ali et al., 2006, Bhatti et al., 2017) . In case of males, were short-term studies looking at current aspects of puberty (Ahmadi et al., 2009, Al wan et al., 2010) not examining long-term impacts.

Moreover, in the context of Pakistan most of the studies (Talpur and Khowaja, 2012, Hennink et al., 2005, Mamdani and Hussain, 2015, Ali et al., 2004) related to puberty transition were conducted within the broader research area of SRH knowledge and attitudes of adolescents (of both sexes). These studies were conducted using quantitative surveys and cross-sectional studies, with very limited emphasis on adolescent males' RH needs where contextualised puberty transition experiences were absent. Thus, long-term psychological effects that may have occurred as a result of the immediate impacts, caused due to the puberty related changes have been underexplored.

2.5 Barriers and facilitators to positive puberty transition

From the literature reviewed, it is clear that puberty transition is a complex time for male adolescents, particularly in Pakistan and similar settings and engagement of male adolescents with health care services and programmes is limited regardless of their geographical backgrounds. As a result of this, male adolescents may have an impact on their physical and mental health. Having a good puberty experience is therefore very important. Literature suggests that several barriers to and facilitators of positive puberty transition for adolescent males exist.

The barriers and facilitators, which are discussed in this section, are mainly in the form of socio-cultural factors. These factors creating hindrances to communicate openly regarding puberty and related issues, particularly with parents and create barriers in accessing appropriate sources of information on puberty. Other barriers are at institutional level where there are barriers to and facilitators of accessing adequate health care services and receiving awareness of puberty through health promotion programmes.

2.5.1 Communication barriers and facilitators

Lack of communication related to the normal process of puberty is one of the major barriers reported in the literature for adolescent males living in countries with restrictive socio-cultural norms (Ali et al., 2004, Ahmadi et al., 2009, Qidwai, 1999, USAID, 2003, Bott et al., 2003). Levant and Pollack (1995) proposed that boys are often pressured to

achieve autonomy from their family during puberty even though they may not be ready to do so. However, it has been found that adolescent and young males are unable to articulate the need to stay connected to the family because of societal pressures that compel them not to express or communicate their emotional needs or vulnerability during puberty (World Health Organisation (WHO), 2000).

These pressures can be compounded in the cultural context of Pakistan and similar countries, which perceive puberty and related topics as a social taboo, and thus do not encourage open communication (Wang, 2016, Mamdani and Hussain, 2015, Varani-Norton, 2014, Chayal et al., 2016). A school-based study in Haryana, a rural part of India, found that despite the fact that half of the participants considered pubertal changes normal, the majority of young boys felt shy and guilty and did not talk about their experiences (Chayal et al., 2016).

It is also asserted that many adolescent males want to maintain their positive self-image in front of their elders (such as parents and family members) (Ahmadi et al., 2009, Wang, 2016) and therefore, do not communicate their needs or issues that may arise during puberty (Mamdani and Hussain, 2015). Further information on the importance of communication between male adolescents and their family members, particularly parents is discussed in the next section.

2.5.1.1 Parental communication

Within the literature, it is expected that parents play a key role as sexual socialising agents within the adolescents' lives through communicating pubertal changes and the associated developmental needs (Somers and Paulson, 2000, Wang, 2016). Researchers (Chung et al., 2005, Kim, 2009, Wang, 2016) have claimed that the existence of parental communication can help adolescent males to understand the values, attitudes and norms regarding sociocultural aspects of sexuality that emerge during puberty. This includes standards of sexual conduct and behaviours related to intimate relationships occurring during puberty (Conger et al., 2000, Wang, 2016).

There have been limited studies found in the context of Pakistan (Mamdani and Hussain, 2015) and other countries with a similar culture, exploring parental communication on puberty and related sexual behaviours (Ahmadi et al., 2009, Makol-Abdul et al., 2009, Wang, 2016). It is acknowledged that socio-cultural factors have a greater influence on parent-adolescent communication.

In an attempt to address this, a qualitative research carried out by Kim (2009) on Asian immigrant families in the USA revealed the vital role, that parents' cultural beliefs play when communicating with their children regarding their sexual development during puberty. Whilst Kim's study focused on adolescent girls, it revealed that in Asian cultures parents experienced difficulties in communicating with their

children regarding sexuality, which is one of the important aspects of puberty. This hesitancy to communicate attributed to the subject being a social stigma during this developmental stage.

In Pakistan and similar developing countries, parents are considered to have the sole responsibility of educating adolescents of both sexes regarding their growth and development, including puberty (Mamdani and Hussain, 2015, Makol-Abdul et al., 2009). Looking at this culture of parental responsibility, many adolescents in Pakistan and other developing countries have expressed a wish to have open communication channels regarding puberty and sex education with their parents (Mamdani and Hussain, 2015, Wang, 2016, Chung et al., 2005).

Supporting this argument, a recent study conducted by Mamdani and Hussain (2015) identified that 91.17% of adolescents of both sexes (aged 13-19) expressed a wish to receive proper guidance regarding pubertal changes from their parents. However, due to the communication barriers that exist in Pakistan (Mamdani and Hussain, 2015, Ali et al., 2004) and other similar cultures (Nair et al., 2012, Yu, 2008, Jerves et al., 2014, Varani-Norton, 2014), adolescents hardly receive enough or satisfactory education about puberty from their parents. Previous studies (Bhatti et al., 2017, Ali et al., 2006) completed in Pakistan have shown closer parental relationships, which are evident between female adolescents and parents (i.e. mothers) rather than

male adolescents and parents, fathers in particular.

As parental communication during adolescence has been found to be a positive aspect for adolescents, researchers have questioned why parents and elders in the family are not having an open communication regarding puberty and its associated topics. In a qualitative study by Ali et al. (2004), which explored the reproductive health needs of rural male adolescents in Pakistan, participants reported poor communication regarding puberty with family members because of the conservative culture of Pakistan. This was primarily because the adolescent males felt uncomfortable and shy due to the perceived social stigma of sharing concerns related to RH with the family. Thus, in these cultures, elders are opposed to the idea of open communication in relation to puberty and sexuality topics, and perceive such discussions to be disrespectful of parental authority due to the sensitivity of the topic (Chung et al., 2005, Varani-Norton, 2014, Mamdani and Hussain, 2015).

In addition, the timing of when to discuss such matters with adolescent males without being perceived to be encouraging early sexual activity has also suggested a barrier to parental communication (Jerves et al., 2014, Ahmadi et al., 2009, Somers and Paulson, 2000, Varani-Norton, 2014). Conversely, the results of a qualitative study by Farid-ul-Hasnain et al. (2012), who explored the knowledge, attitudes, beliefs and perceptions of young Pakistanis (aged 17-21) on their SRH and factors influencing their health behaviours indicated that poor communication

regarding SRH may promote the risk-taking behaviours among male adolescents resulting in STIs.

Although the focus of the above-mentioned study was not on puberty experiences specifically, the concerns raised by young people suggest that societal norms and perceptions can create communication barriers among young adults in Pakistan. This may be an indication that future research should focus on exploring male adolescents' feelings about their information needs on health topics, including SRH and factors that may influence their health behaviours.

Moreover, evidence suggests that most of the communication by parents to adolescents is related to biological aspects of reproduction and risks associated with sexual activities, rather than emotional aspects associated with puberty related sexual maturity (Chayal et al., 2016, Varani-Norton, 2014). Evidence suggests (Wang, 2016) that some parents preferred to remain silent on all issues. In contrast to the parents' views, male adolescents indicated their dislike for the parental focus on only sexual morality and wished to receive support and information on safe sex and other coping strategies that may help them during puberty (Conger et al., 2000, Wang, 2016, King and Lorusso, 1997).

A number of studies (Jerves et al., 2014, Ahmadi et al., 2009, Diorio et al., 2006, Afifi et al., 2008).have emphasised on the importance of having stronger father-son relationship during puberty. These studies

describe the father-son communication as an important factor for male adolescents' puberty and sex education (Wilson et al., 2010, Jerves et al., 2014, Diorio et al., 2006, Afifi et al., 2008). In addition, it is thought to help prevent youth, including adolescent boys becoming involved in high risk behaviours (Caldwell et al., 2010). Some of these studies were conducted in Western cultures (Diorio et al., 2006, Wilson et al., 2010, Caldwell et al., 2010) and may not be transferable to the context of Pakistan, where open acts of communication regarding puberty with a father, or father figure (elder brothers or uncles) is considered to be a shameful act. (Mamdani and Hussain, 2015, Wang, 2016, Ahmadi et al., 2009).

In literature, male adolescents have reported experiencing feelings of dissatisfaction, fear, guilt and anxiety due to the lack of communication with, and support from their fathers during the puberty period (Ahmadi et al., 2009, Flaming and Morse, 1991, Hennink et al., 2005, Mamdani and Hussain, 2015). This is in contrast to the studies conducted in Pakistan and similar cultures that identify positive mother-daughter relationships with regard to puberty education (Mamdani and Hussain, 2015, Ali et al., 2006). Mamdani's study Mamdani and Hussain (2015) in Gilgit, Pakistan found that boys had more difficulty in talking with their fathers, particularly regarding wet-dreams than girls who were reported to feel less awkward talking with their mothers regarding menstruation.

This suggests more openness of sharing sensitive communication between mothers and daughters than fathers and sons in Pakistan. It also highlights the importance of understanding the father-son relationship and the knowledge, awareness and support that adolescent males may require from their fathers during puberty. However, despite the potential importance of culture influencing parental communication with adolescents, limited research has been conducted, particularly focusing on adolescent males (Mamdani and Hussain, 2015, Wang, 2016, Makol-Abdul et al., 2009). Research where male adolescents' voices are more central in describing puberty experiences and identifying communication patterns with parents regarding pubertal changes may therefore be informative.

2.5.2 Puberty awareness and information sources

There have been various studies conducted, with both male and female adolescents, advocating the importance of puberty education for a healthy puberty experience (Bhatti et al., 2017, Bhatti et al., 2016, Montgomery et al., 2016, Ahmadi et al., 2009, Bott et al., 2003). Previous studies demonstrated that providing adolescent girls with information in relation to menstrual hygiene management (Bhatti et al., 2016) reduces the anxiety associated with their first experience of menstruation. In contrast, numerous studies (Ahmadi et al., 2009, Talpur and Khowaja, 2012, Scandurra et al., 2016) claim that adolescent males' knowledge and awareness regarding puberty is either limited or inaccurate, leaving them with several concerns and

unanswered questions.

This limited awareness is due to the lack of available information regarding puberty and having limited communication from elders both within and outside of the immediate family, as discussed in previous section 2.4.1.1 (Ahmadi et al., 2009, Wang, 2016, Mamdani and Hussain, 2015). In addition, other contributing factors for the lack of puberty-related knowledge among Pakistani adolescent males, reported in literature are, unavailability of puberty education in the school curriculum (Hennink et al., 2005), hesitancy of female teachers and ineffectiveness of male teachers (Farahani et al., 2012, Pakistan Voluntary Health and Nutrition Association (PAVHNA) and Raasta Development Consultants, 2000).

This lack of puberty awareness has been attributed to the difficulties of accessing appropriate and correct information sources by adolescent males (Ali et al., 2004) whether due to unavailability of these sources or individual boys' inability to access them (Ahmadi et al., 2009). In the absence of any parental guidance and communication on puberty and related matters, male adolescents look to outside resources for information about their puberty transition. The most common resources mentioned in research studies are peers (i.e. friends and other similar age young boys) (Mamdani and Hussain, 2015, Ali et al., 2004), and media (i.e. TV, radio, magazines, newspaper, medical handbooks, internet) (Talpur and Khowaja, 2012, Mohan Das and Ray, 2007, Ali et

al., 2004).

Within media, an increase in the usage of pornographic media (Wang et al., 2007, Mattebo et al., 2014, Ali et al., 2004) and an emergence of social media usage (Byron et al., 2013, Holzner and Oetomo, 2004) has been described. Other information sources reported in the literature include hakims/quacks (traditional healers) (Sheikh et al., 2003, Afsar et al., 2006, Ali et al., 2004), religious leaders (Hennink et al., 2005), older male members of the family and other community fellows (Talpur and Khowaja, 2012, Chayal et al., 2016). Whilst Hakims are most frequently approached by adolescent and young males about their SRH including puberty-related changes such as wet dreams, religious leaders were approached about personal hygiene during puberty, particularly in the context of Pakistan (Ali et al., 2004).

The evidence suggests, however, that many of these sources may not be providing male adolescents with adequate and appropriate information as they are often not evidence-based and scientifically sound, leaving many adolescent boys confused and anxious (Ahmadi et al., 2009, Gray et al., 2005, Talpur and Khowaja, 2012). As a result of the lack of quality information sources, the male adolescent population appears to be vulnerable to misinformation, particularly in Pakistan and related settings. As male adolescents reported often receive inaccurate information from using sources that sometimes are not perceived as reliable (e.g. friends, media including internet) (Ali et al., 2004, Ahmadi

et al., 2009, Scandurra et al., 2016). This variance in the reliability of information sources will be discussed in a later section 2.4.2.3. Researchers (Ali et al., 2004, Ahmadi et al., 2009) therefore, suggest that there is a need to develop formal education programmes for adolescent males at school and community levels that provide accurate and timely information in order for adolescent boys to get a clear picture of their bodily changes during puberty.

2.5.2.1 Peers

As indicated in many studies (Nonoyama et al., 2005, Ybarra et al., 2008, Ajuwon and Brieger, 2007, Ahmadi et al., 2009, Ali et al., 2004), adolescent and young males around the world refer to peers (including friends) as the most frequently approachable source for gathering information on puberty and other sensitive/intimate topics. They even described that peers have more open and liberal attitudes compared to parents (Fatusi et al., 2007, Qazi, 2000, Adegoke, 1993, Low et al., 2007, Wang, 2016). However, most of these peers are of a similar age, going through parallel experiences, and have limited accurate knowledge to share, as described by adolescents in a study conducted by Mamdani and Hussain.

Nevertheless, the majority of adolescent males in rural Pakistan acknowledged having more conversations with friends than parents because of being closer and comfortable to talk to their friends (Ali et al., 2004). Interestingly, literature suggests that male adolescents rely

on their friends for puberty information and support more than they rely on female adolescents (Mamdani and Hussain, 2015, Ahmadi et al., 2009). This may be because, according to the gender socialisation theories, male adolescents spend more of their time outside home for socialisation, interacting and building closer associations with their male peers than parents and other family members .

Furthermore, literature suggests those adolescent boys' value friendship more than adolescent girls, and relate to their friends as family members (e.g. brother). These boys consider this relationship with peers essential to their health and wellbeing (Arbeit et al., 2016). . This may make sharing puberty experiences easier with peers than with family members. Indeed, adolescent Chinese boys narrated that they had developed a strong inter-personal connection with male friends during puberty but had a distant relationship with parents, who demonstrated a restrictive attitude to talking openly with adolescent males on such topics. (Wang, 2016).

While the literature suggests that male adolescents access support from their peers and friends, particularly on puberty and related SRH matters, it does not discuss whether the information received is accurate on how accessing peers impacts on adolescent boys' puberty experiences. Moreover, most studies (Wang, 2016, Mamdani and Hussain, 2015, Ajuwon and Brieger, 2007) were conducted on younger age-group populations who might be going through puberty during the

study period. They would therefore, not be in a position to identify what influence this peer-support had at that stage until they were older. Research targeting older age groups (e.g. young males) who may be able to articulate their puberty and related experiences and be able to assess the accuracy of the support they received from their peers, during and after puberty transition could address some of the current gaps in the evidence.

2.5.2.2 Media

Around the world, it has been suggested that a variety of media sources (e.g. TV, radio, magazines) can be used effectively for supporting awareness of puberty, as well as targeting other SRH issues among adolescent and young males (Ali et al., 2004, Talpur and Khowaja, 2012, Nonoyama et al., 2005, Chayal et al., 2016). Within media, the strategies included mass media communication and computer-assisted instructions and new media (e.g. cell phone and internet, including websites and social media (Akinfaderin-Agarau et al., 2012).

Recent evidence (Scandurra et al., 2016, Nguyen et al., 2013) suggests that the adolescent population uses more technology than previous cohorts do, to access information regarding puberty transition. The rapid uptake of technology is because of the feasibility, acceptability and effectiveness of using emerging media and technology for receiving information on sensitive topics, including sex and puberty education (Allison et al., 2012, Guse et al., 2012). A number of studies (Hennessy

et al., 2013, Chayal et al., 2016, Ali et al., 2004) identify that electronic mass-media (i.e. internet) has been used as a prime source of information gathering by adolescent males during puberty. However, participants in these studies have identified the inconsistencies of information available from media sources. This may be the reason that the adolescent population is often sceptical about using the internet as a source of information regarding puberty and other sensitive subjects related to puberty development such as sexual health promotion and changes associated with puberty.

Despite increasing benefits and demand of accessing mass media in the current era, using media sources openly and publicly for puberty and sex education guidance is still a challenge for adolescent and young males in Pakistan due to socio-cultural limitations. However, some adolescent males were found to access media sources on their own as a result of not receiving any guidance or reassurance from their elders (Ali et al., 2004, Farid-ul-Hasnain et al., 2013).

This lack of supervision on accessing media sources may increase the probability of receiving incorrect information from unreliable sources. In addition, there are no well-designed mass-media campaigns (e.g. TV and Radio) or HP programmes available for puberty and sex education of adolescent males in Pakistan, despite the fact that using media campaigns can impact on larger population (Sznitman et al., 2011).

Sznitman et al. (2011) suggests from the results of his randomised controlled trial (RCT) conducted on high risk African American adolescents that mass media messages that are culturally tailored and consistently delivered over the required period of time have the potential to target a large audience. It also concluded that raising awareness through mass media improves the preventive sexual behaviours among male adolescents, who were at risk of adopting to HIV related sexual behaviours As a result, the findings of this RCT provided positive association between increase awareness and decreasing the risks of getting involved in high-risk sexual behaviours among the youth population. Looking at the success of mass media campaigns, the need for high-quality research to establish the impact of different forms of new media and technology use has been documented in literature (Allison et al., 2012, Akinfaderin-Agarau et al., 2012).

In order to familiarise people with the topic of sex education in Pakistan, there have been some initiatives using private television and radio channels, which promote awareness and knowledge regarding puberty and sex education (AWAZ Foundation, 2013, GEO Television, 2009). However, these have not demonstrated significant reach into the adolescent population. Thus, it is concluded that there is still potential for future development in mass media educational programmes related to male adolescents' puberty education and SRH needs in Pakistan.

2.5.2.3 Importance of reliable sources

Various studies (Ahmadi et al., 2009, Talpur and Khowaja, 2012, Ali et al., 2004) suggest that in order for adolescent males to have good puberty experiences with a resulting positive impact on their lives, it is crucial that they access reliable sources, which provide accurate and appropriate information on puberty and related developmental changes. The findings of the limited studies conducted in Pakistan (Ali et al., 2004, Qidwai, 1999) and similar cultures such as, India (Chayal et al., 2016, Nair et al., 2013a) and Iran (Farahani et al., 2012) have identified several misconceptions expressed by participants regarding sexual development that occurs due to pubertal changes. These misconceptions indicate numerous gaps in young males' knowledge regarding puberty due to receiving information, possibly from untrustworthy sources (Ali et al., 2004).

However, considering 'puberty' a taboo subject, many adolescent boys appeared to access information resources based on their availability and convenience, and trusted the accuracy of the information provided (Ali et al., 2004). In a recent study conducted in rural India, Chayal et al. (2016) found that male participants aged 14-18 years believed that masturbation and wet-dreams were unhealthy. Similar findings are reported in a study conducted in rural Pakistan (Ali et al., 2004) where these were considered a form of 'chronic disease' believed to result in harm to male adolescents' health and wellbeing. Other study subjects in Pakistan and different parts of the world having similar culture shared

the misconception that undertaking the act of masturbation would lead them to suffer from chronic illnesses in future (Ali et al., 2004, Chayal et al., 2016, Jerves et al., 2014, Qidwai, 1999, Nair et al., 2013a).

Further misconceptions about the act of masturbation, included impotence, physical illness and weakness as identified by participants in a study conducted in Karachi (Qidwai, 1999). In addition, 68.6% of participants also revealed that strong feelings of guilt about masturbation remained with them even into their adulthood. A number of authors (Qidwai, 1999, Ali et al., 2004, Chayal et al., 2016) have reported that adolescent and young males are exploited by untrained healers (i.e. Hakims) operating clinics to resolve sexual health issues with no professional and evidence-based training. These healers also charge young boys heavy prices to treat or cure these perceived illnesses. Consequently, the adolescent males develop more confusion and anxiety due to the misconceptions about such issues in traditional cultures where the practices of these untrained healers are common (Qidwai, 1999, Hennink et al., 2005, Ajuwon and Brieger, 2007, Ahmadi et al., 2009, Chayal et al., 2016, Khan, 2005).

Such misconceptions may lead to poor understanding of the puberty development phase, thereby creating a gap in the knowledge on the biological, emotional and psychosocial changes during puberty for adolescent males. Thus, exploring perceptions of trustworthy sources and understanding what may make a particular source reliable is very

important for developing measures for adolescent males to obtain correct information regarding puberty and may have a good puberty experiences.

In this regard, exploring experiences from people already experienced puberty (i.e. young males) may assist researchers in identifying if during puberty, male adolescents have any misconceptions from approaching sources that they considered reliable and if that impact their lives in any ways. It may also help to identify what measures can be taken to provide more accurate information to future adolescent and young boys.

2.5.3 Institutional barriers and facilitators

2.5.3.1 Availability and accessibility of healthcare services

Another aspect identified in the literature, which may provide a positive puberty experience for adolescent males is the availability of healthcare services focused on males (Agampodi et al., 2008, Qidwai, 1999, Talpur and Khowaja, 2012). Whether young males access these services is a different issue and thought to be a result of cultural norms in some countries (Newton-Levinson et al., 2016, Agampodi et al., 2008, Scandurra et al., 2016), including Pakistan (Talpur and Khowaja, 2012, Qidwai, 1999). Additionally, the lack of specialist male orientated services may hinder young males' engagement with current health care provision (Qidwai, 1999).

The lack of accessibility to these services is one of the most frequently reported institutional barriers to and facilitator of obtaining information

on puberty for adolescent boys in Pakistan and other similar countries (Talpur and Khowaja, 2012, Farid-ul-Hasnain et al., 2013, Newton-Levinson et al., 2016, Garcia et al., 2014, Khalaf et al., 2010). In relation to this, various studies have been conducted in Pakistan (Farid-ul-Hasnain et al., 2013, Shaikh et al., 2010) and other parts of the world (Godia et al., 2014, Biddlecom et al., 2007, Agampodi et al., 2008, Leichliter et al., 2011), assessing male adolescents' perceptions and knowledge on the availability and accessibility of reproductive health care services.

As a result, even though most of the youth health care services are available for both sexes, in many studies adolescent and young males perceived them to be for females and felt uncomfortable accessing them (Agampodi et al., 2008, Godia et al., 2014, Talpur and Khowaja, 2012). If this provision was rectified, an increase in engagement from adolescents and young males may have been achieved (Farid-ul-Hasnain et al., 2013), resulting in less fear and embarrassment in accessing health care services (including SRH related concerns) (Biddlecom et al., 2007, Lindberg et al., 2006).

These institutional factors, directly and indirectly, interplay and create barriers and facilitators in relation to the availability and accessibility of healthcare services among adolescent males. For instance, distance (Zuurmond et al., 2012), quality of services (Newton-Levinson et al., 2016), expertise of HCPs (Talpur and Khowaja, 2012), negative

attitudes of HCPs (Collumbien et al., 2011, Newton-Levinson et al., 2016), shortages of staff and supplies (Newton-Levinson et al., 2016), lack of similar gender choices of HCPs (Talpur and Khowaja, 2012), and confidentiality (Agampodi et al., 2008, Newton-Levinson et al., 2016, Zuurmond et al., 2012), are among the factors that contribute to this problem.

The organisational factors described above are mostly identified in studies undertaken in developing countries (Collumbien et al., 2011, Talpur and Khowaja, 2012, Biddlecom et al., 2007, Mir et al., 2013). Thus, having a genuine interaction between HCPs and young males, where trusting relationships have been formed based on the mutual respect would facilitate young people to access these services (Garcia et al., 2014).

In Pakistan, there is a scarcity of male YFRHS , particularly in the public sector (Svanemyr et al., 2015). Thus, in their absence, NGOs such as, the Rahnuma-Family Planning Association of Pakistan (RFPAP) in Karachi, is providing relevant information to young people regarding puberty and related SRH topics, although on a small scale. However, despite their increased activities from 2007-2011 recognised by Svanemyr et al. (2015), only 10% of young people accessed these services because of the socio-cultural and psychosocial factors that create internal and external institutional barriers among the young population.

This implies that in Pakistan, male adolescents have trouble in gaining awareness regarding puberty because of either the unavailability of male YFRHS or experiencing institutional barriers to attending and accessing the available services. Perhaps by involving adolescents and young males, and implementing their suggestions in formulating male YFRHS, this may foster a positive engagement with services and impact positively on puberty experiences.

2.5.4 Health information programmes

Worldwide, literature suggests various strategies to be used in health promotion (HP) programmes for enhancing adolescents' knowledge, attitudes and behaviours with regard to their sexual development and other health-related concerns during puberty (Gast and Peak, 2012, Hieftje et al., 2013, Nair et al., 2013b, Norman and Yip, 2012, Ali et al., 2004). These strategies can also be used to improve the puberty experiences of adolescent boys when focused on puberty awareness and sex education (Norman and Yip, 2012).

While discussing the importance of this approach, the literature presented in this section does not specifically focus on puberty education. The available literature on Pakistani adolescents (Talpur and Khowaja, 2012, Ali et al., 2004, Afsar and Gill, 2004), and adolescents elsewhere (Aaro et al., 2006, Rajapaksa-Hewageegana et al., 2015, Goldman, 2011, Adeokun et al., 2009, Ahmed et al., 2008, Tolli, 2012), have focussed significantly on SRH promotion of adolescents, where

there is only little focus on puberty related education.

The World Health Organisation (WHO) (2007) suggests integrating gender transformative approaches within the sexual health promotion (SHP) of adolescent males. Using these approaches would help to transform the gender and masculine norms in patriarchal societies such as Pakistan, which may help in providing good puberty experiences to adolescent and future young males (DePalma and Francis, 2014). Despite being strongly recommended, few developing countries (Rajapaksa-Hewageegana et al., 2015, Chayal et al., 2016) have any formal puberty and sexual health promotion (SHP) programmes for adolescent boys, when compared to the western world (Martinez et al., 2010, Fisher et al., 2012) .

Increased puberty awareness and education in Western countries is due to the availability of the SHP programmes, targeting adolescent males at both schools and community levels (Fisher et al., 2012, Martinez et al., 2010). Indeed, Martinez et al. (2010) reported that 97% of male teenagers receive some kind of formal sexual health education in school, church or a community setting. In contrast to this available data of the National Survey of Family Growth (NSFG) in United States, there are no statistics available in the context of Pakistan regarding any formal sex and puberty education programmes at school and community level that have been designed and implemented for adolescent males in particular. Some of the successful strategies used

as HP programmes for adolescent males living worldwide, and how they enhance puberty experience will be discussed in the sections below.

2.5.4.1 School health promotion programmes

2.5.4.1.1 Cultural sensitivity

Rosen et al. (2004) recognised that school-based programmes play a significant role in improving puberty experiences for young people worldwide. It has been proposed that implementing sex education in schools, acts as an appropriate strategy to introduce HP programmes for adolescent males during puberty (Rosen et al., 2004). If such programmes are carefully designed and implemented, it can provide young boys with the solid basis of knowledge and skills required during puberty and bring positive impacts in their lives (Tortolero et al., 2010) .

In the guide developed by Adamchak et al. (2000) on monitoring and evaluating adolescents' reproductive health programmes, it is reported that the youth reproductive health (YRH) outcomes have been improved because of some successful school education programmes in western countries. For example, 17 out of 19 school health programmes that were reported in this guide, and were developed and implemented for adolescents of both sexes were effective in improving young people's knowledge of SRH.

However, while planning HP programmes in developing countries, various authors suggest that contextual factors need to be considered

carefully due to variations in socio-cultural and religious beliefs. A recent qualitative study undertaken by Mamdani and Hussain (2015) in a rural part (Gilgit, Baltistan) of Pakistan, found that adolescents themselves have explicitly suggested gender-specific education for puberty and LSBE in schools. Their research concluded that the provision of separate education, which was culturally sensitive, targeting adolescents of both sexes in separate classes, would be beneficial and this has been reiterated in other studies from similar settings (Menger et al., 2015, Makol-Abdul et al., 2009).

The importance of using cultural sensitive interventions was demonstrated by the negative results of the RCT (Zang et al., 2011), where no significant changes in the knowledge, attitudes and behaviour of either male or female adolescents were achieved in the intervention delivered by school nurses. Hence, culturally appropriate programmes need to be planned and delivered in a proper manner by using effective strategies for all adolescents.

The above findings imply that adolescents may be interested in receiving puberty related education and information in schools appropriate to their cultural contexts. However, despite this expressed need for culturally appropriate health promotion and education programmes, adolescents in many developing countries, including Pakistan, are not receiving such interventions (Talpur and Khowaja, 2012, Mamdani and Hussain, 2015). This lack of provision has been

attributed to the sensitivity and controversy around the discussions regarding sex and puberty in Muslim countries (Makol-Abdul et al., 2009, Farid-ul-Hasnain et al., 2012). Evidence (Varani-Norton, 2014, Makol-Abdul et al., 2009) suggests that there is a reluctance by parents to accept their children to receive this type of education in schools. Although puberty is a sensitive topic, a few studies shared their efforts to plan and initiate puberty and sex education in the form of LSBE in some of the resource-poor and conservative countries (Svanemyr et al., 2015, Makol-Abdul et al., 2009, Wood et al., 2015).

In this regard, Makol-Abdul et al. (2009) found that approximately 91% of Malaysian parents were willing for this content (i.e. puberty education) to be included in the school curriculum, in line with religious teachings. However, in contrast, only a small percentage of parents were willing for pre-marital sex (26.2%), reproduction and childbirth (21.8%) and teenage pregnancy (27.6%) to be included in sex education at school level (Makol-Abdul et al., 2009). Similarly, Fijian parents Varani-Norton (2014) expressed several concerns regarding teaching content of family life education (FLE) curriculum, again from a cultural and religious perspective.

Additionally, a report on scaling up of LSBE in Pakistan documents an initiative of puberty education in Pakistan at the school level, where information on bodily changes during puberty was provided in selected schools (n=1188) (Svanemyr et al., 2015). Although the programme

was gender specific with adolescents of both sexes targeted separately, it discontinued after six months due to its operation in the conservative and religious dominant area of Pakistan. However, with the help of various stakeholders, it was restarted. This shows that in order for the health promotion programme, (particularly for sensitive subjects) to be successful in Pakistan and similar cultures, involving stakeholders, particularly those in power, may be imperative.

In some instances, even when puberty related information is present in the curricula, teachers, especially female, are reported to feel uncomfortable about teaching adolescent boys because of their own incompetency in knowledge and skills in teaching this subject (Chayal et al., 2016, Talpur and Khowaja, 2012, Farahani et al., 2012, Dawson et al., 2014).

As a consequence of these factors, policymakers, school and religious authorities in some of these conservative countries are unwilling to promote puberty and sex education in schools (Chayal et al., 2016, Makol-Abdul et al., 2009, Varani-Norton, 2014, Svanemyr et al., 2015). However, this could be addressed by following the guidance available in literature using, HCPs specifically trained in this subject, or providing additional training for teachers (Rajapaksa-Hewageegana et al., 2015, Qidwai, 1999). These trainings are particularly advised to be delivered using gender focussed approaches (Wood et al., 2015) prior to designing and implementing LSBE/sex education for school. The latter

approach may be more sustainable, long-term and provide a sound gender specific curriculum (Dawson et al., 2014, Ahmadi et al., 2009, Wood et al., 2015).

2.5.4.1.2 Making programmes successful

UNICEF (2009) suggests that the involvement of young people themselves as advocates in designing and implementing puberty education would make programmes more successful. This has become the core objective of UNICEF Adolescent Development and Participation unit for all types of programmes designed and planned for young people's development .

In support of this mandate, WHO also recommends adolescent and young males being involved in designing and planning of interventions or HP activities for young males. Recommending the use of a gender-specific approach to HP programmes in this regard, may assist a greater understanding of the pubertal needs in males (Wood et al., 2015). However, Svanemyr et al. (2015) do not make it clear whether male adolescents' experiences in relation to puberty and other SRH aspects were explored for LSBE programme development.

Therefore, to enhance positive, effective puberty experiences among adolescent males, the evidence suggests it's important to understand their expressed concerns before new HP programmes are developed (Ryan et al., 1996). This argument is supported by Garcia et al. (2014), who shared the perceptions of eight health professionals from both

hospital and community settings and strongly supported the involvement of male adolescents, along with other stakeholders, in designing the messages developed for their sexual health promotion programmes. The involvement of youth in identifying problems, designing solutions and working actively to carry the interventions forward will also empower them (UNICEF, 2009), which is necessary for the successful implementation of any youth development programmes.

This approach is reiterated by the Medical Research Council (MRC) in UK (Craig et al., 2008) (Appendix 3), but evidence of this is still lacking in studies undertaken in Pakistan. Therefore, a suggestion is to explore the needs for puberty and sex education programmes for adolescent males in this context. Variations in the effectiveness of school based HP programmes on puberty and sex education are evident (Tortolero et al., 2010, Rosen et al., 2004, Aaro et al., 2006, Valizade et al., 2016).

One of the factors identified for programmes to be successful is of using a conceptual approach when planning HP interventions (Valizade et al., 2016). Valizade et al. (2016) experimental study on 64 (32 in each intervention and control group) male Iranian students (aged 13-14) measured the effectiveness of a school-based intervention programme in terms of the impact of puberty health education. This programme was based on Health Belief Model (HBM) assessing the male adolescents' health behaviours and prevention during puberty. The programme was reported to be successful in terms of improving teenage boys'

knowledge regarding puberty and improving their awareness in terms of perceived susceptibility to high-risk behaviours during puberty. The success of this study indicates the significance of understanding adolescent boys' health beliefs and behaviours in designing and providing interventions to improve their knowledge and attitudes to healthy and high-risk behaviours during puberty.

Moreover, when school health promotion programmes are planned, it is important to keep in mind whether they are offered to adolescents at the right time when they are attending schools. The Rajapaksa-Hewageegana et al. (2015) study found that despite the availability of puberty education programmes in Sri Lankan schools, adolescent males (aged 16-19) were still unable to demonstrate satisfactory SRH knowledge levels (i.e. less than 1%), and not many adolescent males used contraception at first intercourse. Research, therefore, needs to explore more HP strategies and approaches other than introducing puberty education in school curricular that can fulfil adolescent males' needs during puberty comfortably.

2.5.4.2 Media and online health promotion programmes

While using mass-media campaigns in isolation may not always indicate a behaviour change outcome initially in young boys, it has demonstrated significant differences in behaviour intentions and changing attitudes of the young males for improving their behaviours in the future (World Health Organisation (WHO), 2007). More recently,

many researchers have proposed using both traditional and new media, (i.e. internet and mobile phones) (Gray et al., 2005, Gabarron et al., 2012, Nguyen et al., 2013) combinations for promoting awareness among adolescents of both sexes, after promising results from early studies (Guse et al., 2012, Lou et al., 2006). This is particularly the case for puberty and sex education interventions (Guse et al., 2012, Cousineau et al., 2006).

The work of Lou et al. (2006) assessing the feasibility and effectiveness of sex education provided through internet found that internet-based sex education programmes increased Chinese students' RH knowledge and changed their attitudes towards sex-related issues, specifically making them less likely to be involved in sexual relationships. The reason why adolescents benefited from new media related interventions is because of their comfort level in accessing these interventions since they are perceived to be confidential, feasible and easy to use in both developed (Gabarron et al., 2012, Nguyen et al., 2013) and developing (Lou et al., 2006, Lou et al., 2012) countries.

Additionally, the design of programmes seems to reinforce positive motivation for behaviour change, by keeping adolescents engaged and active with the interventions (Downs et al., 2004). This has been proved by RCTs performed by Downs et al. (2004) and Tortolero et al. (2010).where interventions offered through media-related activities, kept adolescent girls and students engaged with the interventions proposed

(e.g. interactive videos, video games). Intervention groups were reported to be less likely to participate in risk-taking sexual behaviours due to increased awareness when compared to control groups who received information via matched books (Downs et al., 2004) and regular health classes (Tortolero et al., 2010).

These studies were conducted on female adolescents and although they showed improvement in their knowledge and behaviours, they were based on self-reported data, and hence the studies are subject to reporting bias (Tortolero et al., 2010, Downs et al., 2004). Therefore future research using longitudinal and observational designs on adolescent males may be useful.

Evidence suggests that online materials are available in both developed and developing countries but with varying degrees of access (L'Engle et al., 2006, Gabarron et al., 2012, Lou et al., 2012). In developed countries access to both home and public computers is common (Gabarron et al., 2012, Allison et al., 2012, Marsch et al., 2011, Moreno et al., 2009, Markham et al., 2009). In fact, both in western and developing worlds, access to sexual health promotion is emerging through using other digital media, such as mobile phones (Akinfaderin-Agarau et al., 2012, Guse et al., 2012). Lou et al. (2012) in his study conducted on the adolescents and young adults (15-24 years) of three Asian cities (Hanoi, Shanghai, and Taipei) found that accessing new media and receiving the information they present influences the puberty

knowledge and sexual attitudes and behaviours of the Asian young people.

Despite the successful use of online technology for providing puberty and related sex education to adolescents of western and in some of the developing countries, this approach is lacking within Pakistan. This is despite the fact that literature reports that adolescent males access media and the internet frequently to gain information on puberty (Talpur and Khowaja, 2012, Ali et al., 2004). It can, therefore, be concluded by looking at the overall success of most of the programmes and the growing availability of technology that online-mediated learning could be a popular choice for male adolescents in Pakistan for future HP programmes, particularly for those who have access to the relevant technology. However, there is a gap in understanding Pakistani adolescent and young males' experiences of using technology-mediated education sources in relation to puberty education. Understanding their experiences and perceptions on if media sources facilitate and help them in having a good puberty period may be informative for future interventions.

2.6 Summary of literature

The previous sections have highlighted the pertinent issues around puberty transition, focusing particularly on male adolescents' experiences. It is clear that the experiences of puberty have impacts on male adolescents' physical (World Health Organization (WHO), 2014, Choukas-Bradley et al., 2014) and mental health outcomes . There are significant short-term psychological impacts of puberty (Adegoke, 1993, Ahmadi et al., 2009) identified in the literature, which may impact on male adolescents' health in the long term (Winer et al., 2016). However, in order to explore long-term impacts, future studies need to be undertaken that target older adolescent males or young male adults.

Moreover, puberty is also found to shape adolescent males' personality and develop future adult identity (Taga et al., 2006). Therefore, it is essential that young males experience healthy puberty experiences, however, in the context of Pakistan and other countries with similar cultures, socio-cultural factors may hinder this process. Researchers have also argued that the area of boys' puberty transition is neglected, both in practice and in research, when dealing with SRH of adolescents and young people of both sexes. For example, boys' pubertal changes seem to receive limited attention compared to other areas of SRH such as, unsafe sex, STIs including HIV, contraception and availability and accessibility of SRH care services/health promotion programmes (USAID, 2003).

In addition, data from (World Health Organisation (WHO), 2000) supports the argument that due to the gender norms in societies, boys are often discouraged to speak about stigmatised conditions, which include puberty and related issues. Due to this lack of awareness regarding puberty, studies conducted within the scope of SRH have identified misconceptions and myths that male adolescents encounter in some of the culturally sensitive countries, including Pakistan (Qidwai, 1999, Chayal et al., 2016). Cultural realities of these myths and misconceptions need to be explored further to propose and develop cultural specific interventions for adolescent boys and prevent them from these misconceptions in future.

As a result of this lack of knowledge, many researchers have identified that male adolescents exhibit higher anxiety levels regarding their own sexual development during puberty and that this is unhealthy for personal development. Further, psychological impacts reported in the literature, as a result of these pubertal changes include shame, embarrassment, confusion, guilt, isolation and depression (2.3.4.1). While most of these impacts occur during puberty and are considered to be short-term psychological impacts, the literature suggested that puberty may influence the adolescents' personalities and shape individuals' adult identity (Sawyer et al., 2012).

Despite the identification of the need for sex education and support from parents and other stakeholders, including HCPs for adolescents

during puberty, the availability of health care services and health promotion programmes are not frequently available in developing countries, including Pakistan due to the presence these institutional barriers, as identified in section 2.4.3 (Golchin et al., 2012, Ryan et al., 1996, Hennink et al., 2005, Benoit et al., 2013). It is therefore, suggested within the literature that the development of programmes that promote male adolescents' awareness and increase their knowledge regarding puberty (section 2.4.4) are critical to helping them to deal with the issues related to the puberty developmental process.

In a meta-analysis Carroll et al. (2012) have identified the advantages and the positive impacts of certain school health intervention programmes for the sexual health promotion of adolescents. Yet, many teachers were found not to be delivering the available curriculum efficiently due to the assumed uncomfortable attitudes towards sex education topics and lack of proper training (Talpur and Khowaja, 2012, Chayal et al., 2016). There is also extensive Western and emerging Asian empirical research, highlighting the utilisation of the online and even traditional media for various subjects including sexuality (section 2.4.4.2). The available literature indicates that online computer-mediated programmes are widely acceptable and used among male adolescents as well as females during puberty. Reasons for this include perceived confidentiality, privacy and ease of access, therefore these proved a highly effective method (Cousineau et al., 2006, Pinkleton et al., 2012, Lou et al., 2012).

2.6.1 Gaps from literature

Important gaps in evidence from this review have been identified, which provide a basis for the rationale of the current study. Current literature focusing on puberty related topics has predominately examined the physiological aspects of puberty (e.g. age of onset, hormonal and neurobiological changes) (Book et al., 2001, Shirtcliff et al., 2009, Romeo et al., 2002, Sisk and Zehr, 2005), whilst only a small number have explored experiences (Ahmadi et al., 2009, Flaming and Morse, 1991, Al wan et al., 2010, Ali et al., 2004). In addition, the majority of these studies have been female-oriented (Bhatti et al., 2017, Adeokun et al., 2009).

Describing the health and developmental needs of adolescent boys World Health Organisation (WHO) (2000) suggests that there is less available data on adolescent and young males' health care needs, particularly during puberty. In relation to the puberty experiences of male adolescents', there have been a limited number of empirical studies (Ahmadi et al., 2009, Flaming and Morse, 1991), which have assessed and explored the perspectives and experiences of adolescent males themselves.

While some of the puberty transition aspects of adolescent males have been researched, this has been investigated under the broader area of RH needs of young males (Ali et al., 2004) or have explored a wide range of SRH knowledge, attitudes, and behaviours of adolescents of

both sexes (Rajapaksa-Hewageegana et al., 2015, Qidwai, 1999, Talpur and Khowaja, 2012, Shaikh and Rahim, 2006, Hennink et al., 2005), and are not specific to puberty. Research specific to Pakistan and similar cultures (Qidwai, 1999, Ali et al., 2004, Rajapaksa-Hewageegana et al., 2015) has examined awareness and attitudes towards the broader subject of SRH programmes, of which puberty was only a small part. Consequently, no in-depth and contextual detail about puberty has been provided previously.

Of those studies completed, most were cross-sectional, using survey methods (Shaikh and Rahim, 2006, Talpur and Khowaja, 2012, Rajapaksa-Hewageegana et al., 2015) or conducted interviews based on questionnaires t (Ali et al., 2004), having their own methodological limitations, and not examining the contextual aspects of puberty experiences. Qualitative studies have mainly assessed the views of other stakeholders (Makol-Abdul et al., 2009, Nair et al., 2012, Ahmadi et al., 2009, Nair et al., 2013c), including parents, teachers, community leaders etc. rather than male adolescents or young males themselves.

The exceptions to this are the studies by Ahmadi et al. (2009) and Chayal et al. (2016) undertaken in Iran and India respectively. There have been very limited studies exploring male puberty experiences in the context of Pakistan. Indeed, only two studies have explored this area in Pakistan. One of these explored rural male adolescents' RH needs, where lack of puberty education was one of the concerns shared

by these adolescents (Ali et al., 2004), whilst, the other explored communication patterns between parents and children during puberty, but targeted children of both sexes (Mamdani and Hussain, 2015).

In addition, most of the studies mentioned targeted younger adolescents, and therefore mainly collected information on short-term psychological effects. As a result, there is a need to explore puberty from the perspectives of older adolescent males or young adult men, in order for them to reflect on their personal experiences of puberty and articulate any long-term physical or psychological impacts. In addition, World Health Organization (WHO) (2014) and UNICEF (2009) also highlight the importance of involving and engaging adolescent and young males in development of HP programmes to ensure great levels of success of such programmes. Collecting evidence from young males would help them to reflect on what might be helpful to them to get improve puberty experiences for Pakistani males in the future. It may also be beneficial for policymakers and researchers, directing them to identify appropriate measures and develop educational strategies for adolescent males in Pakistan and other similar settings.

The literature suggests that in order to design supportive measures in the form of health promotion interventions for male adolescents, there is a need to first understand and explore their perceptions regarding those particular needs. Thus, exploring male adolescents' puberty experiences may provide evidence to facilitate the development of

health promotion methods in the Pakistani context, where communicating about such topics is still considered taboo and sensitive to address.

2.7 Conclusion

This chapter has narrated and reviewed relevant literature related to the proposed study and identified significant gaps in research evidence in this area. Based on these research gaps, the research aim and objectives have been developed, as stated below.

2.8 Research question, aim and objectives

2.8.1 Research question

What are the puberty experiences of young males living in Pakistan?

2.8.2 Aim of the study

This study will explore the puberty experiences of young males (aged 18-21 years) living in Pakistan

2.8.3 Objectives

- To explore the overall experiences of puberty from young males living in Pakistan.
- To explore the barriers/challenges/difficulties Pakistani young males encountered during puberty and how they may have overcome these.
- To explore potential facilitating factors for Pakistani young males during adolescence that may have contributed to positive puberty experiences.

CHAPTER 3: METHODOLOGY AND METHODS

3.1 Introduction

This chapter presents an overview of the methodology and the research methods employed in order to 'explore the puberty experiences of young males aged 18-21 years'. The chapter illustrates a series of planning and decision-making processes undertaken in order to conduct this study. The chapter is divided into several sections. Firstly, philosophical assumption, personal beliefs and aspirations underpinning this research study are addressed. Secondly, the proposed study design, which was informed by the rationale of adopting a generic qualitative methodology is discussed. The third section explains the data gathering and analysis processes, with details regarding the research methods used. The remaining part of the chapter provides a description of the ethical considerations of the research and an overview of the rigour of the research process.

It has been well documented in the literature that the chosen research approach is based largely on the research question(s) and aim(s) of the study (Bryman, 2008, Creswell, 2014). This study is exploratory in nature, which suggests the appropriateness of a qualitative approach in order to maximise the understanding of young males' puberty experiences and give them a voice to illustrate their experiences. In order to investigate this process appropriately and effectively, it is important to understand the philosophical foundations of the qualitative

inquiry, as this will ensure the use of rigorous, rational and empirical methods of inquiry (Mason, 2002).

3.2 Methodology

3.2.1 Philosophical orientation

The philosophical orientation of a study refers to a set of intersecting traditions and beliefs, which guide the researcher as to how they would conduct the study and view the outcomes of it (Cresswell, 2009, Guba and Lincoln, 1994). It refers to our worldview of looking at things and influences how we acquire knowledge and interpret it according to our interpretations.

3.2.1.1 Epistemology, ontology, methodology, and study methods

In any particular research, some fundamental aspects such as ontology, epistemology, methodology and methods are believed to be linked together, and jointly constitute the philosophical underpinning of that particular research paradigm (Carter and Little, 2007, Scotland, 2012). The study methodology frames how a particular research study should proceed, in a way that reflects the epistemological assumptions embedded within the inquiry (Scotland, 2012).

The research methods used within the defined methodology are mostly determined by the epistemological and ontological positions. According to Crotty (1998), ontology is the ‘study of being’ and is concerned with the nature, existence and types of social reality. Using ontological

assumptions, researchers take a position regarding their perceptions on how things can work in reality (Scotland, 2012). Epistemology, commonly defined as the 'theory of knowledge' is concerned with the nature and forms of knowledge (Bryman, 2008, Cohen et al., 2007, p.7). It has been argued that qualitative research is comprised of different ontological (truth) and epistemological (knowledge) views; and these diverse assumptions of reality and knowledge underpin the different research approaches.

This is then mirrored in subsequent methodology and research methods used (Scotland, 2012). However, all the assumptions are considered to be speculative and therefore, the philosophical underpinnings of each qualitative paradigm are unable to be proven or disproven empirically (Scotland, 2012). This is one of the reasons why, on some occasions, different research approaches are used to examine the same phenomenon as a result of researchers' differing ontological and epistemological positions (Grix, 2004).

3.2.1.2 Researcher's reflections, suppositions and aspirations

In the case of qualitative inquiry, when there is no unifying philosophical orientation, it is the researcher's responsibility to define the position, which describes the strategy used to view the product of an inquiry (Klein and Myers, 1999). In this study, my own motivations, aspirations, multiple roles and positions influenced the philosophical position used to conduct this study, along with the purpose of this research (Scotland,

2012). The detailed account of this section will be discussed in chapter 8 of this thesis, where a reflection on my position within this research and on the interpretation of the research findings, will be provided under a section entitled ‘Reflexivity’.

I came to this research as a public health practitioner, with a professional identity of a community health nurse, which influences how I view the world around me. As a public health professional, I ascribe to the community-oriented, holistic model of health care that includes the patient, family and community in planning and developing any health promotion interventions. Additionally, an individual unit (community member) is viewed from an integrated approach, where individual experiences are shaped through collective inner and outer influences of the world (Dossey, 2008). Thus, human beings are viewed as interactive social agents that are informed by the social world around them.

These perceptions ingrained from my professional background affected my choices of a philosophical orientation as ‘interpretivist-social constructionist’. Following this philosophical assumption, I believed that puberty experiences of young males might have been shaped through the social world around them. Thus, using an interpretivist approach assisted me in understanding the phenomena of puberty and in generating new knowledge from the presented research question.

Unlike the previous quantitative and questionnaire based studies (Talpur and Khowaja, 2012, Parpio et al., 2012, Ali et al., 2004, Qidwai, 1999), this study aimed to explore the contextualised puberty experiences of young males and the interplay that may have occurred between their personal experiences and the social world in which these young males lived during puberty. Using an interpretivist-social constructionist approach helped in understanding and bringing forward the contextualised puberty experiences of young males, which might have formed based on their social and cultural contexts. The principal motivation for this research was an evident lack of research on pubescent men, as evidenced through the gaps in literature presented in previous chapter.

This lack of research is likely due to the salient viewing of females as the main focus of research relating to SRH (Dixon-Mueller, 1993, Saewyc, 2012, Sadiq et al., 2011, World Health Organisation (WHO), 2000, Pakistan Voluntary Health and Nutrition Association (PAVHNA) and Raasta Development Consultants, 2000), considering them to be more responsible for fertility, reproduction and antenatal care in many cultures, including Pakistan. Thus, young males' voices seem to be muffled in Pakistan regarding their puberty experiences.

Caelli (2003) suggests that employing a particular research approach is largely based on how participants are viewed by the researcher. In this study, young males were viewed as a diverse group of individuals, each

having their own perspective, experiences and viewpoints, thus ascribing to the principle that we can learn about young males' puberty from young males themselves.

Thus, this study aligned broadly to an 'interpretive' and 'social constructionist' philosophical orientation, where the researcher drew on the 'interpretive epistemology' complemented by the 'social constructionist' philosophy which is founded on the concept of 'ontological relativity' (Patton et al., 2007, Bunniss and Kelly, 2010, Mason, 2002). The details of adopting this philosophical orientation is further explained in the next section.

3.2.1.3 Interpretive, social-constructionist approach

An interpretive worldview facilitates the study of complex, unstable and non-linear social changes embedded within the social world, where the researcher seeks to understand human experiences and behaviours (Bunniss and Kelly, 2010). The researcher in this study aimed to explore the puberty experiences of young males. Exploration of their experiences required an in-depth investigation of the subjects by gaining an insight into the complex phenomenon of puberty from the perspectives of those who experienced and lived through it. Hence, from this philosophical stance, the young males in this study were viewed as active agents, who were involved, and interpreted their puberty experiences in the social world (Grbich, 2007).

Interpretivists do not believe in objective reality, which is mostly linked with a search for causal relationships (Bunniss and Kelly, 2010, Low, 2013). On the contrary, an interpretive viewpoint recognises that knowledge, which is elicited from individual experiences, is constrained by the subjective reality of people, which can be multiple and complex. This knowledge generated through the subjective experiences helps in understanding various human behaviours and actions, and in analysing how the social world is understood, interpreted and experienced by humans (Grbich, 2007, Benton and Craib, 2001, Mason, 2002).

Constructionists put emphasis on the dialogue or social constructions that occur between individuals (McNamee, 2004). Meanings derived through these dialogues are negotiated and co-constructed by interacting with other agents in their social world, and created and co-created because of personal perspectives within the context. This results in an association between knowledge and the knower, and therefore, sometimes multiple and conflicting accounts of experiences are constructed, although all stay valid and useful (McNamee, 2004).

In terms of research that supports an interpretivist-constructionist epistemological position, the focus is on the relationship between the ‘knower’ (participant) and the ‘would-be-knower’ (researcher) (Berger and Luckmann, 1966). Some researchers adopt a realist position, which supports the paradigm that suggests that data is enough to provide information about the social world or phenomenon. Thus, from the

realist viewpoint, producing a series of models and generating numerical data may be sufficient to understand certain phenomena and can generalise certain beliefs (Willig, 2008).

This perspective is particularly related to quantitative enquiry, which believes in objective reality. On the other hand, there is a perspective of relativists who believe that, experiences of humans can be explored within a context of specific cultural and social frames of reference, in order to have better understanding of them in a diverse world (Willig, 2008). This ontological assumption of 'relativism' is related to the 'social constructionist' philosophy, which assumes that, objects are not independent of the conscious interpretations of human beings. However, it is the individual's interpretations, cultural and social influences, which shape the world in which they live, giving meanings to the objects (Patton, 2002).

The current study, with its contextual variations, was congruent with this relativist standpoint, which was exposed to a variety of subjective interpretations (Burr, 2003). Here, by using the social constructionist viewpoint, young males' perceptions of their puberty experiences were shaped by their social relationships and interactions (Bellamy et al., 2016). Hence, the role of a researcher following this philosophical orientation is situated within the inquiry to explore puberty experiences and co-construct reality about this phenomenon. I recognised that my role would be to re-construct and interpret the experiences shared by

young males from their own world, different from mine. Although belonging to the same culture, we had different gender and belonged to a different age group.

3.2.2 Study design

3.2.2.1 The qualitative research paradigm

The qualitative study design uses research approaches that investigate the understanding and meaning of human experiences, and refer to the ways in which humans interpret their experiences and the phenomenon of life. It collects data mainly in the form of words, which may include observations, interviews, group discussions and reviewing of documents (Creswell, 2014, Grbich, 2007). These approaches mostly deal with an understanding of a particular phenomenon, comprising multiple truths and having a number of possible interpretations of reality (Greatrex-White, 2008).

In contrast to quantitative research (concerned with controlling phenomena, by relying upon pre-determined categories, seeking cause and effect relationships between variables and testing these with hypothesis and statistics), qualitative research focuses on understanding either a phenomenon, process, or the perspectives and worldviews of research subjects (Cresswell, 2009). In qualitative research, the researcher examines the situations, events and experiences from the point of view of participants, as social actors by asking them critical questions that require rationalisation rather than

imposing their own perspectives (Holloway, 1997).

Thus, a qualitative approach was adopted in order to fulfil the purpose of this study, where an in-depth exploration of a potentially complex phenomenon was required (Pope and Mays, 1995). Moreover, qualitative approaches are particularly relevant where there is little information known in the field, and where the issue of investigation is quite complex and may require a more comprehensive exploration (Caelli, 2003). Thus, the existing qualitative study design was inspired by the lack of current research exploring young males' experiences regarding puberty.

This overarching approach did not meet the descriptors for purely using a particular approach, showing commitment to any specific qualitative methodologies that are considered as traditional. Therefore, a generic qualitative research methodology, also known as, 'basic qualitative' or 'simply interpretive' (Kahlke, 2014, p.9) was used in order to explore and comprehend how the young males aged 18-21 years viewed and constructed their puberty experiences according to their own interpretations. Using this approach may also elicit the interplay of contextual factors in making those experiences (Patton, 2002, Cresswell, 2009, Barbour and Barbour, 2003, Avis, 2005). The detailed justification for using a generic qualitative methodology is discussed in the subsequent sections.

3.2.2.2 Rationale for choosing a generic qualitative methodology

In the development of qualitative research, there are a number of traditional research methodologies that often dominate social and health sciences, which are commonly applied in any qualitative health care research (Grbich, 2007). The most common approaches, grounded theory (GT), ethnography, narrative inquiry and phenomenology could have been used for this research. However, these traditional approaches are each slightly different in their usage and descriptions. These are briefly discussed here and reasons given for choosing a generic qualitative approach instead.

GT strategy is used in order to construct a theory from an inductive approach, regarding important issues in people's lives. This approach relies on an iterative process of data collection and analysis, where hypotheses are generated and tested through further data collection until a saturation point is achieved (Charmaz, 2006). Ethnography seeks to describe and understand a social group or system by observing a particular behaviour from a cultural perspective. By using ethnography, the researcher has to become part of the culture under observation, investigating behaviour and interactions between people and listening to their conversations (Smith et al., 2011).

Narrative inquiry involves participants telling stories about their lives and often involves one or a few participants. While Phenomenological studies investigate the 'lived experiences' of various phenomena

(experiences) and are interested in studying the inner dimensions, textures and essences of the cognitive processes such as, emotional experiences in relation to that phenomenon (Percy et al., 2015). This approach exclusively focuses on studying the phenomenon and their nature from the viewpoint of the individuals viewing it (Greatrex-White, 2008).

This study looked at the different perspectives of participants' puberty experiences (i.e. meanings, experiences, views, opinions and practices) without an intention of developing a theory. Neither had it intended to observe the cultural perspectives of puberty. Instead, it investigated understanding in-depth stories regarding puberty, or identifying internal aspects of the phenomenon (puberty) being investigated through going beyond the description of young men's lived experiences. Thus, the aim of this study could not be adequately investigated using grounded theory, ethnography, and narrative inquiry and phenomenology research methodologies respectively. Hence, this study explored the puberty experiences of young males aged 18-21 years living in urban city of Pakistan, using a generic qualitative methodology.

Generic qualitative studies involve inquiring about the actual experiences, the meaning of those experiences in participants' eyes, and often the transformative nature of that experience, if the experiences involved any kind of processes. In this study, using a 'generic qualitative methodology', the researcher intended to 'uncover

the participants' (young males) puberty experiences', 'exploring the meaning participants ascribe to those experiences' and 'examining the various perceptions participants may have regarding their puberty transition process'. In addition, the exploration of these puberty experiences is more 'outward focused instead of 'searching for underlying explanations or theories' (Bellamy et al., 2016 p. 262).

Secondly, there is a certain degree of subjectivity in this research, needed to ensure the internal consistency of the arguments used. Thus, the knowledge claim is based on the epistemological stance used in this study (Bellamy et al., 2016). On the contrary, using traditional methodological theories would limit the scope for critical reflection on the role of social theory in producing the evidence within a wider system of belief (Caelli, 2003). Therefore, basic qualitative research, without any traditional methodology, was appropriate to be used for this study, identified as, generic qualitative methodology. The detailed illustration of such methodology is further described in the next section of this chapter.

3.2.2.3 The generic qualitative methodology

While this study's focus and the content of the desired data does not fit with any of the traditional qualitative methodologies, a generic qualitative methodology was chosen to investigate the puberty experiences of young males. Caelli (2003) defines 'generic qualitative methodology' as one that seeks to understand phenomena, processes,

or the perspectives and worldviews of those people involved in it. It has an ability to stand alone as a researcher's articulated approach, without binding its roots with the established qualitative methodologies (Kahlke, 2014). In fact, it adopts and blends its characteristics from the established methodological approaches in order to produce something new, which answers the research question in its best possible manner (Caelli, 2003).

These features of borrowing 'textures' at epistemological and theoretical levels, and 'techniques and procedures' at method-level strengthens the generic approach at a methodological level. Thus, it provides flexibility and attracts the researchers whose studies do not fall neatly within specific established methodologies (Neergaard et al., 2009). However, this borrowing and adopting of techniques and tools from various methodologies may increase the risk for 'method-slurring' within the generic qualitative approach (Kahlke, 2014, Caelli, 2003, Chamberlain, 2000). This study has overcome the risk of 'method slurring' by following recommendations made by those authors supporting the use of generic qualitative methodology (Kahlke, 2014, Caelli, 2003, Bellamy et al., 2016). In this regard, a generic approach was selected for this study based on the philosophical underpinnings of interpretivist-social constructionist, which best investigates the aim of this study.

In addition, the generic methodology began with posing the research question; going on to select data collection and analysis methods best

suited to the research objectives such as, interviews and thematic analysis. It is also recommended that there should be clear strategies to establish rigour, which will be discussed in the later section of this chapter. In addition, the analytical lens is needed to explain how the data have been gathered, by ascribing to the position of the researcher in data collection, analysis, and presentation of the findings, which will be described in Chapter 8 of this thesis, under reflexivity (Kahlke, 2014).

Sandelowski (2000) suggests that using generic approach is most suitable for researchers finding an answer regarding what, how, and where, to investigate questions. Furthermore, Sandelowski (2000) emphasised using this approach when an in-depth description of the phenomena needs to be analysed, and when there is little knowledge about these phenomena. A review of current literature suggested that very little is known about the contextualised puberty experiences of adolescent males (Ali et al., 2004). Exploring qualitative data from young males' perspectives on their puberty experiences provides a deeper understanding of these experiences and expands on previous knowledge.

This study will be able to generate evidence of whether further interventions would be required in this field. Thus, it was most appropriate to undertake an exploratory study, which offers a possible explanation for puberty experiences of young males in Pakistan, using a

general and pragmatic approach through incorporating a generic methodology (Kahlke, 2014, Sandelowski, 1993, Chamberlain, 2000).

Moreover, the more established methodological approaches often rely on theory development and require high-level interpretation. These approaches often move the data away from the direct experiences of the study participants and thus are considered as less useful for developing future focused interventions (Sullivan-Bolyai et al., 2005). Although, this study was not an intervention study, it was undertaken with an underlying aim of informing policy makers and researchers to plan and implement the puberty related HP programmes for adolescent males' in Pakistan, if a need was identified. A generic qualitative approach allows the generation of accurate and in-depth description of the participants' experiences, and remains closer to the data, ensuring that the interpretations are transparent, enhancing the credibility of the findings (Sandelowski, 2000).

3.2.3 Data collection techniques

A number of qualitative data collection techniques exist, suitable for collecting data when using a generic approach; Generic qualitative methodology mainly uses data collection methods that are highly exploratory in nature (Kahlke, 2014). In order to determine the most appropriate technique for data gathering, it is crucial to consider the aim and objectives of the study, as it is recommended to adopt methods for data collection based on the research focus (Scotland, 2012).

In this study, it was necessary to hear young males' voices, in order to explore their puberty experiences. This meant using techniques that would allow young males to talk about their experiences, rather than using other techniques (such as, observations and document reviews), which might not allow expression of contextual experiences. Data in this approach is mostly collected through individual or group interviews, questionnaires or surveys, with questions often being based on the prior knowledge of the researcher (SilverMan, 2011b, Kahlke, 2014, Bellamy et al., 2016). The justification for using individual semi-structured interviews in this study is presented below.

3.2.3.1 Rationale for choosing individual interviews

This section discusses the reasons for choosing individual interviews over other data collection methods when conducting studies using the generic qualitative approach. Interviews allow people to be the subjects of the research, by telling their stories in their own words (King and Horrocks, 2012). Using interviews allow participants to talk; while the researcher would be able to ascribe meaning during analysis, keeping the broader aim of the study in mind. Looking at the exploratory nature of this study, individual interviews generate in-depth, rich and informative data, and provide access to those subjective perceptions of the participants, which may be less accessible through other means (King and Horrocks, 2012, Low, 2013).

During the initial planning of this study, consideration was given to the use of Focus Group Discussions (FGDs) for data collection, as all participants belonged to a homogenous group and may have shared a specific set of issues associated with puberty (SilverMan, 2011a). However, this study was culturally sensitive and it was assumed that the researcher might be unable to get a reasonable number of young males in the same room to share their personal experiences. Puberty experiences are those that are considered very personal experiences and therefore, looking at the associated risks to confidentiality, FGDs were not considered as the best approach to be used in this study.

Therefore, individual interviews were the most appropriate to investigate this sensitive topic, with an assumption that in Pakistani culture, young males would perhaps express their puberty experiences more comfortably in a one-to-one interview (SilverMan, 2011b, Elmir et al., 2011). Other benefits of individual interviews include the encouragement of sharing personal thoughts on sensitive topics, participants' attentiveness to the questions being asked, and a researcher's opportunity to gather a non-verbal feedback (Murphy et al., 1998).

3.2.3.2 Semi-structured interviews

There are three types of qualitative interviews: informal/unstructured; guided/semi-structured; and formal/structured (Holloway, 1997). There are various views on which type of interview should be chosen for a particular qualitative study based on the study aims and objectives. King and Horrocks (2012) suggests unstructured interviews as the preferable mode to conduct research on sensitive topics. However, though unstructured interviews use the most open-ended approach and start with general questions, there is no guide to assist the researcher in the interviewing process. Surplus data may be generated, with different patterns and structures, making analysis more difficult and time consuming (Patton, 2002, Denzin, 2005). In addition, unstructured interviews are inappropriate when the research goals are well defined and hence, could not be employed for this study. Structured interviews involve too much instruction and guidance by the researcher, which could limit the participants' responses and hinder the sharing of in-depth information.

The current research investigated the contextualised experiences of young men regarding their puberty. In the initial phase, the researcher also considered using a survey questionnaire, which is often used to collect data in qualitative studies of a sensitive nature (Flicker et al., 2010, Lee, 1993). However, it was thought that using a survey would limit the depth of information required for this study. This could occur because of, for example, participants' discomfort and fear regarding

anonymity of the information shared, inappropriate language used in a questionnaire to address a certain issue, and using closed questions, thereby providing superficial information (Low, 2013).

Using a survey therefore, could elicit pseudo-quantitative data by creating measurement from something not measured and would not produce in-depth information on puberty, and thus it was not suitable for investigating the contextual puberty experiences of young males. Additionally, a qualitative survey method, using an open-ended online questionnaire, was also considered for this study. However, using online surveys, although convenient, provide less in-depth information than face-to-face interviews, not allowing clarification or probing of interesting ideas to gather rich data (Low, 2013).

In this study, a semi-structured interview approach was adopted, as it was considered the most appropriate method to encompass major themes or questions, with prompts. The questions asked were more open-ended and were dependent on the way participants responded to the individual subject during the researcher-participant interaction. Using the open-ended approach provided participants with opportunities to narrate their subjective experiences of how puberty had influenced their lives now, as young adults. This allowed for flexibility of questioning according to participant responses. Silverman (2010) claims that the conversational environment provided through the interview interaction helps to utilise unique ways of defining

experiences, therefore, appropriate to the proposed study. In addition, using interpretivist, social-constructionist viewpoints in this study, semi-structured interviews provided an opportunity for feelings to be expressed, identification of unique experiences, and collection of in-depth data about the phenomena (Denzin, 2005).

However, to overcome the potentially uncomfortable feelings experienced by the participants, due to the sensitive nature of this research, remote interviews using the principles of semi-structured interviews, were also proposed to the research participants as an another choice of data collection strategy. The rationale for doing so is explained below.

3.2.3.3 Remote interviews

Remote interviews are comprised of telephone and online interviews in which the interviewer may be geographically or physically separated from the interviewee. These approaches are considered particularly relevant for research on sensitive topics, where the detachment from the physical presence of the interviewer could provide participants with a degree of comfort, which might be difficult to achieve in a face-to-face interview (Deakin and Wakefield, 2014). This is possible due to the interview dynamics, where, social and personal characteristics are not immediately visible, protecting participants' self-image in facing the researcher discussing sensitive topics. Hence, participants may participate more effectively using techniques suggested in remote

interviews (King and Horrocks, 2012, Elmir et al., 2011). However, remote interviews, which are online or using audio technique, can create problems of visual anonymity.

This can be overcome by introducing remote video techniques, where tone, gesture and facial expressions of the participants are partially visible and may help in building an online relationship between the researcher and participants (Deakin and Wakefield, 2014). Using remote interviews provides an opportunity to gain maximum access to the participants, where they can share their experiences with more comfort. Looking at the sensitive nature of this study, where sharing male puberty experiences with a female researcher may be difficult, remote interviews were also proposed using video technology (Skype video calling). Giving an option of remote interviews along with face-to-face interviews would allow and give power to the participants to choose an appropriate and comfortable way of interacting with the researcher.

3.2.3.4 Power dynamics of interviews

Despite interviews being considered as the most efficient way to gather in-depth information regarding participants' personal experiences, interviews can bring issues of power imbalances between the researcher and participants. While in a conversation, two people open themselves before one another in order to understand their point of view. However, research interviews, tend to begin from an unequal

point, where of the researcher initiates the interviews, generates questions, probes when they consider it necessary, and perhaps interprets the meanings from interviews according to their understanding (Low, 2013). This creates an asymmetry of power, where the researcher becomes more powerful.

In addition, investigating a sensitive subject may bring power imbalances, where the researcher is considered as an expert in the field of study, although not the case here, due to the researcher being female. This asymmetry however can be addressed by giving the participants power within the interview, in order to gain in-depth data regarding their experiences (Low, 2013). Having a positive power dynamic and a two-way relationship between the researcher and participant is important as information is exchanged between both parties and the dialogue continues (Low, 2013).

Thus, the researcher needs appropriate training in interviewing techniques, in order to overcome power issues. Having appropriate skills (e.g. building rapport and trust with the participants, using open-ended questions, active listening, using a reflexive approach and demonstrating a non-judgmental behaviour and attitude) to overcome power issues ensures that the interview process operates effectively, allowing participants to freely articulate their experiences (Dwyer and Buckle, 2009). The details regarding how power dynamics were maintained in this study that will be discussed later in section 3.3.4.2.5

3.2.4 Sample characteristics and size

3.2.4.1 Target population

This study aimed to collect puberty experiences of young males and intended to select a sample of a specific age group i.e. 18- 21 years. The main reason for targeting this age group was that younger adolescents undergoing puberty might not be comfortable and mature enough to share their puberty experiences, as evidenced in previous studies (Ahmadi et al., 2009, Flaming and Morse, 1991), particularly with a female researcher. In addition, younger adolescents might be undergoing puberty changes at the time of interview and therefore, may not be able to reflect or articulate their experiences. However, the participants aged 18-21 years are considered to be more mature, reflective and potentially having appropriate language skills to enable them to share more enriched and deeper experiences with the researcher.

3.2.4.2 Inclusion criteria

The following inclusion criteria were applied:

- Physically and mentally healthy young males aged 18-21 years, having no underlying co-morbidities.
- Males who could understand and were able to express puberty experiences.
- Males who could read and write in either the national language (Urdu) or English

- Participants who were comfortable having their interview audio-recorded

3.2.4.3 Determining sample size

This study was an exploratory study, which directed the researcher to gain the depth of data collection rather than breadth while determining a sample size (Ritchie and Spencer, 1993). While there are debates around required sampling size in qualitative research, (Coyne, 1997, Murphy et al., 1998). Patton (2002) has clearly cited that 'there are no rules for sample size in qualitative inquiry'. To provide a definitive figure is very challenging, and researchers often face challenges when attempting to decide the sample size (Patton, 2002, p.244). Therefore, flexibility in this decision was suggested, based on three available factors presented by Malterud et al . For this study, the researcher critically analysed the available perspectives in the literature to determine the sample size and considered three important factors.

One of the most important factors was the available time and resources (Holloway, 1997). The researcher was collecting data herself according to the requirement of her PhD and had restricted time to finish the data collection. Secondly, during data collection, the researcher was pregnant and wanted to finish data collection before going on maternity leave.

This research also considered the concept of data saturation or ‘the point of redundancy’, when no new information is gathered from any new sampling units (Guba and Lincoln, 1994, Patton et al., 2007). This was determined by the researcher inferring that the addition of new participants would not add anything to the analysis (Malterud et al., 2015). The point of data saturation was considered appropriate while finalising the sample size (n=22) in this study.

Along with the traditional concept of data saturation, another emerging area considered whilst determining a sample size was that of information power (IP) (Malterud et al., 2015). IP indicates that the more information the sample holds with regard to the specific study, the fewer participants are eventually required (Malterud et al., 2015). The researcher considered IP to be a useful concept and based on the listed criteria, the sample size was determined as follow: i) the narrow and more focused study aim and objectives; ii) specific characteristics of the participants; iii) using established theoretical underpinnings (interpretive-constructionist approach); iv) experience of the researcher, creating strong and quality dialogue while collecting data; and v) conducting inductive thematic analysis.

3.2.5 Data analysis method

Qualitative research, having an emerging, iterative nature requires a flexible approach to organise and summarise the data in order to answer the research question (Hansen, 2006). Choosing an appropriate analysis method within a qualitative paradigm is dependent on the specific study's epistemology, methodology, and the methods used, which determines rigour within the study.

Data were analysed using an exploratory, inductive and data-driven approach. Thematic analysis was chosen as the method of data analysis for this study; it is theoretically flexible and can be used across a wide range of research questions (Boyatzis, 1998); providing opportunity to extract various concepts related to puberty experiences of young men from their own perceptions.

3.2.5.1 Thematic analysis (TA)

Thematic analysis (TA) is used when the study aims and objectives intend to generate themes and identify meanings in the data, through interpreting and providing a detailed account of the phenomena of interest to the study (Braun and Clarke, 2013). It allows the researcher to examine salient features and patterns across the whole data set and formulate a thematic map in order to organise and report those patterns within the data (Braun and Clarke, 2013). The generation of themes is not only limited to TA, as other methodological approaches have also 'thematised' their data (Holloway and Todres, 2003).

However, unlike other approaches, TA is not linked to a particular epistemological or theoretical perspective, but rather, could be applicable to a range of epistemological positions (Braun and Clarke, 2013). In this study, TA has the theoretical freedom of interpreting data using generic qualitative methodology, underpinning the philosophical assumptions of the interpretivist-social constructionist approach. Thus, using TA offered a theoretical and methodological freedom, unavailable when using other qualitative approaches. By applying this inductive approach to data analysis, findings are data driven and grounded in the data collected. TA involves several stages and steps that guide the researcher to analyse the data logically, but at the same time, it offers the flexibility in its approach that is required when analysing any qualitative data (Braun and Clarke, 2013).

In this study, the purpose of thematic analysis was to identify patterns that would be identified through a rigorous process of data familiarisation, data coding, and theme development and revision. The data may be analysed concurrently with the data collection, as that allows for the process of data collection to be further guided by the emerging analysis, in order to identify patterns which help in taking decisions regarding data saturation (Grbich, 2007). The entire process requires immersion in the data and necessitates the ability to refine the emerging themes and hypotheses in the light of new data. This is also facilitated by continuously reflecting on the process of data collection and analysis, where personal beliefs, roles and motivations may

influence the process. However, reflecting on those personal beliefs and assumptions would help in maintaining the rigour of the analysis, where being reflexive would allow the identification of those factors that may affect the quality of data analysis. Thus, reflexivity was used in this study as a strategy to maintain rigour.

3.2.5.2 Quality and rigour

The quality of qualitative research is judged on the abundance of the data gathered, in contrast to quantitative research, which is likely to be appreciated for its precision (Tracy, 2010). The scientific rigour of qualitative research is judged with the quality and the trustworthiness of knowledge claims that are made (Hansen, 2006). In the absence of the strategic criteria present in a quantitative paradigm, a considerable debate about the criteria that judge the quality of the qualitative research (Carter and Little, 2007, Meyrick, 2006), has developed. This is compounded by the various and diverse traditions of qualitative work, each with their own unique epistemology, methodology and ontology.

This research has highlighted how this qualitative enquiry has used the epistemology, methodology and ontology framework, congruent with each other and supporting the methods of inquiry and analysis by using interpretivist-social constructionist paradigm. Good quality qualitative inquiry also adheres to the logic and systematic processes that are consistent with the principles of transparency and critical reflection (Meyrick, 2006, Avis, 2005).

This is aligned with the notion that a researcher must be aware of the error within a particular empirical study. Moreover, credibility is also important by demonstrating dependability, i.e. how consistent and accurate the study findings could be; transferability which examines whether the results could be transferred to other similar settings and participants; and confirmability which reflects on the transparency of the process on how findings and conclusions were arrived at, and whether study objectives were met (Lincoln and Guba, 1985, Holloway and Todres, 2003). The detailed account on how the quality and rigour was maintained in this study is described later in section 3.3.5.4.

3.3 Research methods

Previous studies (Ahmadi et al., 2009, Ali et al., 2004) have highlighted the challenges and constraints in conducting research exploring the puberty issues of male adolescents, due to it being a highly sensitive topic, particularly in the context of Pakistan and other similar cultures. Considering the sensitive nature of this research, the research methods were adopted using pragmatic approaches, which were suitable to fulfil the research objectives and at the same time ensured the researcher's safety.

3.3.1 Study procedures

3.3.1.1 Public participant involvement (PPI)

The PPI activity was conducted between the months of June and July 2014 with young males of similar ages and cultural backgrounds to the study participants in order to facilitate and guide the researcher in the process of data collection. For this purpose, two focus groups were conducted with eight international students from the University of Nottingham, one focus group comprised of two and the other six participants. Those participants were included in the focus group using the inclusion criteria: age between 18-25 years and having a background from either Pakistan, India, or Bangladesh (i.e. South Asian background)

Both focus groups had a mixture of participants from either two of or all three backgrounds. This criterion was set because young males with

similar age and cultural background might have helped the researcher to approach potential participants in the field. The focus of the PPI activity was as follows:

- To gain feedback on the interview schedule developed in order to maximise the data collection process
- To seek guidance on approaching young males to facilitate the recruitment process
- To discuss some practical strategies that would help in the interview process and facilitate the researcher in gaining more in-depth and contextualised puberty experiences in the field

There were no major changes made in the planned research methods based on PPI activity. However, the researcher applied the suggestions and advice given by the PPI group, which facilitated the recruitment process and maximised data collection. For example, if participants became hesitant, the researcher asked direct questions related to their voice changes and how they felt regarding that time. This approach was advised by PPI activity, to break the silence, implying that these techniques were useful in gaining more enriched data, by making the participants comfortable to talk about their personal experiences.

3.3.1.2 Ethical approval

Ethical approval was obtained from the University of Nottingham Faculty of Medicine and Health Sciences research ethics committee in August 2014 (Ref no: OVSa14082014 SoHS PhD) (Appendix 4). The ethical considerations were discussed with the respective study sites in Pakistan and the official permissions from a private university and a scout group were obtained between July and September 2014 to conduct the study (Appendix 5).

3.3.2 Study settings

Due to the sensitive nature of the research, as well as the political and economic sensitivities in Pakistan, the safety of the researcher was under consideration while identifying study settings for data collection. Therefore, the researcher used pragmatic ways and approached sites familiar to her from her previous professional background, as she considered those sites safe to conduct the study. Through the researcher's previous contacts, secure access was available to these study sites, where a significant number of young males (approximately 250-300) were potentially accessible for recruitment purposes (Appendix 6).

3.3.2.1 Study sites

This study was conducted in an urban city of Pakistan (Karachi). There were two sites used for data collection: Site 1 was a private university in Karachi, which comprised of both medical and nursing students, and site 2 was a scout group in the Garden-East region of Karachi.

3.3.3 Sample size and sampling procedures

3.3.3.1 Sample size

To ensure gaining the perspectives of various participants' contexts, the sample was selected from two sites, since participants came from various socio-economic contexts. Initially, the study aimed to recruit a maximum number of 30 participants aged 18-21 years to participate in the semi-structured interviews, either face-to-face or using remote techniques (Skype and telephone). However, keeping the data saturation concept in mind, when there was no new information shared by the study participants, 22 interviews were completed. The decision of recruiting no more participants after 22 interviews was undertaken based on the discussion provided in previous section 3.2.4.3 of this chapter, illustrating how sample size was determined.

3.3.3.2 Sampling strategy (convenience and snowball sampling)

In qualitative research, different forms of sampling are available. In this study, sampling was carefully considered looking at the sensitive nature of the subject. Existing literature supports that the idea that male adolescents going through the critical period of puberty transition are

least likely to share their experiences comfortably due to the sensitivity of the topic (Ahmadi et al., 2009, Flaming and Morse, 1991). The more sensitive the subject under research, the more difficult sampling becomes (Lee, 1993). Thus, in order to maximize the recruitment to the study, a combination of two sampling methods were used, these being, convenience and snowball sampling.

Convenience sampling is the most commonly used non-probability sampling in qualitative research, which is easy, simple, practical, fast and convenient for researchers to investigate the phenomenon of interest (Patton, 2002). It is a sampling technique, which relies on collecting data from potential participants, who are conveniently available to participate, and to whom the researcher has convenient access. In this study, pragmatic decisions were made to speak to the older boys aged 18-21 years who were approached conveniently for a number of reasons as follow:

- The ethical challenges of speaking to boys who are in the puberty transition
- Whether boys undergoing through puberty transition at the time of study could articulate all aspects of their puberty experiences that the researcher was trying to investigate
- Older boys being easier to sample together with their ability to reflect back on their experiences and think about what was difficult or easy, what might have helped them and what

promoted a healthier experience

- From the scientific point of view, this age group would provide information on long term impacts of puberty, since they would reflect on their experiences from adolescence to young adulthood, which might be more useful for generating new insights
- Having nursing and medical educational backgrounds would provide participants (those in health professional fields) appropriate language to share and articulate their puberty experiences more comfortably and facilitate in data gathering process.

Once initial recruitment was established, further enhancement in the recruitment of participants was achieved through snowball sampling (Coyne, 1997). Participants selected through snowball sampling might have minimised the bias arising from convenience sampling (Bellamy et al., 2016). In snowball sampling, participants are asked if they know of any members of the group of population under investigation who may be willing to participate (Mason, 2002). Thus, young male participants were asked to pass on study invitations to other young males of their age, who may be interested in participating and had insight into the research question. As a result, one additional participant was recruited. Through using these sampling strategies (i.e. convenience and snowball), the researcher was flexible in recruiting participants, as it provided a pragmatic approach to recruit population who may be hidden

or hard to reach (Bryman, 2008).

3.3.4 Data collection process

3.3.4.1 Access and recruitment process

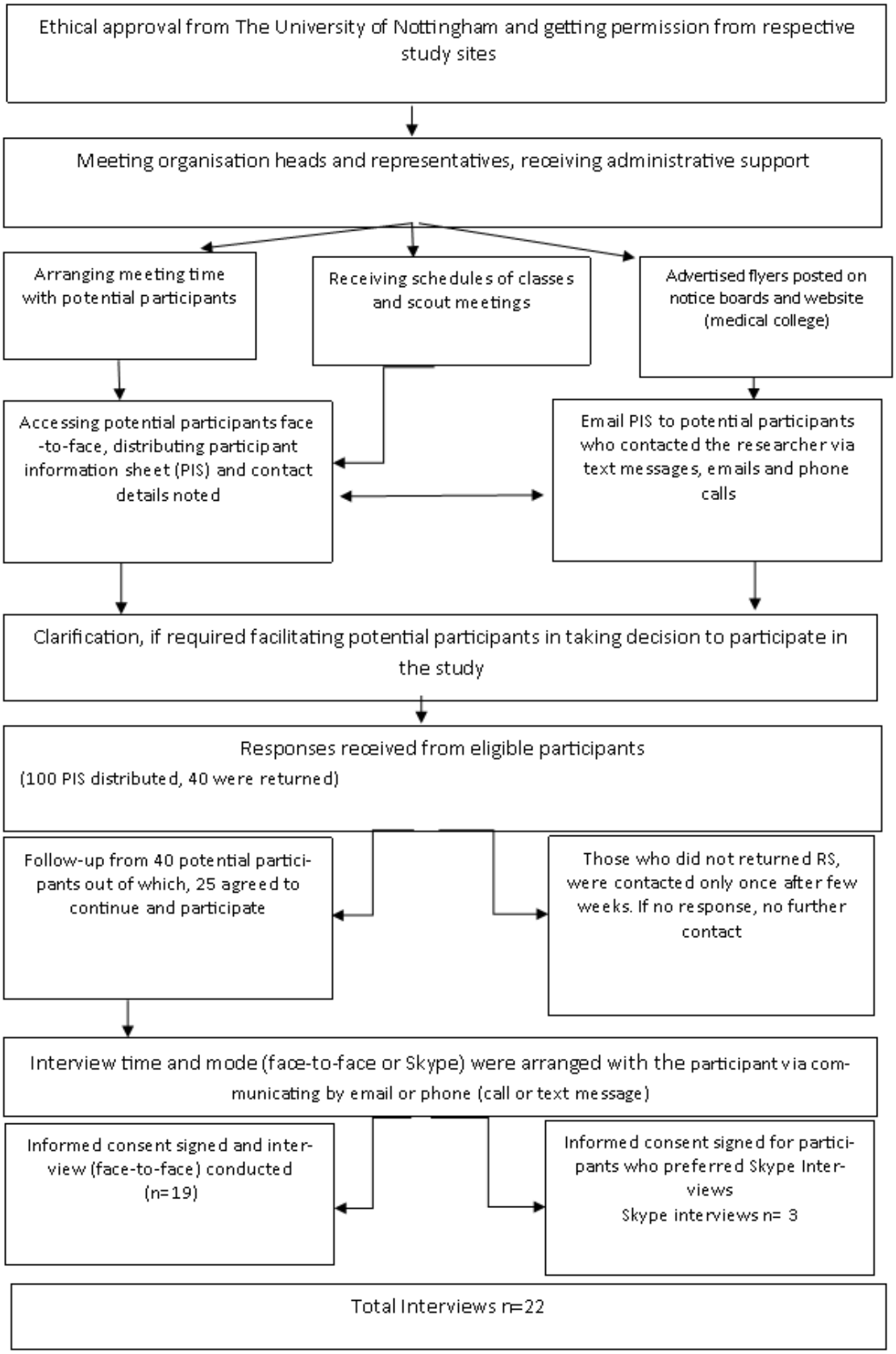
As soon as the ethical approval and formal permissions to access the study sites were obtained, the researcher initiated the recruitment process. In order to facilitate this, the researcher organised meetings with the departmental heads of the organisations being accessed. The heads to access the participants granted permissions, and they agreed to provide the administrative assistance for further adjustments of logistics in this study. In this regard, lecture schedules for the nursing students, exam schedules for medical and nursing students and meeting timings of scouts were shared in order to access them for recruitment.

Other logistic support given were: a building access given to reach scout participants, a separate room provided within the university for free movement between interviews and recruitment process, and rooms provided within the university and in the scout office to conduct interviews. In addition, the administrative staff also were aware of when and where the interviews were conducted and did a follow-up with the researcher after the interviews finished, to ensure the researcher's safety. Posters highlighting the study were displayed on the noticeboards in both sites and on the official medical school website to enhance recruitment. Administrative assistance was provided to display

the advertisement poster (Appendix 7) in each study site. The recruitment process is shown in Figure 3.

While undertaking recruitment for the study, participants' information sheet (PIS) (Appendix-8) were distributed among all the potential participants. In addition, independence of the research and conflict of interest was explained to the participants i.e. the research is a PhD project, self-funded and not under the influence of any grant or political body. The gift voucher and certificate of participation was provided to participants for their time given in the study. This was undertaken with due consideration from an ethical perspective, where the intention was not to manipulate the participants to gain information regarding the research objectives but to show gratitude and appreciation by the researcher for participants given their time.

Figure 3: Recruitment Process Flow Chart



3.3.4.2 Interview process

Following receipt of the informed consents (Appendix-9) face-to-face and skype interviews were conducted between September and December 2014, adhering to the study timeline (Appendix-10). Each interview began by re-confirming the participant's willingness to be involved in the study. This was considered important as it was recognised that the young men might have felt obliged to continue in the study because of the perceived institution or researcher's expectations. A demographic profile sheet (Appendix-11) was completed at the beginning of the interview. This also allowed an opportunity for the researcher to build rapport with the participants at the start of the interview.

3.3.4.2.1 Face-to-face interviews

The initial two face-to-face interviews served the purpose of pilot interviews, though they were later included as part of the main data collection. This gave the researcher an opportunity to reflect on and improve interview skills after the initial transcripts and preliminary analysis of these early interviews were shared with the research supervisors. The meetings were arranged to conduct the face-to-face interviews at the time and places suitable and convenient for the participants and deemed safe for the researcher.

Most interviews were held within the university and scout meeting rooms during their operational working hours (i.e. 8:00 am-5:00 pm and

6:00 pm - 9:00 pm for university and scouts respectively). There were two interviews conducted at the researcher's cousin's home keeping in mind the participants' comfort and maintaining confidentiality. This adaptation was due to the scout's meeting room being unavailable when some participants were available for interviews.

3.3.4.2.2 Skype interviews

Skype interviews were conducted later when all the face-to-face interviews were finished. Some participants indicated they preferred to be interviewed via Skype when recruited and arrangements were made according to their preferences. All the Skype interviews were scheduled once face to face interviews were completed. However, the consents for those choosing skype interviews were completed in an initial face-to-face meeting, except for one participant who consented via email correspondence. Skype interviews were scheduled when both the participant and researcher would not be disturbed, due to the technical issues with conducting a virtual interview.

3.3.4.2.3 Interview schedule

All the interviews were conducted with the help of an interview schedule (Appendix-12) which consisted of broad open-ended questions with prompts, to allow the emergence of an open and detailed discussion from the participants. The schedule was constructed from the research aim and objectives, previous knowledge the researcher gained from reviewing the literature, based on her professional background, and the inputs from the supervisors. This

tool was originally designed in English, in the field the English language was mostly used, since participants were able to understand and speak in English. However, the tool was translated into the Urdu language and was used for those participants who required any clarification during interviewing.

To ensure the reliability of the interview schedule, the researcher's supervisors, PPI group participants and the ethics committee of the University of Nottingham, which reviewed and approved this research, reviewed it. In addition, institutional bodies who issued official letters to conduct the study also reviewed the interview schedule. The questions asked from the interview schedule were not fixed, and there were many questions, which evolved during the process of interviewing, based on participants' responses.

3.3.4.2.4 Practical details of the interviews

The consent was re-introduced at the beginning of each interview where participants were reminded that they might withdraw at any time, take a break in the middle or refuse to answer any questions that they did not wish to answer. Interviews lasted between 60-240 minutes (average 90 minutes). All interviews were recorded using a digital audio recorder in order to collect more textual data than using hand written notes. Audio-recording in this study facilitated the interview process and allowed the researcher to return to the recorded data at any time during the research process (King and Horrocks, 2012).

Although, permission to audio-record was within the consent and this was also an inclusion criteria, before commencing interviews, participants were asked again about audio-recording and the recorder was kept closer to the participants to give them ownership of controlling their recordings. However, the information captured through audio recording was not a complete representation of what took place in the interview; therefore, the researcher took hand written field notes to record non-verbal interactions, from the interview. These field notes were written during and immediately after individual interviews to avoid memory deficits and any discrepancy of the data gathered. Along with field notes, reflective diaries were written throughout the research process (Grbich, 2007). This data was used for the researcher's own reflections and when undertaking reflexivity in order to maintain the rigour of the study.

In addition, interviews were conducted in a friendly and comfortable environment where the researcher began with a social conversation, building a good rapport with participants before asking about puberty experiences. Participants were provided with time in the form of pauses and breaks if required, to help them share their puberty experiences and feelings with the researcher. The details regarding reflecting on the researcher's role during research process and how it may have influenced the results of this research are presented in chapter 8 of this thesis.

3.3.4.2.5 Dealing with power issues

In order to deal with power issues that might have occurred during interviewing, (discussed in section 3.3.4.2.5), the researcher had undertaken training on qualitative research methods and interviewing skills to overcome those power dynamics. The power imbalance issues were resolved by establishing trust and building rapport with the young males, and by cultivating strong listening and non-verbal communication skills in order to make them feel comfortable in talking about a sensitive topic.

The participants were given ownership regarding the interviewing process, which left them open to share their experiences as they wished and the audio-recorder was kept near to them so if they wished they could turn it off. At the end of the interviews, participants were asked if they wanted to add anything or if they had any questions regarding the study; thus, providing an opportunity to both reflect and break the barrier of possible hierarchical, relationships between the researcher and the participants.

3.3.4.2.6 Researcher's safeguarding

The researcher followed the policy of the University of Nottingham, entitled, 'Health and Safety Arrangements for Lone Working' also related to when working in the field (Safety Office UoN, 2012) considering the sensitivity of the topic and the political situation of the country. This policy was designed to guide the researcher to be mindful regarding safety issues when working outside university hours or in the

field. By abiding to the principles of this policy, safety measures were taken by the researcher through informing the institution administration staff and her family members regarding where (venue) and when (time) the interviews were conducted and the expected time to finish those. This was particularly relevant when interviews were conducted within the university and scout office premises.

For two interviews, a male companion accompanied where interviews were conducted at the researcher's cousin home; a family member was present in the house but remained outside of the room where the interview took place. Following these steps to ensure safeguarding, the researcher had ensured that the identity of the participants was not disclosed to any administrative staff or the family members.

3.3.5 Data analysis process

The data analysis began after arranging the collected data into verbatim notes or transcribed recordings of individual interviews, written field notes and the reflective diaries. The data was then analysed using a thematic analysis approach; the sections below detail the steps used for analysing the extracted data.

3.3.5.1 Data transcription and management

To begin analysis, the recordings were transcribed verbatim in their original interview language (i.e. either English, Urdu or bi-lingual) in order to reduce the possibility of errors and to capture the crux of the conversation (Hansen, 2006). Afterwards, the researcher translated

some of the randomly selected interview transcripts (that were in Urdu language) and all those quotes (that were in Urdu language) and were used as evidence to support the final analysis, from Urdu to English language. Having a command of both languages (i.e. English and Urdu), and in line with good practice, the translation of the Urdu transcripts and quotes were completed by the researcher (Shaw, 2013).

Despite being bilingual, the researcher followed the process of checking and validating the translation through back translation (translate back to original language, i.e. Urdu). This was completed by two bi-lingual professionals not directly associated with this project (Squires, 2009). The translated transcripts and quotes were anonymised when sending for back-translation in order to ensure participants' confidentiality. In order to ensure that the participants' experiences were fully and accurately captured in the translation process and there was no loss of meaning, the researcher used and adapted the cross-cultural competency phases suggested for translation techniques by Beaton et al. (2000) as outlined in Figure 4.

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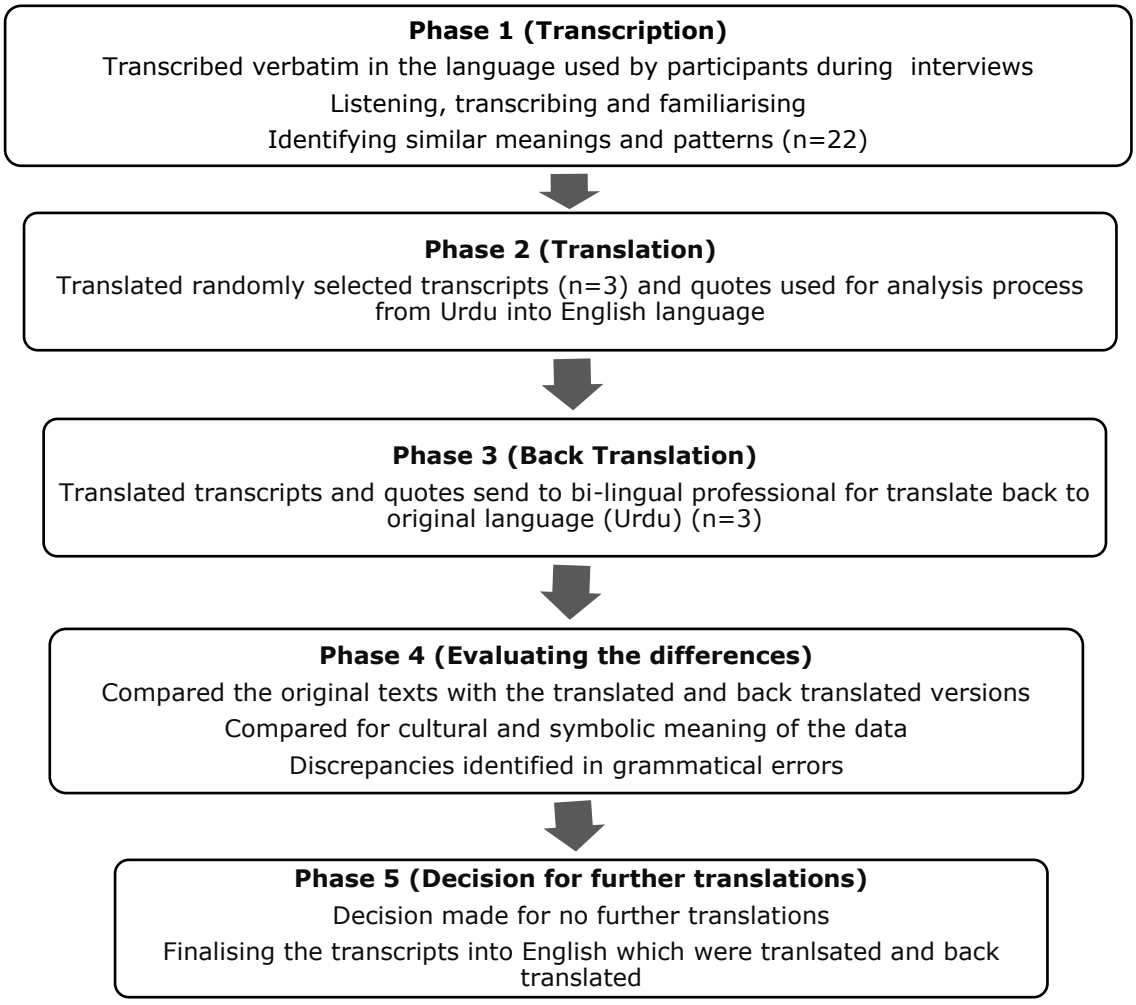
Figure 4: Cross-Cultural Competence for Translation



Source: Adapted by Beaton et al, (2000)

The researcher did not find any significant difference between the initial codes developed from the original (Urdu), translated (English), and back translated (Urdu) texts and thus, concluded that the meanings were not lost during the translation process, by following the cultural competency phases.

The research team members (supervisors) also audited a few of the English language transcripts by hearing the original audio files, being native speakers of the English language and acknowledged the accuracy of the transcription and the coding framework developed initially against those transcripts. The initial codes of the English transcripts were also compared with the translated ones and the researcher found no significant discrepancies between these versions. Therefore, it was decided to only translate some of the selected transcripts because of the time and resource constraints.

All the transcriptions were double checked for quality, by the researcher, whereby the researcher listened to the recording again while reading the transcripts for accuracy, noting aspects of emphasis and tone, and removing identifiable information, if not already completed. By the researcher transcribing, accuracy was enabled (Ritchie and Spencer, 1993); additionally increasing her familiarity and close contact with the data (Boyatzis, 1998). Thus, the researcher was making connections between different aspects of the data (Hansen, 2006) while managing and handling it.

The field notes written after each interview were inserted into the transcripts at the point of reference. These notes were the chronological diary, where the researcher kept a record of the accounts throughout the duration of the fieldwork. The field notes were the collection of the combined observational descriptions, informal chat and discussions with the participants, and personal experience and responses. It also covered part of the reflections where the researcher reflected upon the interview techniques (methods), researcher's insider and outsider role within the study, and the processes involved in analysis and presentation of the findings.

The Computer Assisted Qualitative Data Analysis Software (CAQDAS), NVivo 10 and 11 was used, and it greatly facilitated the data management process. Using CAQDAS is considered to be helpful by various authors (Saldana, 2009, Petra and Jaka, 2015), as it has proven to be useful in managing large amounts of data generated through the interview process . In addition, CAQDAS improved the credibility, validity and the overall quality of this study by providing a coding framework, which was double checked by supervisors, and reconfirmed by the researcher many times, before moving ahead in the analysis process. Further details of the data analysis process, explaining the thematic analysis approach adopted for this research is presented below.

3.3.5.2 Thematic analysis process

Thematic analysis (TA) was a chosen data analysis method for this study, since generic qualitative studies often use thematic analysis to analyse the description of the participants' experiences (Bellamy et al., 2016). An inductive process was used in conducting a TA, where coding and theme development were directed by the content of the data obtained through rich and in-depth semi-structured interviews (Braun and Clarke, 2013). The patterns in thematic analysis were identified through a rigorous process of data familiarisation, data coding and theme development and revision. The researcher has presented how the thematic analysis was performed in this study, adhering to the guidelines of Langdridge (2004) cited in (King and Horrocks, 2012), which described three stages involved within thematic analysis. These three stages involve several steps, and the researcher adhered to the guidelines described by Braun and Clarke (2006) in following these steps. The brief description of the steps undertaken in this study to conduct a thematic analysis are outlined below.

3.3.5.3 Steps involved within thematic analysis

3.3.5.3.1 Stage one: descriptive coding

This stage involved three steps: (i) familiarization with data, (ii) highlighting emerging patterns and (iii) generation of descriptive codes. During this stage, keeping the research question in mind, the researcher focused on the descriptive accounts of the participants rather than getting involved in any sort of interpretations.

In this study, the researcher herself did the data collection and transcription, thus the initial analytical thoughts were recorded after each interview and the researcher started to familiarise herself with the data by transcribing. Since the formal analysis began once all the transcriptions were completed, the researcher familiarised herself with the data through reading and re-reading all the transcripts again, which helped the researcher to immerse in the data and gain a deeper understanding.

This reading was done without coding the data, since familiarisation of the interview texts, as a whole together with the contextual background was important, in order to understand how participants perceived the experiences of puberty and what patterns were emerging in these experiences. Repeated reading during the analysis also facilitated the decision of whether data-saturation had occurred (Bird, 2005).

In this study, this initial reading was not informed by a theory, rather data were taken as the sole source of deriving meanings, (Braun and Clarke, 2013). Using an inductive approach allowed the researcher to scrutinise the data objectively, by having no conscious application of themes from previous literature, but rather, the researcher remained open to emerging codes and themes as progressing with TA (Boyatzis, 1998). In this regard, reflexivity was also used to overcome the bias that may have been generated from previous knowledge and roles, and thus, analysis was performed ‘blind’ and rooted primarily within the

data.

While actively reading the transcripts, the researcher moved to the next step, by highlighting points and making notes on the emerging patterns of the puberty experiences (Braun and Clarke, 2013). This was undertaken directly in NVivo software, where the researcher highlighted the texts and added preliminary comments on the NVivo file where transcripts were retrieved during the data management phase.

In the final step of this stage, ’code-generation’ started, where the researcher used the preliminary comments made with highlighted text to define descriptive codes. It involved generating succinct and self-explanatory labels (codes) that identified important features of the data. The entire data set was coded with descriptive codes, where codes were briefly described and labelled. It is worth noting that sometimes a segment of text was coded more than once and even the same text could have more than one descriptive code. Once the initial descriptive codes were labelled, the researcher revised the codes, as overlap between initial coding was inevitable. There were often different languages used for the same code, thus the duplicate codes were merged and redefined when descriptive codes were revised following the guidelines presented in Boyatzis, and Braun and Clarke.

This process of defining, applying and redefining codes was intensive and the researcher went back and forth in the data to finalize descriptive codes using the ‘law of diminishing return’ in which much

time was required to make changes within the coding framework . This is the time when the next stage of thematic analysis began. However, since the stages were not strictly followed in sequence, the researcher sometimes made interpretive codes while refining descriptive codes. In NVivo the term for code is node(s), as the example of this first phase of data analysis and the generation of codes is presented in (Appendix 13).

3.3.5.3.2 Stage two: interpretive coding

In this stage, the researcher looked at the entire data set again, after a few days, to revise and re-arrange the original codes. Those descriptive codes that had similar meaning were merged together and re-formed as an interpretive code that was able to capture their meaning. Using the function of new node where ‘free nodes’ were formed, ‘child nodes’ were created under each node to organize data in the NVivo software to sort out and rank codes at this stage. The concepts were now able to relate with each other and, by merging descriptive codes under interpretive, hierarchy of codes were created. The researcher remained inductive in her approach to define interpretive codes since applying specific theoretical concepts at this stage would make the analysis blinkered, i.e. only picking up those aspects of the data that fit neatly within a theoretical framework .

At this stage, the researcher was involved in ‘fleshing out’ as many interpretations of the text as possible. Some of the interpretive codes

were also repetitive and hence they were refined and merged together as the coding progressed. All the codes at this stage were collated and there was a long and exhaustive list of codes formed which was filtered for sub-themes and themes in the next stage of thematic analysis.

3.3.5.3.3 Stage three: defining overarching themes

This is the final stage of thematic analysis and in this stage; the researcher redefined the large index of codes and started to identify patterns of specific concepts within the data set. These patterns are considered important in formulating 'candidate themes' (Braun and Clarke, 2013). The candidate themes had a centrally organising concept, which encompassed all the interpretive themes/codes; however, it was still refined and changed after looking back and forth into the data set, and in case it did not match with the research objectives.

At this stage, the researcher developed concept maps and mind map diagrams on large sheets and in computer software (Appendix 14), which then helped to merge these candidate themes into subthemes, then making main themes . This stage was similar to revising a manuscript many times before final publication, which involved refining those candidate themes based on internal consistency (internal homogeneity) and distinction of one theme from another (external heterogeneity) (Patton, 2002).

This stage required the researcher to rework and rethink regarding the thematic groupings. To make sure all the sub-themes and themes were formulated analytically, the researcher looked back at all the codes developed in the earlier stages which were part of the themes and sub-themes in the original data set (transcripts) from which they were derived. This ensured analytic rigour and enhanced the credibility of the findings. While revising, there were some codes that did not fit into the thematic category naturally and at this point in time, those codes were assigned to a ‘Miscellaneous’ thematic category.

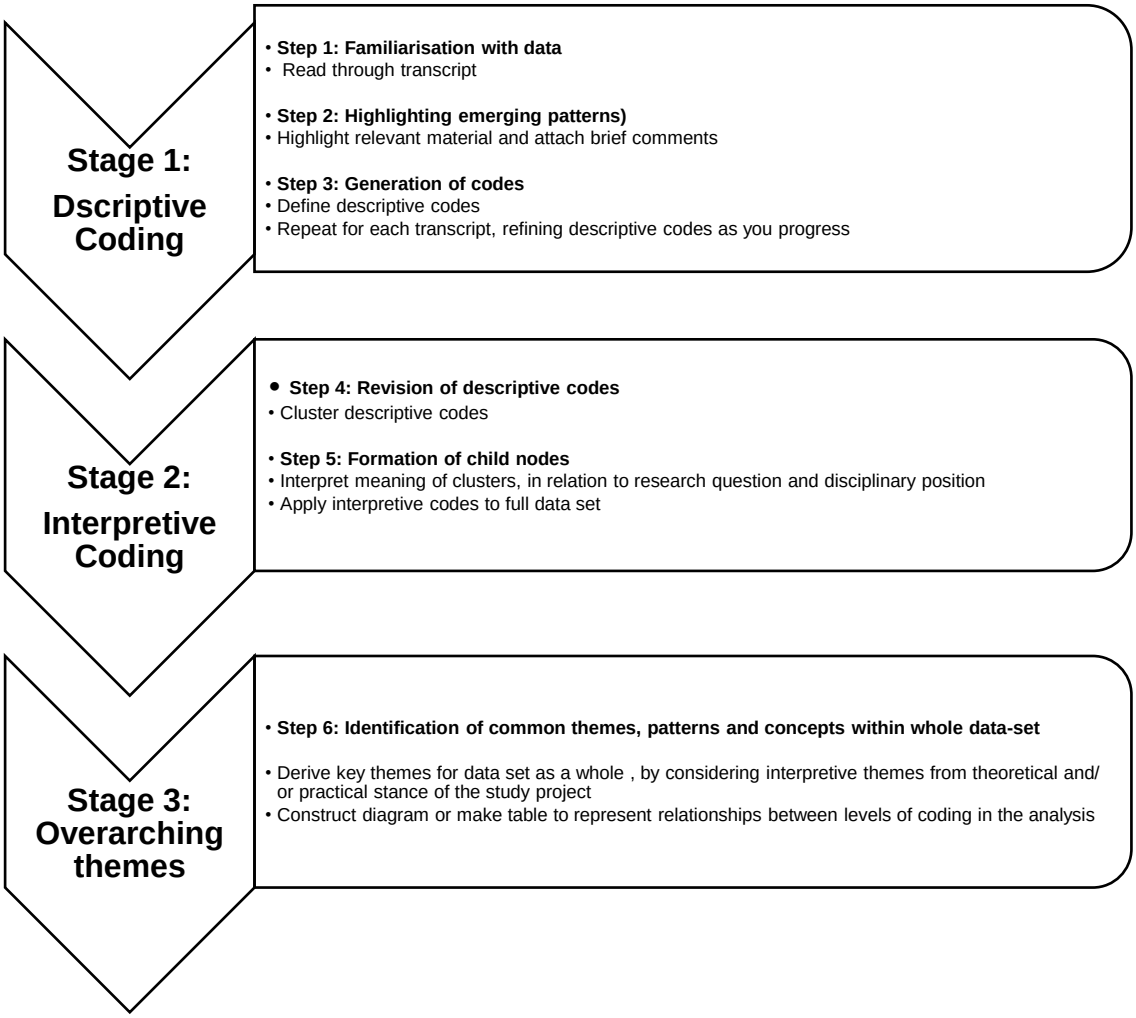
At this point, major overarching themes were identified as having a central concept that consisted of some, or a few, smaller themes. These smaller themes were distinct from each other but related to the major theme in order to be categorised under it (Braun and Clarke, 2013). This step was critical, as making distinct sub-themes was very difficult, therefore, overlaps were found on many occasions between smaller sub-themes, which after revisions and going back to the original data were categorised into distinct sub-themes. In addition, ‘miscellaneous’ theme codes were also revised, and on revision some were merged with the identified themes, some remained miscellaneous, while others formulated a completely new theme.

As a result, a thematic map was developed with final themes and sub-themes in this last stage of thematic analysis, which is discussed in the findings chapter of this thesis, illustrating the overall story of the data.

The thematic map was formed after refining these themes and sub-themes, part of the final analytical step, where the researcher again referred back to the raw data to make sure that it consistently fed into the interpretive and emergent codes and that the analysis was performed inductively. The final step of forming the thematic map was naming the respective themes and sub-themes in such a way that they described the crux of the themes (Braun and Clarke, 2013). Again, when finalising the theme names, the raw data was revisited, since it was important that the name of the theme reflected the original data (Braun and Clarke, 2013).

In addition, each theme and sub-theme comprised sufficient patterns within the entire data set, which was helpful to locate because of using the NVivo software. It was thus identified that there were two participants who were dominant in one sub-theme, hence, that sub-theme was refined against that particular theme and other data were merged to form it as a new sub-theme, keeping the old concept alive. The final thematic map, with one theme example having sub-themes and underlying descriptive codes within the sub-themes, were formed following the guidelines of (Braun and Clarke, 2013) (Appendix 15). There were three major themes identified as an outcome of this analysis, which formulated three empirical findings chapters: 5 to 7. A summary of the steps involved in the thematic analysis is illustrated in the form of a diagram (Figure 5).

Figure 5: Thematic analysis steps



Source: Adapted from King and Horrocks (2012) & Braun and Clarke (2013)

3.3.5.4 Maintaining quality and rigour in the study

Quality was maintained throughout the study procedures by making sure that the trustworthiness and rigour was maintained. It is important to maintain rigour in qualitative research due to the quality issues posed within the literature on qualitative approaches (Golafshani, 2003). One way of maintaining rigour is the researcher's own awareness of, and acknowledgement of, their positions and role that possibly could influenced the research and its findings (Berger, 2015).

There is a possibility that the researcher's position within this study and her previous knowledge and experience of teaching the subject of reproductive health in a private university could influence the overall approach. Having awareness of this, the researcher tried not to execute any assumption coming from the professional experience and theoretical knowledge or from the researcher's positions on the research. This was possible because a rigorous approach to the research was undertaken, and reflexivity was adopted. The next section explains how rigour was maintained in this study.

In this study, the researcher used the standard guidelines of Lincoln and Guba (1985) and a strategy promoting rigour, following the guidelines of Meyrick (2006), which is used for assessing the rigour of qualitative research. These guidelines were followed in this study, which are sumarised in Table 8.

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Table 8: Strategies promoting rigour in the study

S#	Strategies promoting rigour	The current study employed strategies to promote rigor
1.	Appropriate research question	• The current research's research question required description and interpretation of subjective meanings of participants.
2.	Relevant topic	• Under researched area in the Pakistani context.
3.	researcher epistemological and theoretical stance	• Reflexivity is central in situating the researcher within the study (Burr, 2003). In this study, the approach of reflexivity has been used where the researcher reflected on her insider and outsider role within this study along with her preconceived ideas and assumptions • The epistemological perspective of the Interpretivist-constructionist approach is used.
4	Are appropriate methods meeting aims and objectives of the study?	• Semi-structured interviews using face-to-face and skype technology
5.	Ethics	• Local ethics from University of Nottingham and official permissions from study settings were obtained • Confidentiality and anonymity • Participants' distress management mechanism • Informed consent
6.	Sampling strategy	• Convenient and snowball sampling • Inclusion and exclusion criteria was followed • The principle of data saturation and information power applied
7.	Data collection sufficient information	• Face-to-face and skype interviews (semi-structured approach) • Critical reflection was done
8.	Transparent and systematic process of analysis	• Data thematic analysis was following all the steps involved • It was a systematic process, followed three stages of thematic analysis involving several steps within it. • Each stage of analysis was subject to interrogation during PhD supervision and the feedback that was received assisted in reflection, development, refinement and writing of the report.
9.	Data-driven analysis and findings	• Textual data from interview transcripts quoted in the study findings • Discussion of the resultswould be integrated with current literature.
10.	Transferrable results	• Within the similar context, result would be transferable

Source: Adapted by Meyrick, (2006)

In addition, Lincoln and Guba (1985) recommend a standard criteria for assessing rigour of qualitative research based on four constructs. These include, credibility (the representation of data fits the views of the participants), dependability (assuring that the research process adapted is open, traceable and clearly documented), transferability (findings are transferable to other similar cultural contexts) and confirmability (ensured that the findings are engrained and confirmable in the data).

In this study, the credibility of the findings was maintained by ensuring that the conclusions made during the analysis process fitted with the participants' quotes illustrating their experiences. The rigorous approach of TA, where the findings were initially driven inductively (Braun and Clarke, 2013) was helpful, since it enabled generation of findings, grounded in the data. Adopting the systematic approach for data collection and analysis and interpreting them using the philosophical approach of interpretivist-social constructionism, allowed for the emergence of themes, mainly drawn from the data of the participants. Thus, using this approach the researcher did not rely on any pre-existing theories which minimised the option of collecting forced data (Mills et al., 2006).

The study's rigour was further strengthened by ensuring dependability of the research findings. This was achieved through providing a clear and detailed description of the participants' characteristics, inclusion criteria, and study context and participants demographic data.

Moreover, the methodological considerations implementation of the research design, and the operational details of data collection and analysis, along with critical reflection, was also illustrated (Shenton, 2004). This might be helpful when replicating the study, and also ensured that the findings of the study were analysed and interpreted in a particular context, which further enhancing the rigour. The strategies to ensure dependability were similar to those of credibility (Lincoln and Guba, 1985). In this regard, reflexivity was performed throughout the course of the study, to ensure the credibility of the findings.

The technique of data triangulation is helpful in enabling more dependable conclusions to be drawn on a phenomenon (Levy, 2006). While the focus of this study was to explore puberty experiences from young males' perspectives, triangulation from different data sources was not applicable in this study. However, collecting data from two different sites could be helpful. Thus the technique of triangulation was applied in this study using site triangulation, where data were gathered using two different sites (private institution and scouts), which allowed viewing the participants' puberty experiences from a diverse background.

In terms of transferability, although the research may not be generalisable with a larger part of the country due to a small sample size, the perspectives drawn from the urban population sample's data, may be transferrable to other populations with similar characteristics

(Lincoln and Guba, 1985). Moreover, by providing a detailed account of the contextual background, the researcher may help readers to understand the puberty experiences of young men, and the challenges occurring in this transition phase, in those cultural contexts in a better way.

Rigour was also ensured in the current study by ensuring the confirmability of the study findings. This was reflected in the data analysis, where verbatim quotes support the study findings. These quotes ensured that the conclusions emerged from the participants' experiences, rather than the researcher's own assumptions and motivations (Lincoln and Guba, 1985). The confirmability of this study was also attained through reflexivity, using an audit trail and providing methodological descriptions. The audit trail was performed by the researcher by being reflexive on the positions, and explaining the justification in choosing study procedures such as research methods and other methodological decisions to undertake the study in order to answer the research questions (Lincoln and Gonzalez, 2008).

Some other procedures have been defined to make studies more rigorous such as: member checking, expert opinion, or receiving feedback from those who know the research (Levy, 2006), but these were not undertaken in this study for several reasons. Due to the sensitive nature, member checking was not undertaken, as participants might not be willing to meet the researcher again post interview. If they

did meet, they might have been uncomfortable with some of the socially unacceptable aspects of data that were shared. However, at the end of each interview, a summary of their interview was provided, to which all the participants agreed, before the formal data analysis process.

In addition, an expert opinion on both the research topic and methodology was achieved through receiving feedback from supervisors in continuous supervisions, maintaining research acceptable standards. During the entire research process, the supervisors were consulted, and constantly checked and commented on the transcripts, emerging codes and themes, ensuring that the development of the thematic map was grounded in the primary data.

3.4 Ethical considerations

A researcher needs to carefully consider ethics as following all the ethical processes promotes the integrity of the research (Miller et al., 2012). The detailed and in-depth nature of qualitative research often requires personal exchange of information that brings ethical dilemmas for the researcher. Participants of qualitative research are more susceptible to psychological harm rather than physical risks, particularly when the research is conducted on sensitive topics, potentially bringing distress and discomfort to both the participants and the researcher (Elmir et al., 2011). It is therefore important to give due consideration when conducting this type of research and to think critically about how to maintain confidentiality and anonymity of the research participants at all times.

Ethical considerations of academic integrity, honesty, transparency, mutual respect, confidentiality and trustworthiness were considered carefully for preserving the rights of the participants involved in this study. The principles of medical ethics (Beauchamp, 1994), British Economic and Social Research Council (ESRC, 2012), Research Governance Framework for Health and Social care (DepartmentofHealth(DoH), 2005) and the ethical guidelines for conducting research with minority ethnic communities (NHS, 2013) were all reviewed for this study, which brought to light four key areas of ethics considerations addressed in the study.

- Beneficence/ Doing good
- Non-Maleficence/ Doing no harm
- Autonomy/ Informed Consent
- Confidentiality and Anonymity

The ethical issues pertinent to this study were therefore considered prudently, ensuring their compliance with these principles.

3.4.1 Beneficence/ doing good

This study was non-therapeutic and provided no direct benefits to participants. However, this study had the potential to provide new evidence and increase the wider knowledge of academics and policy makers that might benefit future adolescent males and improve their puberty experiences. Thus, in compliance with the principles of beneficence, participants were not merely used as a means to achieve research objectives, but in terms of helping them to reflect on their experiences, which may support for the development of future health promotion programmes.

3.4.2 Non-maleficence/ doing no harm

In addition, the general ethical principle, with regard to interviewees, is to impose no harm. The ethical approval obtained in this regard was that the evidence that the research committees had taken into consideration the costs and benefits of this study, and ensured that participants would not suffer any harm. However, there were also

strategies designed to safeguard the participants and the researcher from any potential harm and distress.

Considering the sensitive nature of the topic, it was possible that during the interview, disclosure might result in distress as young males confronted issues surrounding their puberty experiences and in recalling those, bad memories could arise, with emotional responses in their current lives (Iphofen, 2005, Haqqani and Khalid, 2012).

The researcher planned to pursue the following steps in response if any of the participants got distressed during the interview process:

- Make the participant comfortable, offer a drink, or break, re-set the interview time if possible
- Terminate interview if not coping
- Remind that the interview mode from face-to-face can be changed to Skype or telephone or vice versa
- Respect the decision in case of interviewee deciding not to continue with the participation

Prior to entering into the study field, an appropriate referral mechanism was also developed for the participants who might disclose any safeguarding issues. Participants were informed prior to commencing the data collection that any such safeguarding issues, which needed further follow-up, would be potentially disclosed with the participant's permission, to relevant authorities (including PhD supervisors, university deans, ethical bodies, institute heads). They would then

identify the local referral system for the participants to obtain professional support and guidance. The decision regarding whether or not to seek help was determined by the safeguarding concern that was being raised by the participants.

Whilst, no active safeguarding issue was discussed with the researcher in this study, two participants shared past experiences that were distressing and included active and potential abuse, suicidal ideation, and self-harm. The interview transcripts of these two participants, field notes and reflective diaries were shared within the research team.

After careful considerations and discussions within the supervisory team, it was concluded that these were not active issues and had been resolved with these two participants prior to participating in this study. The events of disclosure were related to these participants' experiences during puberty and there was no risk of harm to these participants at present, or in the near future. These two participants also reported that they sought relevant social support to overcome their distress during puberty. Thus, these two participants had taken an informed decision at the time of this study that they would not need to seek any further support, when signposted to local referral systems.

Similarly, it was important to ensure that the researcher was getting enough opportunity to learn and reflect on her experiences and obtain enough support if she felt distressed and anxious during the study period. This was achieved through continuous supervision, which

helped during the data collection phase, and the researcher's own reflective diaries, which were shared with the supervisory team.

3.4.3 Autonomy/ informed consent

abiding by the principle of autonomy, the participants were respected as autonomous individuals, which means that they had a right to make their own choice regarding participating in the study, based on their own values and beliefs (Beauchamp, 1994). In this regard, informed consent was obtained from participants before interviews were conducted, which provided openness and transparency regarding the voluntary participation in the study. Permission was also sought before commencing audio recording of interviews. This decision of giving informed consent was based on providing sufficient, and complete information about this study to the participants (Montgomery, 1998, Royal College of Physicians, 1996). Participants were provided with information in both English and the national (Urdu) language so that they could comprehend all the information provided before making informed choices concerning participation.

Further autonomy was provided to participants to select and take the ownership of their preferred mode of interviewing, and hence, it was the participants' own choice to agree upon face-to-face, skype or telephone interviews.

3.4.4 Confidentiality and anonymity

Throughout the study, the researcher assured confidentiality and anonymity to the participants. Given the small sample size and the convenient nature of sampling, it was possible that participants taking part in the study might be recognised within the findings, when their quotes were used to support the analysis (Hansen, 2006). In this regard, codes were used to limit this potential breach of confidentiality. The interview recordings and the transcripts were coded and all the participants' identifiable information (e.g., name, institution name etc.) were removed from the study findings.

Participants were assured that they would not be identified by these codes within any written report or dissemination of findings. The name of the study sites are not mentioned within this thesis, except in appendices where permission letters have been added for reference purposes. All the data including audiotapes, transcripts, and field notes were stored securely on password-protected computers and in the locked cabinet in the researcher's office at the University of Nottingham. The researcher and the team members could only access the original data and in adhering to the Research Governance guidance, data will be destroyed seven years after the study's conclusion.

3.5 Dissemination of findings

A comprehensive report on this study will be submitted as a thesis to the University of Nottingham, School of Health Sciences, and this will be an archived electronic dissertation and stored on a thesis database of the university. The findings have already been disseminated at various levels in different forums, such as local and national conferences, as detailed earlier (pp. ix-x). The abstract of the first findings chapter has been published in an international peer reviewed journal (Shivji et al., 2016). Additional papers will also be submitted for publication in peer-reviewed journals following completion of the study.

The participating institution heads will each receive a copy of the summary of the research findings, which they can share with the participants. Efforts will be made to disseminate the findings of the current research to other research bodies involved in health promotion projects, particularly in relation to adolescent males. In addition, NGO care facilities involved with adolescents' reproductive health promotion activities will also be approached, along with government facilities, if applicable, to make policy changes to schools' education curriculum.

In addition, at local level, the findings of this study may be disseminated through using mass media sources, for example, through communicating with local TV and Radio channels, writing editorials in Newspapers and blogs on common internet websites subscribed my many people. Last but not the least, social media can be used as a

good source to target young population for dissemination of the findings.

3.6 Chapter summary

This chapter has provided a detailed account on the epistemological and methodological foundations of this study. A clear rationale for the use of a generic qualitative study has been described, and in particular the use of qualitative research interviews as a data collection tool. Public involvement activities that helped in approaching the potential participants and receiving practical advice to collect more enriched data have been described. The rationale for the use of face-to-face and skype interviews was also presented in relation to collecting this sensitive information on young males' puberty experiences. Similarly, the actual process of collecting the data and the steps involved in the inductive TA have been presented. The ethical considerations and safeguarding processes were also highlighted. The next chapter presents an introduction to the findings of the research, based on the analysis conducted following the thematic analysis steps.

CHAPTER 4: STUDY PARTICIPANTS AND THEMATIC ANALYSIS OVERVIEW

4.1 Introduction

This chapter presents a brief overview of the mode of participation and the demographic characteristics of the participants and introduces the findings of the thematic analysis.

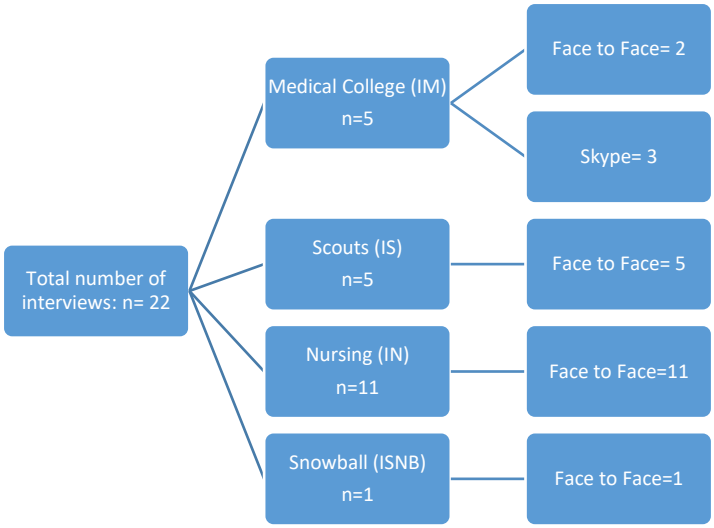
4.2 Participant characteristics

4.2.1 Mode of participation

Participants were recruited from two different environments: a scout group and a private university with both a medical and nursing students. In addition, one participant was recruited through snowballing via a nursing student. Participants' interviews were coded with distinguishable codes of IM, IN, IS and ISNB for medical, nursing, scouts and snowball samples respectively.

The participants chose to conduct the interview either face to face or by Skype rather than the third option of telephone interviews. A summary of the participants in this study, the site they were recruited from and their mode of interview is presented in Figure 6.

Figure 6: Number of study participants and modes of participation



In total, 22 participants were recruited into the study. The majority of interviews (n=19/22) were conducted face-to-face while only three (n=3/22) were conducted via Skype. Interviews were conducted in either English (8/22), Urdu (7/22) or in a mixture of both English and Urdu (7/22) languages, as shown in Table 9.

Table 9: Language used for Interviews

Language used for interviews	Participants codes
English	IM3, IM4, IM5, IN1, IN2, IN6 & IN10, IS4
Urdu	IN5, IN7, IN8, IN9, IN11, IS2 & IS3
Bi-Lingual (Mostly English)	IM1, IM2, IN3, IN4 & IS5
Bi-Lingual (Mostly Urdu)	IS1 & ISNB1

4.2.2 Socio-demographic characteristics

In total, 22 young males aged between 18-21 years, (mean age 19.7727 ± SEM 0.2346 years) participated in this study. The socio-demographic data of the participants is presented in Table 10.

Table 10: Demographic characteristics of the study participants

Participant No.	Age	Ethnicity	Siblings	Primary city (city of birth) Urban(U)/Rural (R)	Number of Years in Karachi	Relationship status	Education background
1.	19	Pakistani	3 sisters	Rawalpindi (U)	1	Single	Medicine year 1
2.	19	Karachite-Pakistani	1 sister	Karachi (U)	18	In a relationship	Medicine year 1
3.	20	Punjabi-Pakistani	1 brother	Faisalabad(U)	3	Single	Medicine year 3
4.	20	Punjabi-Pakistani	1 brother	Lahore(U)	3	Single	Medicine year 3
5.	21	Pakistani	1 brother and 1 sister	Lahore(U)	3	In a relationship	Medicine year 3
6.	20	Pushto-Pakistani	1 brother and 4 sisters	Mardan (Peshawar)(R)	1	Single	BS, Biotechnology
7.	21	Afghani	2 brothers and 2 sisters	Afghanistan (U)	14	Single	Nursing year 3
8.	19	Hunzai-Pakistani	2 brothers and 3 sisters	Gilgit Baltistan (R)	3	Single	Nursing year 2
9.	19	Sindhi-Pakistani	1 brother	Hyderabad (U)	2	Single	Nursing year 2
10.	21	Hunzai-Pakistani	4 brothers and 1 sister	Hunza (R)	8	Single	Nursing year 1
11.	18	Karachite-Pakistani	1 brother	Karachi (U)	18	Single	Nursing year 1
12.	21	Punjabi-Pakistani	1 brother and sister	Karachi (U)	21	Single	Nursing year 3
13.	21	Karachite-Pakistani	1 brother	Karachi (U)	21	Single	Nursing year 2
14.	21	Gilgiti-Pakistani	4 brothers and 4 sisters	Gilgit Baltistan (R)	2	Single	Nursing year 2
15.	20	Gilgiti-Pakistani	5 brothers and 1 sister	Gilgit Baltistan (R)	2	Single	Nursing year 2
16.	21	Gilgiti-Pakistani	1 brother and 5 sisters	Gilgit Baltistan (R)	2	Single	Nursing year 2
17.	20	Karachite-Pakistani	1 brother and 1 sister	Karachi (U)	20	Single	BDS (Bachelors in Dental Sciences) year 2
18.	20	Karachite-Pakistani	1 brother	Karachi (U)	20	Single	Nursing year 2
19.	18	Karachite-Pakistani	None	Karachi (U)	18	Single	BDS (Bachelors in Dental Sciences) year 1
20.	19	Karachite-Pakistani	1 brother	Karachi (U)	19	Single	BBA, Accountancy year 1
21.	19	Karachite-Pakistani	1 sister	Karachi (U)	19	Single	BS, Accounting and Finance
22.	18	Karachite-Pakistani	3 brothers	Karachi (U)	18	Single	Grade 11, College

All participants lived in Karachi at the time of the study, but were originally from different rural and urban sites across Pakistan and Afghanistan as shown in Figure 7.

Figure 7: Map of Pakistan showing study site (Karachi) and original geographical locations

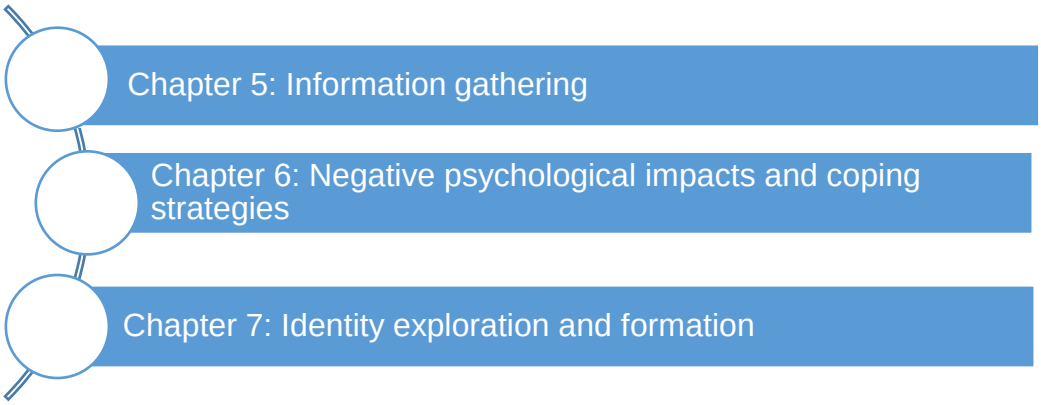
Source: (Fact Book, 2017)

These participants represent some of the characteristics that can be compared with the rest of the population of Pakistan. For example, all the participants were followers of the same religion and undergone through puberty transition within the similar conservative culture of Pakistan, considering such topics as a taboo. In addition, the educational institutions these participants belonged to, represented them being from various socio-economic (SE) backgrounds within the country (i.e. upper, middle and lower SE backgrounds).

4.3 Presentation of findings within thematic analysis (TA)

Thematic analysis of the data identified three substantive themes each of which, is presented in chapters 5-7 respectively (Figure 8).

Figure 8: Main themes of Thematic Analysis



The 'information gathering' (Chapter 5) reports on participants' knowledge and awareness of puberty. Impacts of puberty on participants' psychology and the coping mechanisms are illustrated in the 'negative psychological impacts and coping strategies' (Chapter 6) and the 'identity exploration and formation' (Chapter 7) describes how puberty impacts on the development or evolution of participants' identity.

At the start of each chapter, a simple illustration of the theme is given in order to clearly identify the sub-themes and enhance the readability of the findings presented in the chapter. At the end of each results chapter is a conclusion, summarising the findings. In order to confirm that the thematic analysis performed was completely driven by data; verbatim quotes from transcripts have been used to support the analysis and

coding performed by the researcher. These quotes are easily identifiable as they are presented in italic font style, indented within the text and are labelled with participants' codes. Throughout the findings 'chapters', the identifiable information related to participants and their locations has been coded to maintain confidentiality and anonymity.

Within quotes, round brackets [()] are used to clarify the meaning of words that had multiple meanings and were indirectly quoted by participants in their quotes. The square brackets with three dots [i.e. [...]] are used to denote text removal from a quote. The square brackets [ ] are used to denote where identifiable information has been removed to protect participants' identities. Where a participant has not finished the sentence due to discomfort or any other reasons, this is indicated by double ellipses [i.e. ……]. 'R' is used to denote the researcher and 'P' is used to denote participants' quotes. The term 'participants' is used throughout the findings and within discussion when talking about people interviewed and participants' participated in this study, however, 'young males' and 'young boys' are the term used when speaking in more general terms.

While discussing the findings, the following guide will provide assistance to the readers in order to identify the occurrence of an individual or collective idea within the themes: 'An individual' refers to one participant, 'a couple' refers to two, 'a few' references three or four, 'some', 'several' or 'quarter' refers to five to seven young males, and

‘many’, ‘majority’ ‘considerable amount’ or ‘most’ indicates more than half of the participants. On a few occasions, the exact numbers of participants is shown in round brackets [i.e. (n=)] in order to show the prevalence of a particular idea or theme within the findings.

CHAPTER 5: FINDING 1: INFORMATION GATHERING

5.1 Introduction

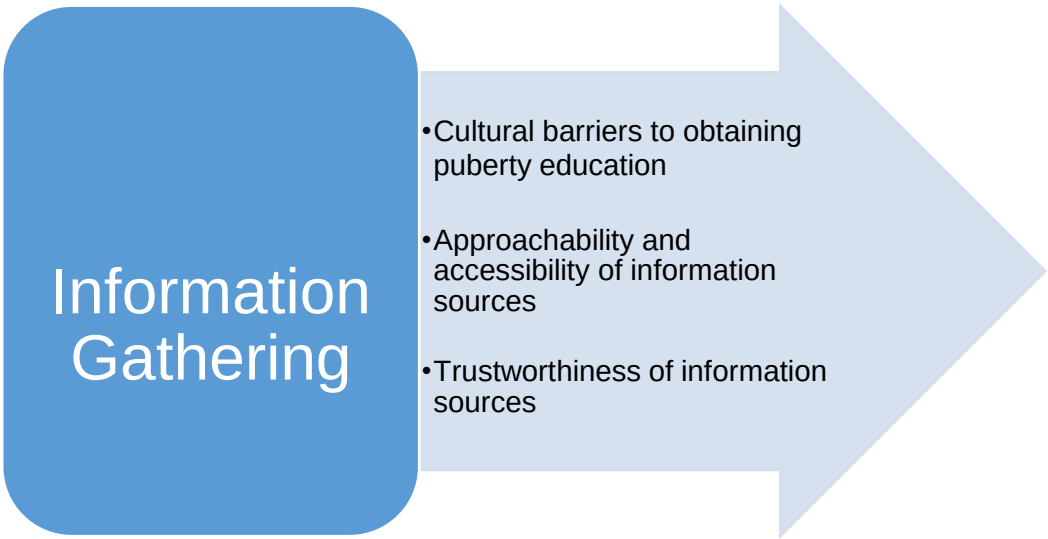
This study suggests that young boys experience information gaps in relation to puberty, and particularly in relation to physiological changes that occur at this time. This gap shaped the experiences of most of the participants when faced with the reality of puberty transition. The main aspects of concern for participants were the availability and accessibility of information sources, and the challenges they experienced in gaining accurate, reliable and appropriate information.

This chapter presents findings from the first theme, 'information gathering', which comprises three sub-themes: 'cultural barriers to obtaining puberty education', 'approachability and accessibility of information sources' and 'trustworthiness of information sources'. It presents data, which explores how participants make sense of their puberty experiences and the role of information gathering and communication during puberty transition. It focuses on the challenges participants experienced in gaining information during puberty.

The first sub-theme 'cultural barriers to obtaining puberty education' sets the context of this chapter, where it was found that the information gap on puberty exists primarily because of the Pakistani culture, which considers puberty and related topics as taboo. The second sub-theme 'approachability and accessibility of information sources' highlights issues/challenges regarding access to information along with factors

that make the sources of information more or less approachable and accessible. Here, the approachability is a concept used to describe people as a source of obtaining information (e.g. parents, peers) and accessibility is the concept used for sources that were used to gather information (e.g. books, media). The final sub-theme 'trustworthiness of sources' discusses how and why certain sources of information were considered trustworthy by the participants. The findings of this chapter are summarised in Figure 9.

Figure 9: A summary of chapter five findings



5.2 Cultural barriers to obtaining puberty education

This sub-theme documents the experiences of participants whose lack of puberty awareness and education were impacted by the socio-cultural norms and principles of Pakistan. The majority of participants were unable to get any information on puberty, mainly because of the restrictive culture, which discouraged puberty-related conversations. The term ‘culture’ in the narratives was mostly stated as a barrier to information gathering. For some participants, these cultural limitations were reflected in their beliefs, attitudes, and behaviours. Many participants shared that they were hesitant to communicate puberty and related concerns, predominantly those related to sexual development, with others. This hesitancy was created by cultural boundaries restricting participants’ ability to obtain puberty awareness and education.

5.2.1 Problematic cultural perceptions of sex

Most participants found it difficult to access puberty information due to cultural norms, according to which, people were discouraged from openly discussing bodily changes at puberty. Talking about this cultural issue, a participant quoted:

> *It’s not our culture to allow you (referring to himself) to tell you that what is the changes happening in our body like in 18 or in teenage or in childhood so some cultural issues are created (IS4).*

One of the reasons identified for this cultural norm was the negative image of sex and sexuality in Pakistani society; as a result of this,

several participants expressed hesitancy in communicating pubertal changes that were associated with sexual development. For example, some participants expressed how sex was considered to be an immoral act in our culture, particularly for those who are young and unmarried. Therefore, SRH often has a negative image in society; therefore, communicating about sex, sexuality, and SRH was seen as against the society's standards. In fact, people talking about sex, sexuality and SRH and being involved in sexual behaviours (including masturbation, and partnered sex) were labelled as indecent and unethical people with decreased moral values, as stated in the quote below:

> *The image of sex was so bad it was like a bad thing […] and because people who use to talk about sex so like were people who were no more with morality […] he (boy) would hear someone talking about sex he would just think that, that person is dirty …… (IM1).*

Relating to this, some participants shared that their family played a particular role in creating this negative image of sex and sexuality, discouraging them from exposure to media sexual content. As a result, participants considered puberty conversations inappropriate, especially when sexual aspects were part of those conversations. For example, the restriction of young people's exposure to sexual scenes on TV and on the internet was reported as one part of family culture particularly at a young age, as mentioned in the quote below:

> *My family rules and regulations even when we were young boys we were not allowed to see those things (sex related) like that certain channels, certain things on the internet, certain scenes on TV. If suddenly it (sexual scene) came so my father used to say this should be changed so one concept and image was developed in my mind that, yes this (sexuality) is wrong and when somebody discuss this thing (puberty) in the group then it clicks that my father says this (sexuality) is wrong so you don't have to see this and talk about it (puberty related sexual changes) …… (IN2).*

Here, the participant's (IN2) family controlled his TV watching, especially when sexual scenes appeared. Hence, it suggests that exploring puberty in an adult manner was limited in Pakistani culture, and may have influenced puberty awareness of participants.

As an example of the negative portrayal of sex within Pakistan, some participants felt that it would be necessary to remove any sexual terms from descriptions of puberty education programmes (if planned in future) so that they would be more acceptable to parents:

> *A word such as sex education might work in countries like the USA but using those, words in Pakistan probably invites more than a couple of erm glance as a fire (proverb used means: asking for problems). […] it's best to word it in a way that sound scientific, that sounds erm non-judgemental, […] wording the whole mmm programme is going to be important […] such terms (e.g. sex education) were avoided for the sake of parents and that will be the very good idea (IM3).*

In addition, many participants described how the religion followed by most of them (i.e. Islam) may have contributed to the culture of negative perceptions of sex and puberty and the problems this caused for awareness. For example, a couple of participants reported that these religious values considered conversations on puberty inappropriate, as mentioned in a quote below:

> *In Islam talking about this (puberty) is like a taboo and not important (IN7).*

This problematic cultural perception of sex and dominant religious beliefs about sex and immorality may have hindered participants' ability to communicate and obtain puberty education.

5.2.2 Communication barriers due to cultural sensitivity

The data has shown that that due to these cultural values and religious beliefs, puberty was considered a difficult and restrictive topic to be communicated between participants and elders. Thus, participants showed concerns that they might never have any effective communication on puberty with their elders (including parents and siblings). Commenting on this, participants mentioned that they were not informed by their elders about puberty related changes. In fact, when those changes start appearing, some of the participants expressed their fears that due to the cultural barriers, they could not communicate about those changes with their elders, thinking that elders might not appreciate talking about puberty related changes with them. Relating to this, one of the participants mentioned in the quote below:

> *This was because of the communication barrier so I could not openly talk to my brother or father because he (brother) was older than me so maybe he would scold me, this was the perception in my mind that if I talk about it (puberty) he will be upset as I am younger than him, our culture does not allow such communication with elders. So these were the values in culture and that was the main barrier that I could not communicate regarding my puberty with them (IN11).*

And another commented:

> *Of course, parents did not tell because of the cultural issues and because of the cultural system of the society of Pakistan and how people think about these things (puberty related). In my case, my parents never told me because they may have thought it (puberty) was an awkward conversation (IM4).*

Some participants speculated that the closed attitude of parents towards puberty related conversations was related to following tradition in their families. This means parents might not have received puberty education from their own parents (i.e. participants' grandparents) and thus they followed the same culture of not communicating with their children. For example, IM3 expressed this concern:

> *I didn't get information at all about puberty from my parents I guess because they (parents) have never talked about it (puberty) with their parents and so on and so forth, our society considers it (puberty) as a taboo so aa this was a one thing, they (parents) didn't talk to their parents, I didn't talk to them (my parents) (IM3).*

However, there were several instances (n=8), when parents were reported to be hesitant about sharing puberty information with their children, as mentioned in the quote below:

> *They (parents) were not telling me everything they were feeling hesitant […] they just told me I mean indirectly about it (puberty) […. (IN10).*

In addition, the difficulties experienced by participants in relation to communication with parents were particularly apparent for six participants, who lived in remote areas of Pakistan at the time of puberty. These participants described overwhelming strict cultural norms present in Pakistani villages, which affected the level of

information available:

> *Here, (in the village) the cultural background was like that. They (family members) don't tell, because they say like respect your elders and don't talk about it and like don't tell young people this (puberty) thing (IN6).*

In this narrative, the participant predominantly expressed the rural culture of Pakistan, where information gathering in relation to puberty was associated with disrespect of elders. Thus, the evidence has shown that it was not appreciated to either ask elders or inform youngsters regarding puberty.

It was because of the restrictive culture in villages, the participants' ability to deal with the physiological changes that occur during puberty was also badly affected, influencing some of their activities of daily living, as stated in the quote below:

> *In start it (wet dreams) used to come every day, so mmm means like every day like taking shower ok, it is said like be clean […] it was challenging for me because neither I was able to tell my parents that I want to take a shower, because there (in village) it is so cold that nobody take shower every day, so I could not share with them so such thing (wet dreams) was happening to me and I want to take shower […] so this experience was tough and I had many problems with it (IN8).*

As a result of their negative experiences with gaining information, participants wanted the clearer communication between adults and their children about puberty for future generations, as one of the participants put in the quote below:

> *I think the first thing that should be done is to break the communication gap between parents and children (IM1).*

Another participant wanted to see the introduction of an education programme for both parents and teenage boys at a very basic level:

> *Certain programmes should be developed and they (boys) should be brought with their parents and they should be discussed the basic physic of a male, they should know what is normal for a particular boy that is going to encounter a puberty then they will know that this happening which is going to aaaa occur in my own body is normal … … (IN2).*

Moreover, there were some participants, who expressed teachers' initiatives in providing awareness to them regarding puberty. However, it was identified that the information received was inadequate and not delivered efficiently due to the cultural sensitivity of the topic. This was particularly expressed about female teachers, as participants shared that it was considered culturally inappropriate for females to communicate and educate members of the opposite sex on sensitive and intrusive topics, including puberty. Commenting on this issue, one of the participants said:

> *The teachers have listed down the changes and puberty like what happens, how you masturbate or any of these things but aaaa it was never enough, teachers could not explain effectively because of the cultural boundaries because we were all boys and the teacher was like we were 60 boys and one female teacher (IN4).*

These findings from the above sections demonstrate that the need for puberty education was fundamental for participants during puberty. Central to this was the role that socio-cultural, familial and religious values played in shaping the expectations, needs, and experiences of participants during puberty.

As the data shows, cultural barriers exposed participants to lack of awareness during puberty. Overcoming these cultural limitations was considered significantly important and suggestions were made to provide puberty awareness for improving experiences of future boys.

5.2.3 Importance of providing appropriate puberty education

Participants, while reflecting on puberty experiences, discovered the importance of culturally appropriate puberty awareness programmes. Relating to this, many of them expressed how beneficial it might have been if puberty education was provided using culturally appropriate measures. For example, participants felt puberty education would be better delivered by same gender health care professionals (HCPs). Participants felt these HCPs could deliver the most relevant and culturally appropriate puberty information to adolescent males:

> *Just like we have lady health workers, you know if we had mmm say male health workers you know who went and talk to boys like aged 13, 14 and 15 in every district and community and that would be sufficient …(IM5).*

> *For boys, if they feel comfortable for boys and if they don't feel comfortable like culturally then we should call some male specialist and then talk to them (IN11).*

Most of the participants in this study proposed a variety puberty awareness programmes (e.g. school-based programmes, parent-child awareness, community outreach programmes, online training sessions) that would help future adolescent males to understand all aspects of puberty, and emphasised that such programmes need to keep social and religious guidelines in consideration. An awareness of societal

perceptions and religious teaching will help formulate future programmes on pubertal changes, and facilitate understanding of this phase more effectively, one of the participants said:

> *I think from my viewpoint, awareness programmes should be there to make one aware of the physical and mental, psychological changes they are expected to go through during puberty […] it should be discussed and people should know what our society dictates, what religion dictates […] it would help a lot (IM2).*

While communicating the socio-cultural restrictions present around the topic of puberty, a quarter of participants expressed how initiating a research on this topic (in a country of a restricted culture) may improve puberty awareness. The participants felt that through this study, improvement can occur by bringing greater culturally appropriate awareness of the subject to future generations. Commenting on the importance of puberty awareness according to a particular culture and through empirical evidence, one participant mentioned:

> *Like there should be an article or research work like as you are doing research work in this country where no one willing to talk about it right? It's a good thing so then after that, you will analyse your result and you will explain to the world that these are the findings of boys in this particular culture […] it will be beneficial to our children so it's a good thing (IN6).*

Moreover, alongside providing culturally appropriate puberty education, a few participants specifically focused on giving puberty education according to participants' maturity level. Thus, participants acknowledged that age-appropriate puberty education could provide better comprehension and understanding among young males. Commenting on the importance of age-appropriate puberty education

participants said:

> *Everything should be told at right time, if this (puberty) experience could have been communicated at birth erm or a very young age, they (young boys) would have different perspective […] when I was a kid I was not mature enough but I came to teen, I got bit mature so I could handle these thing …(IS5).*
>
> *9th and 10th or even if 8th class as well we teach students so like they will be that much mature, till they reach 8th so he develops some sort of understanding […] So in this age we give them a session… (IN9).*

While these findings demonstrate that there were cultural barriers to obtain puberty education, participants' accounts indicate the importance of providing puberty education, keeping these social, cultural and religious values in mind. Thus, many participants proposed the importance of providing culturally and age appropriate puberty education in the future. However, in the absence of any current well-developed awareness programmes, participants were forced to obtain information for themselves from various resources. The following section will discuss how participants approached various available sources, despite the influence of socio-cultural challenges.

5.3 Approachability and accessibility of information sources

This sub-theme captures participants' experiences of actively seeking out information for themselves, in the absence of formal puberty education:

> *…I felt that this must be known to me but no one had taught me like that, no one guided me, no one talked with me [..] so I learn this myself…… (IN3).*

The data analysis revealed that the participants approached and accessed multiple sources for obtaining information on puberty. These sources included: peers (i.e. friends, siblings, cousins); media (i.e. internet, TV, videos); parents and teaching materials (i.e. books and lectures). This sub-theme presents participant's reasons for approaching particular sources over others, which related to the accessibility and approachability of these sources

5.3.1 Feeling comfortable in approaching people for information

The most important element that appeared to facilitate participants in approaching puberty education was feeling comfortable with people from their surroundings. This level of comfort impacted on the majority of participants' communication with their parents:

> *At that time, I shared like I asked about my pubertal hair side like with my father […] I was a little bit comfortable, I use to make round and round and then talk to dad about this (puberty). Like I beat about the bush (proverb) and so talk one and another thing first (IN5).*

The participant appeared to be hesitant in communicating about his puberty changes with his father, although he stated to be slightly

comfortable with his father and therefore, approached him. In contrast, some of the participants (n=6) mentioned having intimate conversations with both parents. Most of them (n=4/6) recounted being more comfortable, and having a friendly relationship, with their mothers:

> *I and my mother have always been best friends, with mother comfortable, so told her (IM2).*

The reasons stated behind the increased comfort level with mothers were the trusting relationship and close bond with them:

> *…if any type of problem, my mum makes it solve for me […] if I have any problem she only takes out a solution […] until now whatever problems (in terms of puberty) I have faced I go to my mother as I am too close to her…… (IS3).*

Due to this close relationship, the participant felt he could trust his mother to help him with life's challenges, including puberty, His trust in his mother made him accept at face value the accuracy of the information she provided. For example, when she provided information about acne, he believed his mother and felt content with the information provided:

> *Regarding this (acne) I asked my mum […] my mum made me satisfied that this (acne) also happens in puberty. So like there was a trust in mum so like whatever she says, […] whatever she told me was enough and I had no problems. (IS3).*

In contrast, many participants appeared to be less comfortable with asking parents for information due to the cultural barriers to openly discussing puberty discussed in section 5.2. Hence, it was suggested by one of the participants that parents should initiate these conversations with them during puberty, in order to make them more

comfortable:

> *Because they (parents) didn't start it (puberty conversation) and then I didn't feel anything to talk about it with them […] so I think if the parents initiate at least talk so some level of confidence can be developed and we can talk about it (puberty) (IM3).*

This narrative implies the importance of parents' openness on puberty related conversations with participants, taking the initiative to discuss these topics and openly communicate about them could enhance young people's (adolescent males and females) comfort in approaching them as a primary source of information.

In this study, the majority of participants (n=19) approached their peers for information and mentioned they were closer to them. The reasons for approaching peers were comfort and peers' ability to provide opportunities for open communication and access to required information:

> *I was more comfortable with my friends […] my friends saying the details openly that what are the things that will happen during this (puberty) time (IN4).*
>
> *In our friend circle, these secondary changes use to often openly discuss that this (wet dream) happens in puberty… (IN9).*

These findings indicate that the openness of peers made participants more comfortable with them, hence they may trust these people (peers) so then they discussed puberty with them.

In addition, a few participants (n=3) reported to have a closer relationship with teachers and being comfortable with some of them.

Thus, openly communicating about puberty with these trusted teachers was helpful for participants. In this regard, one participant stated:

> *Sometimes I also erm share my ideas and explain some ideas with one of my teacher close to me so they share their idea about that (puberty) so I think that was too helpful (IN1).*

Some participants (n=9) suggested that puberty education could also be enriched by providing an opportunity to discuss these issues at home comfortably and openly enhancing the accessibility of the approachable people at home. For example, one participant shared his perspective on how a father can provide a relaxed environment for his teenage boy in order for a boy to be more comfortable to approach him for information on puberty:

> *Father should provide a comfortable environment to him (teenage boy) so that he (teenage boy) can talk about his feelings freely and communicate (puberty) so these things need to be taught (IS2).*

While participants sought people out as sources of information that were comfortable for them, they also looked out for sources they could easily access and that they felt provided them with comprehensive information.

5.3.2 Easy accessibility of information sources

In relation to the accessibility of the information sources, many participants (n=14) reported that internet was mostly used because of that ease of access to gather puberty information:

> *The internet is the best thing that gives the most knowledge through internet and erm I think that the internet is the most helpful (IN1).*

Here, the participant mentioned that he considered the internet to be paramount:

> *Yes, it (internet) is my best friend so whenever I need help I go to the internet. Internet was one the main source of communication for me because I have learnt many things in my life with that, […] so internet was a big source for me from where I got this (puberty) information (IN3).*

While many participants, including IN3 expressed using the internet as their primary source of gathering puberty information; there were about half for whom internet use was a challenging and inconvenient source of information. For example, in the case of an individual participant, the internet was reportedly difficult to access owing to the sensitivity of puberty related information. This was because the participant shared that he was afraid that family members could track his searches by looking at the search history on using shared computers at home:

> *That (internet) was not the best way, finding something out from the internet would mean that you have to keep it hush hush (hiding: slang word) that ooo mum and dad should not know about this (IM2).*

However, in some cases, unavailability of the internet contributed to a limited access to puberty information. Hence, participants reported

accessing other available sources, which they easily accessed to gather information:

> *I think the first thing was you know people talking in school was like textbooks in school, we didn't have the internet in our house at that time, I think this was in erm 2000 and erm 2008 or 2007 so when I went to my house so most of the stuff on puberty was like from other colleagues in school or the textbooks in schools so that was the major source (IM3).*

Thus, in the absence of the internet, participants (n=6) indicated using teaching materials like textbooks to gather knowledge on puberty. Due to the cultural sensitivity of puberty related issues in the Pakistani community, books were cited as providing puberty information easily both at home, or in the library, as information could be accessed through reading the materials at their own time and pace:

> *…there was a huge biology book in erm the library and I was flipping through it in the library and I came across one chapter mmm which shown male and a female reproduction […] then my parents gave me a huge encyclopaedia […] erm that had a whole chapter about the intercourse and, […] and from that encyclopaedia, I gain …a lot from there (IM5).*

Specific to this study, there were eighteen participants, who were students on science related courses and hence reported that some level of knowledge was available via biology books at schools and colleges hence easing availability:

> *Later on through schools and by taking biology subject and I read and came to know that these (puberty related) changes are the part of the conversation in a healthy manner (IN2).*

However, there were concerns raised by a few participants related to understanding and comprehending puberty and related information on SRH within the available teaching materials (perhaps both in schools

and colleges). Participants, therefore stated that they approached peers, who helped them clearly understand scientific words/jargon and information within textbooks since they were comfortable to approach them as mentioned earlier in section 5.3.1

> *We actually learnt reading from the books and did not understand it (reproductive system) as before, and we actually didn't learn from the books, we actually learnt from each other (peers) what it (Puberty and reproduction) is (IM4).*

It is clearly evident that although the information was available, the language used to transfer that knowledge seems inaccessible, and therefore participants needed help to interpret those biology books.

Furthermore, a couple of participants reported that there was either no information on reproduction and puberty related topics provided at school, or it was deliberately hidden from pupils:

> *In class 9th, in the book that chapter pages were fixed together with the glue. The chapter regarding male and female reproductive system was literally sticked with glue; we used to slowly slowly unfix it (IM2).*

> *…when we were in 9th so there was one topic of reproduction so our faculty skipped it and she did not teach that (IN7).*

Further evidence of the lack of accessible information was indicated through participants' recommendations for future puberty education programmes. Thus, suggestions were made for health promotion programmes on puberty and SRH to be developed for schools and colleges with parents' mutual agreement. In this regard, some participants indicated the need to change school and college curricular with official approval from the educational, and health authorities:

> *It (health promotion (HP) programme) can't come from NGO, or from school themselves because that can be a hindrance by the parents, parents can cause an issue, can cause a block they can say we don't want this so we don't want our kids to be educated […] if it (HP) comes from the department of health and from the ministry of education then they (Parents) have no choice so this has to come from there (IM5).*

The participant highlights the importance of the government providing a statement on issues related to reproductive health in HP and school programmes as a way of easing information gathering. Such an approach would involve higher authorities at the political level in order to address resistance from parents on the content of HP programmes on puberty and related topics.

In addition to suggesting major reforms in the education curricula; participants detailed strategies such as, introducing special classes as an extra-curricular activity at schools. For instance, providing health education and counselling services to potential students in a non-judgemental environment could be beneficial and ease accessibility of information:

> *Having a system that can recognise that the people and children are having some difficulties (of puberty) and need support that is done either through student counsellors […] I think a judgement free environment provided in schools via special education classes by aa teachers that well work in the topic or psychiatrist or psychologist know about this (puberty) and that should be the strategy that should be most commonly involved (IM3).*

As illustrated, the participant suggested the importance of involving health professionals in health education programmes planned at a school level so that the challenges of puberty with regard to communication and other difficulties could be handled effectively.

Findings in this sub-theme reflect participants' experiences on how they approached and accessed sources regarding information gathering on puberty. It also identified factors that facilitated access to sources despite cultural barriers and challenges experienced during puberty transition. Findings further show that despite accessing puberty education and various sources, challenges still existed around each of these sources. The next sub-theme will discuss the reliability of the information sources accessed by participants during puberty and what made the sources reliable and accurate for them.

5.4 Trustworthiness of information sources

In this sub-theme, the ‘trustworthiness of information sources’ in providing reliable information is explored. Trustworthiness and accuracy were important components of information gathering during puberty however, the difficulties expressed regarding access and information gathering may have directed participants’ choice of information sources.

This sub-theme evaluates what made certain accessible sources trustworthy for participants during puberty and whether the information received was reliable and accurate. From the data, four criteria are identified that made participants consider a specific source of information more reliable: trusting the person who gives the knowledge (rather than the knowledge itself), similarity in gender (i.e. experiences of other males), health care providers (trained in health related issues and were perceived to be knowledgeable) and, technology, since participants believed in the accuracy of information available via technology, such as the internet. These four criteria are now discussed in the next sections of this sub-theme. Lastly, this sub-theme describes some of the consequences of obtaining unreliable information from the perceived trustworthy sources.

5.4.1 Parents' knowledge and trustworthiness

Many participants (n=13) considered a particular source trustworthy because of the close bond they shared. The sense of bonding might have enhanced participants' trust in parents for getting reliable information during puberty:

> *Parents are the person the more you trust ok, the friends may guide you wrong may be they will make a joke on you may be they will you know they will lower down your confidence…I think parents are the most role playing part in that puberty age (IN6).*

Despite most participants reporting being close to their parents, only a few reported approaching them, as mentioned in section 5.3.1 in order to gather puberty information. This observation may be attributed to socio-cultural barriers previously mentioned in section 5.2.2 . Nevertheless, those who approached parents believed in the face value of the information obtained. This was due to the fact that several participants believed that their parents were better placed to provide appropriate and accurate information, during puberty:

> *If I share with my parents so my parents know that at this age how many bites we should give him? (talking about himself) How much dose we should give him so that he can digest that […] I guess my parents got very good grip on me and on my life that whatever they wanted to tell me at that point in time (puberty) they told me, after this not more than this I learn, not even less (IS5).*

The trust in parents to provide accurate information was stated to be much stronger. Several participants noted that although they found discrepancies, doubts or inconsistencies in the available information, when verified with some other sources; they acknowledged trusting the

information from their parents. For example, one of the participants relied on the information provided by his mother, considering it more accurate than an internet when he received contradictory information on internet regarding the same subject of puberty:

> *Because internet gave me a different perspective […] so I discussed with my mother that ''mummy I have seen this and this and you don't tell all these' 'so she said that, "I know actually that, that (masturbation) is something wrong […] and erm this (masturbation) is not a healthy practice". She told me, I trusted her and then I stopped searching on internet … (IN2).*

Here, the participant (IN2) used his mother to get consensus on contradictory online information regarding masturbation and agreed to believe in the information provided by his mother, as compared to the internet. The main reason behind believing in mother's knowledge in this particular case was that this participant's mother was a HCP.

In this study, two participants (IN2 and IM2) appeared to rely on information provided by their mothers, specifically due to the fact that they were HCPs who were perceived to possess information on puberty transition by the nature of their occupations. IN2 expressed this:

> *My mother was a Lady Health Visitor (LHV) and Midwife and she knew about all these (puberty related) things […] (IN2).*

In contrast, some participants expressed their doubts about their parents' knowledge, attitude and behaviour in addressing puberty and related topics. Hence, the idea of parents being a trusted and reliable source of information was not supported by some of the accounts in this study. Talking about this issue related to not trusting on parents'

knowledge, participants said:

> *I guess our parents are not well educated in regard to that (puberty education), […] If I talk about myself personally so my parents are not much educated like he (father) is just matric pass (tenth standard) right so like not much he knows like that how this (puberty and sexual) type of talk should be done (IS2).*

> *Parents themselves aren't sure whether it is a good thing or bad thing, they don't know the right way to talk about sex; they don't know the right way to communicate with their children (IM1).*

As illustrated, these participants expressed uncertainty about their parents' capacity to provide efficient knowledge of puberty.

Thus, it is obvious from the data presented so far in this section that some participants trust their parents' level of expertise, and some do not. A considerable amount of participants (n=14) therefore suggested planning of health promotion sessions for parents on puberty education:

> *Parents should get some education because if you are parents let's say I am like a parent then you need to give your child education regarding his or her sexuality it should be fundamental… (IN10).*

> *There also be something to teach parents that how to convey that (puberty) knowledge to their children… (IN6).*

As stated, these sessions were recommended in order to increase parents' awareness levels, in addition to improving their skills and techniques required to communicate with future young boys.

5.4.2 Male-to male advice enhancing trustworthiness

Gender was also considered one of the factors that facilitated the provision of reliable information in puberty. Participants reported relying on experiences of older men. Although only a few participants approached their fathers for puberty information, most of the participants (n=14) believed that fathers should provide information on puberty to adolescent males, (also discussed in section 5.2.2). This was because participants viewed fathers as guides for young males reflecting on their own experiences, as one of the participants commented:

> *I would really erm recommend a child that he do talk to his father because his father had experienced this thing, in his childhood […]. So like it is recommended that. Ok so father 'when that thing (puberty) happened so like in your time what happened with you?' So like now when it happened with me so 'what shall I do?', because experience counts so asking experienced person is important. (IS5)*

Some participants (n=5) approached older male friends, considering them to be trustworthy sources of information because their experiences on puberty were perceived to be comparable with participants:

> *From older friends and they use to teach me a lot from their experience (puberty) (IM5).*
>
> *He should ask or share that thing with his friends or senior friends because senior is the most important because if he, if he shares the same thing with his age mate so he will not get enough knowledge because he also going through that process right now so he should share that from seniors and from person that he can trust ok that's the most important thing (IN6).*

These narratives emphasised the need to obtain puberty information from *'senior'* friends, as they have similar experiences and hence were perceived to be able to share their experiences with younger males. On the other hand, a majority of participants (n=19) perceived peers of the same age, as trustworthy sources of information.

One of the reasons participants recounted comparing experiences with other males, such as fathers and peers (of same or different age) was to test/measure whether their puberty experiences were normal. In this regard, participants mostly looked for shared experiences with those who were a similar age group and comfort themselves regarding the normality of bodily changes occur during puberty:

> *It was just a discussion about ok 'ooo! So it happens with you (peers)' ooo that's ok, it's happening with me as well so not to worry about it. So that's the biggest thing like to reassuring and the fact that erm all of your friends were under the same stuff as well (IM3).*

Here, the participant expressed how comparing experiences with his peer reduced his anxiety related to puberty changes, as the peer reported similar experiences.

In contrast to this, some participants (n=4) expressed dissatisfaction with the accuracy and authenticity of the information provided by their peers. This information was obtained either verbally, or from movies, which were not considered trustworthy sources. Therefore, this information being received was not always seen as reliable as peers were accessing the information they were sharing from what were

considered unreliable sources. Commenting on the unreliability of the information received from peers even though having the same gender, a couple of participants said:

> *As such there was no information available, only that like whatever was told in friend circle, now even they were little bit older than our age such as, 2-3 years older so this was like that even they (peers and older friends) know things from verbal conversations as such there was not any well-developed communication pattern to them from where they gained knowledge as well (IS2).*

> *You are talking to people who themselves don't know what happening? Means what surrounding boys would know? They (peers) must know things where they would have listened or would have watched in Indian movies I mean […] or must have watched on pornography. They (peers) themselves don't know ……(IM1).*

As a result of these uncertainties, participants reported that they valued checking the reliability of the information obtained from various other sources (i.e. HCPs, teaching materials, internet etc.) that were considered trustworthy. This was because of the participants' perceptions that these sources might have appropriate knowledge, either due to being an expert in the field or perceived to provide more accurate information due to the nature of the source (i.e. technology). The next section illustrates these findings in relation to how the authenticity of the information and the sources were checked and verified.

5.4.3 Checking authenticity to verify the reliability of information sources

Lastly, apart from all the above factors, authenticity was considered as one of the important aspects in getting accurate information from perceived trustworthy sources. In this regard, the internet was used to verify the authenticity of information obtained from other sources. An individual participant reported receiving conflicting information from parents, peers and people in his surroundings, which he validated using the internet:

> *like someone told me that it (acne) is because of mmm like you are getting, these are pubertal signs, someone told me you might have done wrong (masturbation) that is why you got this (acne) on your face, and someone told me that you might have applied something wrong, […] so these were the things that no one was giving me the same information. […] I had a concern about acne relationship with masturbation so I look up on internet, thinking it will answer my query, and I got to know that it's just a myth, nothing like that I mean the people who masturbate but they don't get acne. So, it's just a myth (IN10).*

In addition, verification of information from internet sources was also done, by checking for the authenticity of websites visited. This validity was cited to be measured by the reliability of the information obtained and thus, if similar information appeared on different websites, it was considered more accurate, as the same participant (IN10) said:

> *I just you know google it and I found different sites even I check different sites. It was not like that I looked all this information just one site no not like that I go on different sites just to make it sure that every site is saying the same thing […] so that information is authentic or not so you need to confirm that as well (IN10).*

In contrast, there were other participants who doubted the accuracy of the information available on the internet:

> *The Internet is giving you anything in any direction and in any form, it may mislead you, it may be giving you a positive direction but you don't know what is good for you, what is bad for you (IN3).*

These participants therefore suggested utilising the internet in a positive manner, which seemed that it may be advisable to use the internet to gain information rather than using it for other purposes, which according to the data means using internet for leisure or entertaining activities, as stated in this example of the participant's quote:

> *Because this (internet) wholly and solely ruling the minds of teenagers these days so if they (teenagers) are using the internet in a negative way they need to utilize it in a positive way because rather creating confusions, rather being creating the puberty and that sexual changes as a part of entertainment they should create it for the purpose of education (IN2).*

Along with the internet, the accuracy of information also appeared to be challenged by accessing other perceived trustworthy sources such as, peers, parents etc.:

> *A lot of weakness happened yes maam like we like our friends told me such thing happens and a person becoms too weak and blah blah so I was understanding this like so I was thinking may be any disease happen because of this (masturbation) (IN9).*

Here, the participant mentioned a misperception resulting from information provided by his friends, who were considered the most approachable source of puberty information, discussed in section 5.3.1 Some participants who were currently training to be HCPs recognised

that often information obtained from their perceived trustworthy sources (internet, parents and peers) was not authentic and reliable:

> *I mean internet is so bad if you go and type like masturbation on internet and stupid stuffs comes like it causes blinded and it causes this and that and this is none of that and I have been a medical student and I know that masturbation does not causes any such thing […] these are the formed myths (IM1).*

> *In nursing we had the first lecture last year was on sex and it was like it (weakness in masturbation) is just a myth so it not really happens so like how much you do no matter there is no weakness that occurs (IN11).*

As a result, there were several participants, who were found valuing the background knowledge transferred from HCPs, as these professionals were perceived to provide authentic and reliable information on the puberty transition phase:

> *They (boys) value someone who is a medically professional to talk to them and to make them comfortable enough to talk about it (puberty) and tell them the correct facts about puberty and sex both, about pubertal changes (IM5).*

However, not all participants realised that the information they had received was inaccurate, especially those not under-going training to become a HCP. For example, one participant from a non-health related profession, had limited exposure to reliable sources and neither checked the authenticity of the information nor questioned the material obtained on puberty from his perceived trustworthy source (e.g. mother):

> *I did not go to see a doctor for this (acne), I asked my mother as I trust her most […] she (mother) told me that when I was born I had jaundice and that is why you have spots and pimples on your face … (IS3).*

Other than professionals, participants' showed satisfaction in accessing teaching materials and considered them trustworthy and authentic in providing reliable/accurate information, as one among few of the participants stated:

> *When I looked the chapter of reproduction in biology book it was clearly written that erm the sensations and the feelings erm sexual feelings because your sexual hormones is changing and your sexual appearance is changing so when your appearance is changing then something will release or something will change or everything will be change […] So when I read this I was like ok this (pubertal changes) is the natural thing so we can't do anything […] when I read in biology books, which I think should be authentic then I got satisfied about it (IS4).*

Together these findings provide important insights into how the reliability of the information and the sources accessed were measured by participants, who checked if the information received was authentic and trustworthy. In cases when these sources were found unreliable, and the information found was not authentic, participants shared experiencing certain consequences, which are discussed in the last section of this chapter.

5.4.4 Consequences of approaching untrustworthy sources

The outcomes of inaccurate information from perceived trustworthy sources were said to be misperceptions, myths, and misinformation regarding puberty and related changes. A participant reflecting on the accuracy of information expressed his views regarding other young males, who could be misled by obtaining puberty information from so called 'third parties': drivers (person driving a family car), guards

(security guard of the house), and religious leaders:

> *A lot of children are misinformed because a lot of, most of the boys get their information from guards and drivers […] parents are generally more acceptable than boys being educated by third parties […] fathers tend not to talk to their sons and mmm they tell to say drivers or Qari sahib (local religious scholar in mosques) to talk to them, who are not always saying right things so erm it's not ok…(IM5).*

Besides expressing their views, participants shared how myths created from these misperceptions in gathering reliable information left long lasting side effects, such as fear and confusion on minds of participants for some time during their life:

> *Almost 1 to 2 years I was living with those myths that this (ill-health effects/ weakness) happens and I use to do very little masturbation as I was very scared (IS2).*

As discussed in the previous sub-theme, participants accessed a variety of sources and considered some of them as trustworthy sources. However, not all those perceived trustworthy sources were as reliable enough to be trusted, and hence created anxiety and fear among participants.

Although the reliability of information was an important element of information gathering, the vulnerability of the information seeker was also seen to be important when accessing perceived trustworthy sources. One participant who, despite gaining knowledge from a middle-aged man about puberty, also felt discomfort for having an older middle-aged man in his friendship circle. He described an example of the vulnerability to potential abuse:

> *In my friend circle there was an aged man. I think 40 or 50 years […], so he uses to like share all his experiences of puberty and sex life with us, we (me and my friends) use to think he is a dirty man as he talks weird stuff we were not comfortable with him in our friend circle as he was like our parents age […] we were getting from him all the information we should be getting from our parents so after that when we realised he is a right person so then we use to ask him only those things that how that happened and what has happened but initially we were very uncomfortable until we found out he was right.…(IN8).*

Hence, having a man with a significant age difference to teenagers appeared to be inappropriate, as this participant shared his friends and his own experience of how they felt about this older man in the beginning, and considered him inappropriate in their friends circle. Thus, having an older male adult, who seems to be stranger, might not be considered a trustworthy source for gathering puberty information.

Another example of vulnerability was described by a participant in this study who reflected on his 'terrible' experience during puberty, where he reported being 'curious' about puberty and inquired about adult male body from an adult man, with whom he was familiar with and thus considered him trustworthy. However, in this extreme case, the perceived trustworthy source became the source of 'abuse' for this particular participant (IM5):

> *There were some terrible times when I was sexually abused […] it wasn't family but it was someone who was close so they (family friends) had access to us […] it was a male, an older male, a married male […] it was puberty so I was curious as to what he was saying, what he was offering so initially it was quite, quite a fact like it was like what it looks alike (adult man) to ease my curiosity to watch like what an older man looks like but it actually leads to actual abuse that he started touching and he started using my body … (IM5).*
>
> *It was more difficult to let someone in, it was more difficult for me to trust someone, it definitely made issue trusting people mmm because someone who I did trust completely violated it (IM5).*

The participant narrated his experience of being vulnerable to sexual abuse from approaching someone whom he considered trustworthy for obtaining information during his puberty regarding adulthood. It is also implied that getting information from a non-trustworthy source could leave the participant with long lasting negative impacts on life because of being traumatised by an unexpected incident in his life. This participant also expressed a naivety in how to deal with sexual abuse because of the lack of appropriate and correct knowledge about it:

> *I knew it was abuse because I knew what sex was, it wasn't like I was unaware erm but I didn't know what to do about it (sexual abuse). I did not know how to respond […] so we should be told about these things too like how to also respond if such thing ever happens, as I didn't know how to respond (IM5).*

Here, the participant conceded to being unaware of how to deal with sexual abuse and hence implying that creating awareness on such abusive issues would help future adolescent and young males to identify any potential vulnerability at the right time, which may help them in taking appropriate actions to avoid vulnerable situations.

Data analysis in this sub-theme highlights the importance of obtaining accurate information on puberty from trustworthy sources. Thus, it is important to understand what makes information trustworthy for young men during puberty and how important it is to obtain information, which is correct and accurate from reliable sources.

The findings also revealed that not all the perceived sources were trustworthy, as some participants reported receiving inaccurate information and thus were stated to be vulnerable to several consequences, including sexual abuse.

In order to enhance the reliability of information obtained from trustworthy sources, the need to provide puberty education, covering vulnerability issues, has been emphasised by the above quoted (IM5) participant. This would perhaps prevent the forming of abusive relationships during puberty, and hence make adolescent males less vulnerable to receive inaccurate information, thus positively impacting on their overall mental and physical health. The overall psychological effects occurred due to puberty transition and coping strategies adopted to overcome these effects will be discussed in next chapter.

5.5 Conclusion

The findings presented in this chapter highlighted the important aspects of the information gathering experience for participants during their puberty transition phase. The three sub-themes that are part of this chapter focused mainly on the various challenges, difficulties and facilitators that participants have experienced with regard to the process of information gathering.

Participants reported that there was an incomplete awareness and lack of education regarding puberty and related topics amongst themselves, their parents, teachers and other stakeholders. This was because of the cultural factors that considered puberty and related topics as taboo to discuss openly with participants. Not only this, there was a negative image portrayed regarding sex, sexuality and SRH, as well as puberty topics, also making participants feel uncomfortable about initiating such conversations with others, specifically with parents. However, perceptions were shared where culturally appropriate awareness programmes could be designed and implemented at various levels such as, schools, community and parental level in order to improve the information gathering process of young males at the time of their puberty transition.

The next two sub-themes ‘approachability and accessibility of information sources’ and ‘trustworthiness of information sources’ highlighted how the issue of lack of information and incomplete

awareness had made these participants gather information on their own. Hence, participants gathered information by approaching people they were comfortable with and accessing sources that were easily available to them. Thus, the findings reported a variety of different sources that participants have accessed and approached in order to gain information. For example, some participants approached their parents, particularly mothers due to their close bond with them, and as a result they appeared to be more comfortable with their mothers, and trusted them for obtaining reliable information.

However, some approached peers and fathers to test the normality of pubertal changes with them, as they belonged to the same gender. Despite parents being considered a trustworthy source, not all participants approached them, instead a variety of other sources were accessed, such as internet, peers and teaching materials etc. These other sources were accessible depending on their availability and accessibility, comprehensiveness and trustworthy characteristics.

Nevertheless, findings from the data analysis highlighted the importance of young men developing a trusting relationship with their parents, specifically with fathers, as participants considered them to be a trustworthy source. However, they emphasised the need to diminish the communication gap between parents and young males, in order to develop a healthy relationship. Therefore, it was highlighted that parents should be willing to share and provide information regarding

puberty to their children, provided that they themselves are fully equipped with the knowledge. It is acknowledged that parents are among one of the trustworthy sources of information gathering during puberty development phase. Therefore, providing a conducive, open and friendly environment for adolescent boys to communicate about, and gather information from their parents, is necessary for the development of the trusting relationship between parents and children, especially during their puberty transition time.

The analysis presented in this chapter showed variation in the comfort levels of participants with different sources, so, participants accessed only those sources with whom they appeared to be comfortable and considered trustworthy for getting reliable information. However, some of them (now gone into medicine and nursing professions) realised that not all of the information was accurate. But not all participants belonged to health care professions and hence, many still believed and lived with those misperceptions and myths, formulated at the time of their puberty development time. Therefore, the importance of checking the authenticity of the information, through validating the reliability of the sources, was emphasised by many participants in this study.

The lack of knowledge and awareness at the time of puberty changes and difficulty around accessing information made these participants vulnerable. This vulnerability, caused by lack of knowledge, of these participants could be harmful to them in their adult life and the

psychological effects of this will be discussed in the next chapter 6. One participant in this study reported developing an actual abusive relationship due to asking someone for information, who was perceived to be trustworthy; another participant seemed to be vulnerable to potential abuse by accessing an inappropriate person for information gathering, again considering them a trustworthy source. Whilst these may be extreme experiences, it highlights the importance of young boys having appropriate education and support in relation to pubertal changes.

In summary, information gathering is the first main finding of this study which emphasised the importance of awareness and education programmes that should be developed for future generations. As it has been discussed, the lack of awareness, unavailability of appropriate sources for information gathering and accessibility to non-trustworthy sources might increase the vulnerability for these young males. This has affected participants of the current study during their puberty period. The findings related to the negative psychological impacts that these young males experienced during puberty and adapted strategies to cope with them will be discussed in the next chapter of the findings.

CHAPTER 6: FINDING 2: NEGATIVE PSYCHOLOGICAL IMPACTS AND COPING STRATEGIES

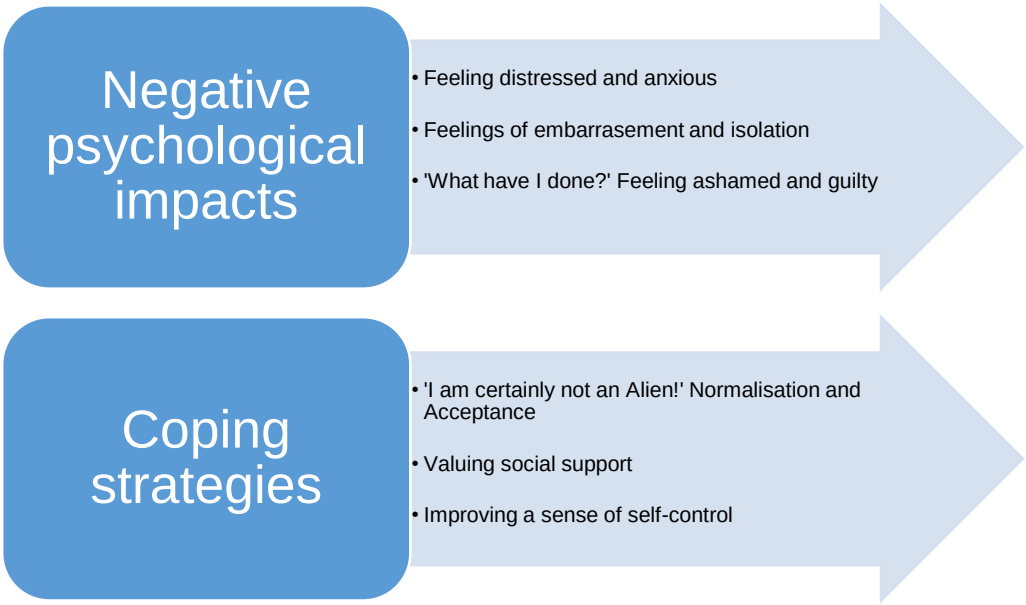
6.1 Introduction

This chapter presents findings from the second theme, ‘negative psychological impacts and coping strategies’, which comprises two sub-themes: ‘negative psychological impacts’ and ‘coping strategies’. It presents findings related to the puberty challenges causing psychological effects; alongside coping strategies that participants have used to cope with those negative emotions. The first sub-theme, ‘negative psychological impacts’ captures all the negative emotions that the participants experienced in relation to the physical discomfort around puberty. Thus, it highlights why participants felt anxious, isolated, and self-conscious during puberty and how these feelings could leave lasting impacts on participants’ psychology.

The second sub-theme illuminates ‘coping strategies’ that played a crucial role in the management of these psychological impacts. It explains participants’ experiences of techniques and strategies they have used to cope with these psychological effects. This included: acceptance of puberty as a normal process of development, using social support system and self-management techniques. It also shares participant perceptions on various strategies that could be useful for adolescent males, to help them to avoid having negative emotional reactions to puberty. The findings of each of these sub-themes are

outlined below and are summarised in Figure 10.

Figure 10: A summary of chapter six findings



6.2 Negative psychological impacts

The participants reported that the puberty transition resulted in complex psychological impacts. Some of the emotions expressed by participants to these impacts were: anxiety, fear, confusion, sadness, uncertainty, guilt, isolation and despair. These impacts were recognised as an outcome of the puberty related changes, which also included the sexual development of adolescent boys, associated with this transition period.

In this sub-theme, participants reported undergoing difficulties of managing embarrassment and shame during puberty. The feelings of being ‘alien’ and different from others also increased participants’ negative reactions towards their pubertal changes. These negative psychological impacts were expressed as a result of undergoing

sudden pubertal changes, and being unaware of how to manage them. Also, following the cultural norms, and not being aware of what was right or wrong, made them feel confused and guilty regarding some of the practices associated with their pubertal development. These issues are explored in more detail in the following sections.

6.2.1 Feeling distressed and anxious

This section captures participants' experiences of anxiety that occurred during puberty mainly due to the physical changes which were part of the normal puberty. Many (n=16) of the participants revealed a significant amount of emotional distress for the life changing effects of the puberty transition, for which they were unprepared. Participants expressed being shocked, anxious, confused and fearful while sharing their feelings on puberty experiences. The term 'worried' *(i.e., pareshan)* was used in the narrative to refer to the participants' feelings, particularly during the early phases of pubertal changes. Such worries were diverse and clearly keenly felt by the majority of participants as most were unprepared for them.

In the following quote, a participant describes the worry he felt about experiencing a wet dream for the first time, which also led to confusion. This feeling stems from the fact that no one had explained to him what to expect at that point in time:

> *I was really confused at that point, so I got worried and don't know what was going wrong […] I was found about it (wet dreams) like 3-4 years ago ya I mean even despite having that for three years I didn't know what was happening, strange, because there was no one to tell me (IM1).*

These feelings of worry and anxiety were not only limited to wet dreams, which was the most unanticipated pubertal change reported by many participants. In fact, most of the participants expressed concerns about various other bodily changes (including hair growth and acne) that occurred during puberty, about which they felt really disturbed:

> *When I turned 13, my main problem was hairs like facial hair and hairs on my other body parts for which I was not ready, I was very mmm disturbed with this […] I was constantly trying to shave them as I was really disgusted with the hair (IN4).*

Besides being unprepared, there were several who expressed concerns about abrupt and new changes occurring during puberty. For example, the participant (below) worried about acne, which was a sudden change of physical appearance during puberty:

> *I was worried about my acne problem, when suddenly it appears in my face so I mmm I visited one hakim (traditional healer) in that area and that is giving homeopathic (traditional medicine) […] I was not feeling good because before that my face was totally like clear so when it happens first so it was bothering me a lot …(IN7).*

In this account, the participant mentions seeking treatment from the traditional healer for his acne, which seemed to be his greatest worry during this period. Some participants also shared that it was difficult to accept these pubertal changes, which occurred so suddenly:

> *Suddenly when it (pubertal changes) happened some people do not accept it straight away (IN2).*

Besides the acceptance, there were a few participants, who expressed their concerns about whether the changes occurring were a normal part of their development. For example, in the case of IN8 a thorough self-assessment was performed in order to ensure whether or not wet dreams were a normal pubertal change:

> *I wonder if like something is wrong? Like I have never even seen that what type of thing it was (wet dream) so I looked then properly if there was any blood coming out? What was the thing? so confusion was there (IN8).*

His in-depth assessment, to find out if the pubertal changes were normal, could be because of the myths existing in Pakistani culture, associating wet dreams and masturbation with poor health and disease outcomes. There were a few participants who reported that they believed in these myths and presumed them to be reality:

> *Another myth that I found that if you masturbate too much then mmm you will get impotent and that again surprise and worry me (IN10).*

> *Like I got too much weakness. My friend told me that person gets too weak so I was thinking maybe I am getting any disease due to this (masturbation) […] so due to this I had a fear and concern (IN9).*

Several participants (n=8) also expressed concern about how to manage some of the changes that occurred during puberty if they were unaware of them, particularly changes associated with their sexual development. While sharing their experience of being unprepared and unaware of their first wet dream experience, participants felt anxious and remained confused regarding how to manage and deal with this particular change associated with puberty. Talking about this issue:

> *It (wet-dream) brought a lot of anxiety because I did not know what to do over there at that point in time and do I wash it? Do I not wash it? What do I do? There was a lot of anxiety because of that (wet dream) (IM5).*

In order to avoid distress due to being unprepared, participants emphasized the importance of providing timely information regarding puberty:

> *Like obviously it would be shocking for a child if somethings happen suddenly so if they know what they will be able to do about it (pubertal changes), so it's better as no negative emotions arise (IN10).*

Here, the participant acknowledged that enhancing puberty knowledge would be beneficial for future adolescent males and possibly prevent them from harmful psychological effects. The other effects which occurred due to being uncomfortable from puberty will be discussed further in the following sections.

6.2.2 Feelings of embarrassment and isolation

Pubertal changes often exposed participants to isolation because they felt ashamed, embarrassed and self-conscious about those changes. In this section, the analysis describes participants' discomfort around bodily changes occurring during puberty as participants became more self-conscious about their physical appearance. The physical changes referred to by participants included, experiencing wet-dreams, erections, descending of testes, acne, facial hair growth, appearance of pubic and chest hair, as well as height and weight gain. These were quite uncomfortable for participants and, in some instances, resulted in feelings of shame and embarrassment.

On describing puberty, most of the participants did not express pleasant experiences of the puberty transition and felt ashamed, conscious of their body, disturbed, disgusted, and frustrated. For instance, participants described being embarrassed about hair growth during puberty:

> *In puberty, we are getting some pubic hair and underarms hair comes, regarding those I had a problem, initially, I was feeling too ashamed and was getting irritable (IN5).*

These narratives indicate how pubertal changes could negatively impact on participants' psychology. Many participants considered puberty as a 'dirty' *(i.e. gandi)* thing and felt embarrassed about the associated physical changes. As a result, they shared that they adapted secretive behaviours towards these changes:

> *Initially, I felt very bad, I woke up right and it's like morning erection, my family member around so what they think of me? I started hiding […] I started taking like side position as if I am sleeping (IN10).*

> *I changed my bed sheets secretly, changed my clothes as I was not feeling good about it (wet-dream) (IN8).*

These participants exhibited uneasiness about pubertal changes, particularly those associated with their sexual development such as erections and wet-dreams, as evidenced in the above mentioned quotes. These feelings were perpetuated by family members' negative attitude towards erections, and their cultural considerations that perceived erections as an immoral act:

> *Erection is a negative phenomenon in our culture as if someone will have this (erection) so like even in family this thing will be considered wrong and outside society as well this will be considered wrong so to hide that thing we do something […], there were issues like when you wake up in morning time so problems (erection) occurred (IN5).*

This sense of increased self-consciousness also brought feelings of despair and self-isolation among some (n=6) of the participants. For example, two participants in this study excluded themselves from daily schedules and undertakings as a result of being embarrassed about wet-dream experiences:

> *Wherever you are, you are at home or you go to lunch even if you pass urine it (wet-dream) can happen this was my thinking so it led me to isolation for a time that I use to be there at home all the time, just go to school and come home […] that (wet-dream) let to me as an isolated person (IN2).*

> *I use to interact erm all alone and I use to feel low […] I didn't use to participate in any games or anything […] because of the embarrassment that if I go and suddenly something (wet dream) happen… (IN4).*

In these narratives, participants appeared to be scared of the unexpected occurrence of wet-dreams. As a result, they isolated themselves from day to day activities to save themselves from experiencing embarrassment.

Apart from this, the majority of participants in this study expressed being self-conscious about their body image, and physical appearance. Participants conveyed discomfort around certain normal growth and development changes that occurred during puberty; and stated that they were self-conscious about their appearances.

Some participants worried about not being attractive and this created a feeling of aloofness and hopelessness:

> *I just grew really conscious of myself and I actually lost a lot of confidence […] I grew so conscious regarding over weight during puberty that I actually stopped hanging out with everyone and I wanted to be left alone and I just use to spend time in my room (IM4).*

Here, the participant's body image changed following weight gain at the age when puberty occurred. As a result, his confidence declined and he felt isolated. Likewise, a few participants (n=4) raised concerns about being short in stature for their age, which impacted negatively on their body image and psychological well-being:

> *I became depressed because I have a huge issue of small height. My height at the moment is not growing taller, […] so even due to this reason, because of the short height I go into too much complex (ISNB).*

Here, the participant felt inferior and became depressed about his short stature. Some participants also reported being conscious about their facial appearance and expressed they felt low if their faces did not look as attractive as they might have desired. Acne affected some (n=5) of the participants' facial appearance and subsequently their self-esteem:

> *I can't even believe my face, and can't look in the mirror, I locked myself in the room […] as this (acne) was the horrible experience in my puberty. I was totally upset every time, it was all worst experience, my self-esteem affected, I felt alone for a couple of months so I was like I could not go anywhere I was like unable to socialise with my friends. I was not respecting myself anymore so these were the challenges that were there, it really impacts my socialization […] I was in isolation for almost like 2-3 months, I was unable to go out (IN10).*

The quote above describes how unhappy participants felt when outbreaks of facial acne occurred and how this decreased their self-esteem and made him isolated. Another participant commented:

> *I got so much acne that even going out I was feeling strange and uncomfortable, I felt that outside no one (people) will tell me on my face but from inside they (people) will laugh at me (ISNB).*

This shows that physical changes affected participants' public interactions as they were concerned about public comments about appearances. Specifically, this led to difficulties when interacting with members of the opposite sex:

> *Initially, the thing was that my height was too short and I was hopeless that my height would never grow […] I was interacting with girls so sometimes they (girls) use to say that he looks too young (IS1).*

Here, the participant appeared to be distressed when girls considered him younger due to his short height. Apart from being self-conscious about physical appearance, isolating behaviours also occurred as a result of discomfort around having puberty related conversations among relatives:

> *Wherever I go they (relatives) asking about this thing (physical changes) they asking from you about your physic., […] so that brought something erm psychologically sometimes I become aggressive sometimes I become depressed and sometimes like I don't want to talk and I don't want to go to relatives' home and this like (comments) that he has grown up and doing shaving and all that […] so that could be one reason I become socially isolated (IN2).*

Likewise, a few participants were afraid of being recognised by peers, especially those of the opposite sex, due to concerns about body

image:

> *I had to wear a high neck to hide those hairs. It's really embarrassing if a girl sees my chest hair because I had an image, in university I won't be v happy if a girl sees my chest hair (IS5).*

In order to protect their image in society, some young males with chest hair reported changing their dressing habits, e.g. by avoiding wearing T shirts with V shaped collars to hide their chest hair:

> *I think for the most part I just erm the only issue I had was chest hair, when chest hair start coming I use to freak out, because erm I felt awkward wearing like, I use to wear a lot of V necks, I don't anymore but I use to wear a lot V necks in public, and erm because chest hair shows …(IM5)*

In general, this section represented data where participants were embarrassed and self-conscious regarding the changes that occurred physically during this phase of puberty. It highlights how young males felt more self-conscious about body image, which often made them isolate themselves from public situations.

6.2.3 'What have i done?' feeling ashamed and guilty

This section discusses certain aspects of puberty that contributed to guilty feelings among participants during puberty. A quarter of the participants (n=5) expressed that they felt guilty throughout puberty, mainly due to involvement in practices, which were perceived by society to be wrong. For example, masturbation and porn watching were two of the most reported practices that participants expressed regret about:

> *Then I saw this video (porn) and I came to know that this happens and that happen …then I did that thing (masturbation) and I thought that I also try […] right now I feel that, that (masturbation) was the worst experience which I did so I regret on that thing (masturbation)……(IS1).*

This participant expressed guilt in masturbating during puberty, considering it a horrible experience. While narrating his experience he avoids directly using the words 'masturbation' and 'porn' referring to them as 'this and that' thing respectively. Indirectly referring to his actions may suggest the extent of shame the participant attaches to his actions.

There were also religious misperceptions shared during interviews regarding masturbation, which is thought to have contributed towards its negative image:

> *It's also a misinterpretation of religion […] due to religion some boys think that masturbation is bad, religion did not any prove that masturbation is bad or wrong or it has not been proved yet that masturbation is forbidden (haram) no proof exist ……(IM1).*

Although not condemned in Islam, participants perceived masturbation and watching porn as immoral and did not want to be involved in them. However, the data demonstrated that some of the participants got involved in these practices, as a result, most of the participants felt guilty afterwards:

> *When you start this (masturbation) thing so the person gets pleasure, then when it is finished then a person realises that dear this is the wrong thing that I have done. I felt this too that should not have done it. […] In starting, when a person will get pleasure so no one would want to stop it, but when it finished then a person realizes that it was wrong to practice should not have done (IN8).*

This feeling of guilt about engaging in certain behaviours remained with participants and on a few occasions it influenced their academic engagement:

> *In some subjects, my grades were definitely falling and my studies were suffering […] I could not concentrate because of all this depression and all these obsessive thoughts on masturbation and pornography that I had during puberty (IM1).*

The emotional responses occurred with two participants in this study, where they suffered from extreme guilt and shame due to engaging in behaviours during puberty that were considered unethical. These were related to i). involvement in wrong practices according to them (i.e. over indulgent into sexual behaviours) (IM1) and ii) being sexually abused (IM5):

> *It (sexual abuse) obviously made me feel guilty and emotional […] It was puberty so I was curious to what he (abuser) was saying, what he was offering so initially […] it was quiet interesting to become like just to ease my curiosity, to watch like what an older man looks like but it actually leads to actual abuse […] that is when I started to feel guilty and ashamed and disgusting with myself (IM5).*

This illustrates the participant's repulsive feelings towards himself for his curious behaviour during puberty, whereby curiosity developed into an abusive experience, bringing on further forms of guilt and embarrassment. However, the negative thoughts and emotions in the form of extreme guilt and apprehension dominated both the above mentioned participants' states of minds, bringing about a loss of hope, meaning and direction in their lives. One example of this sense of hopelessness and fear:

> *There were times in my life after self-realisation of wrong doings (referring to masturbation) and feeling guilty when I said that I should commit suicide erm also, it was in class 12 that I mean I was feeling generally depressed (IM1).*

Here, the participant expressed extreme repentance for his involvement in wrong practices, which ultimately made him contemplate suicide. While (IM1) shared having experienced suicidal ideation, (IM5) reported self-harming to overcome his guilt and despair following an experience of sexual abuse during his puberty:

> *I was psychologically much destroyed there were times when I was very depressed hmmm I didn't. …I use to erm there was a point where I did had to deal with all the guilt and shame and mmmm I started just like not deep but superficially cutting my hands and like self- inflicted pain to sort of absorb the sin, of that (abuse) and then I realised that I was not doing anything like that act so then I really let it go, and it was just sort of hating myself to start you know the pain and to absorb the pain (IM5).*

This narrative indicated that the participant (IM5) used self-harm as a coping strategy to overcome extreme emotions of guilt and depression. The participant also stated that later he could positively cope with the situation by letting go of the unbearable event of his life.

Interestingly, none of the other participants shared any extreme emotional effects during puberty. Perhaps the feelings expressed by these two were not specifically linked to pubertal changes, but to other life events that occurred at this (puberty) time. The next sub-theme of this chapter will focus on the coping strategies and adaptation techniques that participants used and suggested to use for managing these negative emotional and psychological effects.

6.3 Coping strategies

The first sub-theme of this chapter outlines the negative psychological impacts, in response to the physical changes that occurred during puberty. This sub-theme focuses on the adaptation techniques employed by participants to cope with the challenges resulting from those negative impacts. The evidence collected to support this sub-theme captures participants' varied responses where diverse views of participants were explored, indicating puberty both as a useful and a challenging period in adolescent males' lives.

6.3.1 'I am certainly not an alien!'… normalization and acceptance

The process of normalization happened mostly during puberty; where several (n=6) participants started to accept the challenges associated with the physical changes outlined in the previous sub-theme. In this regard, participants indicated they did not experience difficulties and challenges and experienced puberty as a normal part of development. Some considered puberty not to be troublesome. They felt pleased:

> *I think because it was a very positive experience for me that I erm you know didn't really have any issues at that time […] I really enjoyed those days. When I think of them and when I reflect on them I laugh (IM3).*

Similarly, despite participants considering certain practices during puberty *'wrong'*, a few of them adapted to cope with these stressors. For example, masturbation and porn videos were often referred by these participants as *'immoral acts';* however, participants felt relaxed and comfortable with these behaviours. Therefore, some of them

adopted these actions to cope with the emotional responses of puberty.

> *It (porn videos) just help me to calm down and to erm be comfortable and be like erm be like relax (IN6).*
>
> *I don't consider it as good, but still I feel this is good because you like you cannot do many things socially like you cannot do this (sex) so better is that you do this (masturbation) […] for example, watching videos and doing masturbation and like nothing else so this was like coping mechanism (IN11).*

From these narratives, participants expressed feeling relaxed and content to adopt masturbation and the viewing of porn videos as coping activities. Hence, it was felt that masturbation was a safer and more adaptable way to cope with the possible sexual needs of the young Pakistani males as part of their coping strategies, considering these changes normal for their puberty.

In addition, there were participants who, upon reflection, recognised puberty to be a normal biological activity. Ten participants provided narratives about accepting the normality of puberty after approaching people with whom they were found to be comfortable (friends) and accessing perceived trustworthy sources for correct information, such as books and the internet:

> *When I looked at the chapter of reproduction it was clearly written that aaa the sensations and the feelings aaa sexual feelings because your sexual hormones are changing and your sexual appearance is changing […] your sperm rate will increase and some other changes will appear so when I read this I was like ok ok this is the natural thing so we can't do anything (IS4).*

Here, the participant discussed the role of information sources in directing their beliefs on the normality of pubertal changes. Thus, the

participants accepted that they felt satisfied and happy when they were aware of puberty. This helped them get rid of the negative feelings:

> *Pubertal change you know its biological activity that is going on inside your body […] It's like good for you. It shows you are healthy ya so I was happy with that […] I have studied about it (morning erection/ masturbation) over the internet, I came to know it is not bad, it is normal physiology, and it happens to all (IN10).*
>
> *I was not distressed, my dad told me it's (wet dreams) normal so I was satisfied that I am normal it's not like a new thing like I am not certainly alien (IN4).*

Therefore, being informed about puberty, helped participants to normalise and accept their experiences; the majority mentioned accepting puberty through observation and comparison behaviour. Such activity helped them to accept the normality of their experiences:

> *I, erm step by step observing and you know experiencing start accepting the things […] initially definitely I was having discomfort (IN2).*
>
> *I got a little bit of relief like this (hair growth) is natural, my father also had it, I am not only unique for this who is having these changes because at that time you don't know this is all new for you (IN5).*

In the previous narratives, it is evident that participants accommodated the initial discomfort of puberty through observation; they were reassured that puberty was a normal process through comparing with other people of similar ages, and gender. In this regard, one participant (IN5) observed his father, perhaps as a role model, realising he was not 'unique', this helped him to accept the new changes during puberty. While developing acceptance of new changes, another participant reported that he replaced the negative feeling of disruption with a

positive attitude of gradual acceptance and adaptation:

> *It felt strange because it (wet-dream) was something new and different from what it is from the way I used to of my body and mmm but I was ok with it, I didn't pay too much attention to it, I sort of understand there is a change, eventually I learnt to live with it, deal with it and so there was no issue anymore (IM5).*

Likewise, several other participants (n=5) shared that they coped with the negative emotional reactions after some time when they repeatedly encountered similar changes, thus accepted these changes as a normal part of their development. There were contradictory opinions from participants, whereby pubertal changes initially caused distress, and after a period of time were accepted as normal:

> *Gradually it happened like when one thing happens many times, then we don't think much about it. So then, gradually when I encountered changes, then I didn't worry about it much so one month, two months, three months and year and then after that everything became normal to me (IN9).*

The participant expressed here that his worries about puberty seemed to disappear as time passed and he appeared to accept the normality of changes over one year. Interestingly, a few participants mentioned that they adapted a routine around certain puberty changes, in order to avoid suffering through that transition:

> *When it happened again, so like there was a mind-set means routine was set that ok this is routine so like ok so when it (wet-dream) happen, took shower, change clothes and then sleep so no distress (ISNB).*

Here, the participant seemed to indicate that the adaptation to the psychological effects of puberty may involve a positive sense of acceptance of those concerns and challenges over time. Relating to

this, one participant who shared the extreme emotion of guilt, depression and suicidal ideations (due to a tragic abusive experience) also exhibited an optimistic attitude to this tragic event over time:

> *I always look at all my experiences (abusive) during puberty very positive later on (IM5).*

This illuminates the positive approach of dealing with a negative life event, in this case, sexual abuse experience during puberty.

6.3.2 Valuing social support

This section illustrates how, seeking social support from others, including friends and family members facilitated participants in coping with puberty. Participants described that seeking social support improved relationships during puberty so that they could seek further advice about puberty, as mentioned below:

> *Relationship with people who support you, with them, it really grows very strong with them because you know that you are having some changes from inside but at that time, someone who supports you, with that person, you definitely talk what to do (IN5).*

In the above narrative, the participant mentioned that receiving social support when sharing concerns, added strength to existing relationships. In this regard, there were many participants (n=8) who sought advice, assistance and information from friends in order to cope with puberty experience, particularly in relation to wet dreams, for which they seemed to be ill prepared:

> *I have asked my friends that what's happen to me and what is that happen and so they have told me about that (wet dream) and they have suggested me to read a book and read this topic (wet dream) […] we all share experiences like that what happened to you and what happened to me and from these experiences we learnt our self like how to cope up with that, and if it's happening so what to do? (IN6).*

The participant acknowledged having received guidance and advice from his friends. Almost half of the participants (n=11) in this study derived positive meaning from their puberty experiences, influenced by the support of their friends, in the form of sharing experiences with each other (i.e. the above quote). The peer support available during puberty was considered as one of the significant parts of puberty development, according to one of the participants:

> *I think that was actually mmm really good part in my puberty years, I had really nice friends, really supportive friends (IN4).*

The term 'special friends' was evident in six transcripts. These friends were those people with whom participants shared highs and lows, and private information, more so than with other friends. The main characteristics of a 'special friend' were openness, support, and listening ability, as defined by one of the participants, for whom this friend was the main support during the time of his abusive episode:

> *I did have friends and couple of people like few friends whom I would talk about to ups and down and these (puberty) changes. My best friend [name] who is a girl, she and I were very close and very open, […] she knew about mmmm the abuse and mm she knew about everything […] she was a real support when I was going through my phases of depression, when I was really down, she was the one who was there for me and sort of like she was also very depress, well her puberty was also very depressive so again our depression we both were really helpful for each other, we sort of mmm just spent lot of time, discussing bad things and listen*

> *[…] [name] was my best friend, very special to me and one of the people who I would consider very integral to my puberty, more than my parents, or my family and or my other friends and anyone… (IM5).*

This participant expressed the qualities of his *'best friend'* and illustrated the qualities of a special friend. These qualities made this friend distinct from his other acquaintances. For example, the participant reported sharing his agony and pain of the abusive experience with a friend, with whom he had a close bond, and who had had a similar experience of abuse during her puberty, and therefore, proved to be a very good listener. It also implies that having associated and similar experiences could make friends better sources of support for each other at all the stages of their lives. Further, it goes on to show that perceived sources of support may be of either sex.

Similarly, some participants described looking to these 'special friends' for support in terms of gaining advice on private and personal matters, and engagement in certain habits which might have been a source of fear and stress during puberty. For instance, matters related to feeling physically attracted to girls, masturbation and wet dream experiences were some of the sources of stress. The provision of coping advice from friends helped participants:

> *When I use to be alone so I used to go and time pass in any friend circle, with a special friend, use to go far away and this way I controlled my feeling of doing masturbation. I remained with him (friend) so I can quit this habit (IN8).*

> *Almost a year was passed and I was involved in talking to girls' late night and then when I shared with my close friends even he advised me to not to get too much involved and focus on study so then all things got help […] my friends were good*

> *and they were helpful they gave me the correct advice to overcome this habit which was making me stress (IN9).*

These two participants' quotes as evidenced above expressed how their fears and worries were resolved in the company of their best and close friends.

Through receiving social support, participants were not only supported just by friends, but also from supportive family members. For one third of participants (n=7), families were instrumental in providing both tangible and emotional support for participants. For example, parents facilitated a participant to come out from his 'shelter', where he was self-isolated as a result of his acne:

> *My parents told me that just do not get yourself locked in a room, go out and socialize and don't think about it (acne) too much […] my mom and dad told me it's (isolation) not good, take out tasbih (rosary beads) and do some spiritual rituals (paternoster), that's all (IN10).*

It is also inferred from this account that parents not only provided advice to forget about the issue but also provided a strategy of utilizing spirituality as a coping mechanism.

In some instances, there was also a belief that effective communication within the family and friends about puberty experiences might improve strained social relationships. For instance, one participant shared his perception and suggested that how improved communication and enhanced social support might overcome potential isolation from a lack of puberty education:

> *Strategies used communication well enough, don't let your son go in isolation don't get isolated erm it's nothing to be feared or embarrassed about (wet dream) […] the role of friends and erm the socialization is very important that you have a regular healthy conversation with your friends and your colleagues […] erm so talking with family members and erm friends is very effective (IN4).*

Here, it has been emphasised to use enhanced familial communication as a key strategy to overcome psychological stress, deriving from puberty changes. Also, it highlights how social support systems could strengthen and develop consistent communications systems with future young males in order to avoid isolation, shame, and embarrassment associated with puberty.

Lastly, a few participants (n=3) discussed and appreciated the facilitation they received from teachers in enhancing confidence during puberty, such as in a case of bullying:

> *So my teacher explained to me that why I fear that much (from bullying), be confident, if they (peers) say, let them say […] after this, better changes start coming […] then due to this my confidence level increased a lot so due to these changes my confidence boosts up a lot […] now I become that much confident that I feel better and like an ideal development happened (IN5).*

This participant narrated how one teacher's support made him a confident young adult, which was a positive transformative experience during puberty.

6.3.3 Improving a sense of self-control

This section narrates restraining attitudes and behaviours that all participants had recognised and adopted to manage the psychological impacts of puberty.

The majority of the participants (n=12) captured how they improved self-control over puberty-induced psychological effects with the use of diversional activities and restraining behaviours. Participants articulated their adaptation of strategies such as self-control, self-motivation, self-reflection, and diverting oneself to something else.

The purpose, identified for all of these strategies, was to prevent conditions causing distress and anxiety in participants' lives. For unchangeable conditions such as physical changes; participants' coping strategies included getting social support from friends and family, as discussed in section 6.3.2. The type of restraining attitude and behaviour adopted by participants was most likely an individual's choice. Here, two participants describe how they kept themselves busy (e.g. by reading books) thus diverting their attention from masturbation, or thinking about sex:

> *To overcome them (stressful event) you also have strategies like I said that mind diverting therapy or related thing like erm in that you like erm I think that we should keep ourselves busy, people keep themselves busy as much as they can in various things such as, read any book, do some stuff like so your mind doesn't go that way (masturbation) so this could be one strategy in my view (IN11).*

> *I started reading novels Harry Potters […] naturally reading all day in the same room and it actually taking me away from sex and clearing my mind from what I have done (masturbation) (IM1).*

The use of diversional strategies was common among participants (n=10) to avoid stressful puberty-related situations.

Likewise, three participants embraced an avoidance attitude as well as diversional activities, to avoid engaging in puberty-related communication that seemed 'disgraceful' to them; one example:

> *I use to involve myself mostly in games and other activities more and in my studies more and I use to ignore such erm shameful conversations (puberty related) and interactions erm my friends were talking about and I use to ignore […] mmm ignoring and erm it was a good coping mechanism that I use to stay alone (IN4).*

It also reflected that being unaccompanied/alone became a coping strategy for this participant as he adopted a restraining/avoiding attitude of certain conversations. In contrast, two participants shared that they became involved in activities, surrounded by people as their coping mechanism:

> *I go out so I am not alone, not isolated so I will not do any such thing (masturbation and porn watching) if I live in isolation so there is a chance as 'an empty mind is a house of devils' (quoted a saying) (IS1).*

> *Just going to parties made me forget about everything (sexual abuse and negative feelings) so just having fun became one of the coping method (IM5).*

In these accounts, it is implied that participants were fearful of being alone while coping with the stressful situation. Being surrounded by people, even unaccompanied, appeared to help participants to avoid actions that may have caused stress during puberty.

In some instances, several participants (n=10) described how they used self-management and self-control techniques in order to cope with certain actions that were disturbing them during puberty. In this regard, three participants mentioned that they removed sources of information, particularly the internet, that they were ashamed of using:

> *If you are watching (porn) then I block this site […] ya block this site and block the connection so then can have a better self-control (IS4).*

Here, the participant preferred to block particular internet sites as he exhibited self-control behaviour.

Besides these strategies, religious beliefs, teachings, and practices also influenced participants' realisations that they should avoid certain habits that could have become the cause of psychological stress during puberty. More than a quarter of participants (n=7) stated how religion and religious practices helped them and directed their behaviour to the perceived right path:

> *The influence of religion was a lot, so we controlled this thing (masturbation and porn) so we decreased the frequency of it (masturbation and porn videos) so that we can go to pray and perform religious rituals (IN9).*

With regard to religious influence on certain behaviours, participants' highlighted that they understood that their religion did not condone practices like masturbation and watching pornography. Engaging in such behaviour therefore created feelings of remorsefulness among participants. As a result of religious and parental influence, participants refrained from getting involved in the so called 'immoral practices' of

masturbation and watching pornographic videos:

> *There was a lot of religious influence and parents as well that if they (parents) know so that is not a good thing to do (IS1).*

However, the avoidance of such behaviours was not done just because of religious teaching alone, as personal attributes of participants also played a crucial role. Participants themselves reported self-determination to refrain from perceived immoral activities due to them wanting to be more mature during puberty. A participant reflected on how he started to curtail his porn watching and masturbation behaviour, as he felt it wasn't a very mature thing to do, especially in the context of his family considering this behaviour immoral:

> *My personal thinking mmm also stopped me to do that (masturbation) like I am studying for my parents and what I am doing? […] sometimes I get into sentiments very much sentiments that my father is doing that much for me and I am doing all kind of things so it's (masturbation and porn videos) not a good thing […] now even I feel some time that I watch the video (porn) so I try myself and I bring my parents to face in front of me and stop myself (IS1).*

Here, he was conscious about his actions of getting involved in masturbation, which he seemed to perceive was an immoral act. He also seemed to feel guilty about not fulfilling his parents' expectations if he indulged in perceived immoral acts; thus, he tried to improve his behaviour by exhibiting self-control.

6.4 Conclusion

This data analysis demonstrates that participants experienced various negative psychological effects due to changes occurring during puberty. Most of these effects were reported as a reaction to the physical changes that were part of their puberty transition. Nevertheless, due to unawareness and unpreparedness in managing these changes, emotional reactions and responses occurred that may have remained longer in participants' psychology. There are also other emotional responses, such as feeling embarrassed, ashamed, and guilty about some pubertal changes; which could have led to isolation and depression. Participants narrated the coping strategies they used and that can be used in future to manage these effects.

The first section 'feeling distressed and anxious' discussed various levels of psychological and emotional reactions that participants experienced as a result of being unprepared for their physical changes. The reasons highlighted were socio-cultural in context, and therefore hindered participants from preparing for the pubertal changes and thus, they felt emotional and worried about them. Similarly, the second section, 'feelings of embarrassment and isolation' presented narratives where participants felt uncomfortable about some of the physical changes. There were socio-cultural and psycho-social elements which made participants feel ashamed and embarrassed regarding their bodily changes, lowering their self-esteem and disturbing their body image. As a result, participants preferred to remain distant and isolated from

people around them and from the society.

These emotional and psychological impacts might differ in different social and cultural contexts, where puberty and its related topics were not considered as a taboo, thereby minimizing negative psychological effects on young males' adulthood. However, in the context of this study, young males expressed feelings of guilt over most of the changes that occurred as part of puberty, illustrated in the section, ''what have I done?' feeling ashamed and guilty'. Their feelings of guilt were mostly associated with both normal physiological changes and perceived immoral behaviours such as, masturbation and watching pornography, with which participants got involved as an outcome of their sexual development associated with puberty transition. In this study, not all participants felt guilty due to involvement in such behaviours, but most of the participants shared how they felt guilty and ashamed of their sexual behaviours, as part of their development.

The second sub-theme of this chapter discussed coping strategies that participants mostly adopted in order to manage psychological effects. In the first section, ''I am certainly not an alien'! normalization and acceptance' it was suggested that some of these participants started to move forward with a positive approach to life, such as, accepting those pubertal changes and considering them as part of normal growth and development. These participants mentioned capturing a shift to a more positive mind set or adopting normalisation behaviour to adapt to their

physical changes. Even though normalisation appeared as part of their coping for some participants, others described their experiences of puberty as a happy and healthy part of their lives within which there were no negative side effects for them to manage.

The other section, ‘valuing social support’ described how participants found that social support promoted overall well-being, relieving the emotional burden, and minimizing emotional distress symptoms occurring as a result of the negative puberty experiences. In this section, both social and religious factors contributed in benefiting participants’ well-being, suggesting the need for including social and religious aspects when implementing sexual and reproductive health programmes for young males, including puberty.

The last section of this sub-theme and concluding the chapter, ’improving a sense of self-control’ highlighted participants’ major concerns for their need for self-control in dealing with puberty related challenges affecting them psychologically. The attitude of controlling oneself to cope with the psychological and emotional effects could be developed through involvement in diversionary activities and adopting restraining, refraining and avoidance attitudes and behaviours to overcome the challenges associated with puberty.

This sub-theme offered a further understanding of how religion plays a role in the participant’s puberty experiences. Many participants developed self-efficacy within their religious practices, thus fostering

their recovery from the emotional aspects of life during puberty, by avoiding certain actions not considered religiously ‘proper’ during their puberty phase.

All these negative psychological effects and adaptations towards puberty related challenges have shaped each participants’ personality and identity. The next chapter will present further findings related to the effects of puberty transition in terms of developing these young males’ personalities and forming adult identities.

CHAPTER 7: FINDING 3: IDENTITY EXPLORATION AND FORMATION

7.1 Introduction

This chapter presents how puberty influenced young males' identity exploration and formation. The participants specifically discussed how puberty affected their emerging masculinity, sexual identity and adult outlook. The participants narrated how their identity was formed under the influence of gendered social norms. Participants felt these norms meant that certain behaviours and attributes were expected from them during puberty. As a result, some participants shared their need to adopt those norms in order to be accepted in the society. However, some participants did not identify themselves following these norms, which resulted in them experiencing tension around forming their identities. This theme comprises three sub-themes: 'developing masculinity', 'sexual identity development' and 'developing an adult outlook'.

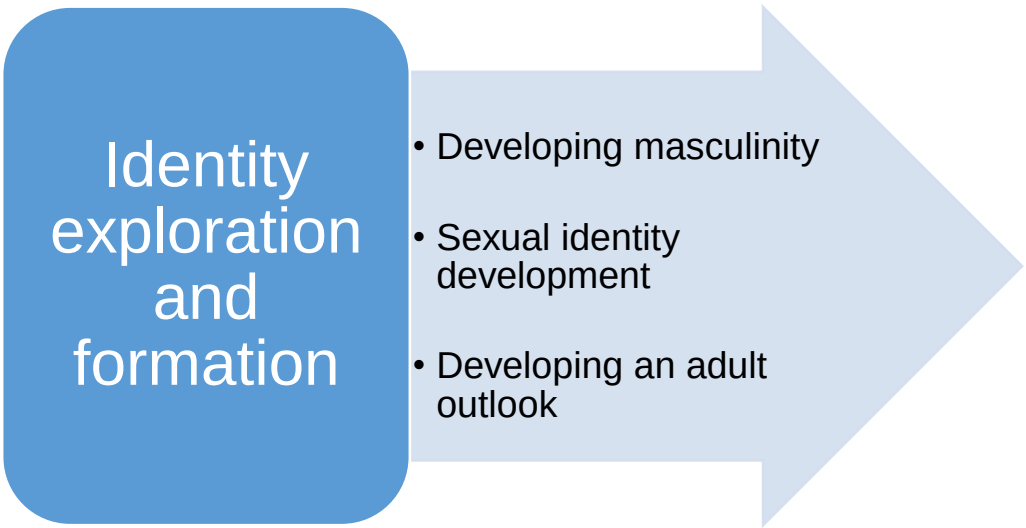
The first sub-theme, 'developing masculinity' describes physiological and behavioural changes experienced by the young men, which, when interpreted through their socio-cultural norms, made participants feel more like adult males. Participants described how they negotiated the tensions between the societal norms and pressures, and their personal experiences of developing masculinity. It also highlights the gender stereotypes that exist in Pakistani society regarding assigning gender-

based roles and responsibilities to young people. These stereotypes had a role in forming a masculine identity through the expectations that young people felt in terms of adhering to these roles and responsibilities.

The second sub-theme, ‘sexual identity development’ highlights the participants’ experiences during puberty, of developing an attraction towards opposite or same sex partners, and how this influenced their sexual identity as an adult male. Participants described how their sexual identity was formed in the context of strong cultural norms towards opposite sex attraction, which created difficulties and tensions for some participants. Participants also described the exploration and formation of their mature sexual identity, particularly in terms of engaging in sexual behaviours.

The third sub-theme, ‘developing an adult outlook’ focuses on changes that occurred in participants’ personality characteristics and ways of thinking during puberty, and how these changes helped to develop their adult identity. These changes had both positive and negative impacts on their relationships. The findings of this chapter are summarised in Figure 11.

Figure 11: A summary of chapter seven findings



7.2 Developing masculinity

Many participants (n=16) reflected on how their masculine identity was formed during puberty. Their perceptions of masculinity were shaped by their experiences of physiological and behavioural changes, as well as social norms and related expectations; these included societal expectations regarding changing physiological attributes, behavioural and personality traits and roles, and responsibilities, considered indicative of male adulthood. There were strong cultural gender stereotypes that influenced how participants perceived the acceptability of their changing physical appearance, personality traits and behaviours, and their roles and responsibilities as young adult males.

7.2.1 Physiological characteristics and masculinity

To begin with, more than half of the participants in this study expressed that the specific physiological characteristics and modifications (e.g. voice change, facial hair, wet dreams and muscular body), that occurred during puberty, shaped their masculine identity. These participants not only embraced physical changes as part of their development but also acknoweledged that these features were a measure of masculine maturity within a Pakistani society. The most commonly referred to change in physiology during puberty was a deepening of the voice. For many participants (n=10), voice change was one of the important markers of becoming an adult male:

> *The second important thing was that my voice changed during puberty and it looks like an adult man talking when I talked (IN8).*

One participant indicated his pleasure at being referred to as 'Sir', believing that he earned the title because of the change in his voice during puberty:

> *People start calling me 'sir' after class 9, so I thought that something has changed, […] excellent, it was brilliant, I said wow that is good, and voice has become heavy now (IM2).*

Similarly, one participant reported that before his voice deepened, people misunderstood him for a girl but this changed with his voice, and people started to refer to him as 'Sir'. One participant, commenting on this:

> *Other than that, it was somewhat funny that people used to think I was a girl when I talked to them on the telephone and when the voice deepened during puberty, that changed and they (people while speaking on the telephone) started calling me 'sir' (IM3).*

This term 'sir', in the context of this study, seemed to be associated with an adult man to whom people in society grant respect.

Many participants were therefore very eager to reach certain physiological milestones so that they would be considered an adult man. For example, seven participants described how happy they felt once their facial hair started to appear during puberty. The participant below was very keen to grow a moustache in order to show society his masculine maturity:

> *I love to have moustache so mmm I do like I use marker on my lips and to make you know moustache and to show them (people) that I am a big guy and that's how a man looks like […], it (moustache) didn't grow then (laughter!) so when it starts growing and you know I was like yeah I am moving from boy to a man, so it was good feeling…… (IN6).*

Related to this, some participants articulated personal struggles and pressures they experienced as they waited for these physiological changes to happen so that they would be perceived as an adult. As a result, they made efforts to enrich their adult male appearance:

> *When I grew up into a man, like when my puberty came I became more muscular, so I want to go the gym, run fast, and do more practice to maintain this (body) (IN6).*

> *I wanted to have a beard when I was in class 9, I do not have a beard, so I still look young. When I turned 17 then I started having beard […] I was like happy for beard but it wasn't too much it was like v v less but I thought its fine, I just go and shave them, I just use the razor, and I clean them frequently because my friends told me that if you trim them frequently then it will come more…… (IN10).*

In both quotes, participants mentioned efforts to maintain and develop their masculine appearance. These activities were often supported by their friends.

Several participants (n=6) compared themselves with others, particularly their peers, in relation to their developing masculinity. Physiological differences between them and their peers created feelings of anxiety, as they felt that their masculinity and adult identity were not as well developed, as their peers:

> *I am 20; you won't believe that I am a class fellow of [name]. Everyone calls [name] sir. [name] is bit fat and his complexion is full, and I am just having this (pointed to facial hair/beard) on my face […] my skin does not look like …ya …so when I tell that I am 20 years old then nobody in my community believes that I am that old (upset tone) ..... (IS1).*

Here, the participant compared himself to his friend, who had more facial hair (beard), despite being of the same age. Due to having less facial hair, the participant mentioned that society did not consider him to be an adult male. However, he compared himself to his peer, who seemed to receive more respect in the society owing to his physical appearance (i.e. being addressed as "sir").

Such comparisons of physical characteristics among peers seemed to elicit feelings of anxiety and distress about delays in the appearance of desirable masculine features. For example, one participant was anxious about not having an ideal male body appearance (i.e. tall height and muscular body) when he compared himself with his peers:

> *Few of the peers' body you know become muscular and somewhat tony […] at that time (puberty) I was short and slim. I was like that why my tone of muscles is not growing. The tone that a male has to be why that not in my body? The rigidity and the flexibility that they (peers) have […] all things that I observe in them and myself that creates you know erm sort of discomfort that they are different that I am different from them I am not as good as they are (sad expression) ……(IN2).*

This quote illustrates how the participant evaluated his physical appearance as different from the perceived masculine body of others, which indicates that a more muscular and toned body was associated with masculinity. Comparing his physical attributes with others appeared to make him question his own development, making him feel less comfortable about his own appearance and identity.

Moreover, the perceived normality of physiological changes was influenced by familial factors. For example, a participant reported that his mother had assured him that experiencing wet dreams was a normal part of male adult development:

> *This (wet-dream) happens with everyone and because you are experiencing it the first time you think it is weird and it is sort of 'ajeeb' (strange), but actually it is the thing that every male should go through it if he is normal' (mothers' words stated) (IN2).*

In addition, there were a few instances where participants learned from male adult family members about what physiological changes might indicate male maturity. Four participants mentioned how observing an elder male family member with facial hair made them think that this was an important part of being an adult male. In this regard, one participant acknowledged how observing his father and grandfather trimming the

beards influenced his perception of what physical characteristics indicate male adulthood:

> *I am in the family like that sometimes like daddy or grandfather they use to shave in front of us ok, so this was known through the family that in future when we grow older, we have to do it (IN8).*

This account clearly shows that observing other male adults influenced participants' understanding of masculinity and associated physiological changes.

From these accounts of participants, it can be concluded that during puberty physiological changes were seen to be an indicative of masculinity and individual's experiences and perceptions of these changes were influenced by peers and family members.

7.2.2 Behaviour and masculinity

In addition to changes in physiological features influencing masculinity, participants identified and associated certain behaviours with masculinity. Engaging in such behaviours made participants feel more like an adult male during puberty. These behaviours were interpreted by some participants as being the result of puberty-related physiological and psychological changes. However, on many occasions, participants felt that they should adopt certain 'masculine' behaviours', as they wanted to fit in with the cultural expectations of the adult male behaviours. For instance, most participants (n=16) described their puberty stage as being broadly characterised by having a fearless attitude and behaviour, which were often manifested through

demonstrating anger, aggressiveness or getting involved in unacceptable/risk-taking social behaviours. The development of this aggressive behaviour was manifested through the participants' involvement in riots and physical fights, as some of them characterised these behaviours and fighting in particular, as part of growing up and masculine behaviour:

> *Psychologically I was erm a bit more aggressive, on little little things I got pretty angry and I think that was due to this transition (puberty) thing (IN4).*
>
> *In the mid (of puberty) yes I had some fights (physical) with my friends since that usually happens with boys in this (puberty) age when they are growing up (IM2).*

This shows that this participant generalised that fighting was a trait of growing boys, occurring during puberty.

While aggressiveness appeared to be associated with psychological changes in puberty, according to the participants (above), a few participants felt that fighting was a behaviour which was influenced by physiological changes that occurred during puberty:

> *I think there are hormonal changes as well, that I came to know now that hormones changes in that (puberty) time, that's why it used to happen that ok if anyone says something we don't have to leave them (fight with them) (IN5).*

This participant recognised the relationship between hormones and the aggressive nature of boys after his pubertal phase had ended recently.

However, the reason mentioned by participants that fighting was linked with male characteristics was due to the socio-cultural norms. In this regard, a few participants shared their observations that in society,

fighting was associative with masculine characteristics. As a result, some of them shared getting involved in these behaviours in order to form their masculine identity, and show themselves as masculine (i.e. manly) according to the defined norms of the society:

> *Boys fight bad, In olden time they (adult boys) use to fight and blood used to come out I mean they wounded not die but they would get beaten up, it didn't have good affect so this happens that energy that anger, that bitterness is there in a person during puberty […] that's why I wanted to think of myself in that 'manly' way and appear like that in society, so I was involved in such (fights) things (IM1).*

Here, the participant suggested that fighting behaviour was related to having a masculine nature; this participant described being fearless and getting involved in brutal fights in order to demonstrate a *'manly'* approach during his puberty.

While sharing other behaviours during puberty; participants reported that social influences, particularly peer pressure (including friends), influenced their experimentation with a range of other risk-taking behaviours, which may be associated with masculinity in the patriarchal culture of Pakistan (e.g. smoking, chewing tobacco, drinking alcohol, watching porn, and engaging in unsafe sex and masturbation). In an example below, the participant shared how his friend of a similar age influenced him to smoke. The friend told him that he was at an acceptable age to smoke (18 years):

> *So he [name] is of 19 years and he had a cigarette […] he (friend) said 'I have a cigarette and you have to try?' So I said, 'no no, I don't smoke' so he asks me 'ok what is your age right now'? And I said, '18'. 'ok you can smoke, you are now of 18 years, adult, you can smoke', my friend said (IS4).*

Likewise, some participants shared that they were influenced by peers, and adopted habits perceived to be practiced by adult males in society, including chewing tobacco, drinking alcohol and engaging in sexual acts:

> *I also ate because my friends use to eat it ('chalia')(means beetle nuts) so what happened was like you get attraction from them so like he (friend) is eating and it is a peer pressure so we start getting attracted and taste and then it became a habit (IS3).*
>
> *They (peers) use to tell that you should have to do this (getting involved in different habits), 'you are not a man if you don't do these things' (such as, porn watching, masturbation, partnered-sex etc) […] so like just go for sex or like exactly like alcoholism, the first stage was that to force me to have a cigarettes and alcohol when I came here (in Karachi/in college) (IN11).*

Here, the participants verbalised the influence of perceived culturally normative expectations from their peers, in relation to developing their masculinity.

However, participants had different views about the influence of peer pressure. Some participants (e.g., those above), were very vocal about societal and cultural pressures in relation to being pushed into engaging in certain (risk-taking) behaviours to prove their masculinity. On the other hand, others described opposing views and were appreciative of the positive support they received from their peers, who suggested that they should avoid engaging in these behaviours (e.g. social habits):

> *I some time think that I do smoking but I remember I was taking a cigarette from my friend, and I said 'I will smoke' so he (friend) said, 'leave! Have you become mad?' he knew that if I will do smoking once, it would become my addiction. So I was like, 'let me do just once' so he (friend) said, no you are not doing it at all so he (friend) stopped me from smoking (IS1).*

This participant seemed to appreciate his friendship, which stopped him from adopting a social habit (smoking).

In summary, participants explored and developed their identity during puberty, and they perceived themselves to be masculine adult males when they engaged in certain behaviours. Participants felt that the adoption of these behaviours was influenced by physiological and psychological changes in puberty as well as social factors, particularly peer pressure and social norms.

7.2.3 Societal expectations regarding masculine roles and responsibilities

The other critical component, which shaped participants' masculinity during puberty, was the societal expectation regarding the idealised roles and responsibilities for young men, created through gender stereotypes in the society of Pakistan.

More than a third of participants (n=8) reported experiencing gender stereotypes in relation to performing gender defined roles and responsibilities. These roles were mainly imposed on them by their parents or guardians and were influenced by the traditional norms of the Pakistani society in relation to what constitutes masculinity. Some participants reported that they took on adult male roles in their

households such as performing certain chores, both within and outside the house, once pubertal changes started to appear. It was clear that there were stereotypes in place in relation to the roles and responsibilities of adult males in society:

> *Whatever work was there related to environment, so when I came at puberty age they (family) say that do this work [...] before this like it used to happen like watering to plants and fields so like at night go out so like before father used to do, but as soon as I come in this age, so they (parents) say that ''now you become adult man, so you do this work''. That was a normal thing as these things also happen with my brothers also and all the male family members, so I had some idea that these are the responsibilities I had to take after coming into that (puberty) age (IN7).*

He illustrated his family's expectations from him during puberty, to perform household chores that were customarily performed by adult males. A few participants in this study suggested that they learned during puberty that men's roles were related to being the breadwinner for the family and there was an expectation that men provided financially for their family through working. Labouring is considered manual labour in the English language. This gender-defined role of an adult male appeared to be learned through patriarchal norms of the Pakistani society:

> *When I go through the puberty I know about that man have to do work and girl has to stay at home and we (men) have to do all the work and just woman has to be house wife and like make food and serve us and just that man is the only person to work out, it was my thinking developed from what I saw in our society (pakistani society) so mmm I thought that man should work all day all night and make money for their family and support (IN6).*

This participant clearly differentiated between roles for family members, where women were not expected to work outside, but to look after their family, and men were expected to work outside the home and to provide for the family financially.

In addition, some participants felt that these social norms polarised male and female gender roles and created stereotyped gender discrimination within society. Some participants, including IM3, mentioned how gender differences were further amplified during puberty by the enforced separation of males and females in the wider society (e.g. schools) when young people enter into adolescence:

> *Then comes around the time of puberty when in our 13 and 14 years of age at least in my colony that the girls separate and they start studying on their own, and the guys separate and they start doing stuff on their own (IM3).*

Here, the participant mentioned how girls and boys were segregated to perform certain tasks, such as studying, separately during puberty. Apart from boundaries being created in the wider society between boys and girls, three participants, including IN11, revealed how socio-cultural norms polarised and segregated siblings of opposite sex within the same family, and created physical boundaries between them, without any explanations:

> *Our (mine and my sister) beds got separate when I started to grow and look older, ok so like in childhood we (me and my sister) use to sleep together, so like now they (parents) said, ‘‘you have a separate sleeping room, you have to sleep on your bed’’ […] so like these boundaries started to develop during that (puberty) time [..] I was thinking why they are separating us but I had no clue (IN11).*

Here, the participant revealed how his parents changed their sleeping arrangements as he and his sister began to grow older. One of the reasons mentioned by these participants, including IN7, for creating boundaries between them and their female siblings could be due to the pubertal changes and the associated emotional and sexual development with it:

> *When we entered into puberty like in 15 years old, we got separate rooms that now we have grown up into an adult man. Even mother and father are telling me to sleep in separate rooms and now I know the reason for them doing this since I know that during puberty, physical changes occur and we have such (sexual/emotional) feelings …but at that time we were confused […] we did not know how to deal with it. And the question in my mind was why they (parents) separating us? Since parents didn't explain to us why? .*
>
> *R: did you ask them (parents) why?*
>
> *P: No, we could not out of respect and fear from them (IN7).*

Here, the participant described his confusion about why he was being separated from his sister during puberty and how he felt unable to question this decision by his parents.

While discussing their puberty experiences, participants' highlighted further social expectations, in addition to the work-related ones, the segregation etc. as mentioned above, which often comes from family members that were indicative of their masculine identity. For example, a participant explained how his family influenced his choice of appropriate clothing to satisfy the social demands of being a grown-up boy, during his puberty:

> *He (brother) often use to tell me about what I use to wear, shorts. So they were very light and I should not be wearing them, as I have become older male. So like these sort of things, like we used to go to religious education centre so even there, mother like before used to make me dress shorts but now specific dressing like wear jeans or dress pants (formal trousers) ok so wear something in that you don't expose too much your body parts as now you are a grown up boy … (IN5).*

The participant illustrated here how his family dictated to him what to wear, especially in public places, to avoid exposing his growing body parts as a result of the pubertal changes. The quote above also implies that wearing certain clothes was a sign of being an adult male and an important part of male identity.

Thus, it is evident that during puberty young men's masculinity and adult male identities was influenced by familial and societal norms, in relation to gender defined roles and responsibilities within the society. The development of masculinity during puberty further helped these participants to explore and formulate their identities during their adulthood.

Another key aspect of young men's identity development was developing their sexual identity during puberty. This is discussed in the next sub-theme of this chapter.

7.3 Sexual identity development

This sub-theme, ‘sexual identity development’ captures how participants experienced puberty in relation to developing their sexual identity, which was influenced by the socio-cultural and sexual norms of the Pakistani society. It also demonstrates how participants felt engaging in certain sexual behaviours that helped them developing their sexual identity.

7.3.1 ‘Female crush is normal!’ expecting opposite sex attraction

One important aspect of developing their sexual identity, mentioned by more than half of participants, was to identify their sexual desires and sexual orientation, during puberty. In this regard, participants, including IN11 and IN6 expressed how opposite sex attraction was expected from them by Pakistani society:

> *At the initial ages, I wanted to make girlfriend, like this was my first step in my teenage so you feel that you should have a sexual relationship with her and share all your secrets, you share all emotions with her with your girlfriend so your preferences go on that side so likewise, it happens with me. (IN11).*

> *Opposite gender attraction is increased, so this is a normal phenomenon, so this happens to me during puberty (IN6).*

In light of opposite sex attraction being viewed as a normal phenomenon, several participants (n=9), including IM2 mentioned how society influenced them to feel happy by having a girlfriend:

> *For many people, a very nice alleviating factor I will say, a very happy factor I will say is having a girlfriend, in our society it's frowned upon but it happens […] everyone has some friend, may be not a girlfriend but someone in there of opposite gender whom they are attracted and talk to about everything (IM2).*

This participant acknowledged that, although having a girlfriend was looked down upon in Pakistani society, it has become part of the emerging culture of Pakistan among younger generations. Thus, they might have developed their sexual orientation and become attracted to members of the opposite sex during puberty, due to these societal expectations around specific sexual and gender norms.

Relating to this, participants narrated a number of specific social influences that promoted opposite sex attraction. Firstly, a couple of participants, including IM1, suggested that he was attracted to members of the opposite sex because of the strong influence of the media. He felt that young males at his age and during puberty could be influenced by the media and celebrity culture in terms of developing their sexual identity and gender orientation:

> *I watch Bollywood movies, other people in my class do watch Bollywood movies and mm they would see that there is something between a girl and a boy, […] they think that see in Bollywood movies Salman Khan (name of an actor) who is 40, 50 years having a relationship so why not me? so they (boys) want, and then they eventually end up in a relationship, and they try to you know have a girlfriend and even if they do not have a feeling for a girl…[…] right now just because I see Salman Khan, so I think as well that for pleasure I will also make a girlfriend (IM1).*

Thus, this participant reported the normative influence of media on his sexual orientation towards females.

Secondly, on many occasions, participants expressed being pressurised by their peers and friends to engage in opposite sex relationships, e.g.:

> *The problem is if you are not doing something then at that age like the other boys (peers) say that 'do something propose to her, are you being scared?' Then the person is pumped up by that (peer pressure) (IM1).*

Therefore, peer pressure to have a girlfriend was one of the main factors for participants in this study to gain recognition from their peers. Some of the participants, including IS4, felt that having a girlfriend was a source of pride and honour:

> *My friends talk freely like they have girlfriends and then I aa think that I should have and then I think I also want a girlfriend […] I aa like I feel fashion to be with the girl […] common thing in our friends like erm I have to make the girlfriend (IS4).*

For IS4 it is evident that, for him, having a girlfriend was considered obligatory and part of following a trend during puberty, influenced by peer role modelling. In this regard, participants, including IN9, discussed how peers influenced them to develop a particular sexual orientation (opposite sex attraction) while communicating regarding pubertal changes:

> *When they (friends) were discussing with us regarding this (puberty) thing, they (friend) also said that when you will see opposite gender you will feel attracted, its normal ……(IN9).*

This example indicates that cultural norms were imposed on this participant's puberty education from his friends, hence shaping his sexual identity in adolescence.

In addition, participants reported strong cultural and social pressure to be attracted to the opposite sex while growing up, which created tensions for a few (n=4) participants who were unable to follow these societal expectations and gender norms. These participants shared that

either they were not attracted to the opposite sex during their puberty, or, if attracted, were unable to talk to girls due to lack of confidence. As a result of not following social norms, one participant (IN2) appeared to be confused and questioned his own masculine identity. The uncertain attitude of IN2 was because of a strong social pressure to be attracted to the opposite sex, which he did not experience during his puberty nor afterwards:

> *People think a crush on a female is normal for boys in this (puberty) age (smiling and laughing), but still, it did not happen to me so am I not normal then? or… (Smiling and question mark expression) (IN2).*

Thus, the tension in relation to not following societal norms appeared to be visible if any participant was not attracted to the opposite sex during puberty and adulthood.

Participants also shared different emotional responses they had to deal with, and the tensions created through cultural and societal expectations. In relation to this, IM5 felt depressed and unhappy regarding his bisexual identity since it was against the socio-cultural and religious norms of Pakistan:

> *That really bit depress me as it (bisexuality) is very different from others (in society) and you know most of the people talk about women, and I can talk to them about women but then there is a part for me who want to talk to my friends about men as well (IM5).*

From this quote, the participant acknowledged feeling low because his sexual orientation is different from societal expectations.

Thus, puberty can be considered as an important phase in the life of these male adolescents when developing their sexual identities, as part of discovering and forming their identities as adults, which may or may not be according to social norms. These identities, therefore, can bring either tension or contentedness to their lives.

7.3.2 Developing sexual maturity

Another important aspect, which contributed to the sexual identity development for several participants, was the sexual behaviour adopted by them in order to satisfy their sexual needs during puberty. These sexual behaviours were reported to fulfil participants' sexual desires by adopting behaviours that did not involve physical relationships but provided similar sexual pleasure. The sexual behaviour used by many participants, including IN11, was masturbation whilst watching porn videos to satisfy their sexual needs and desires at this stage of development:

> *When I came here in Karachi, so I got a peer group who told me about such videos like porn videos name and they said, 'you go for it, if you are inviting a girl you don't want to do it (sexual activity) actually as it really disturbs you mentally then go for it (videos)'. 'Not any harm, so watching such videos will not harm you but give you pleasure' (quoted friend's words). So they (friends) said it is better than doing a practice thing (sex), so then I watched that (videos) and masturbated … (IN11).*

This quote implies that in Pakistani culture, engaging in partnered sex might not be acceptable and could leave the participant worried and distressed, as it is not considered a morally acceptable behaviour. Thus, instead of getting involved in partnered sexual behaviour, the

participant reported, without much embarrassment, adopting the practice of masturbation, to fulfil his sexual desires.

In Pakistani society, as mentioned below, there were two conditions where sexual behaviour is more acceptable in society. These conditions (e.g. legal age and marital status) mentioned by two participants seemed to be associated with developing a sexual maturity since that indicated their adult status in the Pakistani culture:

> *18 is the age limit, you can do whatever when you are 18 or 18 plus. So when you are of 18, then you can do and watch these things (masturbation and porn videos) (IS4).*
>
> *In majority cases, you are not allowed this (partnered sex) in Pakistan until and unless you are getting married and you are an adult (IS5).*

These quotes indicate that what is acceptable in society in relation to developing a sexual maturity during puberty.

Thus, it is evident that during puberty, participants explored and developed their sexual identity under the influence of societal expectations. However, contradictions with socio-cultural and sexual norms might have disturbed participants' sexual development during their puberty and thus, may have created tensions when developing their sexual and overall male adult identity.

7.4 Developing an adult outlook

The last sub-theme of this findings chapter, ‘developing an adult outlook’, examines how participants’ reflected on their puberty experiences as young male adults and how they felt these experiences impacted the development of their adult outlook. In this section, participants illustrated how their personalities were influenced by their puberty experiences. Participants’ accounts also highlight some of the troubled relations they had at the beginning of puberty because of being more independent and rebellious while growing up. However, sharing these experiences now, and on reflection, they felt they had become more mature and were able to understand and respect family relations since puberty. In addition, during puberty, developing a rational approach to their personality, helped them to take balanced decisions in their lives. Thus, they narrated how their puberty experiences had shaped their adult identity.

7.4.1 Becoming independent and rebellious

Most participants (n=19) described how becoming independent was a key feature of puberty, affecting their lives in various ways. This growing sense of independence during puberty mostly influenced the participants’ relationships, with their parents and elders, in a negative manner at the time. This could be because participants shared that they did not always comply with their parents’ expectations during puberty. Several participants reported different reactions to the constraints put on them by their parents, some were rebellious and others compliant.

Many participants in this study mentioned being rebellious against their parents. This might have occurred because of parents' controlling behaviours, particularly mothers in the context of this study when the participants wanted to be more autonomous/independent. One of the examples within this study, where a participant (IN4) described himself rebellious because of his autonomous nature is quoted below:

> *I did not like questions at that (puberty) time; I was rebellious and use to do whatever I was pleased with. So erm I replied with aggression and erm I use to tell my mother that let me do whatever I want […] Once I went through [place name] without telling my parents, I did this consciously and we (friends) spent about 5-6 hours there, it was night, and I came back home at 3:00 am in the morning (IN4).*

Here, the participant acknowledged that his parents' controlling attitude led him to be deliberately rebellious, by acting against them.

Some participants did not develop a trusting relationship with their parents and were unable to share their concerns with them, because of their (parents') restrictive attitude, during puberty in particular. As a result, these participants were becoming more and more independent and had a distant relationship with their parents, e.g.:

> *There was about that (puberty) time, I start having a change of everything with my parents, […] I think because it was too many restrictions […], everything that has happened in school, everything that's happening with me, the problems I am facing and basically whatever I do in school, let's say I have fought in school and erm ya and I fight and go somewhere and I never use to tell my parents (IM4).*

In this quote, it is clearly stated that the participant's relationship with his parents changed negatively, since he hid his everyday routine and perhaps an unacceptable behaviour (fights) from his parents.

However, one participant felt that the controlling behaviour of parents was a normal, evolutionary process of puberty. Thus, he expressed that the restrictions (e.g. focus on study more than playing videogames) that were put on him by his parents and relatives had a positive influence on his adult outlook, preparing him to be more responsible and self-reliant in the future, as parents' and elders' attitudes prepared him to be a better person:

> *If I think of myself this restriction is much beneficial for me as it groomed me, it gave me independency in later life, may be the same restriction is not good for another person, another boy, another guy (IN3).*

Thus, it is evident how one aspect of development, being independent, had the potential to negatively influence relationships with parents. However, since this study explored puberty experiences from the perspective of young adult males living in Pakistan, there were several participants, who shared how their relationships improved, as they grew older and matured. The reason for this improvement is further discussed in the next section of this sub-theme.

7.4.2 Learning to be respectful towards adults

Respecting elders was a cultural expectation and norm in Pakistani society. The majority of participants (n=17), including IS3, expressed that they were submissive towards parents and elders while growing up, and hence demonstrating respect towards them:

> *I had no issues, whatever they (parents) were saying I was doing no matter I agree or not still I obey them, not use to argue upfront that I will not do or something, that's how it is here in our culture means I use to be patient and did not say anything against them (IS3).*

This participant obeyed his parents and elders, despite the possibility of having a different opinion, because of the submissive culture of Pakistan, for non-adults.

However, several participants indicated that their relationships improved and stabilised in time, as they developed a mature and adult outlook during their puberty. This was possible because, as they grew older, they became mature and understood the importance of giving respect to elders and caring for other people:

> *With maturity I also develop erm positive thinking erm like caring for others, respecting them etc. […] so during puberty, while growing old, I become more obedient with erm my parents, with my sisters, with my brothers, with my cousins, of relatives and mostly with the elders in the society (IN1).*

Reflecting on their puberty experiences, some participants felt that better communication during puberty between them and their parents would have facilitated a more respectful relationship:

> *My relationship with my parents became better towards the end of puberty; we started talking everything rather fighting, so it became better when we started talking, discussing and having conversations (IM5).*

In this regard, many participants emphasised the importance of having two-way communication regarding the difficulties they might have had during puberty, in order to develop closer relationships with their close family as they grew older:

> *Now I realised that if I would have talked to them (parents) regarding puberty concerns, obviously it would have played a much stronger bond between me and my parents now (young adulthood) erm, I would not have been withdrawn from them as like I have, and I would actually be much closer to them (IM4).*

Here, the participant indicated the importance of communication between parents and young people during puberty to strengthen the parental bonding and to develop a trusting relationship. This emphasis on breaking the communication gap between parents (e.g. fathers) and adolescent males has also been discussed in previous findings of chapter 5.

The evidence shown in this section suggests that participants, during puberty might have learnt to give respect to their elders and improved their relationships with them, as they grew older. These improved relations appeared to be influenced by the socio-cultural norms of Pakistani culture, where being respectful is perceived as a more mature and adult outlook:

> *During puberty when I start growing, my body language changed and also behaviour, so the type of environment I live in, always saw our age people (young boys)respecting elders so I learnt how to talk, how to give respect to elders etc. (IS3).*

Participant also appreciated the role of non-verbal communication in terms of developing this respect and having more courteous relationships with adults. In the final part of this subtheme, participants' experiences in relation to developing a mature personality during puberty and developing a rational approach towards life are discussed.

7.4.3 Developing a rational thinking

During the discussion of their puberty experiences, participants described how developing rational thinking helped influenced their overall personality development as adult males. More than half of the participants discussed how they acquired certain crucial abilities during puberty, which are indicative of having an adult outlook in life, such as: decision-making skills, critical thinking, enhanced mental capabilities and the ability to differentiate between right and wrong. Thus, as they grew older, participants reflected that they used a more rational approach towards life, and felt responsible for their activities:

> *I know what decisions to make for myself and I know what's good for me or what's bad for me and in that case and I definitely have an idea that, if I am going to do something now when I am old enough obviously I will be responsible for it […] anything happen I always be responsible for that, so actually that (puberty) has mainly made me more mature person than I was in school (IM1).*

Here, the participant pointed out a shift in his attitude in relation to being more mature and responsible when his primary schooling finished. Reflecting back to their puberty period, some participants acknowledged being happier while growing up, since they considered themselves to be wiser than they were during childhood:

> *I use to get happy because at that time, growing older meant, I became an intellectually, a very wise man, when I was younger my mind was small but since I have grown older my mind became more mature, can take good decisions and can do a lot of good actions (IN11).*

Here, the participant suggested that during puberty, his mental capability developed, which enhanced his decision-making skills. In

some instances, participants stated that the puberty stage made them think about their critical life decisions, including their future life choices and professional choices. For example, IS4 mentioned the development of his decision-making capabilities in selecting his profession, when he learnt to use a rational approach during his puberty:

> *In childhood, we cannot think much about our life or about anything we want like think about our future, so as we have these changes (pubertal changes) and move on in professional life so we can think much quicker about our professional life or future. What we have to do next? So, the thinking level is also built up in adulthood (IS4).*

Some participants (n=5), during the discussion on their puberty, reflected on their experiences and discussed how they learned from the mistakes that they had made and how those shortcomings helped them to gain a mature personality:

> *I am 19 now and people say that if I would not have done that mistake so I would have done now, so it was good that it (girlfriend relationship) happened before and now I became mature I know what to do and what not to do and when I say that 'I am settled now' this means a lot and is very important. But teenager should make mistake to learn. If he won't make mistake during that time (puberty) he won't learn, and he won't be able to teach his kids (IS5).*

Here, the participant accepted that mistakes are made during puberty, but rather than taking a negative stance on these mistakes, he viewed them positively in that those events shaped his adult outlook now. He also reported learning lifelong lessons for the future from the events that occurred during puberty, which he intended to share with future generations/or future family.

Another aspect shared by several participants, including IN3, was that how developing a rational approach and taking wise decisions may have helped them to grow their personality and helped them to choose appropriate behaviours during puberty that will impact on their future life:

> *We have more power for decision-making, relationship building, coping yourself, and personality building. I must say puberty is the base of our whole life because we are building our base through our puberty towards your adolescence and adulthood (IN3).*

He reflected on his puberty experiences and acknowledged the long-term impacts of puberty. This indicates that, during puberty, participants developed rational thinking and took important decisions that influenced their later life and also managed to build their personalities. Therefore, it can be concluded that, during puberty, certain characteristics are developed that indicate a mature and adult outlook, facilitating individuals (adolescent males) to explore and form their identities.

7.5 Conclusion

In conclusion, these results suggest that the participants in this study have explored and formed their identity on the basis of their experiences that occurred during puberty. The participants in this study were young males, who were reflecting on their puberty experiences. Thus, they were able to relate those experiences to their current identity formation as young adult males.

Three sub-themes emerged from the analysis. The first sub-theme described how participants developed their masculine identities during puberty under the influence of physiological, psychological, socio-cultural and familial factors. The changing of both physiological and behavioural characteristics during puberty was associated with masculine identity development, whereby social norms and standards played a significant role in shaping participants' masculinity.

This research was conducted in the patriarchal culture of Pakistan; and therefore, many of the behavioural changes occurring during puberty were associated with the masculine identity of male adolescents such as smoking. This masculine identity was also seen in the form of certain gender-defined roles and responsibilities that were imposed on participants during puberty. These gender defined roles and responsibilities often created tensions for some participants, during their puberty, if they did not abide by those social and cultural norms.

Another important sub-theme highlights sexual identity development during puberty. It was evident that most participants were attracted to the opposite sex in terms of their sexual orientation, which formed part of their sexual identity. It was a fact that having a partnered sexual behaviour was not acceptable for young un-married males in Pakistani society. Despite this restriction, the modern norms emerging in society and following the masculine culture encouraged participants to have opposite sex attraction, and create intimate relationships (i.e. having

sex). This is what intimate means in everyday English with girls as part of their normal adult male development. Thus, these norms and expectations from society influenced most participants to develop a heterosexual orientation during their puberty, which often created difficulties for those participants who felt they did not conform to these norms.

Thus, most of the participants were obliged to be attracted to girls to fulfil what society dictates adolescent males should do as part of their masculinity. In addition, having a girlfriend, and being in a relationship, seemed to be an important part of formulating their adult identity, where having a girlfriend was often considered a matter of pride and honour for young males to prove their masculinity to their peers. Peer influence shaped many young males' identities in many ways and helped them to develop sexual maturity during puberty. This maturity was developed by male adolescents becoming involved in a number of sexual behaviours that often are not accepted in Pakistani society. Despite this, participants developed sexual maturity during puberty by adopting sexual behaviours such as masturbation and viewing porn video, which indicated their sexual development during puberty.

The last component of this chapter described how participants during their puberty explored and developed their identity as an adult male through acquiring and developing an adult outlook. Within this sub-theme, it was described how certain puberty-related attributes had an

effect on relationships. The adult characteristic of being independent resulted in participants developing a rebellious attitude towards their parents and consequently distant parent-child relationships. The independent nature of adolescents was also reported as an important part of their developed adult identity.

The assertive and angry attitude that resulted from these independent personality traits were also considered masculine traits. This could be different in different cultures, since sociocultural factors, biological changes and hormones have a part to play in the development of this independent outlook and related behaviours. However, with time, and as participants' grew out of the primary pubertal phase, they started becoming more mature and gave respect to their parents and elders.

While puberty is a transition from childhood into adulthood, some of the aspects participants shared were part of their normal growth and development, shaping an adult personality where they used their rational thinking to develop an adult outlook. For example, using complex skills to make important life choices was one of the characteristics of adult identity formation. Thus, young males also expressed that they had become more decisive in their lives. Using this rational approach helped participants to develop a mature and adult outlook in addition to helping them explore and develop their identities during puberty that affected their overall personality.

CHAPTER 8: REFLECTING ON REFLEXIVITY

8.1 Introduction

This chapter demonstrates the reflexive approach that has been used to design and conduct the entire research process in the course of undertaking this study. A qualitative approach, used to undertake this study is a reflective and recursive process (Ely et al., 1991). In qualitative research, the researcher's own pre-conceived ideas may influence the entire research process (Creswell, 2011, Mason, 2002). Therefore, the reflexive practice was a key element of this study.

This chapter is divided into several sections. Firstly, the concept of reflexivity will be briefly described, alongside highlighting the researcher's interest in this study. The next component will describe how the researcher's position/role, prior knowledge and personal factors may have influenced the approach to the study and thus may have influenced the findings. Throughout the chapter, appropriate examples from the researcher's reflective diary will be used to illustrate the researcher's arguments.

8.2 Reflexivity

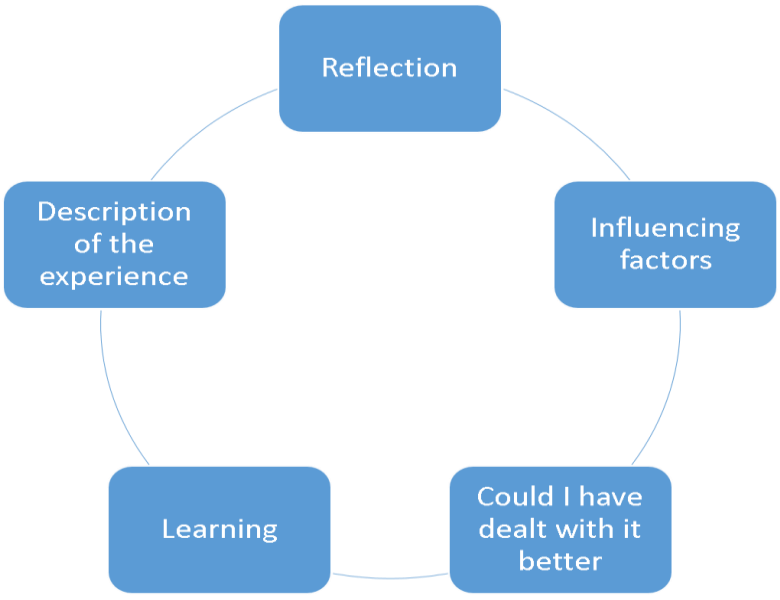
Reflexivity, is defined as, ‘thoughtful, conscious self-awareness’ by Finlay (2002 p. 532). In qualitative research, reflexivity is used as a tool to continuously evaluate the subjective responses and inter-subjective dynamics within the research process. By using the lens of reflexivity, the researcher is able to identify some of the personal factors that may influence the process and thus affect the overall outcomes. This lens facilitates researchers in confronting their own assumptions about their subject. It also facilitates recognition of the extent to which their own thoughts, actions and decisions during the process may have shaped what they research and how conclusions may be drawn (Mason, 2002).

Moreover, several authors have proposed that through using reflexivity, researchers can situate themselves within the study context, allowing them to improve the analysis quality, maintaining rigour, helping to produce reliable and valid data (MarieClancy, 2013, DevJootun et al., 2009, Finlay, 2002). Reflexivity improves the quality of the qualitative research by addressing the methodological concerns, particularly in relation to lack of objectivity (Scotland, 2012) and enhances the readers’ understanding by illustrating how the researcher’s own interests and position may affect all stages of the research process.

8.2.1 Use of a reflective diary

In this study, I used reflexivity as a tool to identify how my personal and professional identities might have influenced the research process and findings. I wrote a personal 'reflective diary' throughout the research After every interaction, I reflected on my position within this study, my behaviour, and learning experience, writing a brief reflective piece in my diary following the guidelines of Johns and Freshwater (1998) (Figure 12).

Figure 12: Guideline followed to write a reflective diary



Johns Model of Reflection: Adapted from (Johns, 1995)

Following the model's five components, I was able to reflect on my interview process in a structured manner. The process began when I started to describe my experience and noted down exactly what happened during each interview. Reflecting on my description, I was able to identify the purpose of asking a particular question from the

participants. Reflecting on my experience and the participants' responses provided me with an opportunity to identity factors, which influenced me to act in a particular way during that interview and to ask those specific questions. It also enabled me identity factors that might have influenced participants and their responses. Reflexivity helped me to answer how I could have dealt with any given response or situation in a better way and what overall learning I had from that interview, in order to help me with future interviews.

While writing these reflections, my main considerations were noting any unusual actions and behaviours of the participants, reflecting on the interview process, plus additional incidents during interviewing. Being able to think critically about how I responded to the participants enabled me to reframe my practice as a researcher. These insights motivated me to reflect on my own assumptions and experiences. As a result, I found myself able to recognise my role as a reseacher and use this role to discover participants' untold experiences.

An example of following the John's Model (Johns, 1995) of reflection is presented below from the sample of my reflective diary (Reflective account 1).

Reflective account 1: Reflection using John's Model of reflection

Components from John model of reflection	Description of reflexive accounts
Description of experience	This was my first interview and I was a little bit nervous about being an outsider to hear young males' puberty experiences. I was also nervous if I will be able to handle the data correctly and able to gather in-depth information. During the interview, a participant shared regarding sexual arousal experience and he seemed to be uncomfortable to share this with me since he was using euphemism (indirect referral words) to talk about this thing. I was also uncomfortable since it was my first interview, but I managed to listen patiently to whatever he shared with me and gave him enough time to share whatever his feelings were regarding this. He also raised some concerns about sexual arousal.
Reflection	On reflection, I identified that I was uncomfortable to hear such an experience (e.g. sexual arousal from a young man). I also identified that even though I was not sure what he meant by this experience, due to my discomfort I did not probe further and seek clarification. However, as a researcher I was non-judgmental and even though I was uncomfortable I listened to his experience at full length
Influencing factors	• My own identity as a female made me uncomfortable • Previous knowledge regarding young males' experiences • Sociocultural factors in which I also grew up making such conversations uncomfortable
Could I have dealt with it better	I reflected that I could be more confident and could have asked what participant meant by his experience and could have probed more regarding the issues he had around this experience

8.3 Researcher's interest and the emergence of the study

Tang (2007) reported that researchers' interests in conducting research on a specific topic are often because of personal experiences, however, some may just have an interest in certain topics. I was drawn to this PhD because of my interest in SRH research for young people. It became my area of interest following the completion of my Masters in Public Health (Nursing) and commencing work as an Instructor in one of the private universities in Karachi, Pakistan. While teaching the course 'Reproductive Health' to undergraduate nursing students, I observed that students were reluctant to talk about these issues during their clinical and community practicums. Further investigation revealed that the topic of SRH, including puberty education, was not a priority subject for schools and colleges. It is likely therefore that despite being nursing students, these young people lacked both knowledge of the subject area and the confidence to discuss this subject.

At that time, I was myself a novice teacher and as a young woman, teaching this subject, was hesitant on a few occasions when dealing with young male students. In spite of this hesitancy, I decided to conduct research on young people's experiences of puberty and wanted to implement interventions related to improving their SRH knowledge. In critically reviewing the literature on the topic, I was able to identify a gap in terms of empirical work, related to SRH, particularly puberty experiences of male adolescents in Pakistan. Relating to this, as a female, I was also aware through my own experience, later receive

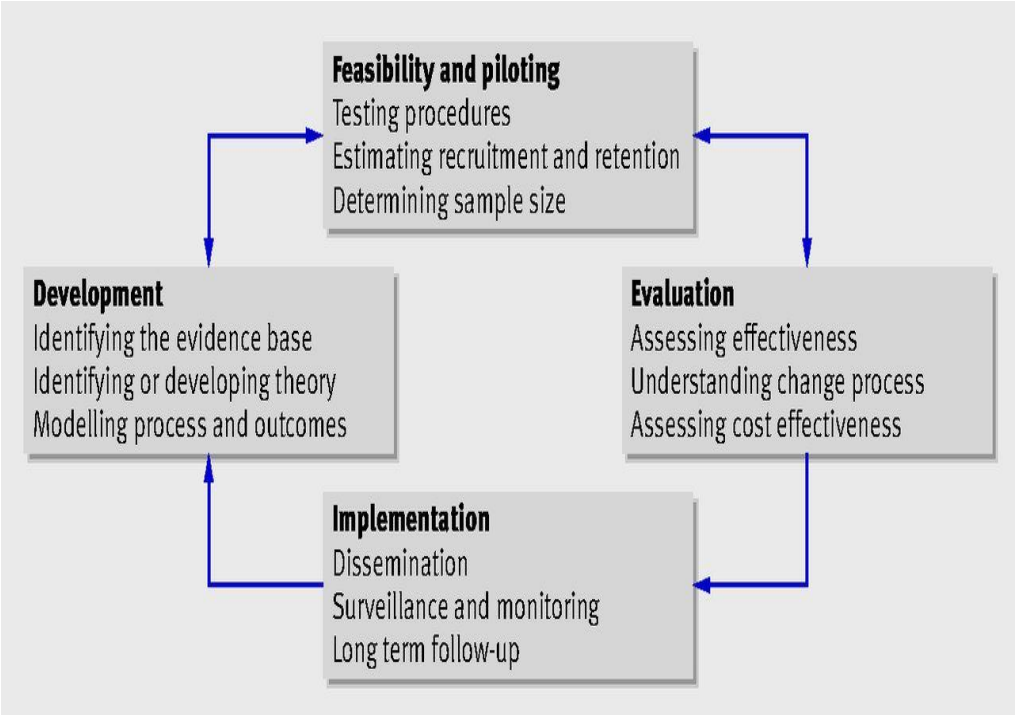
support and help from their mothers and other older females in families (Ali et al., 2006) . However, boys are often observed to be left behind (World Health Organisation (WHO), 2000), and there little support and guidance available to them during this stage, which I also witnessed within my own family, having a male sibling and cousins of similar ages. This made me decide that conducting research on young males would fill a research gap, since they seemed to be an under-researched population in the patriarchal culture of Pakistan.

At this stage, being reflexive allowed me to carefully scrutinise whether my research would benefit adolescent and young males in the future, by improving their puberty experiences and how future interventions could provide them with good puberty experiences (Northway, 2000). Thus, originally I intended to conduct an intervention study, however later I discovered that interventions designed without understanding the contextual experiences of young men and exploring what would be helpful to them during puberty are unlikely to be effective. Thus, I later modified my research proposal to investigate the contextualised puberty experiences of young males.

This study was designed originally as part of the first phase of the MRC complex intervention framework (Figure 13); collecting and identifying evidence to determine whether young males in Pakistan require a health promotion programme to improve their puberty experiences. However, as the study progressed to its implementation phase, it

evolved, as is the nature with qualitative research and the inquiry became more exploratory and inductive without being based around designing any particular interventions. The research question and study design were developed accordingly.

Figure 13: Medical Research Council (MRC) complex intervention framework



Source: Craig et al., (2008)

8.4 Researcher's positionality: insider and outsider perspectives

Hayfield and Huxley (2015) in their study offer two perspectives about researchers' positions or roles within a study. A researcher who individually belongs to the same group to which their participants also belong (i.e. ethnicity, sexual identity and gender) is considered to be an insider, whereas, an outsider does not necessarily share similar characteristics. Qualitative research supports the idea that the researcher's self-identity, standards and beliefs can influence the design and interpretation of the data (Carter and Little, 2007). It is important to reflect on the researcher's position as an insider and outsider, since identifying a researcher's position as an insider/outsider is an epistemological matter (Berger, 2015, Dwyer and Buckle, 2009). This is because positioning the researcher in comparison with their participants may have a direct impact on the knowledge that is co-constructed between them (Watts, 2006, Griffith, 1998).

It is considered that an insider researcher has a more advantageous position, particularly when they disclose their position to their participants (e.g. developing research questions, designing interview schedules, recruiting participants and data collection) (Hayfield and Huxley, 2015). In contrast, there are some authors, who have argued that an outside perspective holds more benefits (Bridges, 2001, Hayfield and Huxley, 2015). For example, the outsider role may help the researcher to draw conclusions and make observations that an insider might not have seen and may ask more 'naive questions' to explore

topics in depth, gaining valuable insights that an insider might have overlooked (Hayfield and Huxley, 2015 p.92).

Literature has identified research studies where the researcher holds both (insider and outsider) positions at the same time in relation to having different characteristics (Berger, 2015, Hayfield and Huxley, 2015). In this regard, whatever the researcher's position might be, reflecting and giving importance to how that may have influenced their research and findings is the most important point that is highlighted. Thus, according to reflexivity, considering the implications of insider and outsider perspectives was perhaps very important in my study, as I had an active role in the description and presentation of young men's voices regarding their puberty.

8.4.1 Insider

Being an 'insider' might have influenced the data collection and analysis because it allowed me to approach the study participants with some knowledge, along with having cultural awareness and insight about the subject. From the beginning of the study, I disclosed my 'social identity' to my participants as a PhD student, who was previously working as an instructor and teaching a course related to reproductive health in a private university, although this insider position was only with one study site.

With regard to other study sites, my participants were aware that I had a background in public health and had been in the profession of nursing

and nursing education for approximately six years. These characteristics describe my ‘insider’ position in this study. In addition, growing up in the same country, sharing similar cultural and religious heritage and speaking the same language also made my position as an ‘insider’ noticeable for my participants.

I felt that my ‘insider’ position facilitated me in building rapport and perhaps helped me to gain participants’ trust in order for them to share their personal and private experiences with me. This might be because my insider position and characteristics seemed to be important in building rapport particularly when conducting research on sensitive topics, and participants might have considered me an expert in the field and therefore better able to understand their experiences and perceptions. Through unveiling my social identity, prominent insider position and my visible appearance as an adult pregnant woman, young males might have considered me a mature woman and an expert in this field of study; thus, openly shared their personal experiences.

This was evident from an informal conversation with one of my participants regarding his personal feelings and emotions about puberty with me, after I turned off the recording, which I noted in my reflective diary, (Reflective account 2). In this example, I reflected that participant felt comfortable with me because he considered me to be from the same culture and shared more of his personal thoughts with me once I stopped recording.

Reflective account 2: Participant informal converstaion

In case of my initial interview, there was a participant who shared that although initially, he thought it might be hard to share experiences with me, he said since I was from the same cultural background; it was easier for him to express his feelings as he thought I might understand better.

My insider position also allowed me to anticipate potential challenges that might have occurred around the practical issues related to conducting this study. As a result, I was able to take pragmatic decisions to undertake this study without compromising my own safety. In relation to accessing the study sites, sampling and recruitment, a benefit of my insider role was that I was able to use my personal contacts to access appropriate representatives within the organisations selected as study sites. This helped me to identify potential participants for inclusion in the study.

Whilst the population of young males is not hidden, it could be hard to reach a population for research on sensitive subjects (Lee, 1993). Previous literature on similar subject areas in Pakistan has acknowledged that the sensitive nature of the research area makes it potentially more difficult to recruit (Ali and Ushijima, 2005). However, my insider status helped me to identify and contact suitable populations of young men; hence, I selected my participants using convenience and snowball sampling techniques.

My key contacts helped me to get the official permissions to conduct this study and shared the potential participants' schedules so I could

access them and communicate about my research. Similarly, these professional connections helped me to identify study sites, which provided safe access for me. This was particularly important at the time at which the study was conducted because of the current political unrest both within Pakistan generally and Karachi specifically (Kundi, 2016, Paracha, 2014). On further reflection I realised that it is because of my insider status, I remained safe from the bomb blast, which occurred during one of my interviews and was able to reach home safely with the help of transport available at one of the study sites.

In addition, the fact that I had undergone puberty in a similar culture (acknowledging that my experience would be different to boys), allowed me to understand some of the implied content. Being from the same culture, it was much easier for me to comprehend and clarify euphemism or indirect words (i.e. this and that), which participants have used occasionally to refer to some of their puberty related changes (e.g. wet dreams).

Thus, on some occasions, I felt that I was able to hear the unsaid, understand the euphemism used by participants and probed more frequently than others might have done if interviewing from a different culture. For example, probing more frequently for clarification of certain sensitive terms, which participants did not directly cite (i.e. masturbation, wet dreams). As a result, I felt I was more sensitised to certain dimensions of the data, as compared to someone not be from

the same culture (Reflective account 3).

Reflective account 3: Probing for clarification

Interviewing from the same culture allowed me to probe in case participant was not directly using any words. For example, on many occasions, although participants meant wet dreams they did not say directly. Having an idea that may be cultural, they were feeling hesitant; I probed and asked, can you elaborate it more? Or what exactly you mean by 'this'? So I was not giving a direct word but asking for further explanation through appropriate probing

Moreover, an insider position may have influenced the participants' ways of expressing their puberty experiences to me using their preferred language, content and style of conversation. For example, using medical terminologies and reference language (i.e. this and that) for sensitive terms, assuming that I would understand as an insider. In addition, I was also familiar with local adolescents language', how they speak and any potential sensitivities. It may have been easier for participants to express more emotionally difficult experiences with me since I belonged to the same culture and spoke the same language. This also might have facilitated a greater understanding of participants' experiences than if English had been the sole language.

Using a reflexive approach enabled me to understand aspects of my insider position and role that might have influenced my responses to the interview participants. Thus, I was cautious about not probing participants too much or giving words to their experiences myself, which I observed in the initial few interviews, however being reflexive made

me more cautious, thus I allowed interviewees to share their experiences and stories rather than ‘pushing’ them to certain directions.

In addition, participants might have chosen to frame their puberty experiences in a specific way. However, on reflection. I might have also chosen to ask questions in a specific style, which might have elicited those particular responses to my questions. At that stage, during the interview and also after when writing my field notes, I reflected that this occurred, possibly because of the other participant data emerging from the project and my knowledge of the literature that was reviewed to develop the proposal.

However, I was reflexive and carefully considered if I might have brought any biases to the interpretation and findings of the study. This is evident in the example of the reflective account below, showing how I stepped back into my researcher role and listened to what the participant experienced, by putting my prior assumptions to one side, as stated in my reflective diary (Reflective account 4).

Reflective account 4: Identification of being judgemental

While conducting a Skype interview with the participant (IM3), which was done after many face-to-face interviews were finished, transcriptions, and initial analysis begun. I continuously probed during this interview, since IM3 shared mostly positive experiences. However, due to my own biasness and personal influences, I probed him continuously perhaps because I was relating his experiences with other participants and literature, assuming masturbation experience as part of puberty experiences of all male adolescents. Although I was not probing directly in the back of my mind, I had this assumption. After much probing still IM3 did not share with me if he experienced masturbation and if that was his concern like other participants shared. Reflecting continuously on the process of data collection, even during interviewing IM3, I stepped back and stopped probing with this assumption since I realised he might have different experiences than others and I should listen to every participant with an open mind without having any assumptions about their experiences. From this time, I was mindful in all the other interviews if I was listening to participants with an open mind and kept this thing in mind while doing analysis as well.

In addition to the aforementioned benefits to an insider position, there might be a possibility of carrying certain risks to the study findings by being biased in collecting and interpreting data.

These assumptions are mentioned in Berger (2015) for those researchers who may use them when undertaking research with familiar backgrounds such as, from the same field. Using a reflexive stance in this study, I was aware that participants might have considered me an expert in the field and therefore, there might be a potential danger of withholding information assuming that I might already be familiar with participants' realities. For example, IM2 after his interview shared his masturbation experience with me but told me that as an expert in the field he was expecting me to ask him direct questions. However, I

clarified that I did not intend to ask any direct questions because of the inductive nature of this research.

Similarly, I might have also taken certain things for granted and overlooked some aspects of the participants' experiences. However, through open questions and asking participants at the end of the interview if they missed any pertinent information that they wanted to share, helped to counteract these disadvantages of being an insider.

Moreover, I was mindful to check if I filtered any information while analysing my data and added my own interpretation. In order to ensure if I did not use my own interpretation while analysing the data, I read my data several times and checked the quotes used from participants' transcripts back and forth, making sure that the final analysis and thematic map was grounded in the data and then checked to see if anything was left over. Once I had completed the analysis, I also made sure that my supervisors checked it if it was relevant to my data. This ensured that the analysis was data driven and my assumptions had not overlooked any sort of information.

8.4.2 Outsider

Other than an insider position, reflexivity allowed me to reflect on how I adapted an outsider perspective in many respects, particularly in relation to gender, age and experience as a researcher. In this research, my gender identity was different from my participants and there were approximately 12-years age gap between my participants

and myself. Despite teaching for a few years in the field of reproductive health, I was a novice researcher in this field and being female, I had no direct experience of male puberty that could be drawn upon. In the absence of familiarity of how young men perceived their puberty experiences, which is possibly different from that of females, analysing data was more difficult in the light of reflexivity.

It is suggested by McCracken (1988) that having an intimate personal experience of a phenomenon under research could have an unfavourable research outcome, due to the lack of objectivity and detachment from one's own self. Within this study, I had no personal experience of young male's puberty transition, which could be helpful in gaining more enriched insight for the study purpose, being an outsider I questioned their experiences and looked at them from a neutral perspective.

Moreover, I am a young adult married woman and was visibly pregnant when I was in the field for recruitment and data collection. The participants had no previous connections with me, despite the fact that I was collecting data from familiar study sites. These aspects characterised my position and role as an 'outsider' in this study. The details regarding how this outsider position might have benefited me will be discussed in the subsequent sections.

Being an 'outsider' I anticipated the challenges and difficulties I might have encountered when approaching these young males and during the

data collection and analysis phase. For example, I was doubtful that young males would be willing to participate in this study, and even if they participated, I was fearful of not getting enough truthful data. Having an outsider role as an interviewer, who was also a young woman, asking sensitive questions and gathering intimate details from young males needed to be considered carefully. Particularly in Pakistani culture, where puberty related topics are not openly communicated as discussed in chapter 2. Indeed previous studies exploring similar topics such as puberty and SRH on adolescent males, in similar contexts have encountered challenges in collecting enough data, even when the researcher was of the same sex (Ahmadi et al., 2009, Ali et al., 2004).

This positioning might have influenced how young males constructed their experiences and might have affected the content of their revelations regarding their puberty experiences (Miller and Dingwall, 1997). For example, these young men might not have disclosed certain personal experiences to me in order to protect their self-image. However, my visibly pregnant body possibly made me look more mature, which might have influenced the data collection process, (see section 8.5) of this chapter.

By taking a reflexive stand on my overall ‘outsider’ position and acknowledging my discomfort while teaching in this area earlier, a public participant involvement (PPI) exercise, detailed in section 3.3.1.2 was performed prior to the data collection phase. Through this exercise,

I gained more confidence in approaching young males for my study by practising talking regarding this sensitive topic with a PPI group comprised of young males with similar cultural backgrounds. Although I did not ask any direct questions from the PPI group regarding their puberty, I got some advice on how to approach young men in the field, build rapport, and phrase certain questions from the interview guide in such a way to make young males more comfortable in sharing their experiences with me.

For example, within the PPI group discussion, I was advised to ask about the voice changes as a classic example of when boys begin their puberty. Thus, these PPI participants advised me to approach participants informally, and begin the conversation with small hints (i.e. voice change) in case participants hesitated about talking. In addition, it was advised to begin interviews with social conversations that may play a role of a bridge, and lead on to the conversation on puberty. For example, talking about adult roles, or about the co-education system and their comfort level in being at university with members of opposite sex.

Moreover, during data collection, I overcame the fear of disclosure of enough information from participants by conducting in-depth semi-structured interviews, described as an important method to discover the intricacy of young men's lives (Elmir et al., 2011). I reflected on how using this method for data collection possibly allowed me to use

appropriate techniques to generate truthful and in-depth data from my participants. For example, I probed with no prior assumptions using my interview guide, if the participants did not cover certain topics or were not initiating the conversation. This is shown in the quote from my reflexive diary (Reflective account 5), where I asked the participant to further clarify the point associated with wet dreams and isolation.

Reflective account 5: Seeking clarification

When I was interviewing IN4, I used frequent probing because of his close gesture to discuss his experiences, he was answering in one word some times and I, therefore, used probing to seek further clarification. For example, when he said, he went into social isolation during his puberty. I probed and asked, 'can you please elaborate more on 'social isolation? what made you isolated and how to dealt with it?' although from his previous conversation it seems obvious that his wet dream experience might have affected his socialisation, instead of jumping into conclusions, I probed further to get in-depth data and be clear on this point what he was making.

8.5 Impact of pregnancy

This section reflects on my personal experience of conducting this research while I was pregnant. From the beginning of this study, I anticipated that my female gender would be a barrier to my efforts to collect data on young men' puberty experiences (Reich, 2003). However, being visibly pregnant ensured my maturity level, facilitated me access, and communication with my potential participants, although having an opposite gender, young males stayed back to volunteer in the meetings arranged for recruitment purpose. Reich (2003) shared her positive experiences, when her pregnancy status facilitated her in

gaining access to her research participants, in the field site, and to be able to collect credible data, despite her preconceived fears of not being welcomed.

In my own study, whilst initially a concern, particularly in relation to personal safety, this might have positively influenced participant recruitment with the young men viewing my gender through a different lens. For example, as a young woman of a similar age, the young male participants might have been less willing to share their experiences with me, as they could be more conscious of maintaining their traditional masculine identity. For example, a young female researcher could easily have been seen as a sexually available, who participants wanted to impress, thus I would have collected different data if single and not pregnant.

Being clearly pregnant, married and older, these young males might have reacted to the interview, responding differently. Thus, my visible pregnancy might have acted to change the dynamic as it possibly signalled that I was not sexually available thus, reducing the pressure on young men to live-up to the traditional gender norms.

Despite my perception that my pregnancy had a positive impact on data collection, the main practical issue that arose was that of time constraints and pressures imposed by my pregnancy. Therefore, I had a very defined and inflexible time-period for data collection. This was pre-determined by the need to travel back to the UK by a specific date,

as a result of airline restrictions on pregnancy term, in relation to international flights. As a result, I changed my plan of data collection and analysis and instead of doing iterative thematic analysis; I initially conducted a few interviews and did their preliminary analysis following thematic analysis processes.

Once I shared my preliminary findings along with my transcripts with my supervisors, the feedback suggested no further changes in my interview guide were required. This proved my ability to generate in-depth data from my interviewing techniques, in part probably because of having different dynamics in the room because of my pregnancy. I then completed my recruitment and started face-to-face interviews simultaneously in order to do maximum data collection within a constrained time period. While I proposed both face-to-face and Skype interviews, due to the limited stay in Pakistan the Skype interviews were completed later in the U.K.

Although, the pregnancy did not allow me to follow the iterative process of data collection and analysis, on reflection I recognised that it did not affect the quality of the data. This might be because of the different dynamic in the interviews due to my pregnancy status. Learning skills in face-to-face interviews helped me to apply the same dynamics during Skype interviewing, which also helped me to gain in-depth data. Therefore, with continuous reflection, I felt that pregnancy (even though it was not planned) facilitated me to access participants comfortably and

I was able to collect more credible and reliable data from these young males.

8.6 Using techniques to promote listening (within both outsider and insider role)

In addition, I reflected on whether I allowed my participants opportunities to think and reflect on their experiences, and created a safe environment where they were able to disclose their experiences (Holloway and Freshwater, 2007, Grant, 2014). As a result of the secure and non-judgemental environment offered by me, these young males regardless of my opposite gender shared sensitive and personal information with me, such as masturbation practices, suicidal ideation, antisocial behaviour and intimate relationships details. Furthermore, I gave sufficient time to the participants, with pauses and breaks if required to help participants share their puberty experiences and feelings with me, particularly if those experiences seemed to be distressful, unique, personal or intimate. This is evident from the examples of the two participants disclosing their personal and distressing experiences from their puberty phase after taking a small pause and a short break, one example is shown below (Reflective account 6).

Reflective account 6: Providing comfort and offering break

Offering a small pause to IM5 was effective when he started to talk about his sexual abuse experience. For a second I thought the connection discontinued since this was the Skype interview. After a short pause of nearly 30-45 seconds when I assured if the line was, still connected participant started to talk. I offered participant if he wished to take a small break for which he refused, however, I allowed pauses in the middle for the participant to take his time and comfort to express his experience which seemed to be traumatic. I also accepted participants' request on if he could light a cigarette while speaking about this incident since he shared that smoking makes it easier to speak about his abusive experience.

On reflection, I felt, using appropriate techniques and demonstrating a mature attitude might be important when conducting interviews perhaps on sensitive subjects. Manderson et al. (2006) suggest that that women may be better than men, at exploring emotional reactions and that older interviewers use appropriate conversation style or utilise their own life experiences in providing common background. Although I did not share my personal experiences with the participants, I was able to explore their emotional reactions.

Reflecting on my 'outsider' position, which facilitated IM5 and other young males to disclose their personal and intimate experiences; I felt that I was empathetic and less judgmental potentially because I might be slightly older than my participants. Described previously by some authors who support this idea that a researcher's age is important, as it determines their maturity level, meaning older researchers often collect better, more empathetic and non-judgemental data (Deatrick and Faux, 1991, Grant, 2014).

Hutchinson et al. (2002) and Klee (1997) suggested being non-judgemental and sensitive when interviewing young men, regardless of the researcher's age, ethnicity or sex. It has also been argued that both interviewer and interviewee construct interviews, hence the researcher's non-judgemental attitude is important in the interview process, as are the potential benefits of participation. I was, therefore, clear with participants about the potential benefits of participating in this study to benefit young males in the future, ensuring them of a non-judgemental attitude at all times. In this regard, I allowed participants' conversations to be open and continued listening, although personally sometimes I was uncomfortable, listening to young male's puberty experiences from an 'outsider' perspective (i.e. being a female listening to intimate experiences of males in a face-to-face environment).

Regardless of my discomfort, during the analysis, I was reflexive on my position and as a researcher, I was inclined to explore and listen to my participants' experiences even though sometimes their experiences were outside my area of comfort. The examples of being non-judgemental are shown below from the quote of my reflective diary, (Reflective account 7), which highlights my discomfort with one participants over the disclosure of watching porn videos, masturbation and involved in sexual torture during his puberty and how I deal with the situation by being non-judgemental.

Reflective account 7: Being non-judgemental

IM1, who seemed overwhelmed from his own experiences during puberty, particularly with regard to his unusual sexual behaviours such as, obsessed with watching porn and masturbation and involved in the sexual torture of his peers (including both gender). His perceived spirit possession experience, all these made me uncomfortable and scared but I did not stop him and continued listening to him within my researcher role in order to explore more. In addition, with an intention, if this participant needed any emotional support himself? Alternatively, whether there would be any reportable event, which should be notified for further referrals? Being reflexive and allowing this participant to talk helped me to draw conclusions that these were his past experience which even caused distressed in his life but at present, he understood those were his challenges on which he coped with time and seeked appropriate professional help (counselling) during that time. Thus, the informed decision was taken that at this stage (during his adulthood) he may not need any further referrals.

However, being reflexive allowed me to identify occasions when I might be judgmental and biased and did not listen to participants perhaps because of my own discomfort of being an 'outsider'. For example, in one example, I reflected that I closed the conversation and could not continue because I felt uncomfortable with the content of the conversation and the length of the interview, mentioned in my field notes, (Reflective account 8).

Reflective account 8: Feeling uncomfrotable as a researcher

At one point I was feeling too overwhelmed with the IM1 experiences, and I felt emotionally exhausted and tired from his experiences. At last, when I realised this interview might be a platform for him to express his own emotions since this interview including break lasted for more than 4 hours. In addition, towards the end, he started to share the experience with regard to teenage absurd behaviour such as being naked etc. I felt very uncomfortable and thus, I stopped and summarised the interview and stopped it immediately. Later I reflected on being biased but I felt that in that situation, this might be the right decision since the participant has shared enough of his experiences and may be now the topic was about to divert, so it did not affect the findings.

The above reflective account indicates that I was uncomfortable because I could not relate my experiences with this young man (IM1), which were very different. Hence, as an outsider, I lacked direct experience of what this young male, in particular, and others, in general, might have gone through during puberty. This point of difficulty for researchers to fully comprehend what it is like to be in certain situations if not experienced by themselves directly is also supported by Berger (2015).

I also faced a tremendous challenge in the form of managing my own emotional distress, specifically facing an experience of a human phenomenon of which I had no personal or secondary experience; i.e. sexual abuse experience shared by IM5 during his puberty. This experience influenced my data collection and analysis and even affected my own personal life due to the emotional reaction towards it.

Thus, I become very emotional for a couple of months thinking a lot about how to prevent child sexual abuse and my role as a mother in the future, with lots of uncertainties. However, reflecting on reflexivity and how I dealt with my emotional distress helped me to strengthen my role as a researcher to handle similar issues in the future. An example of how this particular interview influenced my emotional state is documented in the quote below, (Reflective account 9) describing my sadness and apprehensive feelings on the participant's experience of being sexually abused during his puberty:

Reflective account 9: Being emotionally distressed

I was very sad and devastated when I discovered from the participant (IM5) regarding his sexual abuse incident that had occurred during puberty. His story of being sexually abused and battling with his identity became an experience of profound grief and torment for me, which was significant at the time of data collection and analysis. It provoked mixed feelings of sadness, anger, apprehension, discomfort, and confusion inside me, and I critically reflected about it individually and professionally at length throughout my analysis and even when writing my findings. It also made me over-conscious about these issues in the society, which I previously ignored or taken for granted and affected on my own personal life, by being thoughtful regarding my own child safeguarding issues. This interview made me reflect until now regarding how important puberty time could be in an individual's life as one single incident might change their adult identity. Being reflexive and discussing my feeling with my supervisors helped me to gain emotional strength for future similar issues if that would arise.

Furthermore, during data collection, I was exposed to diverse, extreme and upsetting reflections and insights on the impact of puberty, which I had not expected to experience. This left me personally feeling very confused and forced me to reflect on the veracity of the self-reported

data, especially as the subject was socially undesirable and culturally sensitive.

As a result, I ensured that frequent probing and co-construction helped illuminate my understanding of the puberty experiences of these young males. It also helped me to check the reliability of the accounts. However, I was mindful not to provoke a negative response from them on occasions when very sensitive and personal information had been shared. On reflection this tension might have influenced the data collection process, I might have limited my probing of certain responses and thus limited clarification and understanding of certain aspects of the puberty experiences of the participants.

This is potentially more true of the initial interviews where my status as a novice researcher may have been more apparent and might have held me back from probing difficult and culturally sensitive areas. For example, in the example below, I reflected in my diary how I stopped myself from seeking more information and clarity, which might have been important for the findings. However, I learnt to be more comfortable as the study progressed, (Reflective account 10).

Reflective account 10: Not seeking clarifications

I was confused when a participant, IN3 shared about gaining knowledge from an older man who was their father's age. I doubt on this data since I questioned how in this culture this could be possible. Further exploration revealed he was uncomfortable with this man initially but later became comfortable. There were few doubts regarding this information in my mind, whether these boys were exposed to any kind of abuse which they might not have identified due to their poor knowledge or might not telling me. However, I did not probe it since I felt participant might feel offended and even I was not sure at that stage how to ask and probe this assumption since it might be only my assumption and nothing such has happened

As an outcome of all these emotional experiences, it might have been useful to plan how I would cope if I felt emotionally disturbed by the data collection process. Considering the sensitivity of the topic, at the outset of the study, I had planned and discussed with the organisation heads how I would manage psychological distress in the participants if it arose. However, in hindsight, I had not considered whether this study might influence my own emotional health or how I would deal with my own emotions following the disclosure of information that might distress me.

This became particularly apparent following interviews with two participants (IM5, IM1) who shared puberty experiences, which had left me with feelings of shock, surprise, confusion, discomfort, sadness, fear, worry, and anger albeit each to different extents. Using a reflexive approach enabled me to identify my own emotional distress that had occurred because of the extreme experiences shared by these young males. Talking with my supervisors about my discomfort and distress helped to build confidence and gave me the strength to move back into

the other interviews in a stronger frame of mind.

These discussions were more of a sharing experience (cathartic), which normally would occur with all the new researchers and PhD students. This sharing and discussion with my supervisors potentially helped me to come out of that emotional response temporarily. However, on reflection, I felt that having clinical supervisors, as in some cases, students have, may have better helped me to cope and discuss these emotional reactions. There were occasions during other interviews and even during analysis, when reflecting on some issues emerging from young males' puberty experiences seemed to bring discomfort in the form of sadness within myself for their extreme experiences. This is reflected in the following example within my reflective diary, describing the feelings of re-occurring sadness and emotional instability and the suggestion to talk more frequently about these issues (Reflective account 11).

Reflective account 11: Recurrent sadness

When I was analysing the data, I realised and again used this reflexive approach. Reflecting on this approach I identified, there were many occasions when I felt emotionally disturbed since there were many experiences shared by these young males which brought a feeling of distress and anxiety. I reflected that talking to supervisors regarding two emotional cases might have temporarily given me comfort, however; it did not fix the problem permanently. Although my emotional instability did not affect my findings since I was reflective of the process of analysis and upon my feelings, it could be advisable to discuss these issues more often with more expert advisors

8.7 Reflection on the use of technology

In addition, I also learned to use new technology and how using it appropriately could influence the data collection process. For example, initially while conducting Skype interviews, my internet connection disconnected, and I had to call the participant, which I ended quickly due to the fear of losing connection on the mobile phone. I reflected on this experience that I was scared as to whether the participant would pick up my call again. After summarising quickly with him on the phone, I reflected on whether I could have done a better summary if my internet connection had not failed. Besides this, I learned to use the audio-recorder efficiently and when not to stop the recording in order to lose important data.

This is something I learned after a couple of interviews when I rushed to switch off the recorder as soon as I summarised the interview and offered thanks to the participants. For example, on one occasion, IN4 suddenly started to talk about a very important experience of masturbation and the role of father-son communication when the recording was paused because I assumed the interview was over. Later, I delayed turning off my recording until after the interview was summarised, when the participant was ready to leave the room, however, it was ensured that the recording was paused in front of the participant to ensure his privacy and anonymity.

8.8 Conclusion

This chapter has demonstrated reflexive approaches that were used to enhance the quality of this research study. Using reflexivity aids the reader in understanding the context within which the study was undertaken and how this shaped the research process (Holloway and Freshwater, 2007). Reflexivity allowed the researcher to identify the different positions of the researcher and how these roles may have influenced the research process. It also helped and contributed in generating in-depth data and affected the analysis process to draw reliable conclusions from this study. By using a reflexive stance, the researcher is able to highlight the strengths of this study and identify limitations important for further research. These strengths and limitations will be discussed in chapter 9 around interpreting of the findings and concluding remarks will be presented in chapter 10.

CHAPTER 9: DISCUSSION OF THE STUDY FINDINGS

9.1 Introduction

This chapter presents a discussion of the young males' puberty experiences living in an urban Pakistan. It begins with an overview of the key findings, taking into consideration the initial research objectives. The social ecological model (SEM) used to discuss the study findings, is also introduced. Alongside discussing the findings in the light of existing literature and research, the discussion is integrated within an adapted SEM, which is presented as a new and original contribution to knowledge. Thus, this model is presented in terms of its potential implications for future puberty and adolescence research and health promotion programme design. To conclude this chapter, an acknowledgement of this study's strengths and limitations will be presented.

9.2 Overview of the key findings

The primary aim of this study was to explore the puberty experiences of young males living in urban Pakistan focussing on whether there were any challenges, barriers, or enablers that contributed to these experiences. It also explored if these experiences influenced these young males' subsequent lives. The underpinning purpose of this study was to add to the body of knowledge on how to promote good puberty experiences among future adolescent males in Pakistan. These aims and objectives have been addressed by exploring the puberty

experiences of 22 young males (aged 18-21), who shared retrospectively their experiences of puberty transition. This is the first study to explore the puberty experiences of young Pakistani males, and as such provides a novel contribution to the knowledge about male adolescents and their developmental challenges. The use of a qualitative methodology with an inductive approach to data analysis allowed detailed and in-depth accounts of young males to be captured.

Young males' experiences involved emotional complexities and difficulties resulting mainly from a lack of preparedness for and awareness of the developmental changes associated with puberty. These changes were inextricably linked to their socio-cultural context. Being in their late adolescence or young adulthood, the participants described the characteristics and attributes they developed during puberty. Whilst describing those, they shared how these characteristics helped, forming their identity as an adult man in patriarchal Pakistan, shaping their sexual orientation and influencing the development of an adult outlook. The effects of this identity development will most likely remain with them in their adulthood.

A lack of awareness regarding the normal pubertal changes featured in all participants' puberty experiences, which is similar to the findings of previous literature assessing SRH knowledge (Adeokun et al., 2009, Shaikh and Rahim, 2006, Rajapaksa-Hewageegana et al., 2015) and reproductive health needs of young people (Ali et al., 2004). The

participants accessed a variety of sources for gathering information on puberty. The characteristics that made these sources approachable varied significantly among participants, and was largely dependent on the specific socio-cultural factors, operating in their home at the time of puberty. Whilst the reliability and trustworthiness of the sources was important to participants, this did not always guarantee the accuracy of the information provided.

Inconsistent with the cultural norms and expectations, the participants placed a high value on their parents, particularly fathers, considering them as the most trustworthy source of puberty education for male adolescents. This finding supports existing literature (Mamdani and Hussain, 2015, Marcell et al., 2007, Wang, 2016), calling for parents to play a role in puberty education. This, however, has not yet been implemented on a large scale in Pakistan. Indeed, a deficit in the communication between fathers and sons during puberty may have resulted in a poor puberty experience. These findings support the claim of previous authors that a good father-son relationship is an important factor in preventing anxiety during puberty (Ahmadi et al., 2009). A positive father-son relationship could lead to reduced high risk behaviours (Caldwell et al., 2010) thus, promoting positive puberty experiences.

In contrast to the accounts of the immediate psychological impacts occurring due to pubertal changes, which dominate the existing

literature (Ahmadi et al., 2009, Flaming and Morse, 1991, Sontag et al., 2011), participants' accounts presented how these puberty experiences could have influenced their life in the long term. Strategies that helped them to cope with the negative psychological impacts of puberty were presented, consisting of adaptation techniques such as, acceptance and normalisation of pubertal changes, seeking social support from friends and families, using self-control strategies.

However, in the absence of appropriate coping strategies available, most likely at the time of puberty, it may be difficult to prevent long-term psychological impacts. As a result, a few participants reported experiencing potential self-harm, suicidal ideation and depression during puberty. Nevertheless, these participants identified that as they grew older, they were able to manage these psychological effects by using the aforementioned coping strategies. Previous studies looking into the puberty transition of males approached younger populations of adolescent males (Ahmadi et al., 2009, Al wan et al., 2010, Bello et al., 2017, Flaming and Morse, 1991, Huda et al., 2017) and were therefore unable to identify any long term impacts that may have occurred due to puberty experiences.

This study, exploring retrospective puberty experiences of young males (aged 18-21), however, provided a new insight into the long term psychological impacts that could occur related to puberty experiences, and whether any strategies could be useful to reduce these effects.

The participants also discussed being able to develop a personal identity during the puberty experience. Social and cultural norms that facilitated the development of participants' identity as an adult during puberty were presented. However, the imposition of these norms created gender stereotypes and participants' adult identity was developed under the influence of these gender norms. As a result, the participants had to negotiate their roles and responsibilities to overcome the tensions created through social norms and traditions that began to form their masculine identity during puberty.

These findings are similar to those of a Cambodian study conducted on young males by Scandurra et al. (2016) and a study on Irish boys O'Beaglaoich et al. (2015), where societal norms of masculine identity often created gender role conflicts among these boys. In the context of Pakistan, although participants described that, their male adult identity was formed as part of the societal norms; the majority of them felt themselves under pressure to develop these gender-imposed identities.

The findings of this study, therefore, suggest that to develop a society free from gender stereotypes and promote gender equality among future generations of Pakistanis, more research needs to be conducted on young males' perceptions of gender informed masculine identity. This may eventually contribute equity in social standing between males and females in the context of puberty support and experiences.

The above-mentioned key findings of this study indicate different spheres of influences that were present and shaped these participants' experiences during puberty. For example, there was a personal and local sphere of influence, which was family members and peers influencing participants experiences of puberty. Next, there was a wider sphere of institutional influence around schools and a lack of available accessible information sources on puberty in schools. Within these local and wider levels of influences, media (i.e. TV and videos) and emerging technology (i.e. internet and social media) were also found to be the factors that significantly impacted on participants' puberty experiences.

It is essential to clarify at this stage that the participants shared mixed perceptions (i.e. both positive and negative) regarding these various influences. Irrespective of that, all these influences were governed by the overarching cultural and religious influences dominating Pakistani society. As a result, knowledge on pubertal changes of participants was often overlooked by their local and wider levels of influences. This eventually impacted on participants' lives in various ways during puberty and even fore-shadowed some of these effects on their young adulthood. This can be seen in the form of various emotional experiences during puberty causing psychological impacts and creating tensions around their identity development.

All these spheres of influences, i.e. the family, the peer group, the neighbourhood, the school, the workplace, and the broader society

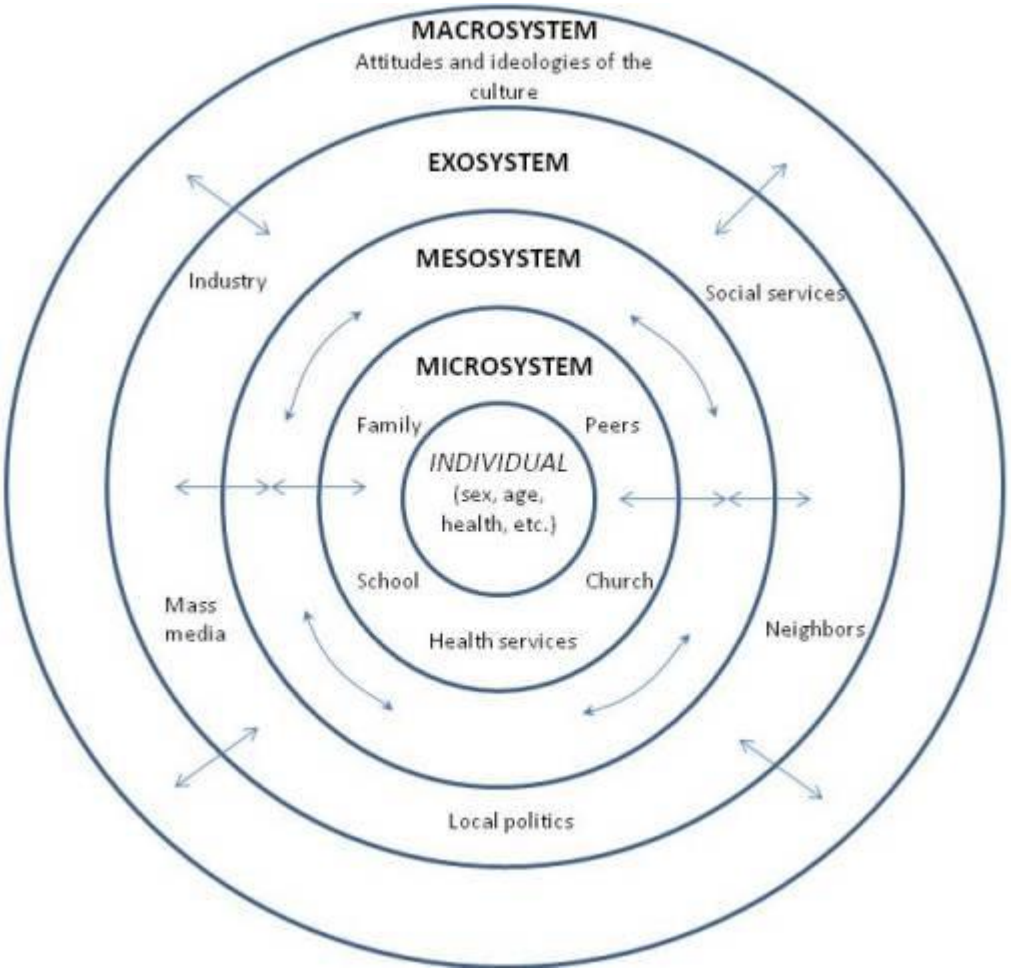
have been shown to impact on adolescent development during puberty (Curtis, 2015, Santrock, 1998). The behaviours and practices young people generally adopt either during puberty or at any other time during their lifetime are perceived to be socially learned and influenced, through a variety of factors (Santrock, 1998). These influences are rooted within the moral values, laws, religious guidelines, economic policies, educational practices, literature and popular culture, and are acquired through family, peer group, school, the media, and other cultural influences (Mitchell et al., 2012).

Following the evaluation of the findings and the differing levels of influence present, it became clear that the findings of this study may be best discussed through using an 'Ecological Systems Theory of Development', also known as the 'Social Ecological Model' (SEM) (Bronfenbrenner, 1986). The study's findings fit with some of the SEM components such as Microsystem, Exosystem, Macrosystem and Chronosystem. Thus, the SEM has been adopted to facilitate the discussion of this study's findings succinctly. Prior to doing this, a brief overview to understand the various systems of influences shaping the young males' puberty experiences will be presented in the next section 9.3.

9.3 Introducing the social and ecological model (SEM)

The SEM was proposed by 'Urie Bronfenbrenner' (1979) , a Russian-born American psychologist (Bronfenbrenner, 1986), who has given a holistic perspective to human development, which is influenced by the different types of environmental systems as shown in Figure 14.

Figure 14: Social and ecological model (SEM)



Source: Bronfenbrenner, 1986

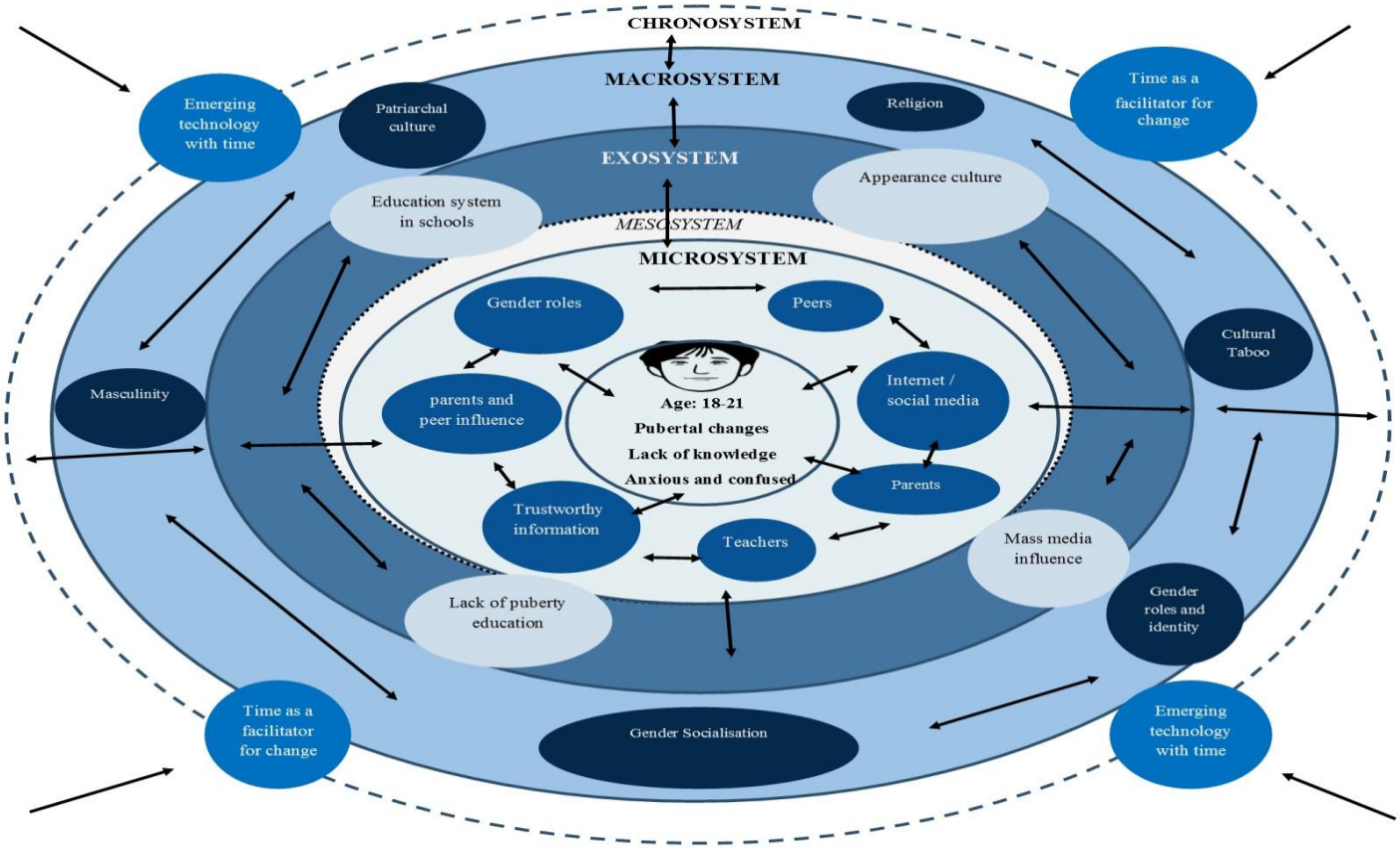
According to Bronfenbrenner (1986), individuals are the products of their environment, especially the social environment including the culture, people, institution and the ideas with which they interact. Thus, human development can be viewed from the perspective of social and environmental contexts, placing an individual in the middle of a ‘layered’ system, with all layers of this system interacting with each other and influencing human development.

As shown in Figure 14, these development processes are bidirectional. They take place between individuals and their environments and have interconnections between and within systems (Bronfenbrenner, 1986, Leman et al., 2012). It is therefore suggested that in order to study human development and understand their experiences efficiently, it is important to see within, beyond and across, to understand how these systems interact with one another (Bronfenbrenner, 1986). A brief description of each of these systems within the SEM is presented in Appendix-16.

9.3.1 Designing an adapted SEM to discuss the findings

After becoming familiar with the components of the SEM, it was identified that a similar nested and interrelated model for interpreting the findings of this study was required. In fact, the anticipated interactions between the components of the SEM mirror the interactions that young males had with their surroundings at individual, organisational and societal levels that shaped these participants' experiences during puberty. Therefore, in order to make sense of the depth of these experiences, it became apparent that the interpretation of this study's findings can be done using a socio-ecological lens. Thus, integrating these findings within the theoretical framework of SEM, would be useful. However, the findings do not directly, or fully, map onto all the components of this model. They rather, mainly focus on three main systems of influence as shown in Figure 15 below.

Figure 15: Adapted SEM designed to integrate puberty experiences of young males



Integrating this study's findings within this adapted SEM, as shown in Figure 15, a young male is placed in the middle of the circle and his puberty experiences were mapped onto the model, showing the influence of three components within this SEM, along with an emerging factor of time (Chronosystem). Primarily, the pubertal changes, along with the sexual development such as acne eruptions, voice changes, facial hair growth, wet dreams and erections, all formed their microsystem of influence at an individual level. These individual factors also interacted with the immediate environment of the participants such as, parents, teachers, media access etc., forming the interpersonal factors, which also fall under the microsystems of influence shaping participants' puberty experiences.

Similarly, the events and experiences that occurred at the institutional level (e.g. societal events, schools, and religious organisations) formed the exosystem of influence. All of these factors also interact with the wider social, cultural and political factors, forming the macrosystem of influences, which has an impact on all the other factors affecting young men's experiences during puberty. Lastly, there is an emerging influence from the findings - the time factor, forming the chronosystem of influence, reflecting on how time and resources evolved and impacted on the way now these young males perceived and shared with the researcher, puberty experiences of their lives retrospectively.

The model designed to discuss the findings of this study shows different levels of influence on participants' puberty, and these are represented by complete circles. The mesosystem is merged with the exosystem and is represented by a thin dotted line indicating no direct influence on puberty. The two-way arrows added to the model, indicate the interconnectedness of these systems with each other and also with the individual. The outer circle's dotted line represents the chronosystem, where the dotted line indicates the evolving nature of time, which may influence how the puberty experiences were formed and evolved for the participants as time passed.

To sum up, this model develops and illustrates important insights on what it means for adolescent and young males to undergo puberty experiences under the influence of socio-cultural and contextual factors. It also illustrates how different factors within each layered system's influence all, relate to one another, and how different individuals determine their puberty experiences. The model reflects the different sociocultural and environmental factors, which influenced the transition process, the main concerns and needs of young males during puberty. The factors that helped them and which may need to be implemented at a formal level, using the ecological framework to support future adolescent boys are indicated.

The findings of this study illuminate the interaction of young male's puberty experiences with their social world, which fits with the philosophical orientation (interpretivist-social constructionist) and the approach used to construct these experiences (discussed in chapter3).

Looking at the scope of this study (relevant to public health) it is apparent that examination of these findings in the light of existing research and theory requires integration of literature from various disciplines such as medicine, nursing, psychology, social sciences, and health promotion.

The findings will now be discussed and interpreted in the subsequent sections, integrating them within the three SEM components (i.e. Macro, Exo and Micro systems of influence) and with reference to the existing literature.

9.4 Macrosystem of influence

This section discusses findings related to the broader societal, cultural norms, traditions and religious values that influence the way participants interact with their immediate environment and experienced puberty. It was noticeable that the participants experienced similar personal and social issues compared with adolescents of the same age. Most issues are simply an outcome of being a teenager and related to adolescent development. However, in this study, participants experienced complex issues concerning their changing bodies, upholding certain beliefs and forming an adult identity, which results from undergoing puberty in a

Pakistani culture, which has strong cultural heritage, values and religious belief system. Therefore, these socio-cultural factors influenced participants' puberty experiences. The experiences that occurred as a result of socio cultural factors are discussed subsequently within this section.

9.4.1 Knowledge and awareness of puberty

This section discusses findings related to the puberty knowledge and awareness of the participants at the time of their transition, and how these were addressed under the influence of the larger socio-cultural and environmental contexts. Findings related to the lack of awareness due to the negative image of sex in Pakistani society, social and religious factors creating this negative image and the differences on the level of awareness of urban versus rural population are discussed in this section.

9.4.1.1 Cultural taboos hindering puberty awareness

Findings indicated that the majority of participants were unaware of bodily changes that occurred during puberty, particularly those associated with their sexual growth and development such as, wet dreams and erections. This lack of awareness was mainly due to the restricted socio-cultural norms of Pakistan, making puberty a taboo subject to talk about. In addition, participants revealed a negative image of sex and sexuality concepts in Pakistani culture, which begins to emerge during puberty. This negative image was one of the main

reasons identified for the lack of awareness about puberty. Indeed, participants shared how they felt uncomfortable if the terminologies and concepts related to reproduction and sexual growth and development were used in puberty education, due to its negative image in society.

The negative image of puberty and sex education identified in this study was also an outcome of the influence of the Islamic religious teachings shaping Pakistani society and imposing strict cultural norms on the population. This finding is supported by various authors (Ali et al., 2004, Ahmadi et al., 2009, Ahmed et al., 2008, Varani-Norton, 2014), who acknowledge that communication around puberty and its related topics (e.g. sexual behaviours) are strongly discouraged due to the religious values embedded in such societies.

Considering the fact that Pakistan is an Islamic state (Fact Book, 2017c), the cultural values of Pakistani people may, therefore, be deeply rooted in the teachings of Islam (Griffiths, 2015 3310). Following these teachings, pre-marital sex is forbidden in Islam (Rizvi, 1990), and it is legally considered as an act of fornication (Zina), resulting in punishment (Criminal Laws Amendment Act, 2006). Thus, withholding sex education is in line with Islamic teachings, which may consider that providing sex education could lead into a sexual activity, although in reality this is not necessarily true.

This study also found religion as one of the factors responsible for lack of puberty awareness, where participants recognised similar barriers in

relation to their own puberty experiences. However, there were contrasting views shared on religious perceptions, and thus some of the participants' accounts questioned their understanding of the religious teachings with regard to puberty education. These participants were those who described and believed that religious teachings have provided misinterpretations regarding puberty in Pakistan, leaving young males either uninformed or misinformed regarding this subject.

In addition, the findings revealed that the participants felt that their elders' perception was that they would become involved in sexual relationships if an awareness of puberty was provided to adolescent boys too early. The findings related to the perception of getting involved in sexual relationships corroborates with the idea of Mbugua (2007), who finds that the Kenyan mothers were opposed to sex education for adolescent girls, since it may encourage these girls to have pre-marital sex, and thus should not be provided.

In contrast to these findings, Makol-Abdul et al. (2009) reported Malaysian parents' positive attitudes towards including sexuality education in schools with 73% of parents (n=211) supporting the inclusion of various sexual health topics in the curriculum provided that the contents were in line with the teachings of the Islamic religion. Malaysia is also an Islamic state, and the openness of sexuality education, in line with Islamic teachings in this country indicate that religious values do not hinder the provision of puberty education, if

given appropriately.

This, therefore, suggests that religion may not be the only factor in creating a negative image of puberty in the Pakistani society. However, there could be ingrained cultural values, influenced by the misinterpretations of the religious teachings within Pakistani society that consider puberty and related conversations as taboo. Thus, it is mainly because of these socio-cultural reasons, that many societies, including Pakistan, typically withhold information from adolescent boys unless it is felt to be necessary, which often happens after puberty or marriage in the Pakistani context (Hennink et al., 2005).

The findings also highlight a significant difference between urban and rural cultures in Pakistan, where stricter cultural norms were reported in rural settings as compared with urban areas. As a result, participants, particularly from a rural background, reported difficulties in communicating and discussing puberty concerns with their elders. These difficulties were reported to the extent of failing to access health care for fear of being stigmatised. This finding is supported in the literature, according to which, often sensitive issues associated with pubertal changes and SRH were being hidden and not communicated openly due to the stigma that societies attached to these topics (Biddlecom et al., 2007, Lindberg et al., 2006).

Although this study explored puberty experiences of urban young males, these males experienced puberty transition while they lived in

various parts of the country, including both urban and rural settings. These diverse cultural backgrounds of participants provided a unique opportunity to explore if their experiences varied significantly. The general observation made in this regard was that there was an insufficient puberty and related SRH knowledge among participants, regardless of their demographic backgrounds, which is also supported in literature, especially from developing countries (Ali et al., 2004, Das et al., 2009, Al wan et al., 2010, Chayal et al., 2016, Rajapaksa-Hewageegana et al., 2015). However, the participants from urban backgrounds stated to have more opportunities available to access information. This was because a wider range of sources was available to urban males (including internet) as compared to those in rural settings, and because of that lack of knowledge on puberty was of concern to most participants. As these participants felt that correct information on puberty would have made this transiton process less challenging for them and provided them with good puberty experiences.

9.4.2 Cultural beliefs and perceptions

This study highlights some of the key issues participants shared with regard to their views of traditional beliefs on certain pubertal changes (i.e. wet dreams and acne) and sexual behaviours (i.e. masturbation and pornography), that emerged during puberty. They also shared their feelings that these sexual behaviours in Pakistani culture were viewed as culturally and religiously disgraceful acts and described and shared various cultural beliefs, perceptions and emotions attached to them.

9.4.2.1 Beliefs in myths causing emotional concerns

Sharing their perceptions, participants believed that they could have been suffering from a disease when they experienced wet dreams during puberty. Additionally, participants were afraid of developing chronic illnesses related to their SRH in adulthood due to getting involved in sexual behaviours (i.e. masturbation and pornography) during puberty. Although these behaviours were a normal part of their sexual maturity during puberty, participants believed in misperceptions due to lack of appropriate knowledge and became anxious and distressed.

This finding is in line with those of previous studies conducted in Pakistan (Qidwai, 1999, Ali et al., 2004) and other countries (Chayal et al., 2016, Ajuwon and Brieger, 2007, Low et al., 2007) having similar traditional values. According to these, adolescent males were often afraid of developing weakness of joints and limbs (Qidwai, 1999) , sexual impotency, erectile dysfunction and false ejaculations etc., if practicing masturbation (Chayal et al., 2016). These perceptions were perpetuated by a lack of awareness of the normality of the sexual behaviours that occur because of the puberty associated hormonal changes, which is similar to the findings of this and previous aforementioned studies. However, it was not encouraged to discuss regarding normal sexual behaviours as part of the puberty development process due to the cultural limitations of engaging in puberty and sexuality related conversations, as discussed in section 9.4.1.1 above.

The involvement of participants with sexual behaviour, masturbation in particular, therefore, created tensions and anxiety among them, since most of the participants expressed that they believed in these perceptions during puberty. In addition to these beliefs mentioned above, one interesting finding between the relationship of acne eruptions and masturbation was shared by a few of the participants. These participants believed that excessive masturbation could have led to acne eruptions, and thus they were found to be disturbed due to these acne eruptions during puberty. This finding has not been described elsewhere in any previous studies. It thus provides a new insight in the cultural beliefs and perceptions male adolescents may develop during puberty in similar socio-cultural settings and how that may trouble these adolescents.

In contrast to previous research mentioned above, which was mostly conducted on younger adolescent males, exploring young adult males' puberty experiences retrospectively generated novel insights regarding their perceptions on these cultural beliefs, which changed with time. Some of the participants recognised these cultural beliefs now in their young adulthood and considered them false beliefs, myths or misperceptions. These findings support other literature, which has recognised such cultural beliefs as myths associated with puberty related sexual behaviours (Ali et al., 2004, Nishtar et al., 2013, Qidwai, 1999).

Interestingly, most of the participants in this study were able to reflect and identify these myths later, although this may have been because they indicated that they were now studying health care, which is one of the unique features of this study. However, this data must be interpreted with caution and may not be generalisable to all young men, since others may not necessarily be engaged in health care fields. One example of this false belief was shared in this study in section 5.4.3, where the participant (IS3) received information from his mother, which while being interviewed in this study was identified to be incorrect. However, the participant until this age (21 years) still believed that the information he received from his mother was accurate.

This outcome may be explained by the fact that the participant trusted his mother above any other source, respected her opinion and thus, believed in the information provided to him with no further arguments. The literature suggests that family values found in Pakistani culture expect growing children and teenagers to respect their parents. Thus, questioning their parent's opinions and decisions is considered disrespectful to them (Basit, 1997). Other countries with similar social and religious values also give importance to parents' values, where frequently teenage children may be expected not to argue with their parents and to accept and obey their commands without question (Basit, 1997, Wang, 2016). Hence, such engrained cultural respect for elders could have had an effect on how participants in this study treated the information provided by their parents and elders. As a result, there

is a possibility that the participants would pass this incorrect information to their peers, and the next generation. Thus, they may continue the perpetuation of these culturally induced myths and misperceptions to their acquaintances and family members in the future.

9.4.2.2 The concepts of immorality, negative emotions and coping associated with sexual behaviours

Other than the above-mentioned myths, participants also shared that in Pakistani society, involvement in sexual behaviours, such as masturbation and accessing pornography, was considered immoral. Despite this disapproval from society, the majority of participants stated that they were secretly involved in such behaviours. In the literature there are varied opinions presented, regarding practicing masturbation, based on different cultural and religious values (Aneja et al., 2015, Kwee and Hoover, 2008, Anonymous, 2015). Some of the world's religions, including Islam, view masturbation as a sinful act, having spiritually detrimental effects. This school of thought extremely discourages masturbation and supports their argument with the help of Quranic verses. One such example is given below.

> **The believers are... those who protect their sexual organs except their spouses... Therefore, whosoever seeks more beyond that [in sexual gratification], then they are the transgressors." (23:5-6) (Kwee and Hoover, 2008)**

In contrast, there is another school of thought offered in some literature, representing the second religious school of thought, which accepts the practice of masturbation in certain contexts. In their doctrine, situationally, masturbation is allowed and is not forbidden in Islam and other religions, if used as a self-restraining purpose, such as to prevent adultery (Kwee and Hoover, 2008). The above verse from the Holy Quran could also be interpreted supporting this second school of thought, and hence meanings can be understood according to the individual's interpretations.

It has therefore been argued that the religious scriptures in world religions such as Islam, Christianity and Hinduism, have not clearly presented the theological ethics on masturbation, leaving many unmarried young people with confusion and guilt around their sexual practices (Kwee and Hoover, 2008, Aneja et al., 2015). As a result, many young people may keep this act secret and not disclose if any issues arise with their emerging sexuality during puberty. The findings of this study also support this argument, where participants described masturbation and watching pornography as immoral behaviours and, thus, were secretive about this act during puberty.

In addition, shame around the topic of masturbation inhibited participants from sharing their concerns related to masturbation and pornography even though they shared how these habits sometimes became addictive to them. This concept of shame has also been

supported in the literature where many adolescent males, despite being addicted to these habits, were unable to seek assistance (Kontula and Mannila, 2003) or access appropriate health care facilities (Agampodi et al., 2008). As a result, it has been suggested that discussing the developmental normality of masturbation may be helpful for future generations to prevent physical, sexual and mental health problems (Aneja et al., 2015). These kinds of discussions are supported in theological literature found on masturbation practice, in which, it is presumed that discussing the normal developmental aspects of masturbation may help to raise awareness on the perceived unhealthy and compulsive aspects of solitary sex (Kwee and Hoover, 2008).

In contrast to the suggestions mentioned above, participants were not found to be aware of the normal aspects of masturbation during puberty. As a result, they were found to be ashamed and guilty due to indulging in such sexual behaviours, which negatively influenced their emotions and mental health during puberty. These findings are consistent with previous research conducted in countries with similar cultural values to Pakistan. This highlights adolescent males' fear, anxiety and guilt due to their masturbation practices, which are considered socially unacceptable (Agampodi et al., 2008, Chayal et al., 2016, Qidwai, 1999).

It has also been found that the shame and guilt remained with some of the participants in their adulthood when sharing their experiences in this

study. However, many among them expressed that they discovered that these behaviours were related to their sexual maturity during puberty. Many participants shared experiences of negative psychological impacts during the time of their puberty, such as depression and feeling low due to perceiving themselves as sinful and impure as a result of masturbation.

In relation to this masturbatory guilt, Ley (2016) suggests in his blog that people having this incongruity between their sexual behaviours and values, are more likely to suffer from psychological illnesses such as depression and low self-esteem. Most of the participants mentioned this incongruity between their behaviours and sexual values during puberty and the cultural and religious beliefs of society and reported having suffered from extreme guilt and depression. These extreme emotions could have resulted from the participants' awareness of the stigma attached to masturbation.

This finding may have serious implications in the future for the participants during adulthood and for the young boys living in similar settings in the future. While some of the participants later overcame their guilt and shame with the help of the awareness they gained regarding the normality of masturbation, others still live with the misconceptions. In addition, participants reported having adapted coping strategies, in order to avoid practicing these sexual behaviours and thus prevent them from the guilty feelings associated with them.

However, some participants still shared having feelings of guilt and embarrassment associated with the behaviours, which they seemed to have suppressed temporarily and which resurfaced during the interviews for this study.

The above cultural beliefs, including myths and immorality surrounding sexual behaviours (particularly masturbation), point to a possible association between the likelihood of developing mental illnesses and believing in perceptions that may be incorrect. This assertion has also been supported in the literature, although limited studies are found showing this association and even those are not yet fully published (Aneja et al., 2015, Mumford, 1996).

While none of the participants in this study self-reported that they suffered from serious mental illnesses, many of them felt guilty to perform masturbation during puberty. As a result, these participants acknowledged being anxious and depressed, considering masturbation as a sinful act and believing in some of the myths associated with this act during puberty. In a case series presented by Aneja et al. (2015) on young adult males admitted to one of the Indian mental health units, it was concluded that masturbatory guilt contributed to the development of severe psychopathologies among these patients in their later adult lives.

Often in the literature, masturbatory guilt is presented as leading into the clinical condition called, ‘Dhat Syndrome’, which has no known

organic cause but is represented by psychological delusions related to sexual health. These delusions are frequently reported to be seen through developing psychosomatic disorders, and also manifested in the form of depression and anxiety that are commonly associated with psychosexual dysfunctions (e.g. impotence, erectile dysfunction, pre mature ejaculations) (Bhatia and Malik, 1991, Dhikav et al., 2008, Prakash, 2007, Grover et al., 2015). This clinical condition is cited to be prevalent on the Indian subcontinent, and therefore, most of the empirical studies available are on the population residing in the Indian sub-continent (including Pakistan) (Uvais, 2017).

It has also been found that people mostly with low socio-economic and education background were reported to suffer from Dhat Syndrome (Khan, 2005). It is because of these demographic factors that people, instead of accessing health professionals, often approach traditional healers (i.e. Hakims) due to the cultural taboos associated with the sexual dysfunctions within the communities living in the Indian subcontinent (Grover et al., 2015, Bhatia and Malik, 1991, Mumford, 1996).

As a result of approaching healers, which may not provide appropriate treatment, these young people may end up in developing severe psychopathologies in their later adult lives. Prakash (2007) in his study recommended introducing concepts of Dhat Syndrome and its association with masturbatory guilt in modern medicine, facilitating

health professionals in identifying mental illnesses associated with perceived psychosexual dysfunctions. Engaging health professionals has been previously reported to help provide appropriate treatment regimen to young males affected by this condition, thus correcting misperceptions (Aneja et al., 2015) and improving mental illnesses (Dhikav et al., 2008, Grover et al., 2015).

It is therefore necessary to give young people, particularly young boys, accurate and correct information on masturbation by providing culturally appropriate sex education, where myths and misperceptions on their sexual behaviours may be clarified earlier in their life during puberty. Kwee and Hoover (2008) suggested the importance of promoting the practice of healthy masturbation and favoured the introduction of the concepts related to theologically supported education on masturbation. This can be relevant in Pakistan and other countries with similar socio-cultural and religious values and may help in preventing longer term psychological illnesses.

Surprisingly, in this study, a few participants supported masturbation and presented the idea that it is a healthy part of development but acknowledged engaging in the practice as a coping technique to avoid partnered sex. The literature supports this idea of masturbation as a healthy practice, especially in western countries (Fortenberry, 2013) and other Asian states such as, China and Taiwan (Das et al., 2009, Wang et al., 2007), where positive attitudes towards masturbation

began to emerge, as a result of the positive beliefs and correct knowledge about masturbation. However, in the context of Pakistan, considering masturbation, healthy, even to cope with an unacceptable sexual behaviour (i.e. partnered sex) was an unexpected finding of this study.

A Taiwanese study conducted by Wang et al. (2007) found that 74.4% of adolescents held positive attitudes towards masturbation; among these, males were found to score higher compared to females. This positive attitude among males on masturbation was associated with receiving information on masturbation from peers and accessing pornographic media more frequently than females. The evidence from this and above-mentioned literature suggest the need to increase an appropriate masturbatory knowledge in order to develop positive attitudes among adolescent males towards their sexual behaviours.

9.4.3 Gender based identity

This section discusses findings related to the identity development according to the cultural and gender norms present in society. Findings related to the masculinity and sexuality identity formation are discussed and compared with the existing literature. This section also discusses constraints and limitations that were imposed on young males due to the gender informed norms.

9.4.3.1 Masculinity and sexual identity

Given that this study was conducted in a developing country and male dominated society, the participants' revealed that their identity was developed under the influence of the traditional norms of the society. These norms perceived the role of adult males to be the breadwinner of the family. Participants reported following the gender norms of society to maintain their masculine identity.

The literature presents the idea of 'hegemonic masculinity', which was a term coined by Raewyn Connell in 1987 (Haywood and Mac an Ghaill, 2003) and evidence supporting these ideas were found in the narratives of the participants. Hegemonic masculinity refers to men's identity that exists in patriarchal cultures and defines men's dominant positions in the society and considers women and men who do not follow the gender norms of masculinity as subordinates to those men, following these norms (Connell, 1995). This idea of masculine domination is also supported by Bourdieu Bourdeo (2002), and it necessitates the manifestation of toughness, power, responsibility and authority with male gender (Connell, 1995, Hyde et al., 2009).

This study's results were consistent with the concept of hegemonic masculinity. The narratives showed that the patriarchal culture of Pakistan made young males socialised during puberty in such a way that they followed certain cultural standards, which were acceptable to their parents, peers and other members of society. Consistent with the

work of Hyde et al. (2009) and Bourdeo (2002), the young males in this study shared how they followed these cultural norms and manifested toughness, power, responsibility and authority during puberty, despite feeling insecure and anxious about performing certain masculine roles.

The findings of this study also demonstrated how societal norms dictated a sexual orientation to participants since a couple of participants felt distressed in identifying themselves as bisexual and asexual. Societal norms rather encouraged the formation of a sexual identity as a heterosexual adult male during puberty. The participants reported that social norms dictated that there was an expectation that they would be attracted to the opposite sex during puberty. This anticipated behaviour is consistent with the idea of hegemonic masculinity (Hyde et al., 2009), also followed in other cultures, and has also been reported in various studies (Scandurra et al., 2016, Fields et al., 2015, Mahalik et al., 2003). According to these, young men often cited to be pressurised by their peers to be attracted to the opposite sex to demonstrate that they are ‘real men’(Marston and King, 2006).

In this, study participants stated that they abided with this social norm, agreeing to have a formal and informal relationship with girls. However, none of them identified as being involved in any sort of partnered sexual relationships. This could be due to living in an Islamic cultural society, where sex before marriage is forbidden and perceived to be a sinful act (Criminal Laws Amendment Act, 2006).

9.4.3.2 Developing gender role strains

Regardless of young males' intentions, most of them followed the gender norms during puberty to fit within the societal expectations and thus, developed their identity based on those norms. The findings of this study also demonstrated gender role strains that were created for some participants who did not follow gender and sexual norms to formulate their gender informed masculine and sexual identity during puberty. According to Levant et al. (2007), gender role strain may occur when individuals have been socialised into traditional gender roles that are inflexible.

Being exposed to gender role strain often made the participants in the current study distressed, anxious and depressed and created ambiguity in their identity development, which was reflected in some of the participant's voices in this study. For example, having a heterosexual relationship was found to be considered as a symbol of power and pride for growing males in the society, supporting the concept of hegemonic masculinity described by Hyde et al. (2009). This sexual orientation was stated to be followed by most of the participants, facilitating them to formulate their sexual identity during puberty. However, not being attracted to the opposite sex created a feeling of chaos and confusion for some of the participants in relation to their sexual identity development, and thus they voiced feeling anxious and depressed.

Moreover, in this study, masculine culture and norms with dominant masculine beliefs of developing a heterosexual orientation during puberty were found to put pressure on participants while they were undergoing their puberty. It was established that those participants who were negotiating these cultural norms felt distressed and unhappy on some occasions as their masculinity was challenged. The literature suggests that these masculine ideologies present in society bring many vulnerabilities for many young men who try to live up to the ideals of these gendered normative expectations (Haywood and Mac an Ghaill, 2003, Mac an Ghaill, 1994).

Comparing the results of this study with the findings from literature highlights that the participants who experienced these susceptibilities during puberty, and rejected the traditional notions of male dominance in developing their sexual identities (e.g. heterosexual) were scared to claim their identities (i.e. either asexual or bisexual) in society. This was because these participants reported that they were afraid of being rejected by their peers and society and may not be considered normal male adults.

In the next section, findings will be discussed in relation to how the wider socio-cultural factors, norms, and traditions impacted on participants' during their puberty and whether these impacts influenced their lives. This will be done by analysing personal, interpersonal and institutional factors that interplay with each other and with the

participants, both directly and indirectly influencing their puberty experiences.

9.5 Exo- and Micro- systems of influence

This section discusses participants' puberty experiences in relation to the immediate environment in which they lived and people with whom they interacted. It is obvious from the participants' narratives that there were certain personal, interpersonal and institutional factors, which impacted directly and indirectly on participants' puberty experiences. These indirect and direct influences formulate the exo-and micro-systems of influences within SEM and will be discussed simultaneously in this section. The findings of this study in relation to puberty knowledge, psychological impacts and identity development, integrated within these influences are now compared and discussed in the light of the existing literature.

9.5.1 Knowledge and awareness of puberty

This section discusses findings related to the puberty knowledge and awareness of the participants at the time of their transition, and how these were influenced through the people and environment within their surroundings at the personal, interpersonal and institutional levels. Findings related to the lack of puberty education at the institutional level, ineffective communication at the interpersonal level and obtaining puberty knowledge through approaching and accessing untrustworthy people and information sources are discussed in this section.

9.5.1.1 Lack of puberty education at institutional levels

An important finding in relation to puberty knowledge and awareness was that there was a lack of formal puberty or sex education in schools, colleges, universities and at madrasas (i.e. religious education places). Indeed, no official awareness programmes were reported by participants that may have initiated and promoted puberty awareness among them through using mass media, such as television, radio, newspapers and internet, including social media campaigns.

Even though participants mentioned accessing internet web pages frequently to gather puberty information (section 5.3.2), most of the information on these websites was found to be accessed randomly, depending on participants' convenience in accessing the internet. However, participants seemed uncertain if the information received through websites was accurate, and none of them mentioned the name of any official website, TV programme or other media sources available to obtain puberty information within a Pakistani context. Having such programmes (in schools and through mass media) might have facilitated them in obtaining accurate information regarding puberty.

Despite lacking formal puberty education, some participants, who went to private schools reported receiving informal information on pubertal changes. These informal interactions were mostly reported with male teachers (teaching particularly subjects related to religious education/Islamiat) and occurred outside the class rooms and through

accessing relevant books from the library. However, the accounts of participants showed minimal satisfaction, as they often obtained inadequate information using these sources.

Supporting this finding, various authors in Pakistan and other countries with similar socio-cultural factors have advocated the provision of puberty education in schools (Farahani et al., 2012, Ahmadi et al., 2009) and other academic institutions (e.g. colleges and universities) (Afsar et al., 2006). This is proposed through introducing a formal curriculum (Talpur and Khowaja, 2012) and preparing teachers to effectively teach this subject (Nair et al., 2012, Ali et al., 2004, Goldman, 2011). In addition, sexual health promotion programmes for adolescents using social media have now been initiated, both in western (Allison et al., 2012, Gabarron et al., 2012, Zimmerman et al., 2007) and low-income countries (Pramod et al., 2011, Romer et al., 2009) and are proposed to be delivered worldwide through using mass media resources.(Garcia et al., 2014, Lou et al., 2012)

The above recommendations of introducing mass media for sexual health promotion were made as a result of the low levels of information found regarding growth and development (i.e. puberty) and issues related to SRH among the school going population in countries such as India, Pakistan and Sri Lanka (Chayal et al., 2016, Mamdani and Hussain, 2015, Rajapaksa-Hewageegana et al., 2015). However, with the interplay of these institutional and cultural factors, most of the

participants' puberty experiences were influenced by having no formal puberty education or awareness programmes.

Additionally, due to similar cultural restrictions and the stigma attached to the subject, a number of authors have reported that school teachers in Pakistan and other countries felt hesitant to teach adolescent students regarding reproductive system topics in the science subject (Chayal et al., 2016, Farahani et al., 2012, Ahmadi et al., 2009). This hesitancy was mainly perceived to be present among female teachers by male education providers in a Sri Lankan qualitative study, Dawson et al. (2014), who investigated female teachers' abilities to provide SRH information to students. However, from the health care providers perspectives, teachers regardless of their gender were cited to be incompetent in their skills to provide puberty and SRH related information (Dawson et al., 2014).

The reasons mentioned in the literature for teachers having insufficient skills were them being uncomfortable to teach this subject (Dawson et al., 2014), and having inadequate available knowledge on both the male and female reproductive health system (Dawson et al., 2014, Qazi, 2000). The results of this study supported the findings from the previous above-mentioned studies, whereby on a few occasions' participants mentioned female teachers' hesitancy and inability to teach topics related to human reproduction, a concept that seems necessary to understand in order to comprehend pubertal changes. However, in

contrast to what they shared regarding female teachers, participants suggested training both male and female teachers to help them to gain the necessary knowledge and acquire skills to educate male adolescents.

Relating to the above point, the findings of this study indicate that information on the human reproduction system in the school curriculum was already present for those participants, who chose to study science (biology) as a major subject when they were aged 14-16. Within the content on the human reproductive system, the components of puberty education may not be covered; however, there is an opportunity of delivering this puberty education to these biology classes. This idea is consistent with that of Chayal et al. (2016), who explored the perceptions of rural adolescent males in India on their pubertal changes. Understanding the adolescent males' perceptions, Chayal et al. (2016) has suggested that until the basic biology of human reproduction is understood, puberty and SRH issues will be difficult to comprehend by adolescent males, even though knowledge on pubertal changes may be provided in schools.

In contrast to the study of Chayal et al. (2016), in this study, no indication that these topics (i.e. human reproduction) promoted any puberty education for young males was identified. Indeed, information was either hidden or not explained appropriately with accounts of access to the subject of human reproduction being controlled. This has

been discussed in Chapter 5, (section 5.3.2) where a participant mentioned that the biology books were glued together to hide the information from pupils. This act of hiding the information suggests how socio-cultural factors impacted on puberty experiences of participants in Pakistan, through influencing other institutional factors.

Moreover, the topic of human reproduction was cited to be present in the curriculum of only those participants who took science subjects. This indicates that other adolescent males not studying a science subject may remain uninformed regarding puberty and related topics. This finding implies that introducing puberty education at the school level may require additional classes for all adolescent males, despite the chosen subjects of their studies at schools.

Most of the previous studies mentioned in the earlier part of this section assessed the knowledge of adolescents using questionnaires and surveys, finding that puberty education was unavailable in schools in Pakistan and other similar countries. These studies also assessed inadequate knowledge among adolescents due to lack of formal puberty awareness programmes provided for the general adolescent population, males in particular, through the mass media, who may not be attending schools at the time of puberty.

This study, in contrast to those above, did not assess the puberty knowledge of young adolescent males, but retrospectively explored young males' puberty experiences, which were influenced through

various factors at multiple levels. Thus, the findings of this study revealed a new understanding based on participants' reflective accounts of the perceptions of the young males on the availability of the puberty education through schools and at mass media level. Exploring puberty through the views of this age group also allowed for the discovery of how their puberty period was influenced through various factors, which is a distinctive achievement of this study. Keeping these influencing factors in mind, puberty awareness programmes at official levels can in future be implemented more effectively.

Providing age and culturally appropriate programmes in schools and communities for male adolescents, and scheduling extra classes were therefore considered the best approach in both this and previous studies (Farahani et al., 2012, Ahmadi et al., 2009, Svanemyr et al., 2015, Talpur and Khowaja, 2012, Goldman, 2011). However, no such work has begun in Pakistani schools at a formal level, except the fact that certain Non-Government Organisations (NGOs) have started to initiate these projects on a small scale (Svanemyr et al., 2015). In a recent quasi-experimental study conducted by Huda et al. (2017), one of the private schools in Karachi was approached for the need assessment of adolescent males regarding pubertal changes. It was reported that the mean score puberty related changes and score was increased from 4.12 to 5.43. However, it was a very small scale project and therefore, future work may be required to establish the viability of implementing such projects in schools of Pakistan at a more larger

scale, involving various stakeholders in both private and public sectors, considering the sensitivity of the subject.

9.5.1.2 Ineffective communication at the interpersonal level

Most of the participants experienced puberty related communication as a major concern during puberty. They shared how communication on puberty and related sexual developmental changes was avoided between themselves and their immediate acquaintances (e.g. family, teachers, and peers). Hence, there were issues around puberty related communication at both personal and interpersonal level directly influencing participants' relationships and impacting their puberty experiences.

Within this section, the relationships at the interpersonal level are discussed in the context of their family members (parents and siblings), peers (friends and cousins) and media resources (internet, magazines and videos). As mentioned earlier, since all the factors within the SEM are interrelated with each other, discussing relationships at an interpersonal level also highlights the embedded cultural factors that overall influenced all other factors (i.e. personal, individual and interpersonal) affecting the puberty experiences of the participants.

The results of this study did not show any participants' close relationship with their parents, particularly with fathers during puberty. The narratives of most of the participants indicated a lack of parent-child communication on puberty, particularly on sexual development

that often resulted from pubertal changes. These results are in line with the findings of a study conducted by Wang (2016) which revealed that, in Chinese families, very few male adolescents were told during their puberty by their parents that sexual impulses and desires are a normal part of their sexual development. Interestingly, most of the boys were advised by their parents to keep those desires under control without acknowledging that they were due to pubertal changes. There are similarities between the attitudes expressed by participants in the current study regarding their parents and those described by Wang (2016) regarding the Chinese culture.

Similar to Chinese culture, previous studies demonstrated conservative attitudes in Pakistan (Mamdani and Hussain, 2015) and other countries with similar cultural backgrounds (Ahmadi et al., 2009, Jerves et al., 2014, Conger et al., 2000, Lebese et al., 2010, Farahani et al., 2012), resulting in less dialogue between parents and their children on puberty and related sexual health education. All these previous studies revealed that parents' restrictive views about sex and puberty education were grounded within their cultural and often religious beliefs. As a result, parents often considered sexual behaviours associated with puberty as physically dangerous and immoral activities and, in fear of overeducating their teenagers did not communicate about pubertal changes, discussed in section 9.4.1.

While the current study did not explore parents' perceptions of their male adolescents' puberty experiences, the accounts of participants were a reflection of their own experiences with their parents during puberty and indicated a lack of parental communication with them. Participants in this study often shared that parents had little knowledge on puberty, particularly those with less well-educated parents. Even those who were educated were reported to be lacking appropriate skills due to the sensitivity of the topic. This particular finding is supported by previous studies conducted on adolescent boys and their RH needs in rural parts of Pakistan (Ali et al., 2004), one that explored Iranian fathers' perceptions of their adolescent boys' puberty experiences (Ahmadi et al., 2009) and another that explored Indian parents' attitudes (Nair et al., 2012) towards adolescents' SRH education.

All these previous studies showed either a general lack of knowledge regarding puberty among parents of adolescent males (Ahmadi et al., 2009) or parents showed that were not confident about communicating puberty related information to young boys (Nair et al., 2012, Wang, 2016) . Parents might have assumed that their adolescent children were already aware of and would learn, about puberty, just like them (Jerves et al., 2014, Ahmadi et al., 2009). The findings from the above literature support the perceptions of participants regarding their parents.

One of the interesting findings of this study is that some of the participants approached their mothers rather than their fathers to

discuss pubertal changes. This was an unexpected finding in the context of Pakistani culture, where communication on sensitive topics is not appreciated, even with fathers and siblings of the same sex. In addition, the literature suggests the existence of a stronger communication between mothers and their daughters on puberty and related topics in Pakistani and related settings (Valizadeh et al., 2016, USAID, 2003). This is in contrast to a relationship between Pakistani fathers and sons, where it is usually culturally expected that fathers and sons should be closer because of their shared gender.

However, in this study some participants approached their mothers more often, considering them more trustworthy than any other available sources (e.g. internet, peers). This was because, for these participants, approaching their mothers was more comfortable as they had a closer and friendlier relationship with them compared to fathers, who were found to be distant, strict and authoritative. It could be the case therefore that in this study these participants were not sharing and communicating their concerns related to pubertal changes with their fathers.

Despite having no effective communication with fathers, most of the participants emphasised the significance of having a friendly relationship with their fathers that would help to promote puberty related communication. This was because they trusted the experiences of their fathers due to sharing the same biological gender (see section 5.4.2).

These participants concluded that open communication between themselves and their fathers might have enabled them to have more positive puberty experiences.

This finding is consistent with the previous studies conducted in Pakistan Mamdani and Hussain (2015) and Iran Ahmadi et al. (2009) where adolescent males considered parents, fathers in particular as a credible source of information for gaining awareness regarding puberty and related changes. However, similar to the findings of this study, adolescent males in the aforementioned studies were also not informed about puberty by their fathers; even though in previous studies, fathers were perceived to be a reliable source of puberty communication.

Thus, it can be concluded, based on the current study and the results from previous studies, that further research is needed to assess strategies that may improve the communication between fathers and adolescent boys regarding puberty. In addition, the results of this study also indicate that fathers, and in fact both parents, may need to be involved more when planning and designing HP programmes for adolescent boys, particularly in Pakistan and similar settings.

The current study also demonstrated that participants' fathers were often hesitant to communicate about puberty and on the few occasions when communication took place, it was brief and superficial. In accordance with these results, previous studies in Pakistan Mamdani and Hussain (2015) and elsewhere Ahmadi et al. (2009) have

demonstrated that fathers often feel shy and too embarrassed to discuss puberty and related issues with their growing boys and assumed that they would come to know it naturally. For example, Ahmadi et al. (2009) in his study, conducted on Iranian adolescent boys and their fathers, reported that fathers believed that puberty information would be available to their adolescent boys even if not communicated by them, and they too had not received such information.

Contrary to this observation from previous studies, some participants shared that their puberty experiences might have been better and they would have experienced less anxiety due to pubertal changes if their fathers had been involved in their puberty education. Thus, the results of this study underline the importance of bridging the communication gap between parents, particularly fathers, and adolescent males.

Considering an element of fathers' involvement being crucial during puberty, many participants shared and agreed to communicate puberty and related SRH matters with younger adolescent males in their families, such as younger brothers, cousins, and in future, with their potential sons. This is a particularly important and relevant finding, highlighting the future implications of this study, where several participants from their own experiences agreed on the importance of having father-son communication on puberty related matters and thus demonstrated an inclination to use this approach in their future lives when they would become a father themselves.

9.5.1.3 Acquiring puberty knowledge from unreliable sources

One of the clear findings to emerge from the analysis is that in the absence of competent guidance on puberty from parents, teachers and elders, participants were found exposed to the risk of misinformation and other potential vulnerabilities. These included experiencing negative psychological impacts and forming abusive relationships. The reasons for this is not clearly stated in the narratives. Analysing the hidden meanings of the findings indicated that this situation was most likely associated with the lack of accuracy of the information received and whether the people approached and sources used to gain knowledge were trustworthy.

As mentioned previously, participants' experiences during puberty were influenced by the immediate environment and people they were in contact with. Thus, in the absence of parental communication, participants were found frequently approaching their peers and accessed sources from which it may have been easier for them to obtain puberty information.

While media was reported to be accessed by many participants most frequently to gain puberty awareness, the findings suggest that it was used more regularly for relaxation and leisure purposes. For example, some participants reported ease of access to internet websites, which were mostly pornographic sites through cable TV networks. They used the sites to do frequent masturbation rather than gaining any knowledge

of pubertal changes. Previous literature cited a similar use of media, particularly internet when assessing media as a source of information for puberty and SRH related matters (Mir et al., 2013, Lou et al., 2012, Ali et al., 2004).

This finding is further supported by research conducted in similar socio-cultural backgrounds (Ahmadi et al., 2009, Wang, 2016, Scandurra et al., 2016), where it was identified that if parents were less accessible. Young people obtained information from peers and the internet, regardless of the authenticity of the information. Moreover, a Pakistani study exploring the RH needs of rural adolescent males reported similar findings, with peers being the most accessible information source and parents and siblings being less approachable (Ali et al., 2004).

However, previous literature did not clearly indicate the details on for what topics peers were approached. In contrast, in this study, participants noticeably indicated that with peers they discussed mostly those changes, which are sensitive and intimate, such as erections, masturbation and wet dreams. Thus, in future peer education programmes targeting these sensitive topics should be promoted, and peers should be given accurate information.

Participants' accounts demonstrated that some considered the sources that were approached trustworthy. In other instances, some sources such as the internet were found easy and convenient to use. In addition, although some participants were doubtful regarding the reliability of

certain sources they approached/accessed, given the limited options within the level of their microsystem of influence; the component of trustworthiness was not always considered paramount.

Several researchers made similar observations (Ahmadi et al., 2009, Afifi et al., 2008) and recommended that disseminating accurate information to adolescent boys could prevent confusion and anxieties that may occur because of inaccurate and unreliable information. These psychological impacts are discussed in the next section.

9.5.2 Puberty associated psychological effects

This section discusses findings related to the puberty associated psychological effects that occurred because of pubertal changes at a personal level, and, secondly, how these psychological effects impacted at personal, interpersonal and institutional levels.

9.5.2.1 Being worried and self-conscious (micro-system)

Fear of the possibility of developing an illness/disease was associated with wet dreams and spermarche experience and was a significant concern as it was the most anxiety provoking change for most of the participants in this study. It was found that even though some of the participants acknowledged experiencing wet dreams during puberty, they remained confused and worried since they were unaware if wet dreams were a normal physiological development due to pubertal changes.

Similar psychological effects have been reported in the literature where cultural factors mainly considered pubertal changes and associated practices a taboo, and hence did not promote puberty awareness (Chayal et al., 2016, Ahmadi et al., 2009, Flaming and Morse, 1991, Ali et al., 2004). Even though these previous studies were conducted on a different age group compared to this study, the findings related to lack of awareness were similar. In contrast to previous studies, however, this study revealed that the feelings of guilt remained with some of the participants, even though they were now aware of the normality of

puberty-associated changes and the inaccuracies of the myths associated with some of the puberty induced changes such as wet dreams and sexual behaviours.

9.5.2.2 Negative body image (micro-system)

The most clinically relevant finding of this study was that the majority of participants negatively associated pubertal changes with their appearance. This was possible because of the appearance culture, described in literature, according to which, society subscribes to certain norms on how to look and keep oneself presentable in the society (Finlay et al., 2002, Prinstein et al., 2011, Shomaker and Furman, 2010). Living in this environment caused constant pressure on participants when they were unable to maintain an appearance that society often expected. The results of this study indicated participants' perceived need to look attractive. However, some of their body image and self-esteem were reported to be low during their puberty, which often was associated with some of the physical changes that occur during puberty.

Authors who have conducted studies on adolescents' body image strongly support the influence of the interpersonal and individual factors in developing adolescents' positive and negative body image during puberty (Wertheim and Paxton, 2011, Shomaker and Furman, 2010). Several participants in the current study were found to be developing a negative body image because of being over conscious of their physical

appearance due to the comparison with TV and media role models and the comments they might have received within society on their pubertal changes. As a result of certain pubertal changes such as facial acne and hair growth on the body, many participants reported to be embarrassed and over conscious of their appearance. Thus they developed low self-esteem, which led to feelings of depression and isolation, as they felt uncomfortable socialising with people.

The studies that focused on adolescent girls rather than boys, reported the development of similar psychological problems for adolescent girls, such as depression and eating disorders during puberty, as a result of appearance changes (Wertheim and Paxton, 2011, Shomaker and Furman, 2010). However, the current study shows there is a need to further explore this area equally among both adolescent girls and boys. This will facilitate future researchers and policy makers to take measures to prevent psychological problems associated with negative body image, the basis of which may develop during puberty.

9.5.3 Individual adult identity development

This section discusses the findings related to how participants developed their individual identity as an adult male, which was influenced by personal and interpersonal factors. As previously discussed (section 9.4.3) this particular element of identity development was really difficult to extricate from the larger cultural and gender norms. In this section, therefore, there is a brief integration of these wider socio-cultural factors, while discussing individual identity formation based on individual characteristics, behaviours and inter-personal relationships.

9.5.3.1 Feelings and concerns about becoming an adult male

In this study, the majority of participants' accounts showed how certain physical characteristics, behaviours and attributes dictated their identity formation and imposed gender-defined roles on them as an outcome of possessing those features. It was found that participants, during their puberty, had mixed emotions about becoming adult. In this regard, most of their positive feelings were associated with that physical appearance, which they believed, changed the society's view of them. Some of the participants in this study were found to be happy and contented when due to their personalised characteristics (e.g., voice change and hair growth), their adult identity started to become visible in the society, raising their social status.

The findings related to changing physical characteristics and a consequent rise in social status appear to be unique to the context of Pakistan. In a previous study by Scandurra et al. (2016), the positive aspect of becoming a man included the perception of being independent and earning more money as they grow older. However, on closer observation of this finding, changes in physical features, particularly a voice change, raised the self-esteem of some of the participants, which may have contributed to increasing their self-confidence and making them more independent in their future life.

In contrast, there were many other participants, who started to feel anxious and depressed, if they did not possess physical features that have been associated with the development of an adult male identity in Pakistani society. Thus, they felt gender role strains (discussed in section 9.4.3.2) that may have occurred because of the association between these individual characteristics and the socially defined norms dictating masculine identity. A number of previous research conducted both in Western (O'Beaglaoich et al., 2015) and Eastern countries (Odimegwu et al., 2013, Scandurra et al., 2016, Ahmadi et al., 2009), reported similar pressures and anxieties that young and adolescent males experienced, when unable to fulfil societal expectations at an individual level. Similarly, many participants in this study acknowledged suffering from social stigmatisation during puberty if they challenged these norms and did not conform to socially desirable individual masculine characteristics.

In addition, most of the participants were found to develop gender attitudes when forming their identity, which were influenced by the people they interacted with on daily basis; for instance, parental gender division of roles in the homes, giving economic power to the male sex (e.g. mother looking after home and father as breadwinner). In contrast to these findings, a study conducted in Sweden by Evertsson (2006) did not support the association between parental gender roles and the development of gender attitudes among adolescents. This inconsistency of findings is probably due to the cultural differences found around gender socialisation processes between Sweden and Pakistan. Thus, the cultural and gender norms discussed in section 9.4.3 may have influenced the participants' puberty at a personal and interpersonal level.

An interesting point to note here is that at the time of this study, participants were young men or late adolescents who acknowledged themselves to be more mature than they were at puberty. They were, therefore, able to reflect on how gender stereotypes influenced their identity formation during puberty and created anxiety and tensions within them. However, being able to understand those gender norms now, as a young male adult, some of them were able to identify and negotiate with these gender norms and gender based identities.

This mirrors the findings of the study conducted by Nelson and Keith (1990) according to whom adolescent boys with greater maturity levels

supported less traditional and gender based attitudes. This argument is further supported in the literature is that as adolescent boys become more mature, their attitude towards gender stereotyped cultural norms may change, and they may support gender equality in their roles and attitudes at personal and interpersonal level (Crouter et al., 2007, Galambos et al., 1990). This particular finding suggests that gender-oriented puberty awareness programmes for male adolescents in Pakistan and similar patriarchal societies may encourage male adolescents in the future to adopt gender equality norms for young males in Pakistan. It may also reduce the anxieties and pressures male adolescents have as a result of not having characteristics associated with the masculine identity.

9.5.3.2 Peer pressure influencing masculine identity

The findings of this study provided strong evidence of the role of peers, influencing participants' behaviours during puberty and shaping their gender attitudes and identities. These results were consistent with the finding of a study conducted with young men in England in which peers were identified, as the key people who helped to develop and construct masculine identity (Richardson, 2010). Supporting the findings of that study, peer pressure encouraged participants in the current study to adopt social habits (e.g. smoking and chewing tobacco) and getting involved in practices (e.g. watching pornography) shaping their behaviour during puberty.

It has also been mentioned in the literature that peer pressure among young males during puberty promotes certain normed adult behaviours such as encouraging competition (Skelton et al., 2010, Eder and Parker, 1987), toughness (Hyde et al., 2009) and heterosexual orientation (Richardson, 2010). It has also been highlighted in the literature that peer pressure can influence young and adolescent males to show *macho* behaviour and prove they are 'real men', i.e. hegemonic identity, at all costs (Tolman, 2005, Holland et al., 1998, Marston and King, 2006). This peer influence has also been suggested to contribute to the development of sexual dominance among young men, as interactions between boys were facilitated by talking about sex and getting involved in relationships, particularly heterosexual ones (Haywood and Mac an Ghaill, 2003, Mac an Ghaill, 1994). Indeed, a study by Wight (1994), even undertaken in different culture i.e. adolescent boys of Glasgow concluded that in order to avoid being ridiculed and targeted with taunts and jokes, young men aged 14-16 followed the sexual norms of their peers along with other conventional norms of masculinity.

Findings of the current study indicated that some participants shared how their friends forced them to have a girl friend or ask a girl to go out with them, during the time when they started to look like an adult male. As a result, those who were unable to do so were taunted by peers, which influenced them to form friendships with girls in order to be accepted in their peer groups. In a study conducted on Irish boys by

O'Beaglaoich et al. (2015), adolescent boys shared similar experiences. Despite being a different culture, the reason for similar findings between the current study and the Irish study above could be said to reflect the gender socialisation theories, according to which men living in any culture strive to prove their masculinity and hegemonic masculinity through showing the behaviour of sexual dominance over women.

The difference, however, between this and previous studies conducted in western countries (Richardson, 2010, O'Beaglaoich et al., 2015) was that in this study, talking about heterosexual encounters did not mean that participants had any partnered sexual intercourse. Other studies most commonly refer to having a sexual relationship, which reinforced heterosexual identity. The reason behind these differences in sexual behaviours could be associated with cultural and religious factors of Pakistan, which do not consider it culturally acceptable to be involved in physical and sexual relationships until after legal marriage (Criminal Laws Amendment Act, 2006).

9.6 Chronosystem of influence (role of time)

As time progresses for people, the SEM evolves a new system of influence (i.e. chronosystem) that may have influenced the puberty experiences of the participants. Although strict cultural norms around the topic of puberty hindered puberty education, the results of this study found that with time, technology (i.e. accessibility of the internet) has developed that helped participants in various ways to gather information on puberty.

Participants compared the time when they underwent puberty (between 5-7 years before) and related how their puberty experiences might have been better were they undergoing puberty at the time of the interviews. A possible explanation for this might be that participants were relating the influence of technology on the puberty transition phase, where access to technological resources such as internet might have improved their experiences through improved education.

While the Wi-Fi and broadband access is improving, it is still not accessible to all in Pakistan (Fact Book, 2017c). However, the findings of this study found that more young boys preferred to use the internet and Wi-Fi to access puberty related information. This influence of online resources and using online mediated interventions have been proposed in the literature on several occasions (Shoveller et al., 2012, Gold et al., 2011, Lehdonvirta and Räsänen, 2011, Lou et al., 2012, Akinfaderin-Agarau et al., 2012). Therefore, in the future, it may be assumed that

the chronosystem of influence will develop more strongly and influence the puberty experiences of future young and adolescent boys.

An interesting point that must be remembered is that the young males taking part in this study were reflecting on their experiences of puberty retrospectively and this may have influenced the findings. As participants perceptions of puberty may be influenced through change in time and technology in recent era.

This is an important finding providing an insight that the role of time and developments in technologies will need to be kept in mind in future studies. If any interventions are planned to promote positive puberty experiences among adolescent males, time needs to be considered as an essential factor.

9.7 Promoting a positive puberty experience at multiple ecological levels

The results of this study support the view that participants experienced puberty under the influence of various systems within the SEM, which were interacting with one another. One implication of this is that in the future all the SEM factors need to be included when planning health promotion programmes for adolescent males.

This study provides a key contribution to the literature by making suggestions to the key stakeholders i.e. parents, educators etc. who may be involved in future health promotion of adolescent boys, to plan and design future programmes keeping the social and ecological factors in mind. In order for interventions to be successful, UNICEF (2009) suggests that interventions should involve adolescent boys in all the stages of intervention development and implementation. The findings of this study can inform the development of certain interventions, with reference to the health promotion programmes suggested in previous studies. This may improve the puberty experiences of future boys in similar socio-cultural settings. In the following sections, suggestions to make puberty health promotion programmes more successful are discussed.

9.7.1 Culturally appropriate programmes

The results of this study provide important information about the need to develop and adopt puberty/sex education to the specific cultural context of Pakistan and can be applicable in similar settings. In relation to the cultural factors, the findings of this study suggest the need to design and implement more culturally sensitive and appropriate programmes. For example, using appropriate terminologies and involving various stakeholders from both the community and relevant organisations when planning puberty education programmes in the conservative culture of Pakistan, may help to develop and implement a successful programme. Recently such a programme was initiated (Svanemyr et al., 2015), where LSBE (puberty education) was implemented in schools' curricular in Karachi.

Although the above programme was designed for both adolescent genders, the main focus appeared to address female reproductive health issues. However, due to the restrictive cultural norms, this programme faced a lot of community opposition. As a result, culturally sensitive modifications were made after obtaining input from various stakeholders, and this became a main reason for the eventual success of the programme. The success of this programme underlines the importance of a culturally sensitive approach in planning and delivering puberty education; involving the community and other stakeholders that may be responsible for the chief decisions of initiating LSBE.

This aligns with this study's findings where most of the participants shared their desire to receive LSBE before puberty, and acknowledged the importance of designing culturally sensitive content, using appropriate and culturally acceptable words (e.g. life skills instead of sex education), and involving relevant government bodies and health ministries to make the programmes workable.

The argument of having health promotion programmes according to the cultural context is supported by Menger et al. (2015), who sought to explore the sexual health experiences of Nepali young women, in order to develop culturally appropriate and effective programmes to reduce HIV transmission. This reflection of cultural appropriateness was identified in the current study, where participants suggested the need to use gender sensitive words, when communicating on sexuality related topics, including puberty. Participants suggested that using gender appropriate words would make the programmes more successful, since those words may be better received in the society of Nepal, which has a similar cultural context to Pakistan.

Another strategy that has been suggested in the previous literature, and made puberty education programmes successful, was the provision of a gender sensitive approaches (Wood et al., 2015, Farahani et al., 2012). By gender sensitive approach, the literature means to be sensitive to individual gender, not only using culturally appropriate words (Menger et al., 2015), but also providing similar gender people to raise

awareness on sensitive topics of puberty and sex education (Svanemyr et al., 2015).

The participants also reported that their puberty awareness was influenced by the lack of formal curriculum in schools and the lack of skills and competency of teachers, females in particular to teach the subject of human reproduction in the biology classroom. In accordance with this finding, the literature has identified the need to use a culturally appropriate (Jerves et al., 2014) and gender-sensitive approach to promote puberty and SRH education (Menger et al., 2015, Farid-ul-Hasnain et al., 2012, Farahani et al., 2012, Qidwai, 1999). In a study conducted on Nigerian school teachers, Wood et al. (2015) reported the success of a teacher training programme in delivering gender focused education on Family Life Education (FLE), sexuality and HIV education. Using culturally sensitive approaches, these studies often recommended to be aware of the differences and similarities that exist between people in a particular culture and understanding religious beliefs when implementing any sexual health promotion programmes.

The findings of the Nigerian study suggest that providing training to teachers prepared them to deliver the kind of gender-focused sex education to adolescents in a/the resource-poor school system. Thus, a similar approach can be used in Pakistan if school health promotion programmes are planned for future adolescent males. It could allow the effective delivery of puberty education content without reluctant

participants, and also provide more confidence to the provider to deliver the education with less hesitation.

9.7.2 Timely interventions

This study's findings reported that participants' puberty experiences were often influenced by a lack of timely education provision. The information resources, regardless of their authenticity, were approached after the pubertal changes started appearing. Thus, participants identified that timely interventions need to be planned and delivered for future adolescent boys at all levels of the SEM influences. Age-appropriate health promotion programmes, as suggested by Varani-Norton (2014), are also important so adolescent boys should be given the right information at the right time (such as pre-puberty).

Previous studies conducted in India (Chayal et al., 2016) and Sri Lanka (Rajapaksa-Hewageegana et al., 2015) identified that school health programmes have been shown to fail as some students leave school before they receive puberty education. Indeed, the school dropout rates for adolescent boys were found to be much higher during their puberty in these countries, and therefore they did not receive education during their pre-puberty stage.

A study in the United States on white, middle-class Jewish male camp counsellors, who were adolescent boys (mean age=18.4 years), Forbes and Dahl (2010) revealed that despite having sexual education in schools, these boys appeared unprepared for the first ejaculation

experience. This was likely a result of the boys experiencing ejaculations before any formal education was given to them, which implied the importance of timely and effective delivery of health promotion programmes in schools.

9.7.3 Community outreach approach

This study's findings revealed that interventions should also be designed and planned to improve the male adolescents' puberty experiences, targeting those who do not go to school, or if the school education plan cannot be implemented. This was suggested to be achieved by developing community outreach programmes. This study recommended the need to plan and develop interventions at mass media level (e.g. TV, radio, magazines, street theatre and internet and social websites).

Moreover, it has been identified that the literacy rate in Pakistan is low as mentioned in the first chapter (section 1.2.2) (Fact Book, 2017c) and many young boys are reported to drop out of school in Pakistan and other similar settings at the age when pubertal changes start appearing and adapt adult male roles (i.e. breadwinner) of the family (Qidwai, 1999). It is therefore important that programmes should be developed outside schools to target the wider population, as if people cannot read due to low literacy rate, it may influence the way education/ awareness programmes should be delivered. Thus, it may strengthen a case for mass media (e.g. TV and radio), instead of printed campaigns or

websites using texts.

The literature has identified the need to promote puberty education for adolescent males at the mass media level and reported the success of these programmes (Hennessy et al., 2013). Pakistan has also started certain programmes on TV and radio channels with the collaboration of NGOs; although these programmes were not designed with inputs from the young and adolescent males. Thus using the evidence from this study, young adolescent males should also be involved in developing community outreach programmes. Also, by involving other community organisations such as, NGOs and involving other stakeholders at the community level that indirectly influence the puberty experiences of adolescent boys such as, religious and community leaders', successful health promotion interventions can facilitate good puberty experiences for future boys.

The young boys in this study, when prompted, also shared that adopting various coping strategies, such as, social, support and self-management techniques helped them to adapt to the emotional effects that they experienced during puberty. Thus, at community outreach level, several strategies can be shared with the general adolescent population to help them cope if they experience challenges and help improve their puberty experience. The community programmes at this level should involve adult professionals and experts who then can be involved in the health promotion programmes of the adolescent and

young males.

9.7.4 Strengthening parental communication

As already discussed, participants' puberty experiences were influenced by their immediate environment and people they were in contact with. The results of this study showed a focused on obtaining reliable information from the parents, particularly fathers. However, the findings indicated the need to raise parents' awareness level, especially fathers, and instil in them appropriate skills to communicate with their adolescent sons regarding puberty.

Various studies (Ahmadi et al., 2009, Sajjadi et al., 2013, Diorio et al., 2006) support the importance of fathers' involvement in their adolescent boys' growth and development to improve their experiences. In one such study conducted in Iran (Sajjadi et al., 2013) fathers were found to have increased knowledge and exhibited attitudinal changes to psychological and behavioural health after attending a one day. workshop.

In addition to knowledge, the attitudes of fathers towards psychological and behavioural health, and physical and sexual health education during their male adolescent children's' puberty also improved as a result of this workshop. This indicates that by raising awareness, parental attitudes towards and knowledge of puberty education needs of adolescents can be improved. In addition, a very small, potentially non-randomised study may be needed for higher quality evidence of

such interventions. However, it does not guarantee that doing so will improve the adolescent males' awareness, and provide them with good puberty experiences. Therefore, more longitudinal studies may be needed, where the education provided to parents should be assessed by assessing the increased knowledge level of male adolescents during puberty.

Other studies (Diorio et al., 2006, Caldwell et al., 2010) conducted in different cultures (African American) also support involving parents, and fathers in particular, in the sex education of adolescent boys. After the interventions were introduced, there was improvement observed in the father-son risk taking behaviour communication, which implies that future father-son communication may decrease the engagement of young boys in risk taking behaviours, which will eventually improve their health and wellbeing in adulthood.

9.7.5 Modern approach to positive puberty promotion

This study's findings highlighted the cultural norms followed by parents and teachers, which limited the access of young males to puberty information. However, some young males were able to access this knowledge through the use of technology. The ever evolving spread and use of technology across the world indicates that puberty knowledge may be more easily available through this route (i.e. internet) for future adolescent boys as compared to the participants who were young males in this study.

Supporting the implementation of online sexual health promotion programmes, a study was conducted by Garcia et al. (2014), exploring the perceptions of nine health professionals from both in-patient and community settings. Although the study was conducted on health professionals, their opinions affirmed that sexual health education needs to be provided to young people in such a way that they should be able to ask questions without any hesitations. In this regard, professionals recommended using anonymous online forums and social network sites, where young males may openly ask and post their questions.

However, before designing any such HP programme for adolescent males in the Pakistani context, it may be significant to note that not all participants were confident to use shared computers to obtain puberty related information. Relating to this a few participants expressed their wish to keep the content of the information they obtained private. They were particularly concerned about their privacy, if parents would know the address of the web link through search history of shared computer. Despite these challenges, providing a separate online puberty promotion programmes may help adolescent males to have a good puberty experiences. The literature supports that online computer mediated programmes are widely acceptable and used among male adolescents, as well as females, undergoing puberty transition due to their perceived increased confidentiality, privacy, availability, feasibility and ease of use in both developed and developing countries (Berglas et

al., 2014, Cheng et al., 2012, Gabarron et al., 2012). However, cultural factors should still be kept in mind and need assessments must be done if male adolescents in Pakistan can access these facilities with the consensus of their parents and with no restrictions.

9.8 Study strengths and limitations

9.8.1 Strengths

This is the first study conducted in Pakistan exploring the views on and experiences of puberty from the perspectives of young males, who have experienced this transition during early adolescence. A qualitative approach has taken, using the philosophical underpinning of interpretivist-social constructionism, thus situating the participants' puberty experiences within a narrative of their own socio-cultural and environmental contexts. This is in contrast to assessing the general aspects of SRH, such as assessing knowledge and awareness of adolescents on broader SRH needs, as many other studies have already done, mentioned in literature review section.

The generic qualitative methodology allowed for the exploration of a rich description of puberty experiences, and thus provided a holistic view of young men's puberty. Recruiting participants from two study sites, using a convenient sampling technique, provided the variation within the sample. Although this created a limited number (n=22) of participants for the study, it nevertheless produced rich qualitative data. This was because the experiences of these young males were diverse because

of their diverse origins (i.e. urban and rural backgrounds) when they underwent puberty.

Sampling young men aged 18-21 years enabled the exploration of more enriched experiences since the participants reflected on them retrospectively. They articulated and thus explained puberty related needs in a more overt manner than younger adolescents, who were found to be less open to sharing their experiences, as mentioned in previous studies (Ahmadi et al., 2009, Flaming and Morse, 1991). Further, the opportunity to sample young men aged 18-21 years for this study enabled the exploration of the specific health promotion needs and identification of potential facilitating factors for positive puberty experiences of future adolescents, particularly boys. This was only possible by exploring the experiences of young males who had already experienced this transition, since they may be able to articulate their experiences better than those currently undergoing puberty despite being prone to recall bias, discussed in section 3.3.3.2.

Conducting individual interviews allowed for participants' detailed reflections on their puberty experiences. The details shared could be because of the comfort of interacting with the researcher individually rather than in a group setting. Using a group approach might not have maintained the privacy and confidentiality of their information. Conducting bilingual interviews, i.e. English or Urdu, also the mother tongue of the researcher reduced the need to translate all the

transcripts and minimised the problems that may have occurred because of translation. Being fluent in both languages also facilitated the researcher in free interaction and in seeking clarification, where needed. This contributed to generating rich data in this study.

Conducting thematic analysis through an inductive approach allowed to critically reflect on key themes and concepts derived from this study, and provided an opportunity to compare them against the data several times before a final thematic map developed. Developing a thematic map within this study provided a systematic framework and helped in understanding the puberty journey of young males living in an urban Pakistan. This may also facilitate the development of future health promotion programmes addressing the needs of this transition phase. Overall, the results of this study provide a foundation for future research in Pakistan on adolescent and young males' health needs, particularly during puberty. The study also acts as a resource for practitioners involved in the development of services and sexual health promotion for adolescent males in Pakistan.

Lastly, the authenticity and credibility of this study were maintained by ensuring reflexivity throughout the study (see chapter 8). Being reflexive strengthens this study and ensures the trustworthiness of the findings. It also reduces the likelihood of investigator bias. Further, transparency is provided to the reader by presenting rich data from participants' quotes, supporting their ideas, counter explanations and contrary accounts.

9.8.2 Limitations

There are potential limitations of this study that need to be acknowledged.

One of the challenges of this study was not recruiting an equal number of participants from each of the study sites due to pragmatic reasons and the potential availability of participants in each of the study sites. The experiences of the young men from the medical school and scouts were, therefore, explored less as compared with the young men in nursing school, since more young men from the nursing school participated.

Secondly, by employing a qualitative approach, this study used a small sample of participants, using convenient and snowball sampling techniques. Using these sampling techniques has a tendency to be exclusive, limiting the inclusion of some groups of young men; for example, those not currently belonging to specific institutions or the 'hard to reach' young men. Thus, this study included puberty experiences of those young men who were easily reachable by the researcher and were accessible through these sampling techniques.

In addition, the process of selecting participants through approaching institutional heads (using inter-personal and professional contacts) due to pragmatic reasons brought some degree of bias (i.e. selection and subject biases). For example, why did the scout leaders select these particular scout boys to introduce to the researcher and why did they

agree to participate? Did the professional knowledge of one of the groups of participants (e.g. Nursing and Medical school) affect the content of the interviews? Further, data was collected from the reasonably well educated population, who were all getting their degree and college level education. In fact, one particular group of participants was relatively well educated in the specialised fields of medicine and nursing.

Therefore, the data generated symbolised the views of the people included in the study, and may not be generalisable, limiting the application of the study findings to the larger, more general population. However, the findings of this study may be useful in determining the suitable intervention development programme for future adolescent males living in a similar context to this study.

The study produced data from young men who retrospectively self-reported how they experienced puberty, with some possibly still experiencing the transition. The data relied on the participants' memories as they recalled the events of puberty. These recollections could potentially affect the study outcomes if their memories were inaccurate. However, if a similar study was undertaken prospectively by approaching younger participants recently having undergone puberty, they may not have completely articulated their experiences. Therefore, the interviewees' age and timing of the interviews had both strengths and limitations.

Lastly, it is important to acknowledge that potentially one limitation of the study was the fact that the researcher was female and this may have impacted on the level of detail, some of the exclusively male participants may have wanted to share about puberty experiences.

CHAPTER 10: CONCLUSION

10.1 Introduction

This last chapter presents the conclusion of the thesis as a whole. The original contributions that this study makes to the field will be discussed. Finally, the recommendations and implications of the study, emphasising on policy implications for health promotion programmes, education and training, recommendations and implications for future research, in Pakistan and similar contextual settings will be considered and concluding remarks presented.

10.2 Novel contributions to existing research

This study fills an important research gap through investigating an under-researched subject in Pakistan, where puberty is considered a taboo subject to talk about in public. This is the first in-depth study in Pakistan exploring contextualised puberty experiences of urban young males targeting the primary stakeholders (i.e. young males) themselves. Thus, it provides a novel and holistic insight into this area, which other researchers can draw on to expand their understanding of puberty related issues for young and adolescent males of Pakistan and other similar cultures.

The findings of this study provide a foundation to further develop puberty and SRH research for young and adolescent males of Pakistan. It also acts as a resource for those wishing to develop health promotion interventions to provide good puberty experiences for future adolescent

males.

Integrating this study's findings within the SEM has provided novel contributions in the field of adolescent research and added new knowledge within the Pakistani context. It has been demonstrated that puberty is influenced by many factors and that understanding these will facilitate stakeholders and institutions to help future young boys in overcoming the challenges they may experience during puberty. Thus, an adapted SEM in this study provides a contextual framework, which can help in developing health promotion interventions for adolescent males, while integrating these influencing factors.

In addition, the longer-term impacts of puberty are a new finding by being much more visible in this study, compared to previous studies that investigated these experiences with much younger adolescents. Focusing this study on young males to participate in this study provided an opportunity to discover some of the impacts of puberty on young adult life.

10.3 Recommendations of the study findings

The findings of this study point to the need for improving puberty experiences for adolescent Pakistani males and other similar socio-cultural backgrounds. Considering the fact that puberty has several health outcomes, which may remain with men in their adulthood, the proposed approaches for improving the puberty experiences of future young boys should be of interest to local, national and international researchers and policy makers, funding bodies and other related organisations. Detailed recommendations for the study are provided below.

10.3.1 Recommendations for policy and education

The findings of this study have a number of important recommendations for future policy and education:

- The need for appropriate puberty awareness programmes is emphasised.
- To enhance puberty awareness, it is essential to involve at policy and education level various stakeholders including school authorities, community leaders, government, local and international representatives, and the primary stakeholders (i.e. adolescents and young males).
- In the absence of Pakistani school HP programmes, a definite need is highlighted for puberty education in schools of adolescent boys.

- The curriculum content needs to be culturally sensitive, in order for parents to be receptive towards this curriculum; and it should be compulsory for teachers to deliver it.
- Developing a community outreach programme related to puberty education for those not enrolled in schools and colleges is recommended. This may be achievable by involving various stakeholders, including governmental and NGO officials.
- Considering how the participants approached peers and accessed media sources, it would be potentially helpful to develop a peer educator programme and develop online mediated sex/puberty education programmes.
- Particular attention should be paid to developing awareness programmes through mass media, particularly the internet, as these media sources (internet, social media) need to provide accurate and reliable information.
- Appropriate levels of support should be provided to adolescent and young males, for the psychological impacts during puberty; to avoid receiving misinformation and engaging in abusive relationships due to accessing unreliable information sources and receiving inaccurate information.
- Identification of vulnerabilities and preventative strategies, focusing on avoiding emotional distress and sexual abuse, also need to be implemented during puberty transition; especially for those not accessing reliable information.

- Puberty awareness campaigns should ensure that adolescents' concerns are effectively addressed and appropriate coping strategies are identified by key stakeholders, through collaborating with other stakeholders'/ support groups.
- Understanding the development of gender imposed identity needs, when designing HP programmes and measures for overcoming distress due to the gender imposed norms should be addressed carefully.
- The success of in-school and other HP programmes depends on policy design and implementation at local, provincial and national levels, (where HP programmes are supported and funded).
- Due to the sensitivity of the topic in Pakistan, the government needs to impose the education policy for adolescent boys regarding puberty, to achieve success in HP programmes.
- Adequate education and training for other key stakeholders (i.e. teachers, parents, peers, and HCPs) are recommended. Providing training may also allow these stakeholders to gain more confidence and competency in providing puberty education to young boys.
- Training teachers is also supported by (UNESCO, 2009) suggesting that Pakistan is a country, which requires training of its education departments and personnel when introducing the sex/puberty education on curriculums.
- The puberty training needs should be incorporated when the

curriculum is prepared and should be conducted by health care personnel or someone who specialises in teaching gender-sensitive topics.

- Training needs identified for HCPs working in both the private and public sectors, as they may also require special skills to provide puberty related information to young people accessing their services.

To conclude, meeting all these education and training needs may need collective efforts between various stakeholders such as government, private entities and NGOs, parents, community and religious leaders, school authorities and curriculum developers and also the relevant ministries involved in education and training.

10.3.2 Recommendations for future research

Building on this initial qualitative study, future areas of research may include the development of HP programmes for future adolescent boys, preparing them for the overall (i.e. physical, mental and emotional) changes that occur during puberty. Further qualitative and quantitative development work would be needed to decide the focus of particular interventions and the intervention components. Pilot projects and feasibility testing could be used to test the possible interventions before a large scale testing in a randomised trial should be proposed.

Also, it may give an idea of what behaviours need to be targeted in those interventions, for example improving the knowledge level of

teachers and parents etc. However, more work is needed to decide the basis for interventions. In relation to this, the information generated by this study could be the basis for the further survey. For example, in terms of psychological impacts, future surveys can measure these impacts, and highlight the need to further interventions. Thus, this study has highlighted potential areas that could be a focus on in an intervention development work.

Next, to answer the research question, this study only needed to include the young males' perspectives on their puberty experiences. However, in future, it may also be helpful to assess, explore and understand the perspectives of different stakeholders (e.g. community and religious leaders, parents etc.). This is particularly important if a future study plans HP activities involving any of these stakeholders. For example, conducting a parallel study of parents/fathers of adolescent boys living in Pakistan would provide more insights into future health promotion programmes, if planned to target and involve parents in providing good puberty experiences to adolescent males. This also indicates a future research opportunity in this area.

While gender based norms were not the focus of this study, the findings relate to identity formation bringing the concept of gender socialisation and how gender norms might influence this transition phase, thus developing an adult male identity. These social constructions of masculinity can affect women's health, particularly in patriarchal culture.

This, therefore, can be explored in future research with male and female participants, to understand the impact on male-female relationships according to these gender norms. A longitudinal study in this context may be helpful where adolescent boys can be followed up with later in their adulthood, by investigating how these gender norms influenced their identity and may have affected their partners' health and wellbeing.

Additionally, this study also identified various sources that participants considered reliable and therefore approached in order to gain information on the puberty process. Yet the reliability of some of the information available is questionable. Therefore, in future, a study undertaking a content-analysis, through both surveying what participants may have used and indirect analysis of web content young boys might have obtained from social media and the Internet would be useful. This kind of research can add to this study's findings by providing useful information on reliable sources to be used for future interventions, designed for the puberty education of adolescent boys.

This study suggests that young males encounter a number of barriers and challenges during puberty, particularly with regard to education and gender socialisation norms and therefore may be at risk of developing physical and psychological health problems in their later adult life. However, determining the extent of these issues developing in young adulthood has not been researched among young Pakistani males and

may be useful to consider as a future area of research. There is also a need for a longitudinal cohort study later to see if the interventions (which are suggested to be developed earlier) had a long-term impact as many of the issues raised in this study were still affecting these young males.

The current economic and political climate of Pakistan, with other public health priorities, may delay the funding of such a study, although developing a specific HP programme for adolescent males' puberty education could address many gender and health related issues among adolescents. Therefore, future research and health promotion programmes for young and adolescent males can be initiated, collaborating with small number of NGOs, already started to work within the scope of SRH of young people.

10.4 Summary

The main findings from this PhD study supplement and add to those of the previous literature. The use of an adapted version of the SEM to highlight key findings demonstrated that adolescent males' puberty transitions are not a process in isolation, but influenced by various external systems of influence. Thus, these findings will be helpful to facilitate the development of future puberty related HP programmes for young boys by using the SEM within programme design. It will also provide a new framework based on SEM for researchers and policy makers to plan and work in the field of adolescent health, involving them as well all the other systems of influence that might shape male puberty experiences.

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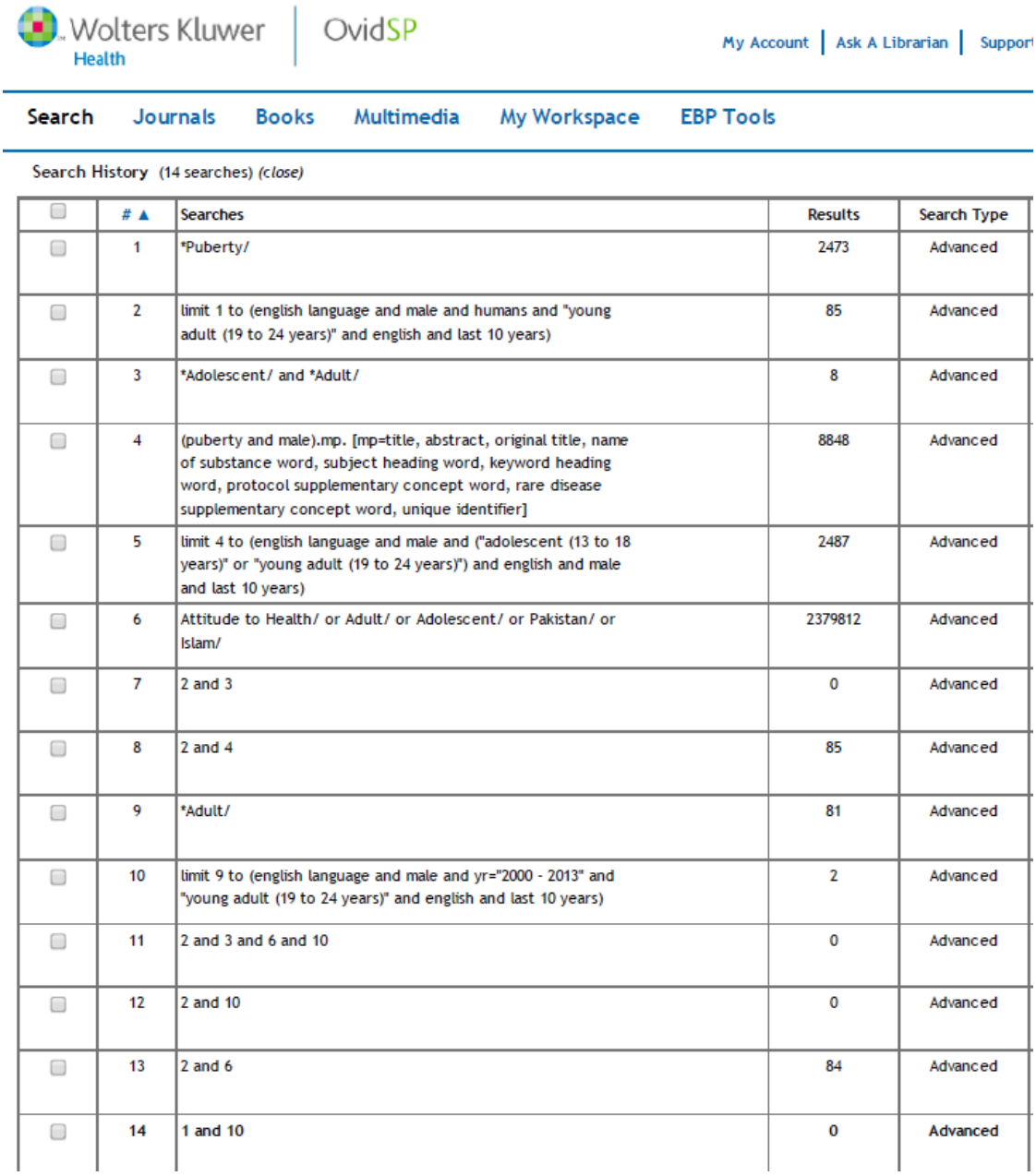
Appendices

Appendix-1

Appendix 1: Literature search process

Table 11: Example of search terms using truncation and combination words



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Search Journals Books Multimedia My Workspace EBP Tools

Search History (14 searches) *(close)*

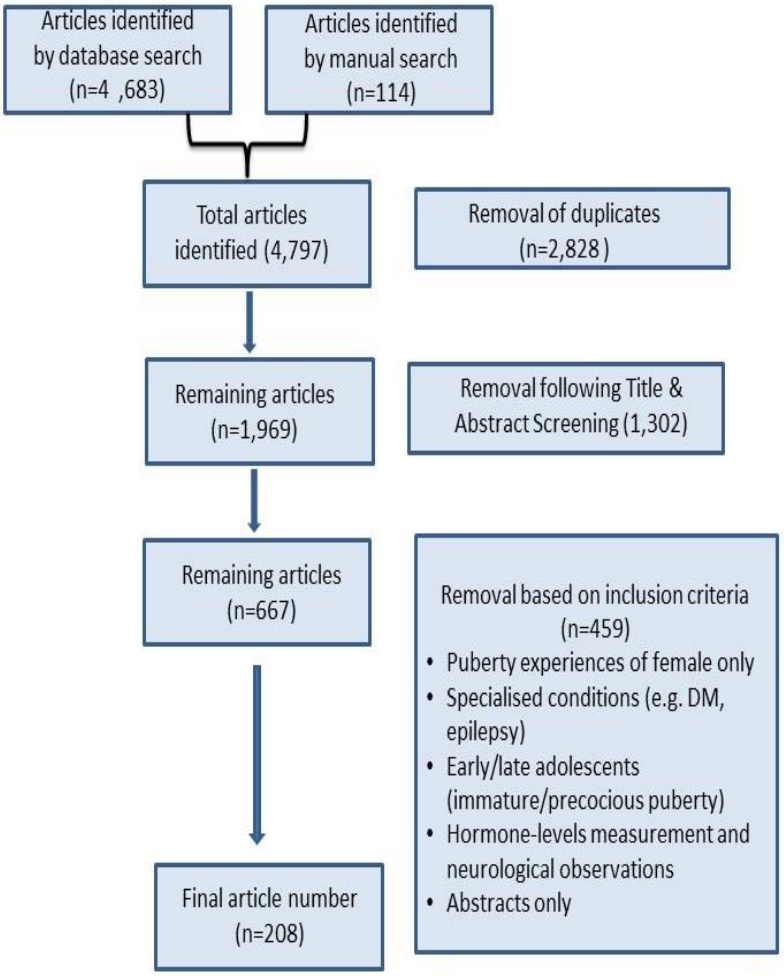
	# ▲	Searches	Results	Search Type
	1	*Puberty/	2473	Advanced
	2	limit 1 to (english language and male and humans and "young adult (19 to 24 years)" and english and last 10 years)	85	Advanced
	3	*Adolescent/ and *Adult/	8	Advanced
	4	(puberty and male).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier]	8848	Advanced
	5	limit 4 to (english language and male and ("adolescent (13 to 18 years)" or "young adult (19 to 24 years)") and english and male and last 10 years)	2487	Advanced
	6	Attitude to Health/ or Adult/ or Adolescent/ or Pakistan/ or Islam/	2379812	Advanced
	7	2 and 3	0	Advanced
	8	2 and 4	85	Advanced
	9	*Adult/	81	Advanced
	10	limit 9 to (english language and male and yr="2000 - 2013" and "young adult (19 to 24 years)" and english and last 10 years)	2	Advanced
	11	2 and 3 and 6 and 10	0	Advanced
	12	2 and 10	0	Advanced
	13	2 and 6	84	Advanced
	14	1 and 10	0	Advanced

Alerts were also set up with selected databases and journals so that the authors would be notified of new articles, and on several occasions, email communication was conducted with the author of the relevant papers in the field to access the full text of the paper. Library ILL (Inter library loan) service was also accessed to retrieve full texts of articles if authors did not reply in time.

Reviewing Literature

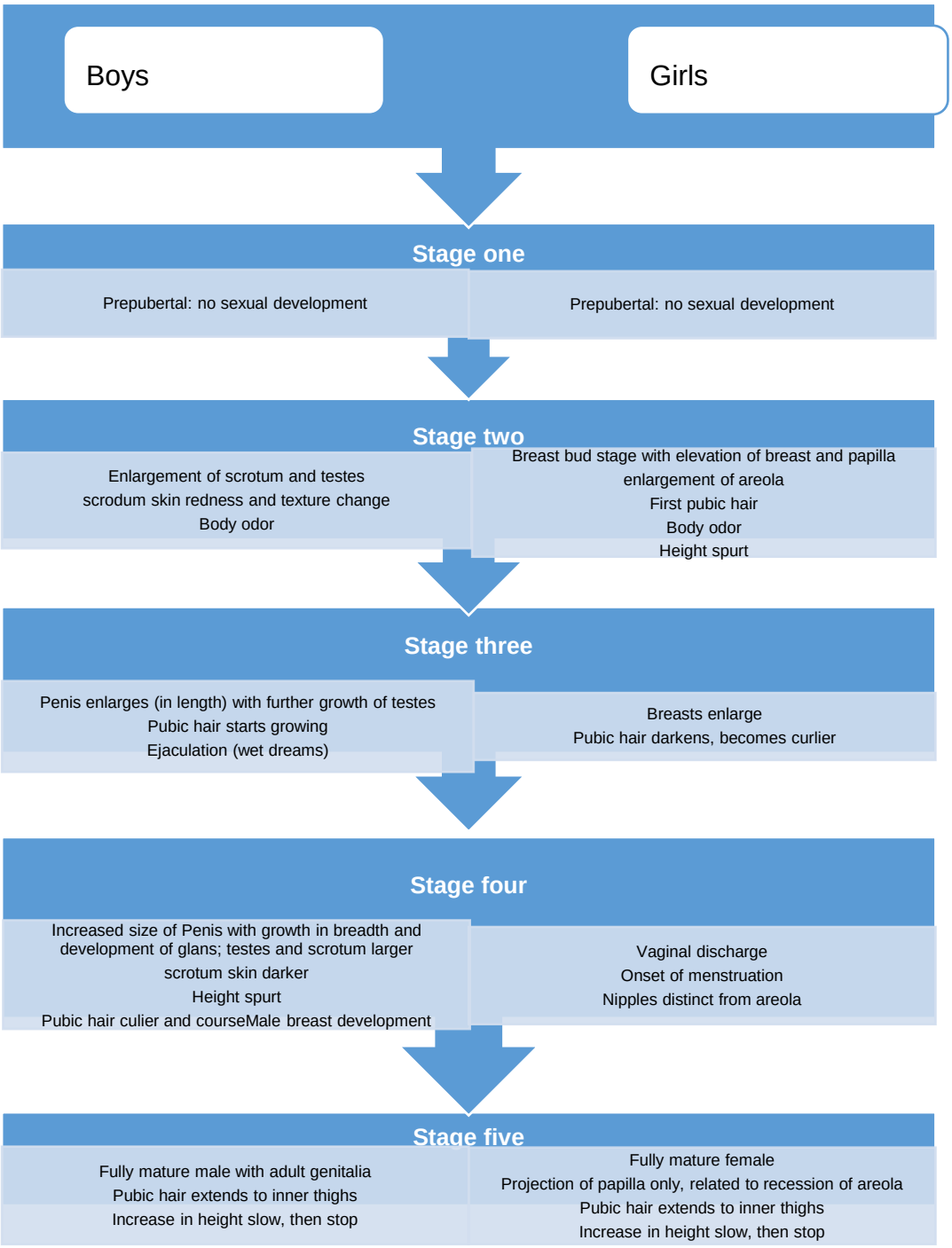
After removing all the duplicates with the help of Endnote X7 software, titles and abstracts were scanned and screened carefully and then full articles of the relevant papers were obtained electronically, as well as manually, and then read. The summary of how the articles were included in this review is presented in the flow chart (Figure 16). All the identified literature was read and data synthesis occurred with the resulting themes being emergent, which formulated the entire review chapter.

Figure 16: Flow chart showing systematic search process



Appendix-2

Appendix 2: **Tanner Stages of Pubertal Development**



Source: Information adapted from (Child Development Institute, 2005; Tanner, 1965)

Appendix-3

Appendix 3: Medical Research Council (MRC) Complex Intervention Framework

Source: Craig et al.,(2008)

Appendix-4

Appendix 4: Ethical Approval letter from The University of Nottingham

The University of Nottingham

Direct line/e-mail
+44 (0) 115 8232561
Louise.Sabir@nottingham.ac.uk

Faculty of Medicine and Health Sciences

Research Ethics Committee
School of Medicine Education Centre
B Floor, Medical School
Queen's Medical Centre Campus
Nottingham University Hospitals
Nottingham
NG7 2UH

14th August 2014

Noureen Asif Shivji
PhD Student,
B33, B Floor
School of Health Sciences
Queen's Medical Centre
Campus Nottingham University
Hospitals Nottingham NG7
2UH

Dear Noureen

•**Ethics Reference No:** OVSa14082014 SoHS PhD
•**Study Title**: A young male perspective on puberty: a qualitative exploration of puberty
•experiences in young males aged 18-21 years living in an urban city of Pakistan.
•**Chief Researcher/Supervisors:** Joanne Lymn, Professor of Healthcare Education
•Director of PGR, Director of Teaching & Learning, Dr Kim Watts, Midwife Lecturer, School of
•Health Sciences, QMC Campus
•**Lead Researcher/Student:** Noureen Asif Shivji, PhD Student, Nursing, School of Health
•Sciences.
•**Duration of Study:** 01/9/2014-31/3/2016, 18mths **No of Subjects:** 30 (18-21yrs)

•Thank you for your application which has been reviewed by the Committee on 14th August 2014 and the following documents were received:

•Exploring young males experiences of puberty:

- FMHS Research Ethics Application Form dated 08/12/2014
- Appendix – 1 Project Proposal Final Version 2.0 Date: 12/08/14
- Appendix 3 Email communication with Persons in Charge for Numbers of potential participants from
- Appendix 4: Poster or Advert, Final Version 1.0, July 29, 2014
- Appendix 5: Participant Information Sheet, Final Version 2.0, 12/08/14
- Appendix 6: Response Slip, Final version 1.0, July 29 2014
- Appendix 7: Consent Form, Final version 2.0, 12/08/14.
- Appendix 8: Interview Schedule
- Permission letter to – The Dean, School of Nursing & Midwifery
- Permission Letter to The Dean, Medical College
- Permission Letter to The Scout Group Leader,

•These have been reviewed and are satisfactory and the study is approved.

•Approval is given on the understanding that the Conditions of Approval set out on the next page are followed.

The University of Nottingham

1. A Favourable opinion is given on the understanding that all appropriate ethical and regulatory permissions are respected and followed in accordance with all local laws of the country in which the study is being conducted and those required by the host organisation/s involved.

2. That either a) confirmation is provided of the [redacted] research ethics approval for this study or b) confirmation is provided that research ethics approval is not required from T[redacted] for this study.

3. Please can you submit copies of formal letters of permission (this should be on the official letter heading of the organisation concerned) from the Deans of the Medical College and School of Nursing & Midwifery a[redacted]and the Group Leaders for the Area Scouting Committees when these are available for our records.

4. You must follow the protocol agreed and inform the Committee of any changes using a notification of amendment form (please request a form).

5. You must notify the Chair of any serious or unexpected event.

6. This study is approved for the period of active recruitment requested. The Committee also provides a further 5 year approval for any necessary work to be performed on the study which may arise in the process of publication and peer review.

7. An End of Project Progress Report is completed and returned when the study has finished (Please request a form).

•Yours sincerely

•Dr Clodagh Dugdale
•Chair, Faculty of Medicine & Health Sciences Research Ethics Committee

Appendix-5

Appendix 5: Official permissions from study sites

[redacted]

•Authorization Letter from the [redacted]

•The primary investigator/ researcher Name: Noureen Shivji has shared the relevant details of the research study, entitled "Exploring puberty experiences from young males aged 18-21 years".

•I have read and understood the details about the study as stated in the [attached] study outline for my information. I confirm that the research ethics approval is not required from [redacted] for this study. I allow the researcher to conduct the study with the male medical students studying under five years Medicine program of AKU-Medical College.

•(N.B.: A copy of the same will be provided for your record)

Authority's Name: FoorL,.1- 6k.5

Designation: cvv1 M.—elc---1? &lb-a uht,JeAr

Signature:

Date: 2610 1120

PI Name: Noureen Asif Shivji

•**Signature: Date:**

•2

[redacted]

[redacted]

•Faculty of Health Sciences
School of Nursing

•Authorization Letter from the [redacted] School of Nursing and Midwifery
[redacted]

•The primary investigator/ researcher Name: Noureen Shivji has shared the relevant details of the research study, entitled "Exploring puberty experiences from young,males aged 18-21 years".

•I have read and understood the details about the study as stated in the [attached] study outline for my information. I confirm that the research ethics approval is not required from [redacted] for this study. I allow the researcher to conduct the study with the male nursing students studying under f[redacted].

•(N.B.: A copy of the same will be provided for your record)

Authority's Name: [redacted]

•Designation: Dean and Professor, [redacted]
Karachi, Pakistan

Signature: **Noureen Asif Shivji** **Date: August 25, 2014**

PI Name:

Signature: **Date: August 25, 2014**

[redacted]

[redacted]

Authorization Letter for Group Scout Leader

The primary investigator/ researcher Name: Noureen Asif Shivji has shared the relevant details of the research study, titled- "Exploring puberty experiences from young males aged 18-21 years".

I have read and understood the details about the study as stated in the [attached] study outline for my information. I allow the researcher to conduct the study with the male scout members volunteer to participate in the study.

(N.B.: A copy of the same will be provided for your record)

Authority's Name: [redacted]

Designation: **Group Scout Leader**

Signature: [redacted] **Date: September 15, 2014**

PI Name: **Noureen Asif Shivji**

Signature: **Date: September 9, 2014**

Appendix-6

Appendix 6: Email Communication for Number of potential participants from University and Scout Group

Dear Noureen
Here is the required information.

	Class ID	Number of Students		
		Female	Male	Total
MBBS	Year 5	55	44	99
	Year 4	53	43	96
	Year 3	57	41	98
	Year 2	51	48	99
	Year 1	51	50	101

Thanks

[redacted]

There are 60 male students out of 440 in a four year BScN programme.

Thanks

[redacted]

From: [redacted]

May be b/w 15 to 25

Appendix-7

Appendix 7: Recruitment poster for study participants

INVITATION TO INFORM MY RESEARCH

ARE YOU A YOUNG MAN AND AGED 18-21 YEARS OLD?

ARE YOU WILLING TO TALK ABOUT YOUR TEEN AGE EXPERIENCES?

IF YOU ARE WILLING TO SHARE, PLEASE READ ON...

I am a PhD student conducting my research project on:

'EXPLORING PUBERTY EXPERIENCES IN YOUNG MALES AGED 18-21 YEARS'

The purpose of this study is to explore young men puberty experiences and its effects on their physical and mental health

IN ACKNOWLEDGEMENT OF YOUR TIME YOU WILL RECEIVE A CERTIFICATE OF PARTICIPATION FOR THIS RESEARCH

Volunteers will be required to participate in an individual interview (face to face/ Skype/telephone) and talk about their experiences in detail.

If you wish to participate or need any further information, please contact Noureen Shivji

07456051651

Noureen Asif Shivji ntxnash@nottingham.ac.uk; noureenkaramali@yahoo.com

Principal Investigator: Noureen Asif Shivji

Supervisors: Prof Joanne Lymn and Dr Kim Watts

University of Nottingham, School of Health Sciences

Appendix-8

Appendix-8: Participant Information Sheet

You are being invited to take part in a research study. Before you decide you need to understand what it will involve for you. Please take some time to read the following information carefully and talk to others if you wish. This information sheet will tell you the purpose of this study, what will happen if you take part and about the conduct of the study. Please feel free to ask if there is anything that is not clear or if you would like to have further information. Please think to decide if you wish to participate in the study. The information regarding this study is as follow in the form of questions you may have regarding this study:

What is the purpose of the study?

This study is part of my PhD in Nursing Studies which I am undertaking with the University of Nottingham. The aim of the study is to explore the puberty experiences of young males aged 18-21 years and its impact on their long term physical and mental health outcomes.

This research study will cover the following objectives:

- To explore the overall experiences of puberty from young males aged 18-21 years
- To explore what barriers/challenges/difficulties young men encountered during puberty and how they may have overcome these.
- To explore potential facilitating factors for young males during adolescence to ensure a positive puberty transition.

This study intends to design and propose health promotion programs for the sexual and reproductive health of male adolescents in future including their growth and development, such as puberty. The exploration of experiences from young males themselves and understanding their experiences will allow researchers to develop some design which will be useful and helpful for future male adolescents. This study will run for approximately 8 months.

What is puberty?

Puberty is the developmental transition that occurs in adolescents from 11-17 years when they enter into their adolescence/ teenage time, and there is transition occurs from young hood to adulthood. There are several physical changes that occur in boys as a result of this puberty transition, such as growth spurt occurs and males start getting taller and becoming more muscular, facial and body hair grow along with pubic hair,

voice changes, acne appearing on face and boys start experiencing spermarche and wet dreams etc.

Why have I been invited?

As you fulfill the criteria for my research aims and objectives, I would like to invite you to join this research study. You have also been invited because you are young males aged 18-21 years and gone through the stage of puberty and early adolescence. You have experienced puberty recently and therefore, it is best to ask your puberty experiences in order to know how those experiences were and how it can be improved by further development of health promotion programs for young boys younger than your age or may be your age.

Do I have to take part?

It is entirely up to you to decide whether to participate in the study or not but if you will take part, that will be a good contribution of your in the development of future health promotion programs particularly for male adolescents. If you decide to take part, you are free to withdraw at any time during the study. This would not affect in any way your performance in the institution where you belong to.

What will happen to me if I take part?

If you decide to take part in the study voluntary, an informed consent will be signed with you for your participation. You will be given a demographic profile sheet to fill some pertinent information related to the study. After filling the demographic sheet and signing a consent form, you will be asked to take part in the one to one face to face interview where researcher will ask you open ended question to talk about your puberty experiences. The interview will last 45-60 minutes approximately and will be conducted in English, Urdu or Bilingual language, whichever is comfortable for you. The interview will be conducted at your convenient time within the suitable place either at the university premises or meeting room. You will be asked if you want to conduct an interview in the presence of a male member with the female researcher for your comfort if you are uncomfortable to female researcher alone. In case, you still feel uncomfortable during face to face interview, you may have an option to choose Skype and telephone interviews to share your experiences. The interview will be audio-recorded and researcher will note field notes for her own record during the interview. You can ask any questions you may have before, during n after the interview has been conducted. You can withdraw from the study any time you feel you could not participate without any consequences.

What are the benefits of taking part?

There are no immediate benefits for your participation in this study, although your experiences may contribute in the further development of health promotion programs for adolescents or any stakeholders that can improve the life of male adolescents in terms of their knowledge and attitudes towards sexual and reproductive health and growth and development. The researcher is thankful for your participation and your opinions and

views will further provide useful information necessary to inform policy makers, health professionals and researchers on realistic ways of designing the programs that would benefit male adolescents in future and young males at present. In terms of your time contribution towards this study, researcher will provide you the certificate of participation in this study.

What are the possible disadvantages of taking part?

There are no disadvantages or foreseeable risks to your participation in this study except for your valuable time given for this study. However, interview will involve detailed questions that may be sensitive as they tackle mostly issues related to your experiences of puberty with the sexual and reproductive health and may trigger stressful situation in your life. If at any point in time you think these questions would upset you or make you uncomfortable and you feel not to continue with the interview, you will be free to withdraw at any point in time of the study without any implications upon you or we can agree when we can repeat the interview or we can decide different mode of interview than face to face for the next time.

What will happen if I do not want to carry on with the study?

If you decide to withdraw from the study at any stage of the study, during or after the interview being conducted, the tape recordings or any other notes taken will be destroyed immediately. You may also refuse to answer some or all the questions if you don't feel comfortable with those questions.

Will my taking part in the study be kept confidential?

All information collected will be confidential and used for the research purposes only. In addition, data collected will be anonymous. Pseudonyms will be used instead of your actual name while transcribing your interview data. In order to protect your anonymity, all markers of an individual identification (e.g. student's name) would be deleted before analyzing and reporting. The collected information will be stored in a locked filling cabinet and electronic data will be saved in a pass word protected file to restrict unauthorized access to data.

What if there is a problem?

If you have any concerns about any aspect of the study or have any queries between interview conduction phases, you should speak and contact to researcher, who will do everything possible to address your concerns or answer your questions.

Who is organizing and funding the study?

This study is the part of my PhD project which is completely self-funded and is not under any funding body influence

What will happen to the results?

The results of the study will form part of my PhD thesis and will be published and presented in scientific journals and conferences. If you wish to know the result, you may request and anonymous findings will be available to you from the researcher after finishing the study.

Who had reviewed the study?

The study has been reviewed by my research supervisors: Prof Joanne Lymn and Dr Kim Watts from the University of Nottingham. An ethical approval has been taken from the University of Nottingham and authorized permission has been taken from your respective head of the institutions.

N.B.: If you know any other colleague of yours who may fulfil the criteria of this study, please refer them to the researcher with their permission to take part in the study as well

Available Sources of Information

For more information, contact:

The Researcher: Noureen Asif Shivji

Affiliation: University of Nottingham, School of Health Science, Nottingham, UK

Email address: ntxnash@nottingham.ac.uk; noureenkaramali@yahoo.com

Contact No: +44 7456 0516 51(UK); +92 336 205 1125 (Karachi- during field work)

Appendix-9

Appendix-9: Consent form for participants

I have read and understood the participant information sheet. I would like to conduct the interview:

Face to face Skype telephone in presence of male only with researcher

In signing this consent form, I confirm that I understand:

1. The purpose of the research project and my involvement in it. ☐
2. My participation is voluntary. ☐
3. I may withdraw from the study at any stage without facing any consequences. ☐
4. The interviews will be tape-recorded and I accept it to be so. ☐
5. All data are for research purposes only. ☐
6. All my data are confidential and the data will be destroyed within five years after completion of the study. ☐
7. Extracts from the interview can be quoted anonymously in any report or publication arising from the research. ☐
8. If I have questions about the research, or if I would like to see a copy of the final findings of the study, I can contact the researcher by calling her on the numbers provided or write her on the email address given. ☐

I understand that the further information about the study is available from:

Name of Investigator: Noureen Asif Shivji

Address: The University of Nottingham, School of Health Sciences

Telephone: +44 7456 0516 51 (UK); +92 336 205 1125 (Karachi-during field work)

I agree to participate in this study. I understand that I will receive a copy of this form (if I want).

Name of Participant: _____

Signature of Participant: _____Date: _____

Signature of Investigator: _____ Date: _____

Appendix-10

Appendix-10: Study Timeline

Research study activities	Time frame
Proposal development	December 2013-July 2014
Ethical approval from the University of Nottingham and official permissions from the departments in Karachi, Pakistan	July-September 2014
Data Collection, Data analysis (initial transcription and preliminary analysis)	September-December 2014
Interruption	January-February 2015
Data Analysis (Transcription, translation and back translation)	March-September 2015
First stage of Thematic analysis	September-November 2015
Second and third stage (Interpretive coding and identification of overarching themes)	November, 2015-April2016
Writing Preliminary findings	July, 2016-December, 2016
Writing Thesis	January 2017-September 2017
Editing and compiling thesis	September 2017- August 2018

Appendix-11

Appendix-11: Demographic Profile Sheet

Please answer the following questions before we commence an Interview

Name (Optional): _____

Age: _____

Ethnicity: _____

Originally from: _____

No of years living in Karachi: _____

Education background: _____

Siblings: (please indicate number of sisters and brothers separately)

_____

Relationship status: _____

Contact number: _____

Email address: _____

Appendix-12

Appendix-12: Interview Schedule

Title: Exploring puberty experiences from young males aged 18-21 years

Line of inquiry 1: Over all experiences of young males towards puberty

- Puberty/adolescence/teenage experiences from the young males' perspectives
- Physiological, psychological and emotional experiences of young males during the time of puberty changes/adolescence time/teenage when physical growth and development occurred
- Young male's ways of sharing these physiological, psychological and emotional experiences with regard to the puberty phenomenon

Line of inquiry 2: Potential barriers and challenges

- Socio-cultural, parental and environmental factors affecting puberty experiences of young males
- Role of communication and information sharing about puberty changes

Line of inquiry 3: Effects on young males due to potential barriers

- Impacts/effects/outcomes of puberty experiences/teenage period as a result of certain barriers
- Impacts/effects/outcomes of puberty changes/physical maturational changes on participants' relationship with their parents, friends, peers and community people
- Impacts/effects/outcomes of puberty changes on their young adult life

Line of inquiry 4: Strategies used to overcome barriers

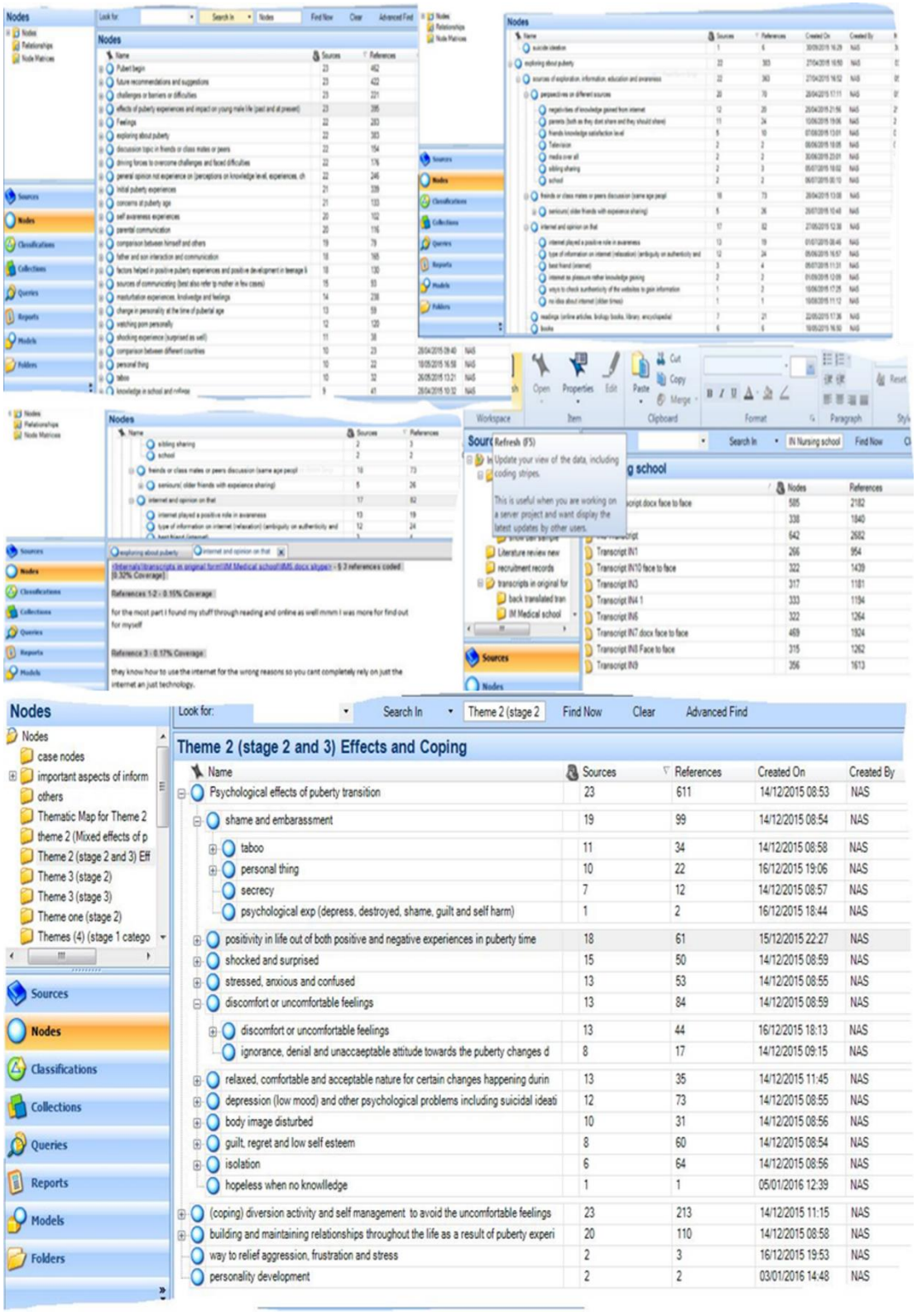
- Strategies adopted/used to cope up while having puberty changes/ teenage period
- Understand their opinions, perceptions and views about the strategies used during puberty time
- Use and helpful strategies for these young males

Line of inquiry 5: Possible suggestions for facilitation in future

- Suggestions of young males regarding possible strategies that can be developed in future for adolescent boys undergoing puberty transition/ teenage maturational changes for their positive experiences
- Suggestions in terms of developing health promotion program for adolescent boys during puberty changes and helpful in positive developmental experiences

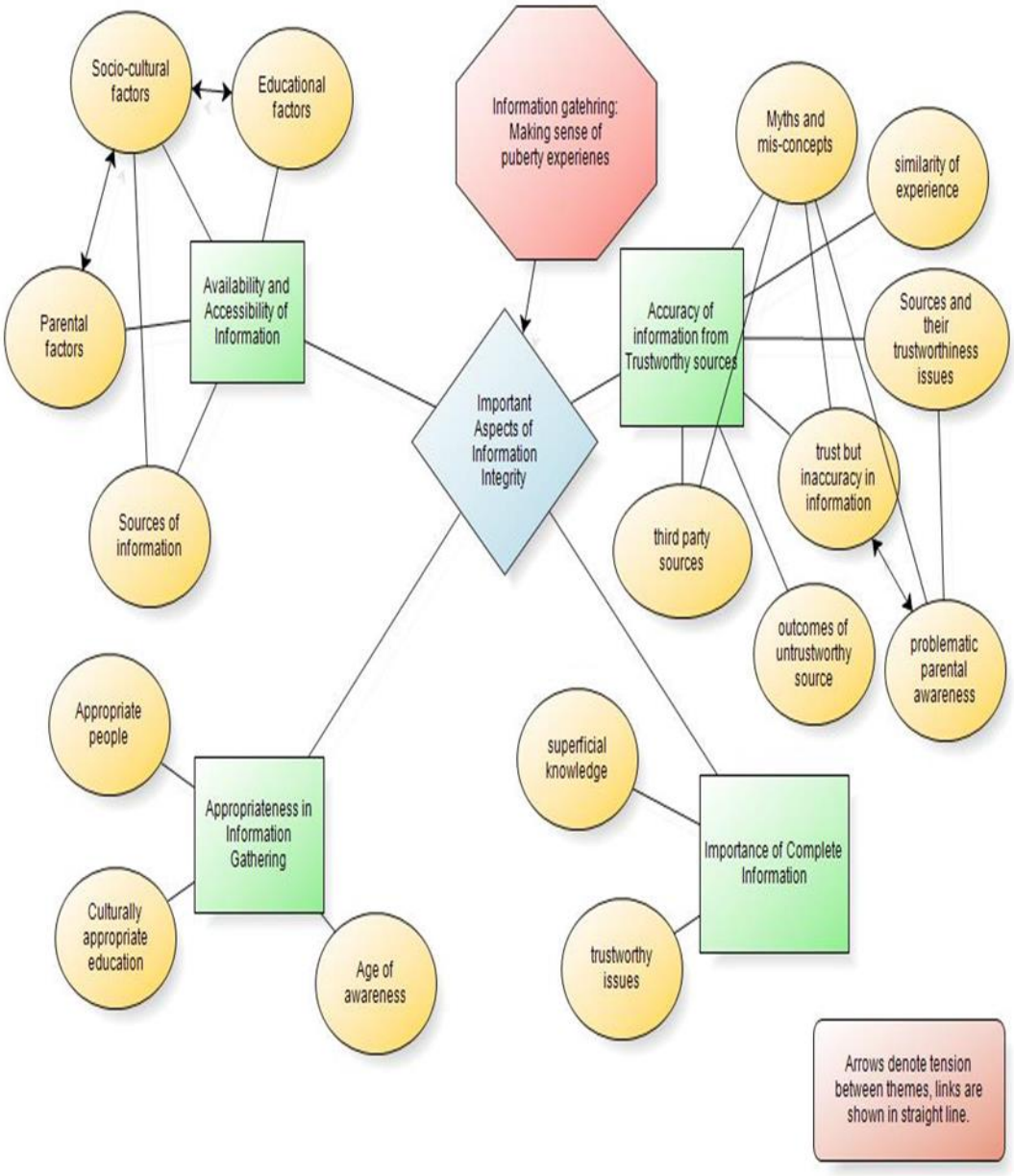
Appendix-13

Appendix 13: Data management and coding frameworks (NVivo Node Book)



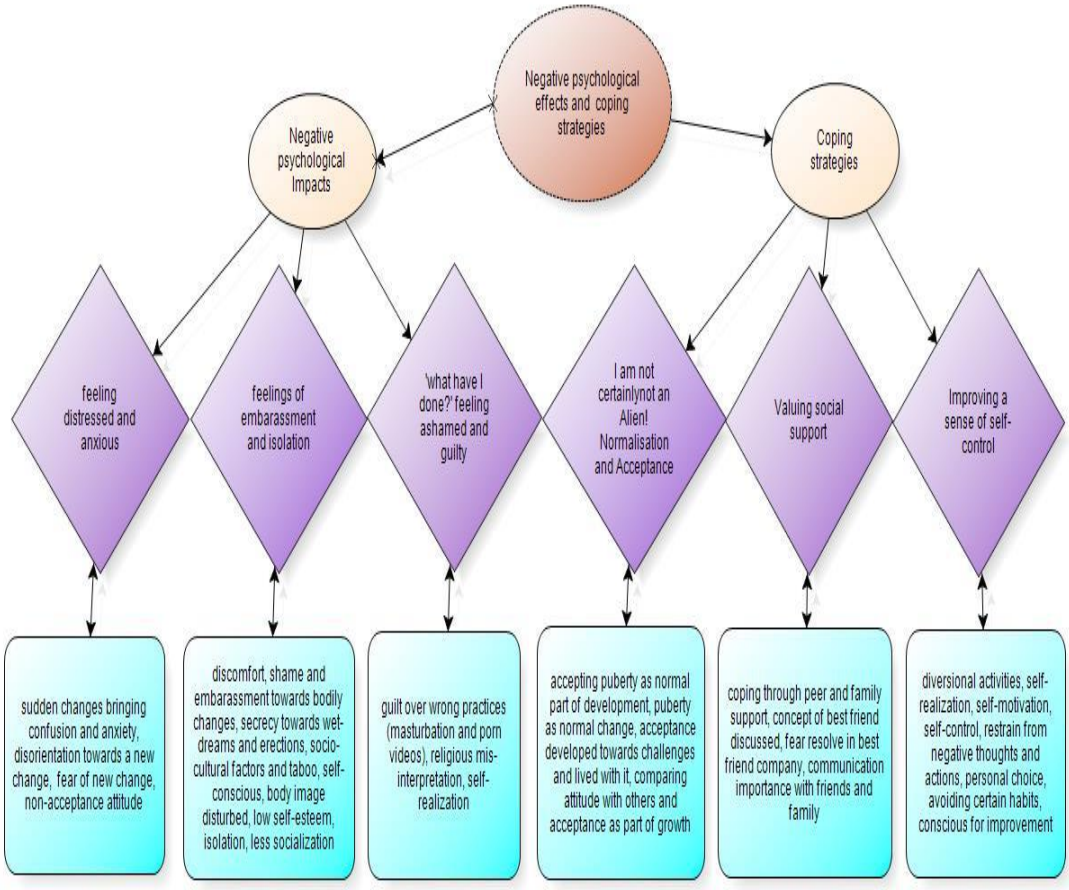
Appendix-14

Appendix 14:Themes and sub-themes linking with each other



Appendix-15

Appendix 15: Concept map with final theme, subthemes and descriptors



Appendix-16

Appendix-16: Social Ecological Theory systems of influences

Ecological systems	Descriptions
Microsystem (Individual factors and Interpersonal Relationship)	Includes immediate environment, which directly interacts with an individual almost on daily basis such as, family, peers, friends, teachers, religious and community leaders, schools, work place and even the social media sites if used on daily basis (e.g. snap chat).
Mesosystem	Involves the relationship between microsystem such as parents interacting with schoolteachers and encouraging children to do well based on teachers' feedback.
Exosystem (Institutional/Community Factors)	Includes elements of the microsystem, which do not affect the individual directly, but may be indirect. It often involves the social settings that affect but do not directly include the person such as, school board, different organisations (e.g. religious settings), health care policies, city and state laws and regulations and media (e.g. TV programmes)
Macrosystem (Socio-cultural/Political Factors)	Includes the culture attitude and social norms within the society in which individual lives and that shapes their development (e.g. dominant beliefs, spiritual belief system, gender norms, lifestyle, mass media and ideologies of a particular culture, political environment, economic and legal systems)
Chronosystem (Role of time)	The role of time: When events occur in a person's life (e.g. becoming a parent at different ages) The larger socio historical context (i.e. events that are unique in a particular generation). E.g. economic crises and spending money, use of cell phones and technology than previous generations

Source: (Bronfenbrenner, 1977 and Bronfenbrenner, 1986)