

# **Exploring employability of the newly qualified pharmacist: supporting the transition to registration.**

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## Abstract

Employability relates to the journey of an individual from education to employment and their ongoing career journey. Within Higher Education, embedding employability within undergraduate curricula is a key priority area, ensuring graduates are workforce ready. However, there are a range of stakeholders with a vested interest in employability, resulting in varying definitions, perspectives and measures of employability. A scoping review was conducted to describe the current literature about employability in pharmacy at the point of registration and to highlight gaps in knowledge in this area. The scoping review found scarce literature related to employability at the newly qualified pharmacist (NQP) stage. Transitions and terms linked with practice appeared to resonate greater with the pharmacy profession compared to employability potentially due to their meaning and importance.

This study aimed to explore the concept of employability for NQPs, to determine the employability characteristics (knowledge, skills and attributes) for newly qualified pharmacists to be work-ready upon registration. This enabled recommendations to be made for pharmacist education and training and to inform workforce planning developments for the pharmacy profession in the UK.

An exploratory study design was employed to gather qualitative data using semi-structured interviews. A total of 39 interviews were undertaken with NQPs, employers of NQPs, and other stakeholders. The interviews explored participant views on NQPs' employability and the associated knowledge, skill and attribute requirements, pharmacy education and training, and recruitment and selection processes. Data were reflexively thematically analysed. The results from the thematic analysis highlighted the importance of employability for the profession, potential implications for education and training, and the necessary employability characteristics. The analysis also highlighted the relationship between recruitment and selection processes and employability.

Drawing together the participant views of employability and the literature, a definition of employability at the NQP stage is proposed: the building and use of career management skills for job application, possession and use of human capital for job acquisition, and the sustaining of work through fulfilling the requirements of the job and adoption of a reflective identity. Employability is an important concept

that must be understood and embedded in the profession. The findings from the study call for a collaborative and profession-wide approach to address employability as part of workforce policy.

Essential to prepare and support NQPs for the world of work, employability must be embedded throughout education and training. Employability should be explicitly included in the GPhC standards for the initial education and training of pharmacists. The profession must ensure that newly qualified pharmacists are effectively trained and recruited from the point of entry onto the programme through to registration as a pharmacist.

Employability characteristics for a NQP can be understood as knowledge, skills, attributes and reflective practices, examples of which were described by participants and appear in the literature. These examples can be used practically as indicators for the purposes of teaching, learning, assessment, development and recruitment. Embedding of employability within the MPharm requires greater focus on learning how to learn, than possession of knowledge, particularly to support the idea of ongoing personal development. Foundation training providers must recognise their role in enabling independent practice. This will enhance the training experience and enable the NQP to practise safely and independently on registration.

There must be increased careers support to scaffold the development of the student pharmacist to NQP and beyond, enabling them to meet their career aspirations. Employer requirements must align with careers support, and recruitment and selection processes, so that prospective employees are clear in their expectations.

This study has highlighted key recommendations for the profession. Firstly, employability must be part of workforce planning discussions. This should be in the form of a profession wide roundtable event that discusses employability based on the findings of this study, and goals set out in the NHS Long Term Workforce Plan. Secondly, as employability development must be part of pharmacy education, the AdvanceHE framework for Embedding Employability should be used as the basis for reviewing pharmacy education. Employability also needs to be situated within the outcomes. This will inform curriculum design, policy and practice as well as student support.

## Covid-19 impact statement

I started my PhD studies in October 2015. My initial research study plans included interviews followed by focus groups. The aim of the focus groups was to explore and gather views on agreement with the interview data and help with triangulation of views. The focus groups also proposed to gauge the acceptability of the results, the significance of the results, and how they could be used to impact practice. Focus groups were proposed to involve representatives from the participant groups but also include representation from Scotland and Wales to support transferability. It was proposed to include general practice pharmacist employers and newly qualified pharmacists, as just before Covid-19, this was recognised as a career path for newly qualified pharmacists.

Exploring the perspectives of students and patients were considered as part of the study. The national student body was interviewed to provide a strategic and holistic view. As the aim of the study was to determine the employability characteristics of the newly qualified pharmacist and therefore discovering, the view of the individual student would be hypothetical due to not having a working appreciation of this stage of practice. Therefore, the plan for student inclusion was for implementation of the findings with subsequent evaluation. With patients, it was planned to understand their perceptions of the newly qualified pharmacist based on the findings through focus groups, to gauge their level of agreement with the profession's view of these characteristics.

By March 2020, all interviews presented in the thesis had been undertaken and analysed. It was not feasible to undertake focus groups in-person, or online due to participant availability. The requirement for health care professionals to be working on the front line with patients, and/or needing to redesign services meant that individuals would not have the time to contribute. The impact of Covid-19 on patients from both a physical and mental perspective would have meant an inability to participate. Covid-19 also impacted me as a practitioner and educator, where time was spent working in practice, and enacting Covid-19 regulations with respect to teaching and learning. There was also a requirement for undertaking of additional significant administration roles related to teaching and learning.

From a research perspective, my concern was how Covid-19 impacted how the research was externally viewed with respect to its relevance. Therefore, I reviewed the interview data in the light of the demands placed upon the profession by the

pandemic. This is reflected through recognising changing demands, what the future holds for health care and the impact on the pharmacy workforce.

## Publications

### **Conference abstracts**

Paul G, Boardman H, Bridges S. (2023). Exploration of employability in pharmacy. supporting transition from undergraduate to registration. Oral Presentation.

Presented at the Life Long Learning in Pharmacy Conference 2023. Available at:

<https://pharmacyeducation.fip.org/pharmacyeducation/article/view/2782>

Paul G, (2023). Employability in the curriculum – are we getting it right? What do we need to do better?. Small Group session. Delivered at the Life Long Learning in Pharmacy Conference 2023

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## Acronyms

CPPE	Centre for Postgraduate Pharmacy Education
DS	Designated Supervisor
ECP	Early Career Pharmacist
EPAs	Entrustable Professional Activities
EL	Experiential Learning
GPhC	General Pharmaceutical Council
RA	GPhC Registration Assessment
HE	Higher Education
HEI	Higher Education Institution
HCT	Human Capital Theory
FIP	International Pharmaceutical Federation
IPEL	Interprofessional Education & Learning
KSA	Knowledge, skills and attributes
MPharm	Masters pharmacy degree
NHS	National Health Service
NHS England WTE	NHS England Workforce, Training and Education
NQP	Newly Qualified Pharmacist
OBE	Outcomes Based Education
PhSC	Pharmacy Schools Council
PAF	Professional Attribute Framework
PIF	Professional Identity Formation
RPS	Royal Pharmaceutical Society
SoPs	Schools of Pharmacy
SPOs	Stakeholders and Professional Organisations
VBR	Values Based Recruitment
WBAs	Work-Based Assessments
WHO	World Health Organisation

## Glossary and abbreviations

Term	Explanation
Foundation Training	The period of training following graduation from the MPharm, which is normally 12 months in duration. Until 2021, this was known as pre-registration training.
Designated Supervisor	The individual(s) who are responsible for the supervision and assessment of a Foundation Trainee Pharmacist, during foundation training. Until 2021, this role was referred to as the pre-registration tutor.
Foundation Trainee Pharmacist	The title given to an individual who is undertaking foundation training. Until 2021, this was referred to as pre-registration trainee. This will be referred to as trainee.
Education & Training	This will refer to the five years of the initial education and training for pharmacists. When used on its own, education will refer to the MPharm degree and training will refer to foundation training.
GPhC standards	In this study, this will refer to the GPhC standards for the initial education and training of pharmacists, which were published in 2021. Where there is reference to the pre-2021 standards, this is stated within the text. For note, the GPhC standards include the educational Learning Outcomes
Learning Outcomes	These describe what a student/trainee pharmacist be able to demonstrate when they successfully complete their initial education and training. This will be referred to as outcomes.

# 1 Introduction

## 1.1 Background and Context

This study aims to explore the concept of employability with respect to pharmacists at newly qualified stage of their practice to understand what an employer seeks when recruiting a newly qualified pharmacist (NQP). A pharmacist is in a position of responsibility and must ensure the safe and effective care of patients and the public (General Pharmaceutical Council, 2017). They are expected to demonstrate independent practice from day one, underpinned by their knowledge, skills, and attributes. In this study, it is proposed that practice also needs to recognise factors such as ongoing career development and aspirations, enabling them to be the best they can be. As such, these factors need to be embedded within their education, practice and other experiences from the beginning of their journey to becoming a pharmacist. These factors along with knowledge, skills and attributes (KSAs) are a simplistic way of defining employability and expressing its importance. Data were gathered through 39 semi-structured interviews with pharmacy employers, recently registered pharmacists and pharmacy stakeholders. Through analysis of the interviews, the KSAs of a NQP were considered including how they potentially could be assessed within recruitment processes. The interviews also consider the relationship between employability and education and training, with proposal for how the quality and experience can be improved.

### 1.1.1 Motivation for the study

The motivation for this study was driven by experiences from my undergraduate education through to starting my PhD in this area, as well as subsequent experiences. As a former committee member of the British Pharmaceutical Students' Association (BPSA), the national representative body for pharmacy students, I had an opportunity to deliver training on ensuring success during recruitment and selection processes. This was driven by wanting to help pharmacy students achieve career success and support them with their personal and professional development. Through my experience of recruiting trainees and NQPs in hospital, I reflected on the reasons for non-appointment and considered whether there was an opportunity to support individuals in advance of application and interviews, to enable career success. As part of my academic role, I decided to design and deliver specific careers sessions for student pharmacists, focusing on interview technique, writing

applications, CVs and covering letters. To support this initiative, help was sought from the University Careers Service, who additionally introduced me to *employability* as a concept. Subsequently, the School enabled me to formally incorporate the role of Careers Lead into my academic role. Recognising that student pharmacists and trainees have a wide range of career pathways available to them, my interest was focused on how they achieve success. A further reflection in this area was with respect to how I made recruitment decisions, but also giving thought to how other employers made their recruitment decisions, which posed the question, '*what are employers looking for when they decide to employ a pharmacist?*.'

It is anticipated that for a graduate to be employed, they must meet the requirements of the prospective employer. It is therefore the employer's responsibility to ensure that their requirements for candidates are clear, transparent and accessible. Employer requirements are typically made available to candidates in several formats such as job descriptions, person specifications, candidate profiles, organisational values and mission statements. The employer uses these to inform the recruitment and selection process. Whilst robust recruitment and selection processes are imperative for the success of the organisation to which employees are recruited, it has been argued that effective human resource management is needed to develop employees (Hiltrop, 1996). Development is the responsibility of the employee but guided by the employer. These recruitment and selection processes are undertaken by employers (or representatives), who seek to recruit the ideal employee for their organisation. The idea of an ideal employee, whilst sounding straightforward is in fact, not so. This is because, each employer has varying requirements with respect to their employees, based on criteria that includes the organisational needs, customer requirements plus financial and political drivers (Gleeson and Keep, 2004). Additionally, the situation may arise where an employer may not know what they are looking for, or are not able to clearly articulate what they want and expect (Carroll, 1999). This can lead to a situation where a candidate who is ideal for one employer is not ideal for another. Candidates therefore need to appreciate and demonstrate how they meet what the employer is looking for. This may require amending how they approach each corresponding recruitment and selection process because of differing employer requirements. Specifically looking at graduates, unless the requirements of the employer are clearly articulated, graduates either may not apply for a role, or may not succeed in obtaining a role, or

may enter in the role with different expectations to what is on offer, leading to job dissatisfaction. Reflecting on the candidate and their preparation, poses two further questions, *'Do pharmacy graduates know what the expectations of pharmacy employers are?'* and *'How do we [as a profession] prepare students for recruitment success?.'*

## 1.2 Using employability as a term to frame the study approach

In undertaking this study, with an aim to answer these initial questions, the concept of employability was revisited, which subsequently informed the approach as well as the data collection and analysis. Employability is a term that is ubiquitous within Higher Education (HE), with the current and most widely used definition, provided by Knight and Yorke, *'A set of achievements – skills, understandings and personal attributes – that makes graduates more likely to gain employment and be successful in their chosen occupations, which benefits themselves, the workforce, the community and the economy'* (Knight and Yorke, 2004). This definition sets out initial guidance and provides a structure for exploring the requirements of the employer. Job adverts, job descriptions and person specifications typically refer to particular knowledge, skill and attribute requirements, from the employer perspective. Knowing and understanding what these requirements are from the employer's perspective, should help graduates with their careers. However, there is not only the employer's perspective to consider. Through use of particular terms, employability is a concept relevant to others. Words such as graduates and economy, suggest employability also has relevance for students, graduates, and the Government, and whilst the graduate perspective held more familiarity for the researcher, there is a need to consider whether and how employability impacts on these other groups. There is a case for understanding perspectives as the importance and relevance placed by different groups upon employability varies (O'Leary, 2017), and this influences how employability is defined (Williams et al., 2016). Various perspectives give rise to multiple definitions (Harvey, 2001, McQuaid and Lindsay, 2005, Brown et al., 2003), giving rise to the potential for different expectations of the graduate and what they need to demonstrate. Therefore, a focus of this study was to understand and define employability in the context of a NQP.

### 1.3 Position of the study within the research field

This study explores employability, focussing on the NQP. Prior to registering as a pharmacist, the standards for the initial five years of education and training are determined by the General Pharmaceutical Council (GPhC), as the regulatory body for the pharmacy profession. Schools of Pharmacy (SoPs) and foundation training providers deliver these. These standards are delivered in a variety of ways both at university and during foundation training.

Pharmacists can be employed across a range of sectors, with each employer having specific requirements for the roles and responsibilities of their employees, influencing recruitment literature and the recruitment process. Employer requirements are also influenced by sector of practice, size of the organisation and how the organisation is funded.

Within the health care workforce, increasing demands are being placed upon all health care professionals, including pharmacists, from a range of drivers including increasingly complex patients, an ageing population, workforce shortages across professions, but also recognition of the pharmacists' potential to deliver an increasing range of clinical services. These drivers shape how the Government and health care organisations respond, in the form of health policies and plans and set the expectations for the workforce.

Therefore, a range of standards, policies, requirements and drivers influence all stages of the pharmacist's journey. These stages, with their underpinning influences should be progressive and seamless between one stage and the next, particularly at the point of registration. However, expectations of independent practice and the enablers for this need to be explored. This is to be explored through the perspective of employability, due to its reference to benefiting the community, workforce and economy, which for pharmacy is synonymous with providing the best possible care for patients and the public. This study aims to support student pharmacists and trainees, exploring the requirements of the employer when recruiting a NQP. These requirements will inform post-registration training practices, as well as provide a review of the pharmacy degree curriculum and foundation training.

### 1.4 Thesis Structure

The background to the study is explained in Chapters 2 to 4. Chapter 2 provides a brief introduction to the education and training pathway for pharmacists. This is

followed by a discussion on how pharmacy, globally and within the UK, contributes to health care and the importance of pharmacy to the health care workforce. The education and training of pharmacists has undergone significant changes, and these are outlined to understand the current focus of pharmacy practice. Finally, workforce is revisited through consideration of recruitment processes and the importance of ensuring recruitment of an effective health care workforce. The chapter concludes by introducing the concept of employability, and how this relates to the education, training and recruitment of an effective workforce.

Chapter 3 considers employability by analysing the term in greater detail. Initially, the concept of employability is discussed with a brief description of the background to explain the context in which the term is used. This is followed by consideration of how employability is defined and how these definitions vary, leading to differences in understandings. The definitions of employability have given rise to various models for subsequent implementation, which despite the range of models, share commonalities. Employability holds importance for a range of stakeholders, the reasons for which shape their perspectives.

Chapter 4 continues the discussion of employability but in the context of the pharmacy profession. The introduction discusses employability in the initial education and training years with recognition given to the use of other associated terms. A scoping review highlights a lack of literature relating to employability and NQPs, but with greater literature relating to the associated terms. The chapter concludes by noting the lack of research on employability of NQPs and sets the aims and objectives of this study. The aim of the study is to explore the concept of employability for NQPs, with a view to determining the employability characteristics required for NQPs.

To achieve this aim, the objectives of the study, are to explore with employers, NQPs and with stakeholder and professional organisations:

- Understandings of the term employability in the context of pharmacy practice.
- Views on the employability characteristics, knowledge, skills and attributes for NQPs.
- Whether and how pharmacist education and training needs to change to reflect the employability characteristics for NQPs.

- Perceptions on the recruitment and selection processes for NQPs.

Chapter 5 provides an outline and justification for the methods used. This starts with a reflection on philosophical viewpoints and how the researcher's background as a pharmacist shaped views and influenced the methodological approach. The methods chosen to meet the aims and objectives are justified before a description of the sampling and recruitment processes chosen and ethical considerations are outlined. The value of the preliminary fieldwork and pilot interviews are discussed including how it subsequently informed the method. The influence of a pharmacist and how this was addressed based on concerns for bias is discussed. Finally, an explanation of the method for data analysis is given, recognising the influence that literature and theory had on this.

Chapters 6, 7 and 8 presents the results of the data collected.

Chapter 6 presents how participants speak about employability and what they believe is important with respect to independent practice for NQPs. Participants contribute their definitions of employability, which are shown to be reflective of their perspective, yet contain overlaps. Participants offer a range of knowledge, skill and attribute requirements in the form of practical examples but with variation in the language that is used.

Chapter 7 continues the discussion of employability, approaching this from the perspective of pharmacy education and training. The views are presented chronologically, to demonstrate how employability considerations impact at the various stages of the initial five years of education.

Chapter 8 considers how pharmacists can be recruited effectively, through examining current recruitment practices and their validity and feasibility. Consideration is given to whether recruitment practices align with knowledge, skill and attribute requirements. Recruitment bias is discussed, which whilst not related to employability, is seen within pharmacy.

Chapter 9 includes discussion and implications of the findings from the data collected. The various definitions of employability provided are used to consider a definition of employability for pharmacy. The findings show that the pharmacy focuses on the human capital aspect of employability, with greater emphasis needed for career building skills. Looking at employability in the context of education and



training identifies that views are driven by three aspects: transitioning to practice, quality of training and preparation for practice. The findings show that there are several recommendations to pharmacist education and training that need to be made to ensure independent practice. Taking this forward to recruitment practices, findings shows that improvements can be made to current practice with proposals that better align recruitment practices to knowledge, skill and attribute requirements. The chapter includes a reflection on the strengths and limitations of the study. Recommendations for pharmacy education and training, pharmacy practice, and wider policy are discussed together with opportunities for further research.

Chapter 10 is the conclusion, where findings from the results and discussion are drawn together, linking these together, to suggest that employability is a concept valuable to pharmacy and is helpful for ensuring safe and effective practice.

## 2 Background to the study

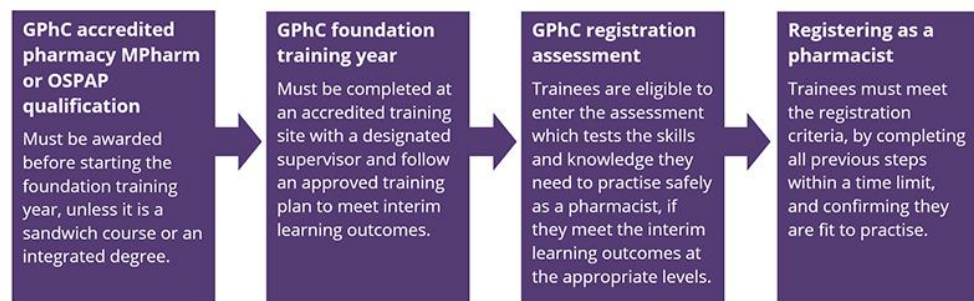
### 2.1 Introduction

This chapter outlines the background to the study, including the health workforce landscape, current issues within health care, and the drivers behind these. Following this overview, an explanation of the pharmacy workforce position within health care, and how this is evolving is given. The relationship between pharmacy workforce and pharmacy education and training, with its reforms are discussed, drawing on topics such as global pharmacy education but focusing on pharmacy education delivery within the UK.

### 2.2 Education & Training of Pharmacists

In Great Britain, a pharmacist must be registered with the GPhC to practise. Student pharmacists complete a 4-year vocational Masters pharmacy degree (MPharm), followed by foundation training (Figure 1). Providing all required standards are passed by the end of this period, they are eligible to register as a pharmacist.

*Figure 1. Process to becoming a registered pharmacist (General Pharmaceutical Council, 2023)*



The GPhC through the Initial Education and Training standards of Pharmacists, which incorporates educational Learning Outcomes (outcomes), determines the education of pharmacists. Schools of Pharmacy (SoPs) must demonstrate their programmes enable student pharmacists meet these outcomes to be accredited (General Pharmaceutical Council, 2021). Each outcome is assessed at a specific level of Miller's triangle of skills, competence and assessment (Miller, 1990), typically at the higher levels. Trainees are required to continue to demonstrate competence against the outcomes, assessed by a Designated Supervisor (DS) (General Pharmaceutical Council, 2021). Successful sign-off of training by the DS, in addition to passing the GPhC Registration Assessment (RA) enables the trainee to join the register of

pharmacists. The RA is based on theory with fixed criteria focussing on the knowledge base (Sosabowski and Gard, 2008), however, neither the outcomes nor the RA fully consider the readiness for independent practice.

The education and training provision for post-registration pharmacists is based on the needs of the sector in which the pharmacist is employed and offered by a range of providers. For hospital pharmacists, most will undertake a post-graduate diploma in clinical pharmacy (delivered by a Higher Education Institution (HEI)) in the first 2-3 years of qualification. For community pharmacists, there is no set education and training pathway; training may be part of a formal Higher Education (HE) qualification on specific clinical areas, short courses or management training. Pharmacists in general practice can be enrolled onto an education pathway delivered by the CPPE (Centre for Pharmacy Postgraduate Education, 2024). In other sectors, post-registration training varies and is dependent on employer needs, unless the pharmacist chooses to undertake training outside of their work. Additionally, dependent on their role, pharmacists in patient facing roles can achieve a qualification in non-medical prescribing (delivered by a HEI) (General Pharmaceutical Council, 2024b). Independent prescribing was embedded within the MPharm and foundation training for student pharmacists entering onto the MPharm from September 2021.

### 2.2.1 Frameworks and terminologies used within the pharmacy profession

There are range of terminologies used which need to be explained with respect to meaning and their similarities and differences. These terms influence educational and professional frameworks used within the pharmacy profession.

#### 2.2.1.1 *Competence, competency, competencies and competency-based education (CBE)*

These terms are used widely, sometimes interchangeably, with a variety of definitions. For the study, the focus is not to discuss the literature on this area but to explain what the terms mean, in the context of how they are being used and applied within pharmacy. Table 1 derived from Whiddett (1999) outlines the meaning of the respective terms.

*Table 1. Terminology associated with competencies*

Term	Meaning
Competence	An ability, to undertake specific activities (based on work task or job outputs) to a defined standard
Competencies (singular: competency)	A collection of related behavioural indicators, and can include knowledge, skills and attributes
Competency framework	A structure that brings together related competencies, which is made up of behavioural indicators

Using the Professional Attributes Framework (PAF) as an example of a competency framework, the attribute of 'Person-Centred Care' is a singular competency, constructed of six behavioural indicators Table 2. Person-Centred Care alongside a further eight competences, gives the nine competencies of the PAF.

*Table 2. Person-Centred Care attribute, with associated behavioural indicators*

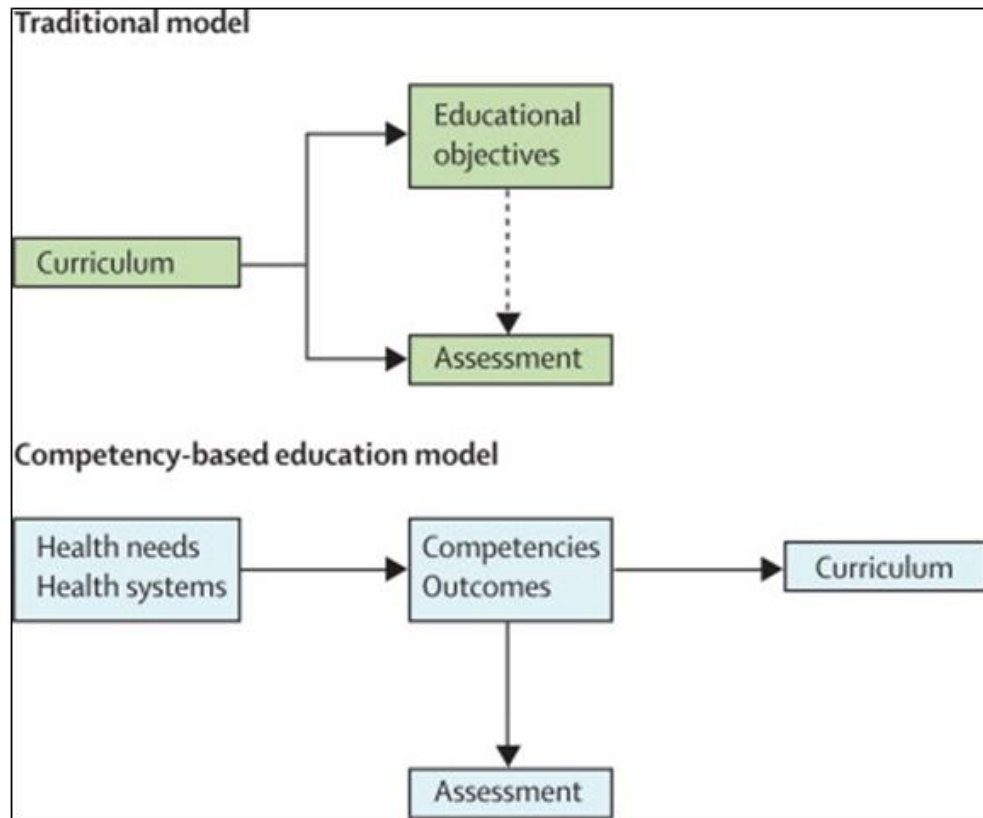
Attribute	Behavioural Indicator
Person-Centred Care	1.1 Demonstrates empathy and seeks to view a situation from the individuals' perspective
	1.2 Places the person who is receiving care first in everything they do; considers each person and the care they receive in a holistic and inclusive way
	1.3 Respects and is sensitive to a person's current and longer-term expectations, needs and their wider social circumstances
	1.4 Shows genuine interest in, and compassion for the individual; makes them feel valued
	1.5 Works in partnership with individuals, empowering and guiding every person to make informed and safe choices regarding their personal health care outcomes
	1.6 Effectively manages the expectations of the person accessing care

The use and benefits of frameworks in the field of pharmacy across pre- and post-registration stages are recognised in assisting in the management of career advancement, development and performance of the individual (Fejzic and Barker, 2015, Bates and Bruno, 2009, Mills et al., 2005, Bruno et al., 2010). Within pharmacy education and wider health care, demonstrating achievement of competencies is embedded within a concept known as Competency-Based Education (CBE).

CBE is organised around competencies derived from analysis of societal and patient needs (Frank et al., 2010a). Previous criticisms of health education relate to the curriculum not keeping pace with the demands placed on health systems and the needs of patients. This has resulted in out-of-date curricula producing ill-equipped graduates without the necessary skills, abilities or understandings. Exploration of what practice might look like, based on current and future health needs has led to

identification of the necessary competencies for graduates (Fish, 2005). This process has subsequently informed CBE curricula approaches, represented in Figure 2 (Frenk et al., 2010).

Figure 2. Competency-based education (Frenk et al., 2010)



#### 2.2.1.2 Outcomes-based education (OBE)

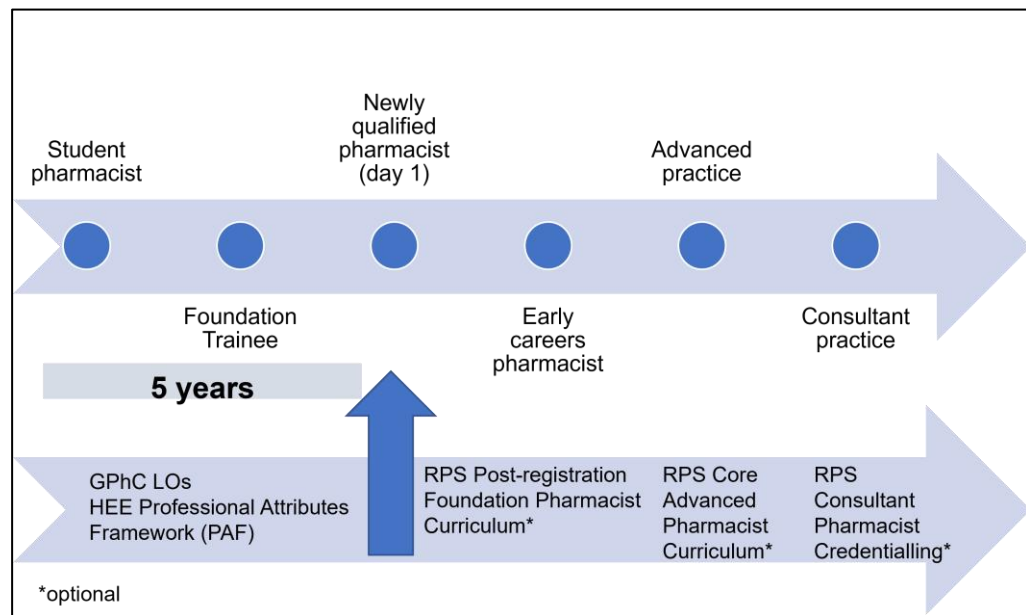
Outcomes-based education (OBE) is sometimes treated the same as CBE for practical reasons (Abdulrahman, 2016) whilst others recognise that they are not necessarily equivalent (Albanese et al., 2008). OBE is defined as, *'clearly focusing and organizing everything in an educational system around what is essential for all students to be able to do successfully at the end of their learning experiences'* (Spady, 1994). OBE stemmed from the move to an ever-evolving information based economy and workforce, placing demands on having a workforce that could deliver, resulting in a need to drive forward standards of student performance (Spady, 1994). Delivery of OBE requires identifying the specifics of what the student needs to be able to do on leaving secondary school (rather than what they know), and organising the curriculum (teaching, learning and assessment) around this. The specifics are in the form of outcomes (Spady, 1994), *'Clear learning results that we want students to demonstrate at the end of significant learning experiences. They are not values,*

*beliefs, attitudes, or psychological states of mind.*' Two observations are made from this: firstly, OBE is associated with tangible measures via assessment. Secondly, these outcomes are not necessarily consistent with what an employer might be looking for.

A CBE approach can be considered as a type of OBE, where predefined abilities are the outcomes of the curriculum (Katoue and Schwinghammer, 2020). The differences between OBE and CBE appear to be based on the endpoints of the educational process rather than the process itself. With OBE, the endpoint is centred on the results of learning and what the individual has learnt, and what they can do. With CBE, this is focused on practice-based performance and continuous development, which is subject to ongoing reflection and changes in practice as health care management evolves (Frank et al., 2010b, Katoue and Schwinghammer, 2020). CBE is also associated with values and beliefs. These approaches are not contradictory, rather they should be seen as complementary and interlinked and supportive of how health professionals learn and develop.

Within pharmacy education and training, OBE has been adopted through the GPhC standards from 2011. Post-registration Foundation and Core Advanced frameworks (Royal Pharmaceutical Society, 2024a) are examples of outcomes-based frameworks, where participants meet defined outcomes. Within pharmacy both outcomes and competencies are used for various stages of practice. Figure 3 shows the journey of the pharmacist from student to potential stages post-registration. Underpinning these stages are the respective educational standards and frameworks.

Figure 3. Educational and professional journey of a pharmacist



## 2.3 Workforce

Workforce refers to the number of people working for an organisation, or to the number of people available for work. For the National Health Service (NHS) and health care, workforce planning is commonly defined as *'getting the right people, with the right skills, in the right place and at the right time'* (Mayo, 2015). The NHS aims to deliver the right services to those in need of them (Sutton et al., 2023), and has responsibility for appropriately using available resources in a time efficient manner, in combination with staff skills to meet organisational goals. Workforce planning strategies are difficult for managers to navigate, as these must be responsive to change, given the NHS and health care is subject to Government policy and changes in health priorities. Complexity further increases when factoring in people as a resource, who have a range of skills, strengths and preferences. This also needs to be factored when looking at the numbers within the workforce and how they should work (De Bruecker et al., 2015).

Workforce is connected to the labour market, where there is an aim for a buoyant labour market, characterised by low overall unemployment (McQuaid and Lindsay, 2002). Labour market performance depends on a balance between labour supply and demand. A match between supply and demand, boosts economic performance, whilst a mismatch can result in unemployment and inactivity (supply exceeds demand) or shortages and skills gaps (demand exceeds supply) (UK Commission for Employment and Skills, 2014). This means that careful planning and consideration of

drivers, policies, and training implications are required. Achieving a buoyant labour market requires having an active labour market policy, as a political strategy (Sihto, 2001), with a range of objectives, including public sector job creation schemes, training programmes and job-search assistance, minimum wage policies, decisions on how public money is spent, and income support schemes (Fay, 1996, Ekkehard et al., 2022). For health care, additional considerations relate to the Government and the funding allocated to the health sector, based on the level of taxation and impacted by where monies need to be allocated. The Government also funds health care education and training which has a direct impact on the number of training places available affecting the supply of the health care workforce. Although this study is from the UK perspective, the global health workforce must be considered due to recognition of how UK health is influenced by global health.

### 2.3.1 Pharmacy and health care workforce

#### 2.3.1.1 The importance of workforce for Global Health

Global health priorities are led by the World Health Organisation (WHO), striving to give everyone a healthy life (World Health Organization, 2024). One method by which the WHO aims to influence health policy is through the United Nations (UN) Sustainable Development Goals (SDGs) (United Nations, 2015). Goal 3 is *‘to ensure healthy lives and promote well-being for all at all ages’* (United Nations, 2015) and sets out targets for ensuring a health care workforce through effective financing, recruitment, development, training and retention. Another aim of the WHO is to achieve universal health coverage for all areas of the world (World Health Organization, 2016). To deliver this vision, the WHO state that *‘there is no health without workforce’* (World Health Organization, 2014, World Health Organization, 2016). This relies on an available workforce that can deliver health outcomes. Globally, there is recognition of the importance of an effective workforce to deliver health priorities. Whilst the focus may appear to be primarily on developing countries, for developed countries the actions may be on maintenance and/or strengthening of their health workforce.

##### 2.3.1.1.1 Pharmacy and global health

Globally, the International Pharmaceutical Federation (FIP) represents pharmacy in collaborating and co-operating with the WHO to meet global health care needs. The FIP established pharmaceutical Workforce Developmental Goals (WDGs), in response to delivering universal health coverage. WDGs 2, 5 and 12 focus on strategic

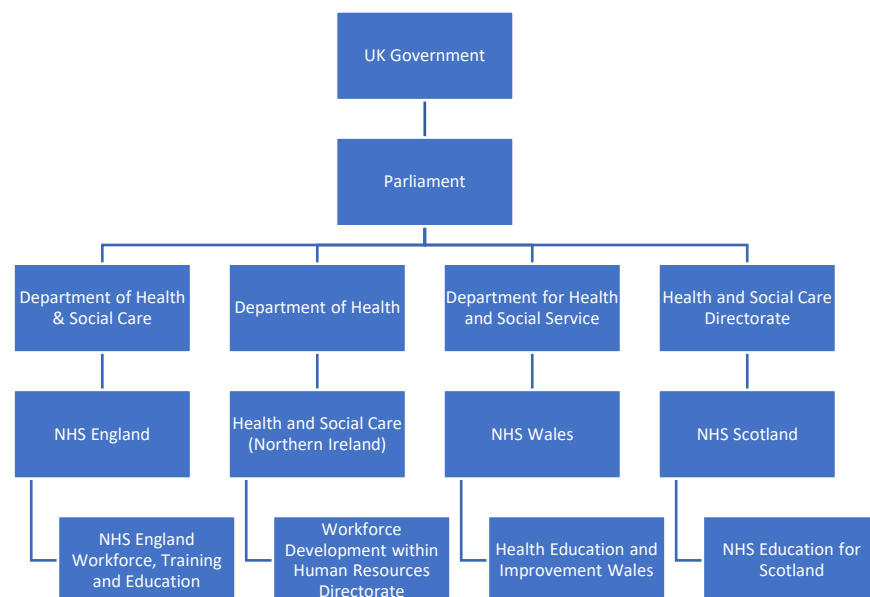


workforce development, early career training strategies and competency development (International Pharmaceutical Federation, 2016), connecting workforce, education and career development at a global level. Across Great Britain, this has been addressed by the Royal Pharmaceutical Society (RPS), in the form of competency frameworks. Within the UK, an appropriate health workforce is about ensuring a constant supply of effectively trained professionals, who can respond to future demands and challenges.

#### 2.3.1.2 *The importance of workforce for UK health*

The UK health care system is devolved with responsibility overseen by specific bodies within each of the countries. Each country acknowledges the need for an effective health workforce in delivering its objectives (Department of Health & Social Care, 2019, Department of Health & Social Service, 2022, Public Health Scotland, 2021, Department of Health Northern Ireland, 2017). This resulted in the establishment of education bodies as outlined in Figure 4, tasked with overseeing workforce policy, and education and training.

*Figure 4. Structure of NHS in the four countries in the UK*



An example of workforce planning in 2013 saw the Department of Health set out operational duties for England (Department of Health & Social Care, 2013), which included how education bodies consider future demands for health services and implications for the workforce. This means ensuring enough people with appropriate skills, appropriate training and a strategy for workforce sustainability.

Whilst the importance of a robust and sustainable workforce is recognised within UK health care, it is currently in a fragile state. Covid-19 highlighted and subjected the workforce to extreme pressures, with ongoing resultant strains on health care professions with respect to staff shortages (Anderson et al., 2021). Post-pandemic, the latest NHS Long Term Workforce Plan outlines a commitment to increase the health care workforce with associated uplift in additional education and training funding (National Health Service England, 2023). For pharmacy, the aim is to increase the number of pharmacist training places by 29% by 2028/29 (National Health Service England, 2023). However, this refers to foundation training places and would therefore require a corresponding increase in undergraduate training places through establishment of new courses, increasing capacity of current courses, and ensuring availability of undergraduate experiential learning activities (Pharmacy Schools Council, 2023b). Therefore, whilst plans to increase numbers of pharmacists is welcomed and recognises the value of the pharmacy profession, this needs to be realised against educational infrastructure and policy relating to the direction of travel of HE.

#### *2.3.1.3 Pharmacy position within UK health care*

Most pharmacy services in the UK are provided within the NHS; either directly employing pharmacists for example, in hospitals or through contracts to provide NHS services, such as those held by community pharmacies and primary care services. Ongoing issues facing health care across the UK include, NHS Trusts reporting increased shortages of beds available (National Health Service England, 2024), increasing A&E attendances, with delays in admission, transfer or discharge (National Health Service England, 2024), increasing expenditure in excess of available budget (Office for National Statistics, 2023), containing the increasing cost of NHS medicines spend (NHS Business Services Authority, 2024), and needing to improve access to preventive services and chronic disease management (Anderson et al., 2021)

The means by which pharmacists have been able to respond to these issues includes the recognition of skills of pharmacists within emerging care models (Department of Health & Social Care, 2019, Health & Social Care Directorate, 2013). This led to a vision for how pharmacy professionals respond to the changing demands facing the profession (Bush et al., 2018, Terry et al., 2018, Boyd et al., 2018, Royal Pharmaceutical Society, 2016). An example in England was a commitment of over £100m of investment to support 1,500 clinical pharmacists to work in general

practice in 2020/21 and manage patients with long term conditions (Department of Health & Social Care, 2019). Following an initial pilot (Boyd et al., 2018), this has gained pace, resulting in both pharmacists and pharmacy technicians delivering a range of clinical and non-clinical services in general practice (Savickas et al., 2021). Similarly the Hospital Pharmacy Transformation Programme (HPTP) resulted in increased roles for pharmacist prescribers (Department of Health & Social Care, 2016, Office of the Chief Pharmaceutical Officer, 2016). An example of this role expansion was the integration of pharmacists within Emergency Departments, an initiative which has been implemented across the UK (Greenwood et al., 2019). Within community pharmacy, expansion of roles has included delivery of NHS Health checks, vaccination services and the Community Pharmacist Consultation Service (Anderson et al., 2021), with expectations that practice in the future could be further expanded to include management of long-term conditions, provide urgent care and public health services (Paloumpi et al., 2023). More recently, the implementation of the Pharmacy First service recognises the skills and impact of the community pharmacist in the care of the public. Whilst expansion of roles is seen as progressive and welcomed, there are implications for how the workforce is trained, including undergraduates and their readiness to enter practice. This has significant implications for having an appropriately skilled available pharmacy workforce.

#### 2.3.1.3.1 Skills for the pharmacy workforce

Workforce planning refers to staff having the appropriate skills to be able to deliver, where skills are viewed as an activity or task that can be done well by an individual. As pharmacists increasingly undertake new roles, there are implications for the requisite skills needed. The pharmacy workforce needs to have the necessary intellectual capabilities, flexible and adaptable skills and attributes (Hesketh, 2000). However, the nature and number of these skills and attributes can be extensive (Hesketh, 2000), which for any graduate, employer or HEI could be a significant number to manage within their learning, recruitment and teaching practices. Given the number and variety of pharmacy employers, there can be a difference in opinion as to how this number of skills and attributes are prioritised and measured, resulting in a lack of agreement as to what the core skills and attributes required of graduates (Hesketh, 2000). This can manifest in misalignment of expectations between stakeholders having an impact on the graduate and their career success.

#### 2.3.1.3.2 Pharmacy workforce in the UK

Across the UK, the number of registered pharmacists, and pharmacists registered as independent prescribers has shown a steady increase over the years with 65,192 registered pharmacists in 2023/24 compared to 51,973 in 2015/16 (General Pharmaceutical Council, 2024a). However, the number of registered pharmacies, which is mainly community pharmacies, is decreasing in England, and fluctuating numbers in Scotland and Wales (General Pharmaceutical Council, 2024a), showing a reduction in the number of community pharmacists.

Upon registration, a pharmacist can practice in one or more sectors, with most pharmacists working in community pharmacy, followed by hospital pharmacy and then general practice. Data from the GPhC in 2019 indicated that 61% of pharmacists worked in community, 22% worked in secondary care, 11% worked in primary care with the remainder working in prison, health care commissioning, education and training, industry or other sectors (General Pharmaceutical Council, 2019b). There are several other sectors that pharmacists work, including care homes and industry with some pharmacists working across several sectors, which is portfolio working.

With reference to community pharmacy, the latest Community Pharmacy Workforce Survey (only relevant to England), shows that community pharmacist numbers are comparable to the previous year, however, there has been a reduction in the full-time equivalents (Health Education England (HEE), 2024a). Vacancy rates in community pharmacy might be attributed to pharmacists working in general practice or moving to hospital pharmacy to take on prescribing roles (Cowper, 2023). Part-time working is unlikely to be an explanation as shown in the 2019 survey of registered pharmacy professionals (General Pharmaceutical Council, 2019b). Hospital pharmacy and Primary Care Networks (PCNs) have reported high vacancy rates (Cowper, 2023), suggesting that not all community pharmacists are moving into these sectors. Therefore, whilst there are emerging roles and responsibilities across all patient facing sectors, further facilitated through the increasing role of the pharmacy technicians and shortages within the medical profession, it could be anticipated that the increasing numbers of registered pharmacists would meet these workforce requirements. However, staff shortages across sectors negatively impacts the profession's capacity to meet the increasing demands and expanding roles. This could therefore mean that demand is outweighing supply, requiring action with respect to pharmacist workforce numbers.

Workforce planning presents an important consideration for the pharmacy profession. A previous review looking at supply and demand of the pharmacist workforce in England between 2012 and 2040 (Centre for Workforce Intelligence (CfWI), 2013), concluded that there would be an oversupply of pharmacists in the future compared with demand. However, the CfWI review was based on data from 2008, and whilst it was a key piece of work that informed pharmacy practice and policy, it did not anticipate the advancements of the pharmacist role, gaps in other health care workforce and the subsequent opportunity for pharmacy or the increasing demand for NHS services. The impact of Covid-19 has added to the burden within the health care workforce, with a demand for more pharmacists (National Health Service England, 2023). Pharmacist numbers are an important consideration for HEIs, who have a responsibility for ensuring that appropriately trained student pharmacists can graduate but also ensuring that pharmacy education reflects current and future practice. The next section discusses how pharmacy education has evolved.

## 2.4 Reforming pharmacy education

Regular reviews of educational standards aim to ensure that the workforce is ready for changes within health care, and the associated challenges and opportunities. Government health policies stipulate requirement for a robust workforce, thereby making delivery of appropriate pharmacy education and training imperative for producing capable graduates (NHS England & Care Quality Commission, 2014, Department of Health, 2012, NHS England, 2016, NHS England, 2018). Responsibility for the pharmacy response to Government policies falls to the Chief Pharmaceutical Officers, individuals that are the principal advisors on pharmacy and medicines, setting their vision for how pharmacy professionals are to respond to the changing roles and responsibilities facing the profession. This is in collaboration with education providers and has implications for how student pharmacists are trained and prepared to enter practice (General Pharmaceutical Council, 2019a). For a pharmacist to be successful in their career, they need to be established and ready to take on the challenges of independent practice, otherwise they can find themselves in situations where they feel isolated and unprepared (Magola et al., 2018a) which has implications for foundation training experience. This section now considers four periods of time for UK pharmacy education associated with educational standards: pre-2001, 2001-2011, 2011-2021 and 2021 onwards. The standards were reviewed

with information extracted that related to employability, directly or implied. To contextualise the changes between each standard, Government and pharmacy policy documents were assessed and information was extracted to describe moves in the profession to an increased patient facing clinical role. This is summarised in Table 3.

*Table 3. Summary of changes impacting on pharmacy education*

Driver	Impact on education and training
Nuffield report (1986), Hepler and Strand (1990)	Recognition of the role that pharmacy can make to health, make full use of pharmacists' education and training. Concept of pharmaceutical care influencing review of education and training.
The Bologna Declaration (1999), Quality Assurance Agency (2001)	Implementation of 4-year MPharm degree, with greater emphasis on clinical teaching and development of higher levels of learning.
NHS Plan (2000), RPSGB accreditation standards (2001)	Making better use of the pharmacy workforce. Increased student preparation for diagnosis, prescribing and public health.
Pharmacy Workforce in the NHS (2002), Department of Health (2003)	Making better use of the pharmacy workforce through upskilling of pharmacy technicians, pharmacists prescribing and implementation of professional services.
Department of Health (2008), Modernising Pharmacy Careers (2009) (referenced as CfWI, 2013)	Advocating review of education and training, leading to recommendations for developments to initial and post-graduate education and training, careers and workforce.
GPhC education and training standards (2011)	Integrated teaching, learning and assessment strategy using a spiral curriculum.
GPhC education and training standards (2021)	Single set of outcomes, embedding of prescribing training.

The Nuffield report paved the way for the pharmacy profession to establish itself as a key partner in the delivery of patient care through advising patients on medicines, introduction of professional services and the clinical activities of a pharmacist. This could only be done with a review of education and training, including recommendation for a competence exam at the end of foundation training (Committee of Inquiry, 1986). Subsequently, the concept of pharmaceutical care brought another opportunity for the profession to reshape its identity and subsequent direction of education and training. Hepler and Strand (1990) proposed the concept of pharmaceutical care, *'the responsible provision of drug therapy for the purpose of achieving definite outcomes that improve a patient's quality of life'* (Hepler and Strand, 1990). This moved the pharmacist away from a supply role to a greater clinical and patient focused role, thereby setting a mandate for the

profession to ensure medicines use to the best impact and reduction of drug related morbidity and mortality. The definition of pharmaceutical care has since been redefined to recognise shared decision making, *'the pharmacist's contribution to the care of individuals in order to optimise medicines use and improve health outcomes'* (Allemann et al., 2014). Through proposal for new pharmacists to meet minimum competence requirements for providing pharmaceutical care, this influenced review and delivery of education and training reforms. In 1997, the undergraduate degree changed from a 3-year degree to the current 4-year degree. This was in response to improving the provision, standards and quality of higher education as well as addressing disparity within the European Union. The resultant 4-year degree sought to develop students as critical thinkers, embrace life-long learning and enhance the clinical content of the programme (Sie et al., 2003, Bologna Declaration, 1999, Quality Assurance Agency, 2001).

Government policy also drove changes to education and training. The NHS Plan (2000) (with equivalents in Scotland and Wales) emphasis on the potential role of the pharmacist and the pharmacy services in improving health care services, meant that education and training needed to reflect these ambitions. Pharmacy responded to this directive with encouragement of new working practices including new professional services (Wilson et al., 2005). Prior to 2010, the Royal Pharmaceutical Society of Great Britain (RPSGB) regulated pharmacist education and training, approving provision through accreditation processes. Accreditation criteria were primarily based on outcomes, processes and structures of, and for, the degree course, planned with reference to an advisory indicative syllabus (Accreditation of UK Pharmacy Degree Courses, 2002).

Recognising the pharmacist role in providing pharmaceutical care, the 2001 accreditation criteria set expectations for student preparation in diagnosis, prescribing and public health. The expectation was for graduates to be able to advise patients and other health care professionals about medicines and their usage. Whilst not explicitly stated, this educational direction aligns with the concept of situating pharmaceutical care within the pharmacy profession. Additionally, the outcomes of the pharmacy degree highlight the development of knowledge, skills (generic and subject specific) and attributes (Accreditation of UK Pharmacy Degree Courses, 2002).

Subsequent Government policy further advanced the potential role of the pharmacy profession. This included developing educational and training standards for the whole pharmacy workforce. Pharmacy Workforce in the NHS (2002) proposed making better use of pharmacy technicians to enable pharmacists to undertake additional clinical roles (Department of Health, 2003). A fundamental role was prescribing, with prescribing qualifications becoming available to pharmacists either as supplementary (2003) or independent (2005), based on improving access to health care (Cope et al., 2016). With recognition of accessibility to the community pharmacy workforce, further proposals for roles and responsibilities in England along with a new community pharmacy contract (Langley and Aheer, 2010) included health living centres, treatment of minor ailments and screening for those at risk of vascular disease (Department of Health & Social Care, 2007). Lord Darzi recommended further improvements to care for patients and public through partnership working with a localised approach (Department of Health, 2008). An enabler for delivery of these initiatives was the review of undergraduate training to include a greater and meaningful clinical focus, but not lose sight of the underpinning science and its application to clinical practice (Department of Health & Social Care, 2007). These significant changes to the profession arising from health policy, over the course of just under a decade led to the establishment of an independent body (Modernising Pharmacy Careers (MPC) programme board) with focus on workplace planning and education commissioning (Department of Health, 2008, Centre for Workforce Intelligence (CfWI), 2013).

Established in 2009, the MPC programme board led the review of pharmacy education and training (Department of Health, 2012), with recommendations for initial education and training and post-registration training. Resultant actions for pharmacy educators, employers and professional leaders included developing post-qualification pharmacy careers and, workforce planning and use of new technologies (Department of Health, 2012). The recommendations influenced a review of the GPhC standards process. Educational requirements within the 2011 standards were stipulated in the form of 10 standards, to ensure that newly qualified pharmacists (NQPs) were competent to practise safely and effectively (General Pharmaceutical Council, 2011). The standards were developed and utilised the concept of OBE, to ensure that student pharmacists could demonstrate what is essential at the end of their learning experiences (General Pharmaceutical Council, 2011, Edwards, 2011,



Nash et al., 2015) and developed in public consultation with employers, SoPs, patients and the public, with implementation by SoPs from 2012. This was to be achieved through a more integrated teaching, learning and assessment strategy featuring a spiral curriculum (General Pharmaceutical Council, 2011, Harden, 2000) with outcomes assessed at a specific level of Miller's triangle of skills, competence and assessment (Miller, 1990) and ensuring the application of learning (Parmar et al., 2020). Additionally, the performance standards were outcomes developed and assessed within foundation training.

#### 2.4.1 GPhC Learning Outcomes 2021: a significant change in pharmacist education

Progression of the pharmacy profession in response to local, regional and national drivers necessitates regular review of the standards. Therefore, SoPs maintain interaction with employers to ensure that pharmacy courses continue to develop graduates who can meet the changing needs of the profession. With changes in the profession, the GPhC sought to revise and modernise their educational standards to ensure pharmacists are prepared for future practice (General Pharmaceutical Council, 2019a). Compared to pre-2021, this resulted in a single set of outcomes covering the initial five years of pharmacist training, thereby showing a continuum between undergraduate and foundation training, and resulting in pharmacists being registered as independent prescribers at the point of registration from August 2026. Pharmacist independent prescribing has been met with several barriers (Warner et al., 2025) including time for undertaking of training (Alhawas et al., 2024) training for diagnostic skills and knowledge and inability to make prescribing decisions (Jebara et al., 2018, Zhou et al., 2019). Such barriers are reasons why it is important they are addressed within initial education and training. As such, the notion of pharmacists to prescribe at the point of registration presents a notable change to the education and training of pharmacists, requiring a greater focus on necessary preparation at this stage. Preparation requires greater emphasis on diagnostic and consultation skills, in addition to associated transferable skills and attributes including professional judgement and leadership (Girvin et al., 2023). This continuum provides an opportunity for increased collaboration between employers and SoPs. Whilst the 2001 standards present the idea of subject specific and transferable skills, both 2011 and 2021 standards do not state this. A reason for this may lie in the split of the regulation and representatory role of the RPSGB in 2010 with the GPhC as regulator being responsible for education regulation. However, both 2011 and 2021 outcomes

outline the skills and attributes needed to practise safely and effectively, with the 2021 standards contextualising this to the role of the independent prescriber. Additionally, both 2011 and 2021 standards recognise the need to provide development opportunities that includes careers education.

#### 2.4.2 Pharmacy education and representation, professional development and workforce planning

Supporting reformation in pharmacy education is also part of the remit of NHS England Workforce, Training and Education (NHS England WTE), a key stakeholder in the pharmacy workforce and the associated educational pathways. Their review made recommendations for how education provision should be reformed to meet the requirements of the NHS Long Term Plan (Department of Health & Social Care, 2019). Several recommendations were made to ensure clinical competence at the point of registration, through testing of integrated models of foundation training, implementing quality frameworks within clinical environments, and working with employers, education providers and other stakeholders to ensure that pharmacists have the appropriate skills at the point of registration (Health Education England (HEE), 2019). In the context of the revised outcomes, these recommendations support an increase in experiential learning activities, which require SoPs to consider how these are resourced and delivered.

Whilst the GPhC is responsible for ensuring minimum acceptable standards with respect to patient and public services, the RPS seeks to drive pharmacist performance and development, with the aim of improving the public's health and wellbeing. One of their strategic goals is to support the education and development of the profession. Within their workforce policy document, a focus on education and training is established in their vision statements. Vision Statement 6 states the need for educators to be leaders, *'All those involved with the education and training of undergraduate student pharmacists should be leaders/future leaders in their field and actively engaged in their discipline or profession therefore all pharmacists undertaking a tutoring role will be expected to be a member of the RPS'* (Royal Pharmaceutical Society, 2017). To support delivery of this vision, practitioners are recommended to engage with educational competency frameworks; focused on supporting their professional (and career) development. The ability to demonstrate meeting such competencies allows for measurement and quality assurance of the workforce at the various stages of the pharmacist career (Royal Pharmaceutical

Society, 2016) and supports the objectives of the MPC programme. However, support for competency frameworks largely focuses on post-registration stages and does not consider student pharmacists or trainees, likely due to the outcomes being the focus during this period. Vision Statement 3 refers to the recruitment onto pharmacy degree programmes: *'Schools of pharmacy should work with employers and undertake recruitment of undergraduate students to agreed standards and criteria that include not just academic ability but also values, behaviours and attitudes'*, which has been since reflected within the GPhC standards. This gives an importance to ensuring appropriate recruitment of the health care workforce, which is discussed in the next section.

## 2.5 Recruiting the health care workforce - the importance of Values Based Recruitment (VBR) for modern health care

The principle of effective recruitment of the health care workforce is recognised by targets set by the UN (United Nations, 2015), whether this is at the point of entering an undergraduate programme of study, graduate recruitment or beyond. These focus on values, behaviours and attitudes as important terms that underpin the recruitment and selection processes, with skills discussed as important co-necessities for the workforce (De Bruecker et al., 2015, Sutton et al., 2023, Mayo, 2015).

Failures such as those uncovered at the Mid Staffordshire NHS Foundation Trust have driven the Government to ensure the NHS workforce meets specified values and behaviours to ensure quality and safety in how services are provided (Mid Staffordshire NHS Foundation Trust Public Inquiry, 2013). The NHS and other employers are not only responsible for recruiting registered health care professionals and other staff members but also have a responsibility to educate and train students. The respective health education bodies (Department of Health & Social Care, 2013) were mandated to *'ensure that recruitment, education, training and development of the health care workforce results in patients, carers and the public reporting a positive experience of health care consistent with the values and behaviours identified in the NHS Constitution'* (Department of Health, 2015). This also includes students, who must be recruited against values and behaviours (Health Education England (HEE), 2016). This policy has resulted in the delivery of a national Values Based Recruitment (VBR) process where potential employees are recruited against pre-determined values.

The importance of VBR is acknowledged within health care (Patterson et al., 2016b), but associated recruitment processes need to be undertaken using appropriate methods and appropriately trained staff. However, this has an impact on the resources available (Health Education England (HEE), 2014). Current processes involve candidates showing an understanding of values in both the application and interview. Failure to do this can result in suitable candidates not being invited to interview or being appointed.

The need to recruit against values is seen as imperative, irrespective of the stage of professional career. If recruitment is effectively undertaken it can lead to a workplace culture that is driven by the demonstration of positive values. (Miller and Bird, 2014). For this to succeed the organisation needs to be values based with respect to environment and systems. This organisational change requires time to take effect. In addition, the need to ensure existing staff adhere to values-based principles may need a cultural shift which also has a time implication.

The next section focuses further on recruitment across pharmacy, and the alignment with VBR.

#### 2.5.1 Recruitment within pharmacy

Pharmacist recruitment and selection processes differ depending on the career stage. At undergraduate level, the principles of VBR align with the vision statement proposed by the RPS and GPhC standards, to ensure that student pharmacists are recruited against values, behaviours and attitudes.

For foundation training, a centralised system operates across the UK for most training places until July 2025, when all places will be centralised. The centralised system (Oriel) was implemented by NHS WTE in response to the need to implement VBR processes within pharmacy recruitment underpinned by a Professional Attributes Framework (PAF). The PAF comprises of nine attributes each supported by behavioural indicators that trainees are required to demonstrate over the training year (Health Education England et al., 2022).

Once qualified, pharmacists are recruited using a variety of processes which are dependent on sector of practice and organisation. Hospital pharmacists are recruited by individual NHS Trusts, underpinned by a values-based approach. This has been used widely for several years, where employers screen applications for

demonstration of professional and organisational values, and explore these during the selection stage using questions or scenarios (Health Education England (HEE), 2016). For community pharmacists, this depends on whether the pharmacy is an independent company, a small or large multiple. Depending on the size and availability of resource, organisations may use their own recruitment systems, sometimes combined with other methods of advertising such as the National Pharmacy Association (NPA) and/or Pharmaceutical Journal (PJ). Industrial pharmacist recruitment is undertaken via the organisation, which has its own processes. General practice pharmacists can be recruited either through NHS recruitment, medical recruitment agencies or via NPA and PJ jobs websites with supporting guidance for employers (Primary Care Pharmacy Association (PCPA) n.d.). Therefore, recruitment as a pharmacist is not undertaken in a standardised way and will vary across employers based on sector, the size and need of the organisation. The variability within post-registration recruitment needs to be better understood to assure that processes in place across all sectors are in-line with the principles of VBR.

## 2.6 Chapter Summary

The health care workforce globally and nationally requires a supply of effectively educated and trained individuals that can meet the changing needs of health. Effective workforce planning requires current and future health care professionals to have appropriate skills and attributes to enable successful recruitment, ongoing career success and a positive cultural impact within the health care organisation.

Pharmacists are playing an increasingly vital role within health care, with advancements in their roles and responsibilities, seen through working in new sectors and undertaking increasingly clinical roles. This has led to regular revisions of education standards. Additionally, the drive to increase pharmacist numbers through an increase in foundation training places, has implications for undergraduate education capacity. The associated workforce planning needs to recognise recruitment onto the undergraduate degree, through to graduation, registration and beyond. Recognition needs to be given to the respective structures and processes and incorporates standards and criteria for pharmacists to demonstrate how they meet the needs of the public and patients as well as for personal development.

Aside from consideration of numbers within the workforce, workforce planning also relates to pharmacists having appropriate skills to be able to deliver throughout their

career. Many skills have been proposed for NQPs which combined with the number and types of pharmacy employers may mean NQPs struggle to understand the expectations of employers for particular roles. Underpinning the recruitment process are the principles of VBR, where there is a focus on values, behaviours and attitudes, ensuring care in the quality and services provided.

The term employability is now introduced, which is used to encompass individuals and the workforce having the appropriate skills, values, behaviours and attitudes that brings career success and makes a positive impact within health care. Ensuring the appropriate understanding and demonstration of employability is imperative to achieving a competent and effective workforce. In the next chapter, employability is further explored.

## 3 Literature review

### 3.1 Introduction

This chapter considers terminology, concept, definitions and models of employability. These aspects are reviewed to consider the similarities and differences between them and what the impact of these are. The stakeholder and their relationship with employability are considered. Initially, defining who the stakeholders are is followed by rationale for their involvement, finally focusing on what employability means for them and why it is important to obtain a holistic understanding of employability. Finally, the chapter considers employability from the perspective of pharmacy and its importance for the profession.

### 3.2 Concept and importance of employability

Employability impacts the workforce at a local, regional and national level. It is a concept that not only affects employees and employers, but also Higher Education Institutions (HEIs) and governments, who have legitimate concerns about the role and characteristics of successful performance at HEIs (Bowden et al., 2000).

Employability first appears in the 1990s, in the analysis of the main causes of unemployment, focussing on the unemployed person's ability to get a job (Suleman, 2021). In the late 1990s, the UK political landscape changes with the 1997 Labour Party manifesto emphasising good quality education, not only for students but for those returning to work and the unemployed. Further recognition of the concept of employability and its subsequent use emerge at this time, with a strong focus on the need for skills and vocational qualifications, thereby linking education and employment (The Labour Party, 1997). Hillage and Pollard (1998) identify two points of origin for the concept, these being the changing nature of employment contracts [employers encouraging employees to manage their own development, rather than job security] and public employment policy [emphasis on minimising social exclusion and changing demand of employers to non-academic skills].

Governments have developed policies and strategies to meet employment targets, using the concept of employability as a cornerstone of labour market policies and employment strategies in the UK and elsewhere (McQuaid and Lindsay, 2005). When used within this field, employability has been associated with the idea of lifelong learning, vocational employment and the transition from education to work

(Lefresne, 1999). This approach considers investment in human capital and enabling people to obtain qualifications and work experience for them to become successful.

Policy makers have focused supporting graduates being prepared to leave university and enter employment. In providing a vision for HEIs, Dearing (1997) highlights the skills required by graduates with responsibility on HEIs to equip graduates with these, but this does not explicitly refer to employability. Generic skills were identified by Dearing: communication, numeracy, the use of information technology, and learning how to learn (Dearing, 1997), but also acknowledges the need for subject specific skills, recognising variation in skills across disciplines and vocations. The review establishes a relationship between learning, skills and employment (Dearing, 1997), implying an interdependent relationship, with consideration of each aspect undertaken in conjunction with the others. Greater importance was placed on employability with the advent of tuition fees (1990s), with HEIs implementing strategies to support students with employment. This proposes the notion for HEIs to engage with employers, mapping and defining the nature of potential relationships and further consider how educators and employers can approach skill development. This is enshrined in the UK Quality Code for Higher Education, with a section focused on enabling student development and achievement (Quality Assurance Agency, 2018). Further exploration of the concept of employability considers how graduates transition into the labour market (Harvey, 2001, Tomlinson, 2012), with recognition that employment can include self-employment and entrepreneurship, thereby broadening the concept of employability (Moreland, 2006).

The concept of employability has been present for a significant period, over which it has been considered from different perspectives including political and educational drivers. Conceptually, employability relates to the transition of the graduate from education to employment and investing in the human capital of people throughout their education.

### 3.3 Theory underpinning employability

Fugate et al (2004) highlight human capital as an important dimension within employability. The reason for highlighting this is because Human Capital Theory (HCT) is seen as underpinning the concept of employability (Dalrymple et al., 2021). Human capital refers to personal variables; knowledge, skills and attitudes (Peeters



et al., 2019) that may affect career advancement. This also includes education, work experience and training (McArdle et al., 2007), collectively viewed as the foundation for labour market outcomes (Tomlinson, 2017).

HCT has its foundations in the field of economic studies and is based on the logic that these personal variables have a value. Investing in human capital will result in an increase in skills, productivity, profit and generate higher earnings for the individuals (Tan, 2014). The idea of possession of human capital has driven the focus of employability and led to the production of frameworks or lists of graduate attributes, a criticism of which is that there is often no rationale given as to how these lists were generated (Holmes, 2013).

HCT faces criticisms in that it is limited, lacking realism (Marginson, 2019). One aspect of realism is that there are other factors that are important and impact on human capital, including family income and social capital (Marginson, 2019). Holmes (2013) suggests that graduate employability should not only encompass the human capital that an individual possesses, but also their position with respect to their social capital, who they want to be and their process of transitioning across their career. Similarly, Clarke (2008, 2018), comments on the importance of not only human capital, but also social capital (networking, social class, university ranking) and individual behaviours (career self-management and career-building skills), and how these dimensions contribute to graduate employability. This supports that idea that HCT cannot solely be the basis of employability, as there are other factors in-play. The influence of HCT on definitions and embedding employability needs to be balanced with consideration of other aspects such as social capital and career identity formation. Taking forward the ideas from this discussion of theory, how this influences definitions and models of employability is discussed.

### 3.4 Definitions and models of employability

In this section, definitions and models of employability are presented together. The rationale being that some models are derived from or are influenced by definitions, with other models and definitions being independent of each other. Therefore, information about definitions and models will largely be presented chronologically, which will also reflect how employability discussions have developed over time.

The Oxford English Dictionary (2000) defines employability as, '*the character or quality of being employable*'. This infers having an ability or skill to demonstrate

worthiness of being employed. The definition of employability has developed over time with new iterations, meanings and models arising.

The definition of employability is contentious, ambiguous, infrequently explicitly and clearly defined, with no single dominant definition (Sewell and Dacre Pool, 2010, Harvey, 2001, Williams et al., 2016). The word is also used interchangeably with the term enterprise and often without consideration of its meaning (Sewell and Dacre Pool, 2010). It has been viewed as a buzzword, or sometimes an idea, ill-defined or not defined at all (McQuaid and Lindsay, 2005). This owes itself to its fluid nature, how it is interpreted and applied and also the perspective of the user (Williams et al., 2016). Lindsay and McQuaid (2005) discuss the way employability is applied as a term by organisations from local through to international levels, therefore used in several contexts, having a range of meanings and with differing levels of importance placed upon it. The differing perspectives of the various stakeholders including employers, academics and graduates suggests the language used when discussing employability differs across these groups (Winterton and Turner, 2019) thereby giving rise to the various definitions (Harvey, 2001). Varying language can lead to misunderstandings with some stakeholders being criticised for ‘talking past each other’ (Harvey, 2001). However, ensuring the appropriate understanding and demonstration of employability is imperative to achieving a competent and effective workforce, with HEIs needing to take action to improve the likelihood that graduates will gain employment (Holmes, 2013). Whilst acknowledging the wide variety of definitions of employability, models of employability enable HEIs to provide opportunities for graduates to develop employability and gain employment (Harvey, 2001). Whilst this seems an efficient method, it doesn’t recognise factors such as the students’ own social capital (Clarke, 2008, Clarke, 2018) or the input of the employer (Hiltrop, 1996) in supporting transitions and career development. Several models of employability have been proposed and used.

#### 3.4.1 Graduate attributes, work-readiness and employability

The terms graduate attributes and work-readiness are referred to within employability literature. It is important to distinguish between these terms as they are not interchangeable, despite being related with aspects of them interwoven with each other.

Graduate attributes are described as *'the skills, knowledge and abilities of university graduates, beyond disciplinary content knowledge, which are applicable to a range of contexts'* (Barrie, 2004). Graduate attributes are developed during university (Bowden et al., 2000) and used by graduates to make a contribution to their profession and society. Graduate attributes as a term has been widely used in Australia and now more widely in the UK, sometimes as employability skills (Rust and Froud, 2011). This is subtly different to employability in that employability is not a single process that occurs once at the end of HE (Holmes, 2013), rather it is a lifelong process about success in life as well within the workplace (Williams et al., 2016) and so extends beyond graduate attributes. However, graduate attributes are not necessarily taught or assessed within degree programmes potentially meaning that staff and students are not aware of these. This limits the value of graduate attributes. As graduate attributes are considered to be owned by the HEI rather than the individual, they are described and defined differently with different attributes being suggested by different institutions (Barrie, 2006). The reasons are based on the philosophy of the institution, the courses offered and what is deemed as the definition of success for a graduate of the institution (Daniels and Brooker, 2014). Hence, the graduate attributes are generic and will extend across disciplines and will be part of the outcome of the HE experience (Barrie, 2004). The generic nature of graduate attributes can also lead to students and academics reporting them to not be meaningful unless contextualised (Jorre de St Jorre and Oliver, 2018).

Work-readiness can also be described as the extent to which graduates are perceived to possess the attitudes and attributes to make them prepared to join the workforce, achieve success in the work environment and thereby used as a selection criterion for predicting graduate potential and employability (Caballero et al., 2011, Jollands et al., 2012, Almarzoky Abuhussain et al., 2021). However, it is not clear how effective recruitment and selection methods are in assessing work-readiness (Caballero and Walker, 2010). Work-readiness has been used interchangeably with employability (Jollands et al., 2012), particularly from the employer perspective (Mason et al., 2009). However it is different to employability in that it is more about a process of becoming competent and confident in doing a job (Herbert et al., 2020). This gives work-readiness a sense of situating itself in the context of a particular job or working for a particular organisation, therefore specific rather than generic. An additional difference is that work-readiness is more than possession of particular

knowledge, skills and attributes (KSAs) (Tumpa et al., 2021). It is the capability to use these characteristics to move self-sufficiently through the labour market (Small et al., 2018) and integrate into the workforce (Malau-Aduli et al., 2022), an important consideration for employers. An example from the literature exploring the perceptions of medical and nursing graduates proposes that work-readiness is a multidimensional construct that extends beyond technical competence and constructed of four categories namely social intelligence, organisational acumen, work competence and personal characteristics (Table 4) (Walker et al., 2013). These four categories and underpinning attributes share similarities with how employability is described (Caballero et al., 2011). Whilst an example of work-readiness from pharmacy considers skills and attributes (Fejzic and Barker, 2015), wider health professions perspective criticises work-readiness for not including a broader range of skills and attributes such as safety and insight, which are helpful in supporting transitions (Syed Aznal et al., 2021). This has led to modification of the measures of work-readiness for this field (Almarzoky Abuhussain et al., 2021, Syed Aznal et al., 2021, Wong et al., 2024).

*Table 4. Work-readiness factors and underpinning attributes (Walker et al., 2013)*

Category	Attributes
Social intelligence	Ability to communicate with range of people
	Teamwork
	Manage interpersonal conflict
	Seek support
Organisational acumen	Ward knowledge
	Knowledge of hospital policy and procedures
	Maturity
	Professional development
Work competence	Clinical skills
	Technical knowledge
	Experience
	Confidence
	Responsibility
Personal characteristics	Resilience
	Flexibility
	Stress management

Graduate attribute is used interchangeably with employability skills and similarly work-readiness is used interchangeably with graduate employability. The reason for this being these concepts are used when discussing the skills and attributes with respect to graduates (Caballero and Walker, 2010). However, employability is about the potential and the capability of obtaining employment and being able to develop

within a career. Graduate attributes are focused on the knowledge, skill and attributes specific to an HEI and work-readiness refers to becoming ready for work. Therefore, graduate attributes and work-readiness can be viewed as components of employability and not necessarily equivalent. As this study is focusing on employability, consideration will be given to this term but where these other terms are used this will be acknowledged.

#### 3.4.2 Early definitions of employability

Dearing (1997) appears to propose a definition of employability '*to survive in the labour market of the future, workers will need new sets of skills, to work across conventional boundaries and see connections between processes, functions and disciplines and, in particular, to manage the learning which will support their careers*'. This suggests responsibility falls to HEIs to equip graduates with the skills and attributes to be employable. Dearing's definition implies employment is not guaranteed, nor static in one area, and that employees need to consider that roles and responsibilities might change and therefore they need to adapt accordingly. Expanding on this, there is a responsibility for employees to consider learning as a process to engage with continuously throughout their careers.

Hillage and Pollard (1998) acknowledge Dearing's work, broadening the term. They offer a simple definition of employability, 'being capable of getting and keeping satisfactory work,' followed by a more detailed definition, 'the capability to move self-sufficiently within the labour market to realise potential through sustainable employment.' Employability now becomes a multi-faceted, broad umbrella like concept under which multiple definitions can exist. Irrespective of the multiple definitions, Harvey (2001) agrees and further adds that employability is focused on the 'propensity of students to get a job', thereby making employability focused on the individual. The earlier definitions of employability proposed by Hillage and Pollard (1998), Harvey (2001) and McQuaid and Lindsay (2005) have similarities and difference (Table 5).

Table 5. Comparison of initial definitions of employability

Hillage and Pollard (1998)	Harvey (2001)	McQuaid and Lindsay (2005)
Work experience, CV writing and interview technique (presentation) Gain initial employment Maintain employment	Job type: securing any job OR getting fulfilling work/career-oriented job	Capacity to achieve meaningful work  Being able to enter work, remain in work and realise their potential
Knowledge, skills and attitudes (assets), and the need to be able to transfer these between employers	Attributes on recruitment OR likely ability to develop attributes  Possession of basic core skills or attributes	Having the necessary qualities and competencies
Career management and job searching skills (deployment), which are interlinked with assets. Obtain new employment	Further development: recognising the importance of willingness to learn and continuous learning	Being able to develop and adapt themselves
Recognition of personal circumstances and the labour market (context)	Does not mention labour market conditions	Being able to understand and navigate through labour market conditions
Does not mention timing	Timing: getting a job within a particular time after graduation before needing to retrain	Does not mention timing

Earlier definitions of employability relate to obtaining work or being employable. However, this is not necessarily about having a job as achieving work may be outside of remit of the individual and therefore it is about ability and not actuality, as proposed by McQuaid and Lindsay (2005). For Hillage and Pollard (1998) and McQuaid and Lindsay (2005), employability is about gaining initial work, maintaining it, and obtaining new work, which does not explicitly refer to association with a particular career pathway. Harvey (2001) builds on the other definitions, highlighting obtaining work or a career that is fulfilling to the individual.

The need for employees to possess the characteristics to enable obtaining work are highlighted, giving employability a person-centred focus. The world of work is not a static environment, with employees changing roles, therefore requiring transfer of these characteristics as roles change. Harvey (2001) recognises this, further

suggesting there is a window of time following graduation before needing to undertake further training, which suggests that characteristics developed at university have a finite lifespan, and their place is supporting achieving graduate employment. This suggests employees need to be able to adapt, develop characteristics as necessary (Hillage and Pollard, 1998, Harvey, 2001) and be proactive with respect to their learning and development. The need for adaptation to changes within the workplace strengthens the requirement for employees to take responsibility for their own development. This enables employees to identify and realise career opportunities, supporting career success (Fugate et al., 2004).

Where employability is seen as being equivalent to being employable, this is viewed as a narrow definition (McQuaid and Lindsay, 2005). Narrow definitions focus on the individual's own employability skills and attitudes but do not additionally consider personal circumstances and external factors. Where these factors are recognised within definitions, this is seen as broad definitions (McQuaid and Lindsay, 2005). Personal circumstances include family and financial commitments (social capital), whilst external factors include the labour market, demand set by employers and employment policy. Therefore, it is important to have a holistic approach to employability, considering the individual, personal and external factors, recognising that they will impact each other and contribute to the success of the employee.

Hillage and Pollard (1998) and McQuaid and Lindsay (2005) recognise employability being subject to external factors. Whilst external factors are outside of the control of the employee, they will impact the employee current and future employment situation, therefore requiring them to be aware of aspects such as the labour market environment and make best use of their characteristics to ensure career success. Harvey (2001) does not recognise external factors with lack of this critiqued hence proposing that employability is not solely about getting a job but is about the *'relative chances of acquiring and maintaining different kinds of employment'* (Brown et al., 2003).

Supply and demand are alternative presentations of narrow and broad definitions of employability. Supply focuses on the individual and their characteristics, with their respective knowledge, skill and attributes as the source of the workforce supply. Therefore responsibility is upon them to be able to contribute to workforce (Winterton and Turner, 2019). As such, Government led employability policy agendas

are increasingly focused on up-skilling individuals to obtaining non-manual work (McQuaid and Lindsay, 2005). However, even with increased knowledge and skills, individuals may still not be able to source employment due to market forces (Brown et al., 2003). Demand relates to factors such as the availability of jobs, types of jobs, funding available and the skills required. Both supply and demand concepts require workers to be both highly adaptable and willing to adapt, (Hall, 2002, cited by Fugate et al., 2004) to be successful within the work environment. Irrespective of whether it is public health care or a corporate organisation, the workplace is a dynamic environment, driven by factors that include demand for services, policy and the economy. These factors result in a changing workplace, which may influence the workplace as whole or employees who might need to adjust their careers. These factors are outside the scope of the individual, as well as the HEI. However, HEIs need to recognise what is within their scope and engage with Government and employers to ensure that graduates are work ready (Winterton and Turner, 2019). Supply and demand considerations moves the definition of employability away from solely about the individual getting a job but instead looks at the individual and the internal and external factors that influence the chance of obtaining employment. Additionally, it can influence whether and how an individual maintains employment.

Varying perspectives on employability arise based on these definitions, impacting on the interpretation of the definition, which could potentially lead to misunderstanding of employability between the respective stakeholders but equally allows for discussion on perspectives, development of the term and use in relevant fields.

Looking across these definitions, employability is broader than getting a job, as it needs to recognise the external factors and personal circumstances that might prevent it. Therefore, it is about having the potential to obtain work. Whether it is the actual gaining of work or the capacity to do so requires possession of, and ongoing development of employability characteristics. The definitions also acknowledge that the individuals should take control for their own learning and career management. An example of this could be the employee gaining an understanding of the employer environment and requirements (Fugate et al., 2004). When these perspectives are viewed collectively, they outline helpful guidance for employers, employees and educators with respect to their role and responsibilities.



### 3.4.3 Graduate employability

Within HE, discussions on defining employability were initiated at the turn of the 21<sup>st</sup> century, which is notably sometime after its use in the field of employment.

Understandably, this provides a different perspective, allowing for review and new ways of thinking (Harvey, 2001). Focussing on the graduate stems from recommendations of the Dearing report, the '*primary purpose of higher education is to prepare students for the world of work*' (Dearing, 1997). However, the rationale as to why HE was given this responsibility needs consideration. Economic changes especially at the economic downturn in the late 2000s influenced Government policy. The Government wanted more people entering HE and graduate as members of the workforce. This led to significant public investment in this area and positioned HE as a platform that would contribute to future economic growth. Hence employability became a key focus for HEIs (CBI & Universities UK London, 2009, Higher Education Funding Council for England (HEFCE), 2011, Pegg et al., 2012).

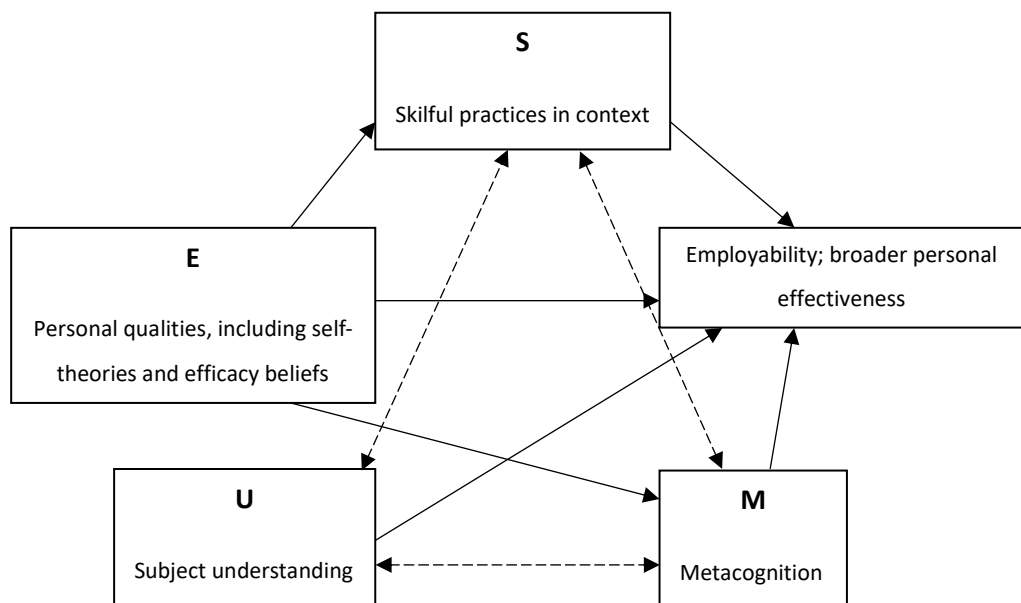
Employability has been broadened by including graduate attributes as an aspect. For Bowden et al (2000), employability is defined as a set of graduate attributes that are the responsibility of the university to develop within their students. However, for graduates to be able to exhibit these attributes, necessitates graduates as employees take responsibility for the acquisition of knowledge, skills, abilities and other characteristics valued by current and prospective employers (Fugate et al., 2004).

Graduate employability literature focuses on the development of student and graduate competencies including what constitutes these (O'Leary, 2017). However, there are commonalities and differences across industries in what constitutes discipline specific and non-discipline specific skills (Jackson, 2010). This can be difficult for HEIs with how they approach skills and attribute development, given the potential for a wide range of these and whether they are applicable to all students.

In addition to possessing graduate attributes for success within the world of work, graduates should further use these to contribute to their profession and citizenship (Bowden et al., 2000). Initially definitions of employability focus on the individual and their capacity to be able to work and/or their possession of skills and attributes, and their success in the workplace. However, further discussions look beyond the individual graduate and broadens their impact on the society in which they function.

Drawing together these ideas suggests why the employability definition that has been most influential in HE is that of Knight and Yorke (2004), ‘a set of achievements – skills, understandings and personal attributes – that makes graduates more likely to gain employment and be successful in their chosen occupations, which benefits themselves, the workforce, the community and the economy’ (Knight and Yorke, 2004). This definition succinctly incorporates the earlier definitions (Hillage and Pollard, 1998, Harvey, 2001), acknowledges external factors (Brown et al., 2003) and highlights an altruistic aspect of employability through impacting on society (Bowden et al., 2000, Bell et al., 2018). This definition clearly moves away from a guarantee that graduates secure employment through to having the capabilities to gain a job. Given that a graduate will change their employment over the course of their career, it can be suggested that the achievements will change to reflect the chosen employment, requiring graduates to adopt a reflective stance, and be prepared to learn and develop throughout their career. Therefore, these achievements are not defined unlike with Dearing (1997) which not only focused on skills but defined what these skills include. To make the definition easier to understand from the academic perspective, Knight and Yorke (2004) developed the USEM model (Figure 5). Through this, it was proposed that employability could be easily embedded into the curriculum.

Figure 5. USEM model (2004)



The USEM model not only defines the characteristics of understandings (knowledge), skilful practices, efficacy beliefs (attributes) and meta-cognition (life-long learning), but presents how they are linked. Knowledge is related to knowing something for example, knowing a specific task, with skills being the underpinning ability to undertake that task, and demonstrate that knowledge. Attributes are personal qualities, strengths, features or characteristics that an individual possesses that are inherent within them.

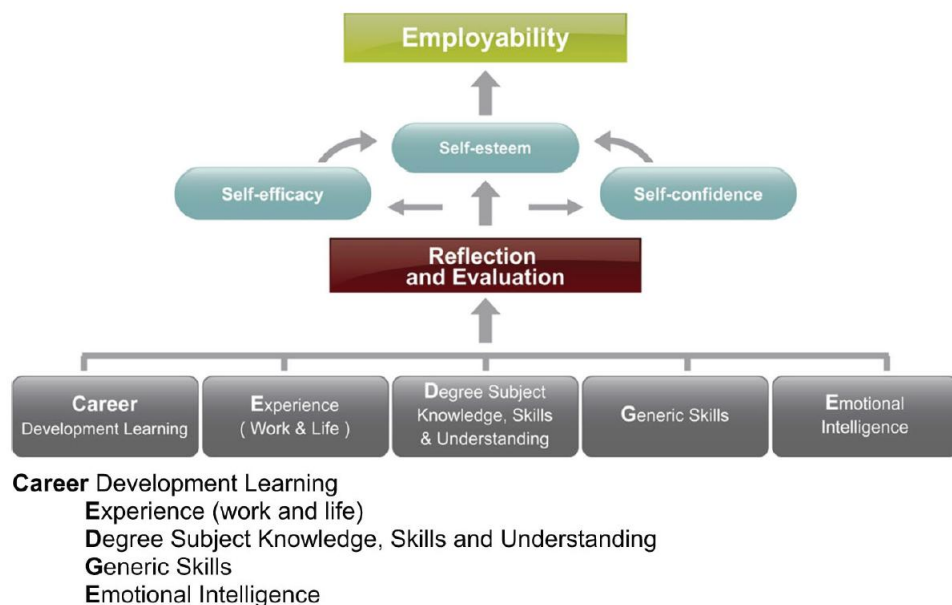
Dacre, Pool and Sewell's (2007) critique of Knight and Yorke's (2004) led to their definition incorporating the individuals' perspective of their job, '*... choose and secure occupations in which they can be satisfied and successful*'. Satisfaction relates to the individual, influenced by pay, coworkers, conditions, supervision and promotion opportunities in addition to their own career identity (Fugate et al., 2004, Gowan, 2012). Whilst feeding into success, satisfaction can be separated from being successful, as this includes how an individual is perceived by those whom they work with, for and serve (Bell et al., 2018). Satisfaction and success give recognition to the employee experience of their career, which if positive, will result in the employee demonstrating success in the workplace, benefiting the employer, and whilst not explicitly stated, it might be assumed this will benefit the wider workforce. Dacre Pool and Sewell's definition resulted in the CareerEDGE model (Figure 6); a model that can be easily understood by anyone (Dacre Pool and Sewell, 2007) rather than being produced for academics as per the USEM model. The advantage of this is inclusion of those who are not familiar with the field, such as students, their families and potentially some employers (Dacre Pool and Sewell, 2007). As stakeholders in employability, these groups therefore need to understand the concept. Whilst the mnemonic CareerEDGE represents the components of employability, the model is also presented as a key with the various components as the key opening the door of employability. Dacre Pool and Sewell's work is influenced by Law and Watts who in 1997 developed a simple model of employability, the DOTS model. The DOTS model encompasses four specific interlinking education tasks as a base to guide students into the working world consisting of planned experiences designed to facilitate the development of:

- Decision learning - decision making skills Defining employability

- Opportunity awareness - knowing what work opportunities exist and what their requirements are characteristics of employability
- Transition learning - including job searching and self presenting skills
- Self-awareness - in terms of interests, abilities, values (Watts, 1996, Small et al., 2018).

Whilst aimed at schools, the simplicity of the DOTS model captures the essence of career management skills, making it a useful base for employability development within HE. The model allows those involved in career development learning to easily manage the complexities of employability (Dacre Pool and Sewell, 2007). With respect to skills, an aspect that is not clear within the CareerEDGE model but has been recognised as important by employers is interpersonal skills (Hesketh, 2000, Hogan et al., 2013). Employers place greater importance on interpersonal skills than subject understandings and knowledge, which within the USEM model are enshrined under the U aspect as extension of personal qualities (Knight and Yorke, 2002).

Figure 6. CareerEDGE model (2007)

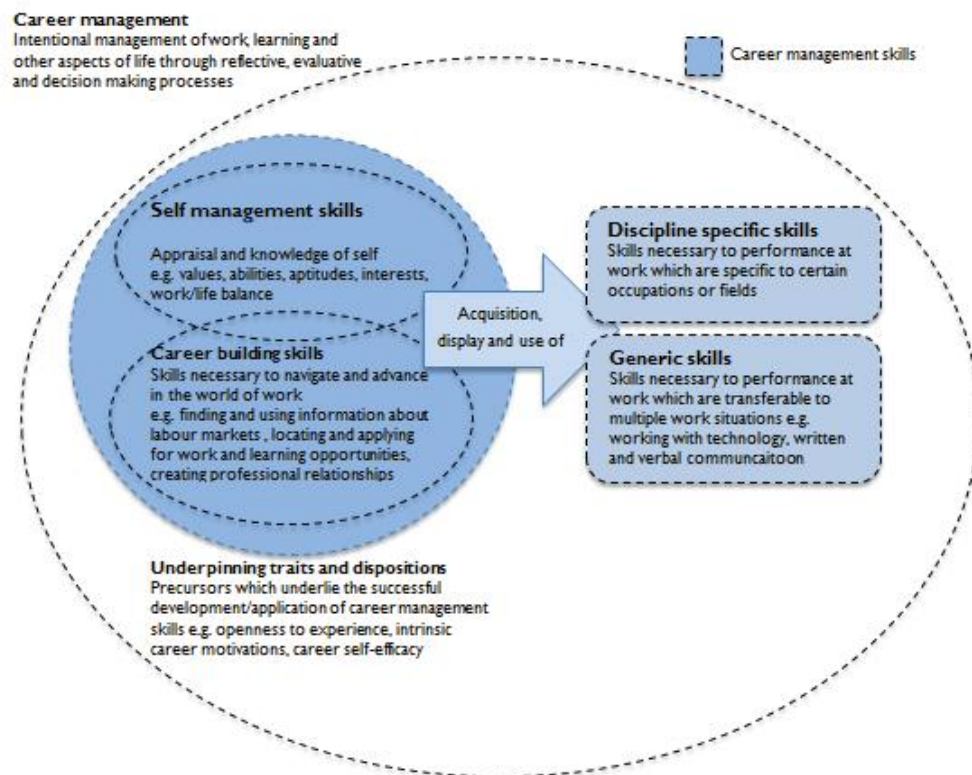


The CBI/UUK (2009) definition is not dissimilar to other definitions (Knight and Yorke, 2004, Dacre Pool and Sewell, 2007) but gives the employer perspective, ‘.... *the capability of being effective in the workplace – to the benefit of themselves, their employer and the wider economy.*’ It does not recognise the individual success aspect or the benefit to the community, possibly due to its production during the recession, therefore the focus being on economic recovery and growth. However, it does

suggest that there are core employability characteristics that graduates should possess to meet the demands of the workforce. Thus, HEIs have an inferred responsibility to ensure these characteristics are embedded within their courses and collaborate with employers to understand these characteristics.

The instability of the labour market and not placing reliance on job security is seen within definitions (Hillage and Pollard, 1998, Knight and Yorke, 2004, Dacre Pool and Sewell, 2007). Bridgstock (2009) recognises this, believing that employability programmes need to include navigating the working world and therefore focuses on career management skills within their model. Compared to the CareerEDGE and DOTS model, Bridgstock's (2009) model places greater emphasis on the individual and development of their goals and strengths under the heading of career management. The model (Figure 7) proposes groups of skills are important for the enhancement of graduate employability, which is different to the previous models mentioned and is not solely about generic skills, but includes self-management and career-building skills.

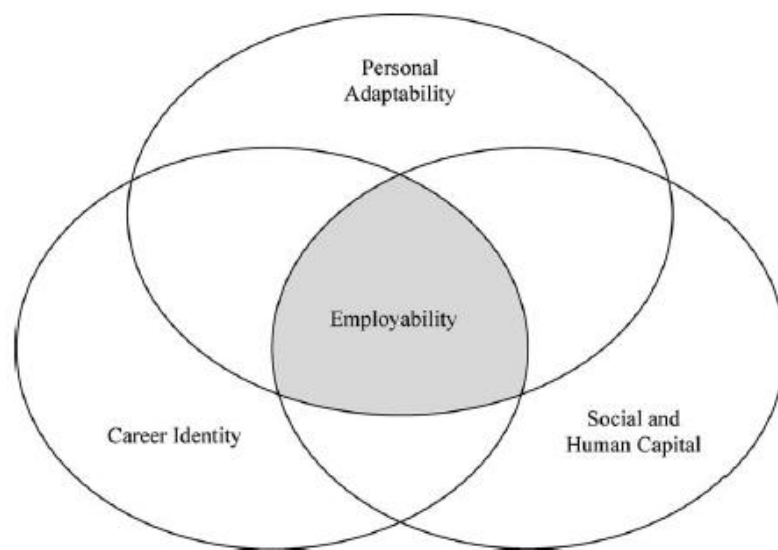
Figure 7. Bridgstock model (2009)



Whilst possession of certain characteristics does not necessarily guarantee graduate level employment (Clarke, 2018), it is therefore interesting how employers focus on

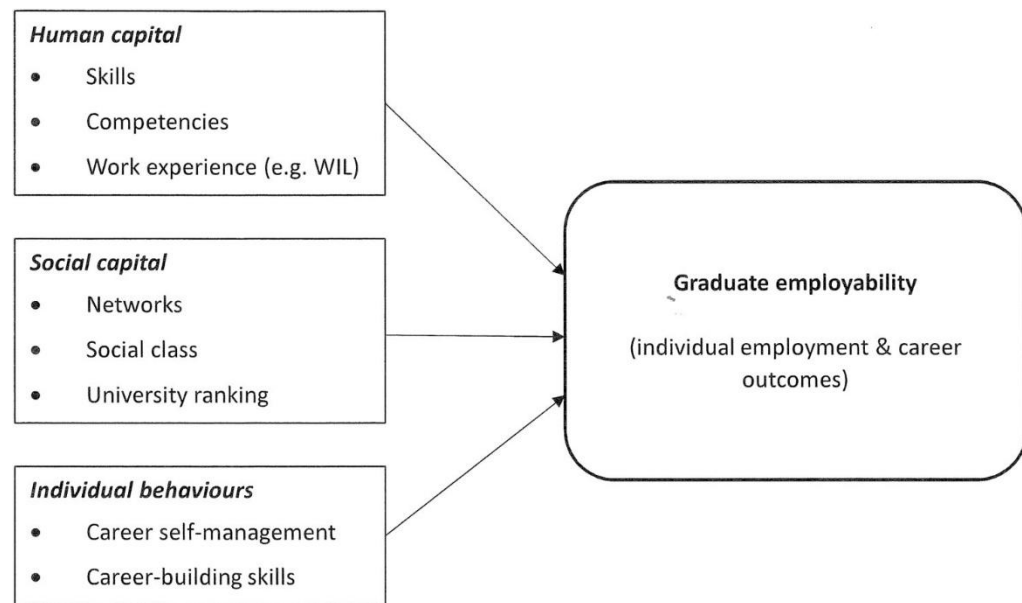
skills possession and do not recognise the other aspects such as social capital, and career identity as proposed by some models (Bridgstock, 2009, Fugate et al., 2004). For Fugate et al. (2004) employability is constructed of three person-centred dimensions (career identity, personal adaptability and social and human capital). Each has their own individual value but collectively a model of employability is generated that enables workers to identify and realise career opportunities (Figure 8). Career identity and personal adaptability are helpful dimensions; signifying employment is not guaranteed and requires the employee to be able to navigate the working world. Employees need to identify current and future career goals, be able to cope with change and adapt accordingly (McArdle et al., 2007, Clarke, 2008). Therefore, a strength of the Fugate et al. (2004) model is that it does not require the individual to be in employment so is helpful to those who are unemployed (McArdle et al., 2007).

*Figure 8. Fugate et al model (2004)*



Holmes' (2013) model of graduate employability (Figure 9) presents the Fugate et al. (2004) model in an alternative and visually easier to understand way and therefore can be understood by all stakeholders. This model encompasses the human capital that an individual possess, their position with respect to their social capital, and who they want to be and their process of transitioning across their career (Holmes, 2013, Clarke, 2018). With consideration of Fugate et al. (2004), Bridgstock (2009) and Holmes (2013), this appears to show a potential disconnect between employers and the employee, where there is lack of investment in supporting the individual with respect to their career development.

Figure 9. Graduate employability model taken from (Clarke, 2018)



All models recognise the need for reflective practice, which they describe differently. Using USEM as a way of illustration, metacognition or life-long learning is explicitly highlighted and is reflective of the needs of the individual to be able to continually learn and adapt in the dynamic work environment (Clarke, 2008). As an example, life-long learning is essential for ensuring high quality patient care (Gopee, 2002), and is recognised as being important at undergraduate level in order to foster development of an effective professional (Schneider et al., 2014). With respect to Fugate et al (2004), reflective practice can be assumed to be part of personal adaptability although it is not explicitly stated and therefore may be considered unimportant. However, the ability to learn is a key part of career success.

Having considered the various definitions of graduate employability, Knight and Yorke's (2004) provides a succinct definition that recognises the impact of market forces, considers the and success of the individual as well as their contribution to society. Therefore, this will be used as the working definition within this study. However, it is recognised the individual and employer perspectives are important considerations and therefore these aspects will be considered alongside Knight and Yorke. Alongside the various proposed definitions of employability, several other considerations are made. Firstly, employers are aware of attributes necessary for graduates within their organisation and the workforce both now and in the future. Secondly, there is a process by which it can be established that graduates are satisfactorily exhibiting these attributes (Harvey, 2001). Finally, employability needs

to also consider long term career management and how graduates can be supported with navigating the world of work.

With respect to employability models, whilst the terminology differs, they share common concepts that relate to the knowledge, skills and attributes (KSAs) associated with employability. Understanding of models is required before use, rather than taking at face value. Models recognise the importance of these characteristics as the building blocks of employability but describe these in a manner that is believed is understandable by their audience. Additionally, each model recognises the need for reflective practice. A focus on career development as a key component is present, helpfully linking the various aspects together. Understanding the benefits and limitations is helpful for appreciation of how employability is discussed and considered. Irrespective of which model is used, they are helpful in their approach of supporting individuals with their career.

### 3.5 Perspectives and measures of employability

Depending on the stakeholder, the level of importance and relevance placed upon employability varies (O’Leary, 2017). The natural stakeholders are the employers and the employee. Additionally, HEIs have an interest in employability, projected on the student. Employability strategies are also driven by the Government due to funds they allocate to HEIs. Perspectives inform beliefs, significance, motivations and its operationalisation in practice. Measures of employability, and its effectiveness also holds importance for stakeholders, who talk about their relative successes of their employability initiatives and what it means for their audiences. It is therefore important that there are appropriate measures to assess it, which can be categorised as subjective or objective (Neroorkar, 2022).

Subjective measures draw upon the intrinsic measures of self-reporting and perception as sources of measurement (Dalrymple et al., 2021, Neroorkar, 2022). Adopting subjective measures are advantageous for supporting individuals in being able to reflect and take responsibility for their own self-development (Clarke, 2008, Clarke, 2018) but should also be guided by rich multisource feedback (Coke et al., 2021). However, an individual’s employability is also influenced by labour market demands (Clarke, 2008, McQuaid and Lindsay, 2005). This is where the objective measures have merit, in that these can measure indicators that consider the influence of the labour market, such as the income earned, or current position



upheld by graduates of a specific discipline (Neroorkar, 2022). This also provides an indicator to HEIs about the effectiveness of their employability offerings.

The next section discusses the perspectives of these stakeholders and their measures of employability.

#### 3.5.1 The Government

The Government perspective of employability is closely linked to ensuring that individuals obtain and retain fulfilling work (Hillage and Pollard, 1998) and contribute to society in terms of the economy including through taxation of earnings. Given the role of good quality education in equipping graduates with specific skills (Dearing, 1997) for good quality employment, education and training must be fit for purpose. Additionally, the Government expects to see a return for its investment in HEIs and so requires HEIs to prepare graduates efficiently and effectively for work.

Employability is a central focus of UK labour market policies and employment strategies (McQuaid and Lindsay, 2005), focused on the development and investment in human capital, resulting in HEI funding (Tymon, 2013). This links with workforce planning initiatives as the perspective of the Government largely places the onus of employability on the HEIs (Leadbeatter et al., 2023), a view also shared by employers (Tymon, 2013). However, the Government focus towards employability leans towards employment rather than employability (Tymon, 2013) in that it is about securing work (Cheng et al., 2022), with little recognition of the need for career and self-development.

Therefore, the Government measure with respect to the general population focuses on levels of employment and unemployment. For the graduate, the Government also considers outcomes of education, looking at whether the graduate has obtained employment following graduation and the nature of this. This aligns with what HEIs value.

#### 3.5.2 The Higher Education Institution

The HEI perspective is largely influenced by the Government perspective, meeting the Government agenda with both their funding and Government policies requiring HEIs ensuring graduates are ready for the labour market (Higher Education Funding Council for England (HEFCE), 2011, Artess et al., 2017). Incorporating employability within the curriculum enables HEIs to demonstrate their commitment to producing

certain types of graduates (Bowden et al., 2000), giving rise to career management services and frameworks in the form of models for embedding of employability to enable HEIs measure this (Knight and Yorke, 2004, Harvey, 2003, Artess et al., 2017). Whilst graduate attributes differ across institutions, HEIs largely adopt a consistent approach, focussing on the possession of human capital and building these into the curriculum (Farenga and Quinlan, 2016).

A priority of the Government bodies that fund and regulate HEIs is student outcomes, referring to graduate employment and further study. HEIs' investment in employability is not only driven by funding and policies, but also by how this reflects on the institution in terms of league tables (Tymon, 2013). Therefore, collecting and reporting of such metrics is a requirement for HEI processes and illustrates to the Government that it is meeting their agenda. Several metrics and performance measures define HE and its successes; Graduate Outcomes (GO) and Longitudinal Education Outcomes (LEO) data are used as measures of employment. These objective outcome measures can include the proportion of graduates who achieve a full-time job within a specified period (Hillage and Pollard, 1998, Harvey, 2001). This steers employability towards being under the remit for the HEI rather than the focus being on the employee (Fugate et al., 2004, Harvey, 2001). HEIs can use outcome data to demonstrate the opportunities resulting from a particular qualification in attracting prospective students. Data can also be used to review existing career support provided to students and establish a reputational position within HE league tables, for example, QS World University Rankings or Graduate Market reports. However, this metric is not particularly discriminating across institutions as a measure for vocational qualifications, with most graduates across institutions entering the same graduate employment.

Institutions can use employability as an example of a performance measure when competing with each other, resulting in the development of institutional employability strategies to achieve reaching the top of the league table (O'Leary, 2017). Employability strategies to ensure graduates are ready for the labour market has resulted in the production of frameworks to support embedding employability within academic courses (Artess et al., 2017). From these, HEIs develop specific institutional frameworks which contain a wide range of, sometimes overlapping, skills and attributes (Holmes, 2013) and can vary according to the priorities of the institution and individual courses (Barrie, 2006). Therefore, a pragmatic approach

needs to be used when considering development of a strategy, given the myriad of employers and fields of work that graduates enter.

Whilst HEIs give importance to employability, it has been argued that they may not be the suitable place for its development (Tymon, 2013) given that employment-based training and experience are considered to be best placed to provide this. Therefore, another aspect of employability is a desire by HEIs to collaborate with employers to meet their expectations. In managing employer expectations, some courses may include work placements as part of the qualification for those that do not require the student to find opportunities to gain these skills. The ability to source and have the flexibility to undertake extracurricular placements may disadvantage against those who do not have the social capital or are limited with respect to their personal circumstances.

### 3.5.3 The employer

The employer perspective of employability is about expectations of graduates being able to make a smooth transition to the workplace and contribute effectively to the development and growth of the organisation (CBI & Universities UK London, 2009). When graduates do not demonstrate skills to the level that employers expect and measure, this results in employer criticism towards the HEIs (Collet et al., 2015, Sarkar et al., 2016). There is a growing demand from employer organisations for graduates possessing the attributes that make them work ready (Caballero and Walker, 2010). Therefore, in meeting the employer perspective of having the best graduate, this is based on the graduate's employability.

In a market where there are more skilled and qualified graduates than needed, there needs to be a method to distinguish between graduates (Anderson and Tomlinson, 2021). An individual degree brings an expectation for subject specific knowledge and skills but there is a greater expectation for transferable skills (Sarkar et al., 2016). Therefore employers look for transferable skills in addition to a graduate's qualification (Small et al., 2018). This is also reflected within health care where recruitment and selection focuses on values, requiring demonstration of personal and professional values (Miller, 2015, Miller and Bird, 2014).

Employers highlight the need for graduates to have a range of transferable skills, such as communication, and decision making, (Archer and Davison, 2008). The value and importance of individual attributes is also recognised by employers (Cheng et al.,

2022). However despite this recognition and expectations, this is not always clear in the measures where graduates from established universities may fare better than those from newer universities (Tymon, 2013). Thus there may be a mismatch between what employers say they value and who they employ.

Employers acknowledge the need for greater collaboration with HEIs to ensure that students are aware of these skills and attributes and have opportunities to acquire and enhance them. However, a critique of having specific employer skill and attribute requirements is that this can result in a multitude of employer specific lists, each varying with respect to the numbers and description of the skills and attributes (Holmes, 2013). This can become confusing and unmanageable for the HEI with respect to how to embed these within courses to ensure understanding by the student.

Employers measures of employability appear to be subjective as they are largely based on the perspective of the employer (Neroorkar, 2022), and this will vary depending on the skills required of the graduate (Collet et al., 2015). Despite the variability across employers, the commonality is that the measure is based on how skills attainment is perceived, this needs to be appreciated by the student and graduate.

#### 3.5.4 The graduate

The Government, employer and HEI focus of graduate employability has been through the viewpoint of human capital (Kalfa and Taksa, 2015). However consideration needs to be given to the recent graduate perspective as they can comment on whether the employability characteristics important for employment were developed within their degree programmes (Sarkar et al., 2016). Additionally, graduate views can be used to influence and develop future policy relating to HE (Higdon, 2016). Perceptions of graduates is largely limited to surveys as tools to capture graduate experiences of employment (Johnston, 2003) or via methods such as GO or LEO data, which includes both objective and subjective measures.

Graduates are increasingly aware that a degree on its own may not be sufficient in the world of work (Tymon, 2013), with skills and attributes required. Labour market forces and the potential for increased competition amongst graduates makes qualifications not the focus of the recruitment. As such recent graduates value generic skills of greater importance than discipline specific knowledge and skills, and

need to be developed further within undergraduate degrees (Sarkar et al., 2016). This highlights that the graduate perspective is towards being in a position where they can obtain work.

Graduates do not necessarily want any job, they may want a job that aligns with a satisfying career, where graduate satisfaction can be measured (Harvey, 2001). The measure for the graduate with respect to employability aside from obtaining a job can also be based on their self-perception about work and their career (Neroorkar, 2022, Maree, 2017). This moves the measure away from HEIs with respect to outcomes, to the graduate as the employee. Graduate satisfaction measures can also be used by the employer, where satisfaction ratings are used for recruitment purposes. Based on wanting graduate employment satisfaction, graduates express wanting their universities to provide significant careers support, to highlight opportunities for career identity and career management skills (Sarkar et al., 2016). This is recognised as part of the employability considerations (Bridgstock, 2009). Graduates report wanting career management to be discipline specific and tailored to their career area. Examples of career management strategies include professional networking, confidence building and work experience opportunities. Strategically, it can also include collaborative curriculum design where employers and academics are involved in bridging the gap between that theory and practice (Higdon, 2016, Kinash et al., 2016).

From this perspective, graduates appear to view employability for the long-term, probably because they are focused on their careers and their future, and therefore this is personal for them.

#### 3.5.5 The student

Students need to develop their own employability (Jorre de St Jorre and Oliver, 2018). Whilst, there is reference to student perspectives relating to the HEI equipping and developing students with the right skills for employment (Cheng et al., 2022, Jackson, 2013) others voice that views of students have rarely been sought or fully acknowledged despite being the recipients of employability development initiatives, with greater research needed in this area (Gedye and Beaumont, 2018, Tymon, 2013, Higdon, 2016). There are increasing examples of student perspectives on employability (Tymon, 2013) and their inclusion in the co-creation of employability initiatives (Dalrymple et al., 2021). The strength of student inclusion is

that can promote understanding, engagement and effective learning (Carey, 2013). Gedye and Beaumont (2018) discuss how marine sport science students' articulations of employability change with progression through the degree to increasingly recognise what students can offer employers. An evaluation of a student-staff employability project through careers education focussed on BAME students shows positive benefit for development and understanding of employability (Opata and Cross, 2021). Other student led initiatives include development of subject-specific employability programmes placing employability within the curriculum (Lowe et al., 2024). However, recognition, development and evidencing of employability necessitates student engagement with such requirements to secure employment (Jorre de St Jorre and Oliver, 2018). Whilst employability is a concept that students believe is important, they require help and support in understanding it as a concept as well as how it can be demonstrated (Maxwell and Broadbridge, 2017). These views are comparable to those expressed by graduates, who add value to this from their insight based on being in the world of work (Higdon, 2016, Kinash et al., 2016). It is reported that the student understanding of employability in earlier years of study is focused on securing any form of employment which is then focused to a particular field in later years (Tymon, 2013, Gedye and Beaumont, 2018, Higdon, 2016), which is potentially due to increasing understandings of work. However, with this insight student perceive an impact to their employability due to market focus (Donald et al., 2018). Additionally, there is some evidence from the creative disciplines proposing that social capital is viewed as more helpful than human capital (Higdon, 2016), suggesting that discipline influences employability.

If students cannot understand the concept of employability, they potentially may find the world of work difficult to navigate. However, students do have expectations of their careers; enjoyment of the career, opportunities and progression within the career (Maxwell and Broadbridge, 2017), which echoes the broader definitions of employability about having long-term career aspects that need to be fulfilling and successful (Knight and Yorke, 2004).

Navigating the world of work requires understanding of the employer perspective, the transferable skills required in addition to social capital and career management skills (Cheng et al., 2022). Students who lack these may feel unprepared for employment or fail to understand what employer expectations might be (Jones et al., 2010, Tymon, 2013). However, whilst students may want more guidance on

employer expectations (Jackson, 2013), they may not always seek it (Maxwell and Broadbridge, 2017). HEIs may approach this reactively, providing greater career management support as a way of engaging students rather than managing student expectations.

Engagement with employability and hence the support provided to students can also be affected by student expectations of employment, centred on having a career, and having the support for their career development Maxwell and Broadbridge (2017). This has implications for how employability is embedded in HE. This includes having strategies for careers management, as well as bringing in the employer perspective. This will also support with improved understanding of the employability characteristics required.

#### *3.5.5.1 Commonalities and differences in perspectives*

The perspectives on employability share commonalities and differences across the stakeholders. It is helpful to consider both subjective and objective measures of employability, as this incorporates both the personal experience of employability, as well as provide information about outcomes and performance information. However, as definitions and perspectives of employability evolve, there will be a need to re-evaluate the measures that are used to ensure appropriateness.

There are the outcome focused perspectives centred with obtaining employment, driven by factors such as the Government agenda and the funding provided to HEIs. This influences the HEI agenda and associated outcome metrics. This outcome focus is also seen in students in earlier years of study before there is consideration of future careers.

In obtaining employment, graduates contribute to the economy through taxation thereby returning the Government investment. Additionally, they contribute to the workforce through use of the human capital. This perspective is shared across all the stakeholders. Whilst appearing to be a shared perspective, employers report that HEIs may not always prepare students and graduates adequately for employment. This is also reported by recent graduates reflecting on wanting greater career management support from the HEI. Views on investment in people and their contribution to the workforce gives an impression of a hybrid focus between outcomes and investing in the individual depending on the stakeholder.

Finally, there is the career management focus which draws on investing in the individual with respect to human capital. This is with respect to the long-term career and not for a particular employer and therefore not as important for the employer and HEI compared to the graduate. However, their expectation is support for career management.

Considering the perspectives of the various stakeholders within the employability arena is valuable, as the perspectives differ, and each stakeholder should consider the perspectives of others in relation to their own. The difference in perspectives also highlight differences in understandings of employability and supports the idea of people 'talking past each other' (Harvey, 2001). To support a holistic approach to workforce planning, whether at a macro level (across a country) or at discipline/profession level, understanding perspectives and meanings of employability is important.

### 3.6 Competencies and employability

With the endpoint of Outcomes-based Education (OBE) focussed on what an individual has learnt and can do, this appears to align with the possession of human capital. This can contribute to development of behavioural indicators, through their contribution to competency production. Competencies are supportive of an individual's career journey and development, which aligns with the process aspect of employability (Holmes, 2013).

Competency frameworks are used across pre- and post-registration pharmacy stages (Bates and Bruno, 2009, Bruno et al., 2010, Mills et al., 2005, Fejzic and Barker, 2015). Employability literature recognises that individuals need opportunity to develop and possess competencies throughout education (McQuaid and Lindsay, 2005, O'Leary, 2017). This can be operationalised through focussing on what the graduate learns and how this relates to workplace requirements (Holmes and Tomlinson, 2017), thereby supporting employability development. In undertaking this, the competency requires definition through description of behavioural indicators (Jackson, 2010, Whiddett, 1999), that are understandable by relevant stakeholders. Students as stakeholders need to know and understand the competencies required by employers. Important for the contribution to student employability, is a need for the provision of an environment of learning, development of, articulation and reflection of employability related skills and



attributes (The Pedagogy for Employability Group, 2014). This strengthens the importance of developing career management skills through identification of employer desired competencies and the building of career identity (Bridgstock, 2009, Holmes, 2013, The Pedagogy for Employability Group, 2014, Fugate et al., 2004).

A career identity can include values and beliefs, how someone defines themselves within a work context and who they want to be (Fugate et al., 2004). Career identity appears to parallel with professional identity, where values shape how a practitioner thinks, acts and feels (Cruess et al., 2016, Moseley et al., 2021). One might consider this suggestion assumes an overlap between career identity and professional identity, with individual's aspirations aligning with professional expectations.

Educationally, the proposal for the addition of 'Is' at the top layer of Miller's triangle, is associated with natural behaviours encompassing attitudes values and beliefs, thereby having an professional identity (Cruess et al., 2016). However, whilst not explicitly stated, professional identity is described within the outcomes and recognised by pharmacy educators as important but challenging to embed within the curriculum (Noble et al., 2019). Additionally, consideration of career and professional identity together situates employability development with the higher levels of Miller's triangle. An ability to perform within the work environment requires an individual to have an identity associated with employer expectations and specified practices affirmed by the employer (Holmes, 2001). For a health care profession, this would be adoption of a professional identity. However, individuals do have their own personal career goals, feeding into their career identity. Additionally, the pharmacist role is non-routine, requiring independent decision making and action (Cruess et al., 2016). Non-routine practice also makes it difficult to specify employer requirements, except in general terms (Holmes, 2001). This then leads to difficulty in how individuals can interpret employer requirements, which may subsequently result in not being able to perform and assume a desired identity.

As competency frameworks can collate desired behavioural indicators that recognise how to develop as professional and career advancement, this draws together professional identity and career identify formation. Whilst competence is implicit within employability, employability is broader, including self-efficacy, self-understanding with implications for career success (Dacre Pool and Sewell, 2007, Bell et al., 2018).

### 3.7 Employability in initial pharmacy education and training

Employability influences the workforce, drawing together employers, employees, the Government and HEIs. The Government, HEIs and employers use the concept of employability to underpin employment strategies and policies (Dearing, 1997, McQuaid and Lindsay, 2005, Quality Assurance Agency, 2018) to support the transition of the graduate to the world of employment. For pharmacy, this refers to producing pharmacists that contribute to the health care workforce, through delivery of increasing clinical roles, meeting the requirement set out from the Government as well as professional drivers.

#### 3.7.1 Educational standards

Employability is reflected in the GPhC standards for pharmacy education and is aimed at meeting the minimum standards for safe and effective practice (Katoue and Schwinghammer, 2020). Globally, pharmacy education standards describe the KSAs that are required for an individual to practise as a pharmacist (Zellmer et al., 2013, Accreditation Council for Pharmacy Education, 2016). As an example, these standards recognise development of communication, information literacy and numeracy, drawing parallels with Dearing's graduate skills (Dearing, 1997). Whilst standards focus on the possession of the human capital, they do not consider the wider dimensions of employability such as social capital and career management (Holmes, 2013). This is because standards focus on the minimum expectations associated with patients, public and their safety but not on a pharmacist's career and career development. These expectations could explain why employability is not recognised as an explicit term within these standards. Additionally, as the standards are the focus of the educational process, it can project a perception that employability is the responsibility of the HEI (Leadbeatter et al., 2023). However, the focus on patients and public aligning with community engagement in contributing to the welfare of the community (Tee et al., 2018) is associated with career success. This is synonymous with Knight and Yorke (2004) proposing that employability needs to benefit the wider community.

#### 3.7.2 Pharmacy education & training and employability

A collaborative approach between stakeholders including pharmacy educators, employers, practice-based supervisors, graduates and students, has sought to understand employability. (Zellmer et al., 2013, Accreditation Council for Pharmacy Education, 2016). The understanding relates to establishing the specifics of the

necessary KSAs for graduate pharmacists, with subsequent incorporation into education standards.

Pharmacy educators view employability an important factor for undergraduate curriculum design and include initiatives aimed at career development to enhance skill development (Steeb et al., 2021, Tee et al., 2018, Fejzic and Barker, 2015, Lucas et al., 2018). Seeking views of students (Lavery et al., 2015, Parmar, 2013, Eksteen, 2019, Steeb et al., 2021, Tavares, 2017) and trainees (Stupans, 2012, Parmar et al., 2020, Tee et al., 2018) on employability and the curriculum enables HEIs to reflect and enact changes that better prepare for the world of work. Whilst knowledge of pharmacy practice and core roles are important for careers management (Steeb et al., 2021, Ives et al., 2020), there is recognition for the development of transferable skills in readiness for work, which also need to be experienced outside the course (Fejzic and Barker, 2015, Kerr et al., 2021, Girvin et al., 2023). The recognition of the need for enhancing core transferable skills in readiness for work has called for greater patient facing opportunities through experiential learning (Clarke, 2018, Fejzic and Barker, 2015, Kerr et al., 2021, Girvin et al., 2023).

Despite actions to increase the quantity of experiential learning, availability is relatively limited in the MPharm degree (Jacob and Boyter, 2019). Foundation training provides a real-life opportunity for both application of learning from the degree level but also further development of human capital to meet competence requirements (McEwen-Smith et al., 2019). Foundation training providers require demonstration of good communication and interpersonal skills (Langley and Aheer, 2010) with increasing focus on consultation and communication skills (Jalal et al., 2018, Girvin et al., 2023). The reason is ensuring delivery of increasingly patient focussed services and has been implemented through the Professional Attributes Framework (PAF), enabling trainees to be successful within their role across any sector assisting the bridging of the gap between student pharmacist and newly qualified pharmacist (NQP) (Health Education England et al., 2022). A strength of the PAF is that it has been produced in collaboration between employers, students, graduates and HEIs, that enables a joined-up approach and shared language with respect the requirements of the role (Work Psychology Group, 2019)

Employers also refer to enterprise or entrepreneurship as a relevant aspect of employability (CBI & Universities UK London, 2009, Advance HE, Sewell and Dacre

Pool, 2010). Enterprise skills are important with respect to the role that pharmacy plays in innovation, knowledge transfer and commercialisation of technologies (Refai and Thompson, 2015), a view also acknowledged by pharmacy employers (Fejzic and Barker, 2015). Recommendations for effectively embedding enterprise and entrepreneurship within the pharmacy curriculum have also been suggested (Laverty et al., 2015, Refai and Thompson, 2015), demonstrating how employability characteristics are valued within pharmacy and the resultant impact on the curriculum.

### 3.7.3 Associated terminologies

Additional to employability, pharmacy literature uses associated terms to reflect the journey from student into the workplace. Section 3.4.1 discusses how terms such as graduate attributes and work-readiness are used interchangeably with employability but are subtly different. This mirrors how employability may be described in different ways (McQuaid and Lindsay, 2005). Other associated terms include preparedness for practice, transition, readiness to practice and independent practice.

Student views show an overall perceived high level of preparedness for practice (Fejzic and Barker, 2015, Malau-Aduli et al., 2022, Weldon et al., 2024, Willis et al., 2009) particularly with a greater focus on team-based learning and application of knowledge (Parmar et al., 2020). This is potentially attributable to the value of experiential learning activities, which enables students to demonstrate the perceived KSAs upon graduation (Fejzic and Barker, 2015, Malau-Aduli et al., 2022). However, the view is not one that is necessarily shared. Whilst there is evidence of foundation training supervisors agreeing that graduates are prepared for practice, the level of agreement is lower than the student (Kairuz et al., 2010, Weldon et al., 2024).

Additionally, a disconnect between students and supervisors in the qualities that constitute readiness for work is seen with students noting that the HEI experience does not provide opportunity for learning of transferable skills (Fejzic and Barker, 2015). The disconnect is attributed to the HEIs with subsequent criticisms being that HEIs do not produce graduates based on the demands of the job at the current time and as the profession advances and changes (Tee et al., 2018, Fejzic and Barker, 2015). The differing perceptions and expectations requires HEIs to regularly engage with stakeholders, including as part of curriculum review (Tee et al., 2018). There is a need to feedback the mismatch in perceptions to students to then consider how to manage this. However, it is worth noting that views of students have been sought

whilst on the course or immediately before entering practice, but this may be based on the limited experiential learning opportunities available. Preparedness for practice is viewed as the knowledge, skills and attitudes that prepare students for professional roles (Ameer et al., 2018, Kairuz et al., 2010, Willis et al., 2009). However, through a longitudinal approach across several health care professions, Ottrey et al. (2021) conceptualised preparedness for practice as greater than human capital, including concepts such as experience, independence and self-awareness, which has implications for educators and employers. It is potentially the broader view of this concept that needs to be used by HEIs to plan how students are prepared for post-graduation work.

Transition is the focus of several studies, investigating the movement from university to post-graduation work, the implications for pharmacy education and ensuring alignment with the workplace (Noble et al., 2015, Stupans et al., 2015a, Ameer et al., 2018). Moving from university to the workplace appears to be influenced by the concept of readiness to practice (Malau-Aduli et al., 2022), which in turn is associated with work-readiness, therefore reflecting skills, attributes in addition to understanding of professional requirements. This suggests that readiness to practice is associated with a point in time where the individual possesses the skills and attributes to transition into the workplace. Transition is additionally associated with undertaking new responsibilities or a process of adjustment (Rees et al., 2022). There are parallels between how employability and transitions are conceptualised, both as ongoing development and as a process (Holmes, 2013), rather than possession of skills. However, possession of the KSAs are an important focus for HEIs; for employment, driving graduate attributes and making the bridge into the professional world; and also enshrined within pharmacy education standards (Tee et al., 2018, Singh et al., 2020).

The transition to workplace is a challenging and stressful time, leading to initiatives to support foundation trainees with development of coping strategies (Bartlett et al., 2021). Initiatives are additionally presented as aspects that improve preparedness for practice, subsequently fostering readiness to practice (Malau-Aduli et al., 2022). This proposes preparedness for practice as preparation for ensuring readiness. However, stakeholders use preparedness for practice interchangeably with readiness but also describe it as employability (Ottrey et al., 2021).

Preparedness for practice is also associated with independence, referring to responsibility, accountability and autonomy (Ottrey et al., 2021). NQPs need to be able to demonstrate independent practice (Fejzic and Barker, 2015, Kairuz et al., 2010, Bartlett et al., 2021) with the need to develop an ability to learn independently is considered within educational programmes (Almarzoky Abuhussain et al., 2021, Parmar et al., 2020, Singh et al., 2020, Tee et al., 2018). Therefore, independence appears to be a concept relevant to the practice of a pharmacist, embedding practice early in the career (Bajis et al., 2023).

In attempting to understand the terms discussed, some are used interchangeably dependent on their definition and whether they are defined. An interconnection between terms highlights how terms relate to the student to graduate to workplace journey and the provision of adequate support. Provision of support shares a similarity with employability, through the need for development of skills, personal qualities and the enablement of reflective practice (Knight and Yorke, 2004).

### 3.8 Chapter Summary

Employability is greater than employment, it is a concept that relates to the journey of an individual from education to employment and their ongoing career. Therefore, it is not about a single point in time. Employability also relates to a career identity and an ability to have development and career goals. Defining employability is difficult due to the various perspectives of the stakeholders involved. The varying interpretations of definitions and different perspectives potentially lead to misunderstandings of employability, which can lead to an underprepared workforce. This suggests a need for stakeholders to engage and collaborate with each other, to ensure that employability is appropriately defined and applied. Open discussions on employability enable better understanding of employability, what might be required from an education perspective as well as impact for the workforce and workforce planning.

The most widely recognised definition recognises employability being about the likelihood of obtaining employment based on their human capital and how this leads to success within the career and enables progression as well as benefitting others including the employer and society. Therefore, employability goes beyond competence to recognise self-awareness and identity formation. Knight and Yorke's definition provides a definition that recognises the impact of market forces,

considers the satisfaction and success of the individual as well as their contribution to society. Therefore, this definition is used as the working definition within this study, in addition to recognition of attitude and entrepreneurship as important foundations.

Within pharmacy, the term employability is recognised through the importance of KSAs as well as professional development for pharmacists, and this has manifested in the production of various outcome- and competency-based approaches. Regular reviews of pharmacy education and training has resulted in revised standards that describe the required knowledge, skill and attribute outcomes for this stage. This has manifested in initiatives to embed employability in the curriculum to prepare student pharmacists for the world for work. However, support for competency-based approaches largely focuses on post-registration stages; therefore, there appears to be a gap with respect to student pharmacists and whether this needs to extrapolate back to this group, paving a pathway for progression during their studies. Foundation training provides trainees a real-life opportunity to demonstrate their learning in readiness for work as a pharmacist. The competency-based PAF could support this as a development tool, but its place is limited to recruitment. Despite initiatives to prepare student pharmacists, employers do not necessarily agree the graduate is ready to meet the demands of the job, which then creates a disconnect between employer, student and HEI. Additional to employability, pharmacy education and training uses other associated terms, which share commonalities with employability but are subtly different. The next chapter considers employability and the associated terms in the context of the NQP.

## 4 Employability and the newly qualified pharmacist: a scoping review

### 4.1 Introduction

In the previous chapter, the concept of employability including employability during pharmacy education and training is broadly discussed. In this chapter, the discussion now turns to employability and the newly qualified pharmacist (NQP).

Whilst terms such as graduate attributes (Barrie, 2004) and work-readiness (Caballero et al., 2011) have been used interchangeably with employability (Dacre Pool and Sewell, 2007, Bell et al., 2018), pharmacy literature uses other associated terms to reflect the journey from student to foundation training. These include preparedness for practice (Weldon et al., 2024, Kairuz et al., 2010), transition (Noble et al., 2015, Stupans et al., 2015b), readiness to practice (Almarzoky Abuhussain et al., 2021, Clarke, 2018) and independent practice (Fejzic and Barker, 2015, Bartlett et al., 2021). The terms relate to possession of human capital, the taking on new responsibilities or a process of adjustment, and becoming responsible, accountable and autonomous (Malau-Aduli et al., 2022, Rees et al., 2022, Ottrey et al., 2021). Leadbeatter et al. (2023) conceptualises employability within health professional education as three interconnected parts: acquiring employment, sustaining employment and thriving in the workforce. This conceptualisation supports employability as the use of human capital to support career navigation. Clarification of the meaning of employability and these associated terms is required. This will mitigate against potential restrictions in how employability is applied, arising through interchanging of terms.

Leadbeatter et al. (2023) refers to health care profession students who view the regulator defined standards of education sufficient for addressing employability. However, standards are not sufficient considering the ever-changing labour market. Factors such as job saturation within the labour market leading to unemployment (Clarke, 2018, Almarzoky Abuhussain et al., 2021), employers requiring graduates needing improved professional skills (Tee et al., 2018) and educational changes arising from Covid-19 impacting the development of skills important in the workplace (Wong et al., 2024) can lead to a gap in preparedness on entering the workplace. The progression from foundation training to independent pharmacist practitioner is a critical stage. Consolidation of the initial education and training



during the early career stage is proposed through a Global Competency Framework, that includes a core set of behavioural and practice-related competencies (Bajis et al., 2023). Knowledge, skills and attributes (KSAs) can also contribute to the development of behavioural indicators, through their contribution to competency production (Whiddett, 1999). Therefore, competency frameworks appear to hold importance in the employability development of health care professionals. Whilst competencies can include human capital, this infers that competence is implicit within employability. However, employability also includes self-efficacy and self-understanding, which has implications for career success (Dacre Pool and Sewell, 2007, Bell et al., 2018). Competency frameworks can contribute to development process aspect of employability through supporting an individual's career journey and development (Zellmer et al., 2013). Employability is relevant to the wider workforce.

How employability is then reflected at the NQP stage needs to be explored.

Pharmacy education and training literature includes other associated terms such as preparedness for practice and so it is important they are considered alongside employability.

## 4.2 Objectives

A scoping review was conducted to describe the current literature about employability in pharmacy at the point of registration and to highlight gaps in knowledge in this area. The research questions are: What literature exists about employability at the NQP stage? How are the associated terms used within the literature and how these compare to employability? How does the literature present the KSAs required for employability of the NQP?

## 4.3 Method

The protocol adopted the methodological framework outlined by Arksey and O'Malley (Arksey and O'Malley, 2005) and followed the criteria set out by PRISMA-ScR checklist (Tricco et al., 2018). The review comprised of five stages: 1) defining the research question; 2) identifying relevant studies; 3) study selection; 4) charting the data; and 5) collating, summarising, and reporting the results. A protocol was used to support rigour in the process as it pre-defines the objectives, search methods, and reporting mechanisms (Lucas and Desselle, 2024).

#### 4.3.1 Identifying relevant studies

Inclusion criteria included articles and abstracts focussing on employability or associated terms including work-readiness, graduate attributes, preparedness for practice, transition, readiness to practice and independent practice. These terms were searched in the context of the NQP (using search terms pharmacist and pharmacy). Only articles written in English were included. A publication date from 1990 to June 2024 was chosen to reflect the use of the term employability from the 1990s (Bridgstock and Jackson, 2019) and the definition of the clinical role of the pharmacist as defined by Hepler and Strand (1990). From the UK perspective this reflected the period covered by the current and former GPhC Standards for the Initial Education and Training of Pharmacists (General Pharmaceutical Council, 2011, General Pharmaceutical Council, 2021). The following bibliographic databases were searched: Medline via Ovid, Web of Science and Scopus. The rationale being these databases being used in previous reviews of employability literature from a healthcare and non-healthcare perspective (Artess et al., 2017, Leadbeatter et al., 2023). The search was undertaken between 8th and 16th June 2024 with Table 6 showing the full search strategy used in Medline via Ovid. Articles were managed using Microsoft Excel with duplicates removed.

Table 6. Search strategy - Medline via Ovid

Step	Search
1.	pharmacist.mp. or Pharmacists/
2.	limit 1 to (english language and yr="1990 - 2024")
3.	Pharmacy/
4.	limit 3 to (english language and yr="1990 - 2024")
5.	employability.mp.
6.	limit 5 to (english language and yr="1990 - 2024")
7.	work-readiness.mp.
8.	limit 7 to (english language and yr="1990 - 2024")
9.	graduate-attributes.mp.
10.	limit 9 to (english language and yr="1990 - 2024")
11.	preparedness-for-practice.mp.
12.	limit 11 to (english language and yr="1990 - 2024")
13.	independent-practice.mp.
14.	limit 13 to (english language and yr="1990 - 2024")
15.	transition.mp.
16.	limit 14 to (english language and yr="1990 - 2024")
17.	2 and 6
18.	2 and 8
19.	2 and 10
20.	2 and 12
21.	2 and 14
22.	2 and 16
23.	4 and 6
24.	4 and 8
25.	4 and 10
26.	4 and 12
27.	4 and 14
28.	4 and 16

#### 4.3.2 Study selection

Out of scope articles were excluded e.g. relating to transition metals, transitions of care or transitions associated with biological pathways. During initial screening, articles without abstract or title, or a title (with no abstract) that did not indicate relevance to the scoping review area were excluded. Articles that were not research including editorials, letters or commentaries were excluded. Following abstract review, articles not relevant to pharmacy or the scoping review area were excluded.

Second stage screening involved reading the full text of the article. Where it was not clear whether the article was relevant to the scoping area, these were discussed with supervisors, to decide whether to accept or reject them. A record of the screening process was maintained using Microsoft Excel, with documentation of reasons for inclusion or exclusion. Screening of the reference list of the included articles highlighted additional articles for final review. Scoping reviews were excluded but reference lists of these reviews were screened for any additional articles. Final review included a full text review of any relevant articles.

A supervisor extracted articles from 10% of the articles to confirm the accuracy of the extraction process. Extraction was from 837 articles instead of the initial 10343 articles. This was due to the substantial number of articles associated with alternative use of transition.

#### 4.3.3 Charting and analysis of the data

Data charting was undertaken in the form of a table using Microsoft Excel and followed guidance on scoping reviews (Peters et al., 2015). Extracted data included: article identifiers, geographical location, study design, perspectives, the use of employability and/or other associated terms, details of any KSAs characteristics. The quality of the selected data was not assessed and reviewed as this is not common in scoping reviews (Arksey and O'Malley, 2005, Peters et al., 2015). The extracted data were categorised according to whether and how employability and/or other terms are used within the article, and the employability characteristics given. This is described narratively alongside the results tables.

### 4.4 Results

#### 4.4.1 Search results

The search resulted in 10343 (5158 in Medline, 2510 in Web of Science, 2675 in Scopus) articles. Following removal of duplicates (n=975) and articles where

transition was out of scope (n=8531), 837 articles were selected for initial screening. Following initial screening, 212 articles were selected for second stage screening. Screening of reference lists found an additional 4 articles for review. A total of 30 articles were selected for review, extraction and analysis of data. The PRISMA-ScR flow diagram for selection of articles is outlined in Figure 10.

#### 4.4.2 Descriptive summary

Articles covered a wide geography with the largest proportion originating in the UK (n=12, 40%). Seven articles were from Australia (23%), four from the United States (13%) two from Ireland (7%), and one from each of Kuwait, Africa and Canada respectively (3%). Two articles (7%) were not limited to countries and therefore classed as global. Publication dates ranged from 2005 to 2024. Most articles included a qualitative approach (n=19, 63%). Most articles (n=27, 90%) detailed KSAs needed by pharmacists at the point of registration. Table 7 summarises details of the selected articles.

Most articles used only one of employability or associated term (n=23, 77%) but some used more than one (n=7, 23%) (Figure 11). No articles used the terms of graduate attributes or work-readiness. The terms qualities, practice readiness and characteristics were present in three articles (n=3, 10%), which were from the reference lists. Details of each article method, terminology and the KSAs are included and summarised in Table 8.

Article focus was driven by the changing role of health, health care and the change of the pharmacist role from medicines supply to patient focussed roles across a range of practice settings. These drivers resulted in a need for a competent pharmacy workforce that could practise independently from the point of registration (Al-Haqan et al., 2021, Bartlett et al., 2022, Gallagher and Kareem-Alliu, 2023, Ireland et al., 2022, James and Cole, 2016, Mak et al., 2013, Ni Sheachnasaigh et al., 2024, Thompson et al., 2012, Scott et al., 2019).

Figure 10. PRISMA-ScR flow diagram of the study selection process.

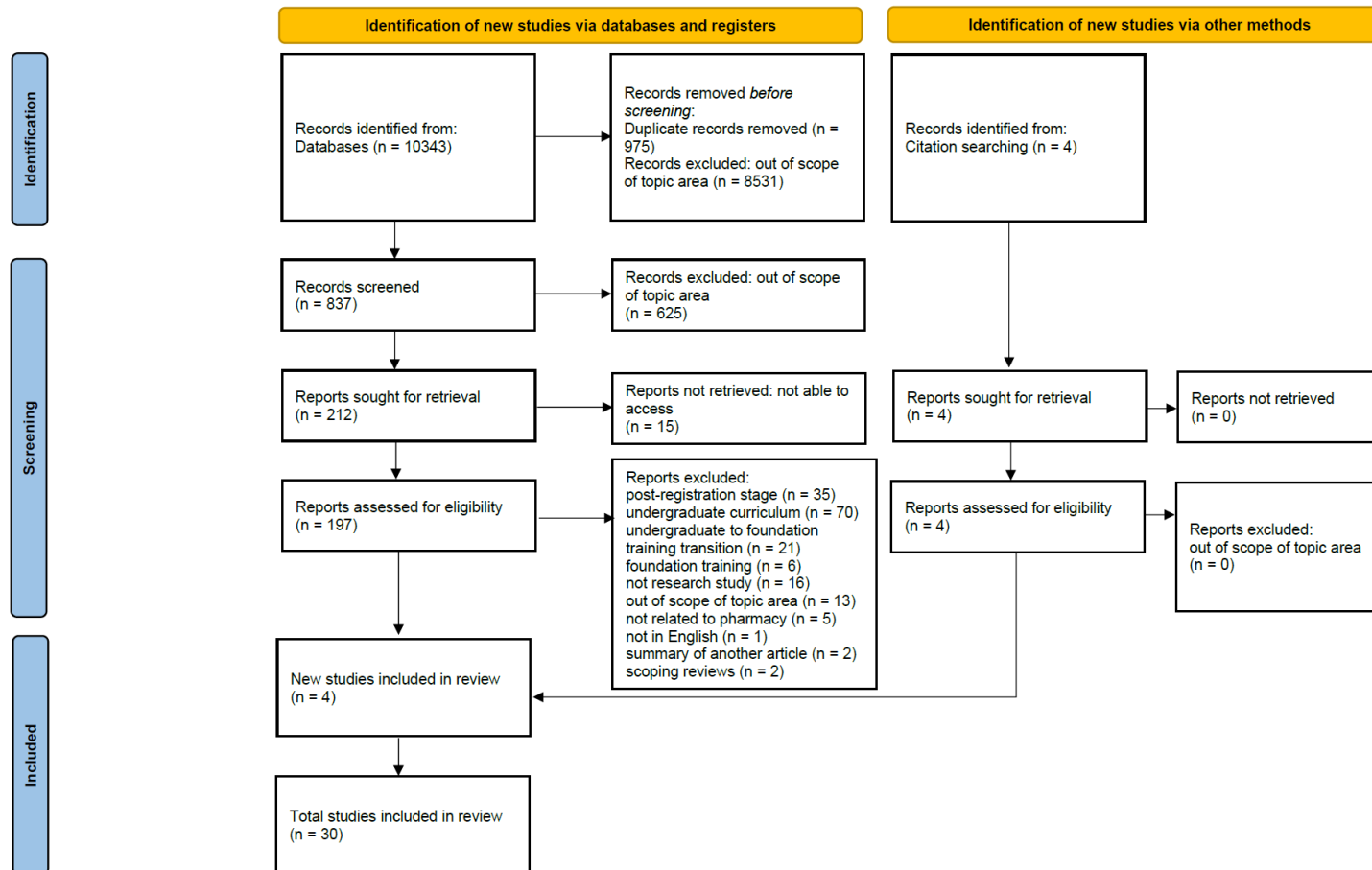
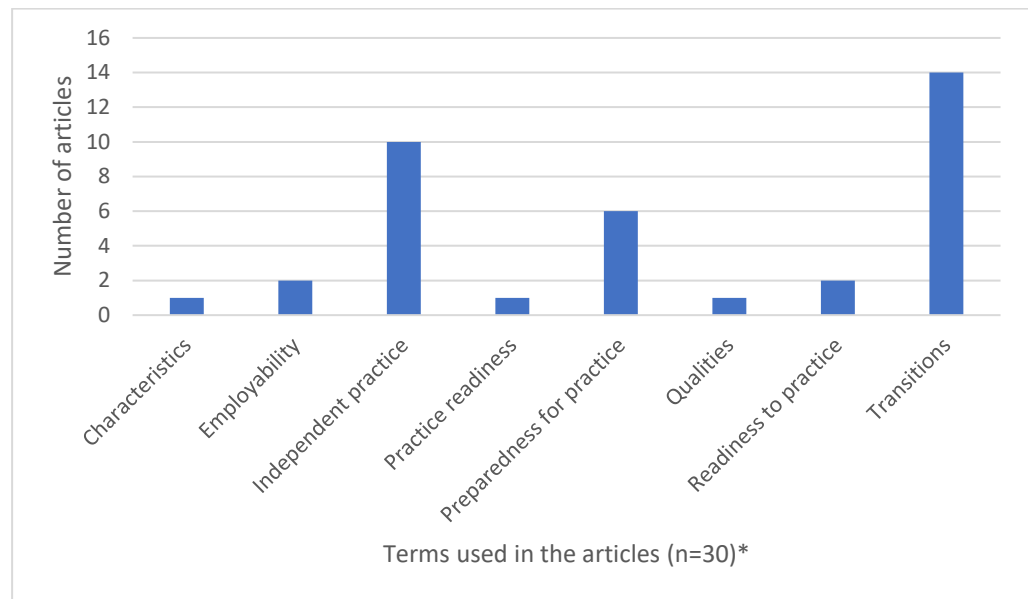


Figure 11. Count of terms used in articles



\*Terms add to more than 30 as 7 articles used more than one term.

Table 7. Summary of selected articles

<b>Authors and Country</b>	<b>Study design/Article type</b>	<b>Employability and/or associated terms</b>	<b>Perspective</b>	<b>Knowledge, Skills and Attributes included and/or discussed</b>
<b>Al-Haqan A et al. (2021)</b> <b>Kuwait</b>	Cross-sectional multi-methods (qualitative)	Preparedness for practice	Newly qualified pharmacists Early career pharmacists Pharmacists	Communication Conflict resolution Time management Above are as important as knowledge
<b>Allinson M.D et al. (2022)</b> <b>United Kingdom</b>	Cross-sectional interviews (qualitative)	Transitions	Trainees Newly qualified pharmacists Early career pharmacists	Ethical and professional decision making
<b>Alston et al. (2019)</b> <b>United States</b>	Cross-sectional survey (quantitative)	Practice readiness	Pharmacists	48 traits (24-character, 24-academic)
<b>Bartlett S et al. (2022)</b> <b>United Kingdom</b>	Longitudinal study (qualitative)	Transitions	Trainees Early career pharmacists Designated Supervisors Managers	Communication Confidence Knowledge of work Organisation Flexibility Adaptable
<b>Bradley F et al. (2024)</b> <b>Australia</b>	Cross-sectional survey with qualitative analysis of text (mixed methods)	Independent practice	Newly qualified pharmacists Early career pharmacists Pharmacists	Autonomy Professionally accountable decisions



<b>Authors and Country</b>	<b>Study design/Article type</b>	<b>Employability and/or associated terms</b>	<b>Perspective</b>	<b>Knowledge, Skills and Attributes included and/or discussed</b>
<b>Davison K et al (2020)</b> <b>United Kingdom</b>	Cross-sectional interviews (qualitative)	Preparedness for practice	Newly qualified pharmacists Early career pharmacists Pharmacists	Nil information
<b>Gallagher C and Kareem-Alliu W (2023)</b> <b>Australia</b>	Longitudinal study (quantitative)	Independent practice	Students Trainees Newly qualified pharmacists Early career pharmacists Pharmacists	Clinical decision making Moral decisions making
<b>Halimi S et al. (2023)</b> <b>Australia</b>	Cross-sectional interviews and focus-groups (qualitative)	Transitions	Newly qualified pharmacists Early career pharmacists	Resilience Independent Autonomy Professional decision making
<b>Ireland H et al. (2022)</b> <b>United Kingdom</b>	Cross-sectional multi-methods (qualitative)	Transitions	Trainees Designated Supervisors Patients Regulator	Professionalism
<b>James P and Cole C (2016)</b> <b>Africa</b>	Cross-sectional survey (quantitative)	Preparedness for practice	Trainees	Technical activities Pharmaceutical marketing Business management Clinical pharmacy activities MDT working

<b>Authors and Country</b>	<b>Study design/Article type</b>	<b>Employability and/or associated terms</b>	<b>Perspective</b>	<b>Knowledge, Skills and Attributes included and/or discussed</b>
<b>Jee S et al. (2016) United Kingdom</b>	Prospective longitudinal interviews (qualitative)	Transitions	Trainees Newly qualified pharmacists	Accountability Management Professional decision making
<b>Jee S et al. (2017) United Kingdom</b>	Prospective longitudinal interviews and survey (mixed methods)	Transitions	Trainees Newly qualified pharmacists Designated Supervisors	Communication Responsibility
<b>John D et al. (2005) United Kingdom</b>	Cross-sectional survey (quantitative)	Transitions	Trainees	Nil information
<b>Kennedy A et al. (2024) Ireland</b>	Cross-sectional survey (quantitative)	Readiness to practice  Transitions	Newly qualified pharmacists	Leadership Communication Recommending drug therapy
<b>Huray L et al. (2023) Global</b>	Content analysis (qualitative)	Preparedness for practice  Readiness to practice	Not specified	Clinical experience Social experience Professional development activities Personal attributes Cognitive aspects On-boarding experiences Educational experiences

<b>Authors and Country</b>	<b>Study design/Article type</b>	<b>Employability and/or associated terms</b>	<b>Perspective</b>	<b>Knowledge, Skills and Attributes included and/or discussed</b>
<b>Lim A et al. (2020) Australia</b>	Cross-sectional interviews (qualitative)	Independent practice	Trainees Designated Supervisors	Operational delivery
<b>Lim A et al. (2023) Australia</b>	Cross-sectional interviews (qualitative)	Employability	Trainees	Professionalism and ethics Communication and collaboration Medicines management and patient care Leadership and management Education and research
<b>Magola E et al. (2018a) United Kingdom</b>	Cross-sectional NGT (qualitative)	Transitions  Independent practice	Newly qualified pharmacists Early career pharmacists Designated Supervisors Pharmacy support staff	Professionally accountable Relationship management Confidence Decision making Adaptability
<b>Magola E et al. (2022) United Kingdom</b>	Cross-sectional interviews (qualitative)	Transitions  Independent practice	Newly qualified pharmacists	Accountability (community) Responsibility (community) Confidence Meaningful learning Self-awareness Critical thinking Reasoning Reflective skills
<b>Magola E et al. (2018b) Global</b>	Narrative review	Transitions	Medicine and nursing	Learning including application Adaptability Reflection

Authors and Country	Study design/Article type	Employability and/or associated terms	Perspective	Knowledge, Skills and Attributes included and/or discussed
		Independent practice		
<b>Mak et al. (2013)</b> <b>Australia</b>	Cross-sectional survey (quantitative)	Preparedness for practice	Trainees	<p>Technical activities</p> <ol style="list-style-type: none"> <li>1. Dispensing (technical supply) - A technical supply task (e.g., putting prescriptions through the computer and labelling of medications).</li> <li>2. Retail, nonprescription activities - Activities involving the provision and sale of nonprescription items and retail activities.</li> <li>3. Practice/business management - Activities involved in the running of a pharmacy (e.g., human resources, accounting, staffing, etc).</li> </ol> <p>Clinical activities</p> <ol style="list-style-type: none"> <li>4. Patient care role - Activities that involve an interaction with the patient (e.g., counselling of patients).</li> <li>5. Medicines information role - Communication about medicines and their use to patients.</li> <li>6. Multidisciplinary team care - A collaborative approach with other health professionals in the care of a patient.</li> <li>7. Accredited pharmacist activities - An accredited pharmacist is a registered pharmacist that is credentialed to conduct medication reviews. Any activities related to an accredited pharmacist including</li> </ol>

<b>Authors and Country</b>	<b>Study design/Article type</b>	<b>Employability and/or associated terms</b>	<b>Perspective</b>	<b>Knowledge, Skills and Attributes included and/or discussed</b>
				<p>observing an accredited pharmacist conducting medication reviews.</p> <p>8. Primary health care delivery - First level of care in the health care system; community-based sector.</p> <p>9. Secondary care - Care provided in aged care sector.</p> <p>10. Tertiary care - Care provided in hospital-based sector</p>
<b>Maundu J et al. (2023)</b> <b>Australia</b>	Report	Transitions  Independent practice	Trainees Designated Supervisors	Reflective practice
<b>McDermott I et al. (2024)</b> <b>United Kingdom</b>	Cross-sectional interviews (qualitative)	Transitions  Independent practice	Newly qualified pharmacists Newly qualified pharmacist supervisors	Autonomy Confidence Accountability Prioritisation Leadership and management
<b>Mourh J and Newby B (2019)</b> <b>Canada</b>	Cross-sectional survey and interviews (mixed methods)	Transitions	Newly qualified pharmacists Early career pharmacists Pharmacists	Confidence Communication Knowledge Experience Preparation Expectations Delegation Management

<b>Authors and Country</b>	<b>Study design/Article type</b>	<b>Employability and/or associated terms</b>	<b>Perspective</b>	<b>Knowledge, Skills and Attributes included and/or discussed</b>
<b>Ni Sheachnasaigh E et al. (2024) Ireland</b>	Cross-sectional-interviews (qualitative)	Independent practice	Newly qualified pharmacists Designated Supervisors	People management Conflict resolution Decision making Prescription checking
<b>O'Brien et al. (2017) United States</b>	Cross-sectional survey (quantitative)	Qualities	Newly qualified pharmacists Early career pharmacists Pharmacists Students	Drug information knowledge Ethical decision making Effective communication with patients or customers Effective communication with other health care professionals Professionalism Ability to make appropriate therapeutic recommendations. Pharmacology knowledge Conflict management Management skills (human resources, time, materials, etc)
<b>Scholes J et al. (2017) United Kingdom</b>	Cross-sectional-interviews (qualitative)	Employability	Newly qualified practitioners across disciplines	Nil information

<b>Authors and Country</b>	<b>Study design/Article type</b>	<b>Employability and/or associated terms</b>	<b>Perspective</b>	<b>Knowledge, Skills and Attributes included and/or discussed</b>
<b>Scott D et al. (2019) United States</b>	Cross-sectional survey (quantitative)	Independent practice	Pharmacists	Patient care provider Interprofessional team member Population health promoter Information master Practice manager Self-developer Enshrined under six domains of EPAs
<b>Thompson D et al. (2012) United States</b>	Cross-sectional survey (quantitative)	Characteristics	Pharmacists	Adaptable Business sense Communication Critical thinking Dedicated Efficient Empathetic Imaginative Knowledgeable Leader Methodical Patient Personable Problem-solver Professional Punctual Receptive

Authors and Country	Study design/Article type	Employability and/or associated terms	Perspective	Knowledge, Skills and Attributes included and/or discussed
				Self-learning Technologically-adept Utilizing literature
<b>Thompson J et al. (2020)</b> <b>United Kingdom</b>	Cross-sectional-interviews (qualitative)	Preparedness for practice	Trainees	Self-directed learning Self-confidence



Table 8. Description of terms used in articles

<b>Employability and/or associated terms</b>	<b>Authors</b>	<b>Description of term</b>
<b>Characteristics</b>	Thompson D et al. (2012)	Associates with traits
<b>Employability</b>	Lim A et al. (2023)	Obtaining of work
	Scholes J et al. (2017)	Progression and capability within work
<b>Independent practice</b>	Bradley F et al. (2024), Magola E et al. (2018a), Magola E et al. (2022), Magola E et al. (2018b), McDermott I et al. (2024)	Associated with experience of autonomous decision making and professional accountability. A period which can last up to 3 years, associated with transition.
	Gallagher C and Kareem-Alliu W (2023), Lim A et al. (2020), Maundu J et al. (2023), Ni Sheachnasaigh E et al. (2024), Scott D et al. (2019)	Not defined but associated with entry onto the register.
<b>Practice readiness</b>	Alston et al. (2019)	Ability to provide direct patient care in a variety of health care settings
<b>Preparedness for practice</b>	Davison K et al (2020), Thompson J et al. (2020)	Not defined.
	Al-Haqan A et al. (2021), James P and Cole C (2016), Mak et al. (2013)	Carrying out various activities, through having the underpinning knowledge, skills and attributes
	Huray L et al. (2023)	Associated with readiness to practice
<b>Qualities</b>	O'Brien et al. (2017)	Associates with proficiencies (skills, expertise)
<b>Readiness to practice</b>	Kennedy A et al. (2024), Ni Sheachnasaigh E et al. (2024)	Associated with competencies.
	Huray L et al. (2023)	Whether education has furnished individuals with the knowledge, skills and competencies to be ready to practice.

Employability and/or associated terms	Authors	Description of term
		How closely new practitioners perform according to requirements of their profession. Consists of clinical experience, social experiences, professional development experiences, personal attributes, cognitive aspects, onboarding experiences, and educational experiences.
<b>Transitions</b>	Allinson M.D et al. (2022), Kennedy A et al. (2024)	Not defined
	Bartlett S et al. (2022), Halimi S et al. (2023), John D et al. (2005), Maundu J et al. (2023)	Moving from one stage to another or move of settings.
	Ireland H et al. (2022)	A period of maturation
	Jee S et al. (2016), Jee S et al. (2017), Magola E et al. (2018a), Magola E et al. (2018b), Magola E et al. (2022), McDermott I et al. (2024), Mourh J and Newby B (2019)	Change in roles, responsibilities and routine, associated with a period of time

#### 4.4.3 Employability and the newly qualified pharmacist

Where employability was used as a term, it was not explicitly defined. A definition would support an understanding of its meaning and how it is viewed in the context of the NQP. The articles consider different perspectives of employability: a close association with the workplace and the competencies to obtain a job (Lim et al., 2023) and capability and progression within the job (Scholes et al., 2017). For obtaining a job, employability connects the educational experience to requirements in the world of work, with implications for education. Once in a job, importance is placed on the development of the individual within the workforce. Despite differing perspectives, the focus is on the improvement of patient care and the approach for pre- and post-registration practice.

##### 4.4.3.1 Practice and the newly qualified pharmacist

Terms that included the word practice referred to provision and possession of competency needed for undertaking of tasks as a pharmacist. Several articles inferred entry on to the register as independent practice but did not explain this term (Gallagher and Kareem-Alliu, 2023, Maundu et al., 2023, Ni Sheachnasaigh et al., 2024, Lim et al., 2020). Where explained in other articles, independent practice meant demonstration of autonomy, accountability and decision making (Bradley et al., 2024, Magola et al., 2018a, Magola et al., 2018b, Magola et al., 2022, McDermott et al., 2024). Whilst these requirements were based on views of NQPs in the community sector (Magola et al., 2018a, Magola et al., 2022), similar views were expressed in other settings and agreed with, by educational supervisors (McDermott et al., 2024). However, sectors were not provided.

Expectations associated with being in practice included demonstration of communication, conflict resolution, time management, organisation, flexibility (Al-Haqan et al., 2021, Bartlett et al., 2022, Alston et al., 2019), an ability to undertake clinical and technical activities (Mak et al., 2013, James and Cole, 2016), having self-confidence and an ability to reflect (Thompson et al., 2020). Some articles explored views of trainees, NQPs and pharmacists (Davison et al., 2020, James and Cole, 2016, Kennedy et al., 2024, Mak et al., 2013, Thompson et al., 2020, Al-Haqan et al., 2021), thereby including both prospective and retrospective views of the point of registration from the practitioner perspective. However, the views of other stakeholders were not included. Additionally, it is noted that in asking about self-perceived preparedness or readiness could lead to a bias in results. Equally,

retrospective comments may introduce recall bias. Whilst articles covered a wide geography and included countries where practice is similar to the UK, articles also included countries where the practice is dissimilar to the UK (Al-Haqan et al., 2021, James and Cole, 2016), presenting an issue in transferability.

In discussing preparedness for practice articles either did not define the term (Davison et al., 2020, Thompson et al., 2020) or referred to having the requisite competencies to carry out various activities but with greater focus on community sector related competencies or not reflecting the clinical scope of the hospital sector (James and Cole, 2016, Al-Haqan et al., 2021, Mak et al., 2013). However, practice readiness was defined as an ability to provide direct patient care in a variety of settings with possession of a range of particular traits and abilities, showing greater influence and importance of personality relative to academic traits (Alston et al., 2019). Whilst this considered practice across a range of settings and thus presenting a workforce perspective, views were only from those of practising pharmacists. The academic traits presented were compiled and reviewed by academic pharmacists and therefore do not consider the wider workforce perspective of academic abilities. The degree of involvement, influence and decision-making respondents contributed to the hiring process was unknown, and therefore the relevance of their views. There was a lack of clarity in how and which of the traits were to be used by the potential employee and the employer in recruitment. With readiness to practice, this was also associated with competencies, (Kennedy et al., 2024, Ni Sheachnasaigh et al., 2024). A scoping review looking at readiness to practice in pharmacy (Ni Sheachnasaigh et al., 2022) found a lack of definition from various regulator perspectives, yet assessment of readiness to practice was based on competence. Whilst the review further commented that a definition is lacking across pharmacy, Huray et al. (2023) scoping review investigated readiness to practice across health care professionals. Not only did this review interchange readiness to practice with preparedness to practice, the concept was proposed to be associated with a range of elements that not only included competencies but also included understandings and experiences.

#### *4.4.3.2 Transitions and the newly qualified pharmacist*

Greater reference was made to transitions relative to employability, potentially suggesting a greater awareness and importance in pharmacy. The scope of several articles focussed on exploring the meaning of transition (Magola et al., 2018a,

Magola et al., 2018b, Mourh and Newby, 2019), drawing upon definitions and viewpoints from other health care professions to then relate to pharmacy. Articles presented varying understandings, presentations and descriptions of transition. Some articles did not provide a definition (Allinson et al., 2022, Kennedy et al., 2024). Others reflected transition as a move from one physical setting to another (Maundu et al., 2023, Bartlett et al., 2022). When presented as a move of role from trainee to pharmacist (Bartlett et al., 2022, Halimi et al., 2023, John et al., 2011), transition was associated with demonstrating competence to practise safely, reflected in articles from the education provider perspective. When viewed through the lens of developing professionalism, transition was associated as a period of maturation from novice to competent (Ireland et al., 2022) based on the views of trainees, supervisors, service users and the regulator. Transitions were also presented as a broader concept that included changing roles, responsibilities and routine (Jee et al., 2016b, Jee et al., 2017, Magola et al., 2018a, Magola et al., 2022, Magola et al., 2018b, Mourh and Newby, 2019). These articles considered the challenges and barriers associated with these aspects, with views including those of recently registered pharmacists. Increasing responsibility is associated with the development of other skills such as leadership, critical thinking and communication (Jee et al., 2017) which when coupled with effective reflection can further support the transition process (Maundu et al., 2023). Challenges arose from potential gaps in performance during the transition period to becoming an independent practitioner (Magola et al., 2018a, Mourh and Newby, 2019, Scott et al., 2019). Whilst these included both community and hospital, there was a greater focus on community due to the additional challenges of professional isolation and inverse hierarchies leading to workplace stress (Magola et al., 2022, Magola et al., 2018a), faced by NQPs in this sector.

#### 4.4.4 Knowledge, Skills and Attributes

A breadth and depth of KSAs associated with the practice of the NQP were presented (Table 7). The requirement for specific KSAs were viewed as necessary in supporting the ability for autonomous practice, making and defending decisions. This was associated with having the confidence to act and valued highly as a requirement of NQPs for independent practice (Allinson et al., 2022, Bradley et al., 2024, Halimi et al., 2023, Jee et al., 2016b). However, KSA information came from articles linked to associated terms with the exception of one employability related article (Lim et al.,

2023), which described KSAs, but with focus on job acquisition and not the use or relevance once in a job.

Across articles, stakeholders including those of pharmacists, employing pharmacists (Alston et al., 2019, Bartlett et al., 2021, Bradley et al., 2024, Al-Haqan et al., 2021, Magola et al., 2018a, Magola et al., 2022, Mourh and Newby, 2019, O'Brien et al., 2017, Thompson et al., 2012), early career pharmacists (Allinson et al., 2022, Halimi et al., 2023, Jee et al., 2016b, Kennedy et al., 2024), foundation trainees (Allinson et al., 2022, Ireland et al., 2022, James and Cole, 2016, Jee et al., 2016b, Lim et al., 2023, Mak et al., 2013) and students (Gallagher and Kareem-Alliu, 2023, O'Brien et al., 2017) gave views on required KSAs.

Articles focussed more on skills and attributes relative to aspects related to possession of knowledge, suggesting greater relative importance (Lim et al., 2023, Magola et al., 2018a, Magola et al., 2018b, Magola et al., 2022, Mourh and Newby, 2019), with communication rated very highly (Huray et al., 2023, Lim et al., 2023) or as the most important (Alston et al., 2019, O'Brien et al., 2017, Thompson et al., 2012). Variation was also noted in how KSAs were written across articles. For example, confidence was widely used as term across articles (Magola et al., 2018a, Mourh and Newby, 2019). In other articles different terms were used such as reflective skills (Magola et al., 2022) or reflective practice (Maundu et al., 2023) to describe reflection.

There was recognition that for a capable workforce, this necessitated a review of education and training processes (Al-Haqan et al., 2021) and is part of a global strategy for improving health (World Health Organization, 2014, World Health Organization, 2016). Greater reference was made to adapting the undergraduate curriculum (O'Brien et al., 2017, Thompson et al., 2012) despite foundation training providing a significant opportunity for demonstration of skills and attributes in preparation for independent practice (Allinson et al., 2022, Ireland et al., 2022, Jee et al., 2016b). The undergraduate focus could be due to criticism against HEIs from the workforce for not producing suitable graduates (Tee et al., 2018). Criticism related to reduced experiential learning exposure and the associated opportunity to develop and practice transferable skills, compared to other professions (Fejzic and Barker, 2015, Allinson et al., 2022, Magola et al., 2018b, Thompson et al., 2020).

There was variation in the level of detail of description of KSAs with some articles presenting a list whilst others offering further explanatory descriptions. This was due to the scope of the article and whether seeking to know what the KSAs are (O'Brien et al., 2017), understanding a specific range of KSAs (Alston et al., 2019) but with most exploring other phenomena through which KSAs were presented (Gallagher and Kareem-Alliu, 2023, Halimi et al., 2023, Al-Haqan et al., 2021, Allinson et al., 2022, Bradley et al., 2024).

Whilst many articles proposed overlapping KSAs, there were also variations based on the focus of the article and the associated term used but also the perspective of the stakeholders involved including sector, highlighting the importance of inclusion of multiple viewpoints. Overlapping KSA were noted in countries with similar pharmacy practice such as in the UK, USA and Australia but where articles had greater response from the community sector this influenced the KSAs described with examples of technical and management related KSAs (Bartlett et al., 2022, Mak et al., 2013, O'Brien et al., 2017).

#### 4.5 Discussion

This scoping review sought to investigate the existing literature about employability at the NQP stage and how employability compared to other associated terms used within the literature. Finally, the review sought to understand how literature presents the KSAs required for employability of the NQP.

Employability was rarely encountered within the articles despite its use since the 1990s with subsequent evolution from solely acquisition of employment to encompassing development of career management skills for career progression (Bridgstock and Jackson, 2019, Hillage and Pollard, 1998, Knight and Yorke, 2004, Bridgstock, 2009, Dacre Pool and Sewell, 2007). The limited use of employability in the articles did not reflect its broader application of sustaining and thriving in the workforce (Leadbeatter et al., 2023) and could suggest that employability is not recognised at the NQP stage. Due to employability within pharmacy focussing on the undergraduate period, curriculum review and development (Steeb et al., 2021, Tee et al., 2018), this perception of employability associated with the HEI could explain the lack of literature at the NQP stage. Given that pharmacists have a wide variety of career paths available to them upon registration, undergraduate training remains the

commonality and therefore this could explain why employability initiatives are focussed here.

Graduate attributes and work-readiness were not associated with the NQP stage, likely due to these terms closer situated for entering foundation training and therefore focussing on undergraduate training. Whilst used interchangeably with employability (O'Brien et al., 2017, Thompson et al., 2012, Arsenault et al., 2022) they are subtly different but do overlap with employability. Both work-readiness and graduate attributes are associated with readiness of pharmacy and other health care profession graduates to enter practice and important for supporting employability (Syed Aznal et al., 2021, Wong et al., 2024). This is through development and possession of KSAs during university that are needed for competence in undertaking a job, the consequence of which is job acquisition, thereby being predictive factors for employability (Clarke, 2018, Caballero et al., 2011, Herbert et al., 2020, Almarzoky Abuhussain et al., 2021).

Practice was incorporated within terms (practice readiness, preparedness for practice, readiness to practice) but without a clear definition of what practice meant. Within the medical profession, when considering preparedness for practice, Monrouxe et al. (2018) questions 'what exactly' are medical graduates being prepared for, further stating that there is a difference between immediate and long-term practice. Practice could be understood as provision of pharmaceutical care (Willis et al., 2009) or direct patient care in a variety of health care settings (Alston et al., 2019), thereby providing both an immediate and long-term suggestion of its meaning. From an employability perspective, the ability to operate in a variety of settings could be viewed as to whether an individual can get a job and reflect a transient career path, requiring career management skills (Suleman, 2021, Suleman, 2018, Harvey, 2001, McQuaid and Lindsay, 2005).

Preparedness for practice appeared to be associated with the ability to undertake workplace relevant activities with possession and use of a range of skills and attributes to effectively deliver. This is embedded with education and training, focussing on the human capital aspect of employability (Steeb et al., 2021, Tee et al., 2018). However, Ottrey et al. (2021) conceptualises preparedness for practice as greater than human capital. A similar observation of multi-concepts was made when investigating readiness to practice in health care professions (Huray et al., 2023).



Whilst preparedness for practice and readiness to practice are discussed as interchangeable (Huray et al., 2023, Ottrey et al., 2021), this not only increases the range of concepts associated with these terms but also suggests a need for further investigation to compare the meanings.

The varying definitions of transitions identified mirror how it is conceptualised across other health care graduates and appear to be influenced by the perspectives of the stakeholders involved (Rees et al., 2022, Arsenault et al., 2022). Arsenault et al. (2022) identified that transition held various meanings, including an association with readiness to practice requiring a focus on education. This potentially could be due to how pharmacy education and training is structured and regulated with no mandatory educational pathways post-registration. However, the review also considered transitions in other health care professions, namely nursing which placed greater focus on the workplace setting. Through this, transition was proposed as a processual concept, needing involvement from education through the workplace. Recognising the challenges associated with transitions seen with medical and nursing professionals when in practice (Cameron et al., 2014, Kilminster et al., 2011, Kreedi et al., 2021) has led to exploration of this within pharmacy as an area of limited research (Magola et al., 2018a, Mourh and Newby, 2019, Magola et al., 2018b), expanding the focus beyond the curriculum (Noble et al., 2015).

In the UK, the expectation of independent practice is based on the regulatory requirement of being safe to practise as a pharmacist. Expectations are set out in the outcomes (General Pharmaceutical Council, 2021). Whilst not explicitly stated, the inference is that the components of employability (Knight and Yorke, 2004) support independent practice. Achieving regulator-defined outcomes can be viewed as addressing employability, further emphasising its relationship with and independent practice (Leadbeatter et al., 2023). However, being able to practise independently does not equate to an ability to gain and keep employment. The limited responsibilities during foundation training contribute to the challenges of becoming the desired autonomous and accountable practitioner, through negatively impacting confidence development, understanding of the workplace and appreciation of associated demands (Jee et al., 2016b, Mourh and Newby, 2019, Bradley et al., 2024, Halimi et al., 2023). Challenges may also arise due to factors beyond the control of the individual such as financial restrictions and increased workload (Bradley et al., 2024, Halimi et al., 2023). From an employability perspective, there are two

considerations. Firstly, it can lead to an inability to manage the demands of the job. Secondly, it can lead to reduced job satisfaction (Bradley et al., 2024).

Consideration was given to the required KSAs, details of which were useful for influencing the direction of pharmacist education and training, however the need for sustaining and progression of these throughout employment was not apparent. The focus on human capital was based on a need for a pharmacist to be able to demonstrate competence to practise autonomously (Halimi et al., 2023, Jee et al., 2016b, Lim et al., 2023, Mak et al., 2013) and also seen with other health care professions (Monrouxe et al., 2018, Ni Sheachnasaigh et al., 2022, Bell et al., 2018). However, KSAs needs contextualisation to the role of a NQP, which is not explicitly documented (Ni Sheachnasaigh et al., 2022). Inclusion of views across stakeholders gave rise to varying perspectives of required KSAs. Given the inclusion of employer and practising pharmacist views, this reflects the greater recognition for transferable skills and attributes compared to qualifications, as recognised across wider employability literature (Archer and Davison, 2008, Cheng et al., 2022, Small et al., 2018, Tymon, 2013). Additionally, the influence of varying health care infrastructure and systems across the world, influences delivery and resultant practice undertaken by practitioners. The expectations of practice are then set in response to health care delivery, determining competence requirements.

#### 4.5.1 Employability - its difference to associated terms

Employability consideration in the context of pharmacy is primarily focused on initial education and training and an ability to get a job at the point of registration, rather than the subsequent capability to sustain and thrive within the workforce. The associated terms show some similarities with employability primarily with respect to KSAs for practice and the focus on benefitting others, patients or the wider community. This places employability as sharing a close relationship with terms associated with practice, as well as showing parallels, but with a need for recognition of the broader perspective that employability takes.

Additionally, the terms show similarities with employability in their multifaceted nature. Preparation for practice and readiness to practice are proposed to be multi-conceptual (Ottrey et al., 2021, Huray et al., 2023) and share parallels with understandings, skills, efficacy and metacognition (USEM) (Knight and Yorke, 2004). Transitions and employability share a focus on the practitioner being able to

effectively assimilate into the workplace (Rees et al., 2022, Clarke, 2018). With transitions, this relates to the practitioner experiencing autonomous decision-making and acquiring professional accountability for patient care (Magola et al., 2018a, Cameron et al., 2014, Bell et al., 2018).

Employability relates to the process that a practitioner goes through, using their human capital, experiences and ability to reflect and adapt, to develop their career identity (Fugate et al., 2004, Bell et al., 2018, Dacre Pool and Sewell, 2007).

Employability requires an ability to adapt to changes in the labour market, to thrive within the workforce amidst fluctuating job security, through utilisation of personal and career management skills (Leadbeatter et al., 2023, Bridgstock, 2009, Thompson et al., 2012). This places a requirement for utilisation of the skills and behaviours associated with thriving such as resilience, flexibility and adaptability as strategies to manage challenges faced during the early career stage.

The terms do not explicitly address navigating the world of work; the development of a career identity and the ongoing aspects of sustaining work and thriving through use and demonstration of adaptation, flexibility and, career building and management skills (Leadbeatter et al., 2023, Fugate et al., 2004, Bridgstock, 2009, Allinson et al., 2022, Magola et al., 2018b, Thompson et al., 2020). With consideration of strengthening an individual's employability through development of career identity at the undergraduate stage can encompass professional identity formation (Jackson, 2016), this paves the way for enhancement post-registration and supporting the smooth transition to independent practitioner.

#### 4.5.2 Implications

This scoping review highlights a limited range of literature with respect to employability at the NQP stage. Further exploration of employability and how this is viewed at the NQP stage will enable understanding as to whether and how employability is different to these associated terms. Improved understanding of the concept of employability at the NQP stage could also highlight its place alongside these associated terms. Employability involves a range of stakeholders including the employee, employer, educators, students, graduates and the Government. From a workforce perspective, stakeholder inclusion and discussion of employability would not only aid understanding but also the implications for operationalisation. This

would provide a holistic view of employability for the workforce, drawing out its strengths and value, as well as any disconnect and how this could be addressed.

#### 4.5.3 Limitations

This scoping review was undertaken to outline the current literature with respect to employability in pharmacy at the point of registration, as well as highlight gaps in knowledge in this area. Additionally, the search included articles that were made publicly available online and therefore any articles that had not been published or were internal articles were not reviewed. Articles were limited to articles in English, which potentially would bias against countries who publish in non-English languages. The articles considered community and hospital as sectors of pharmacy practice, therefore did not reflect areas such as industry, mental and general practice, where NQPs can work.

#### 4.6 Conclusion

In conclusion, the scoping review found scarce literature related to employability, this leads to the assumption that there would be little awareness of employability or little importance given to it at the NQP stage. Where it was used, it was focussed on gaining employment. Transitions and terms linked with practice were more relevant terms potentially due to their meaning and importance. Associated terms appear to resonate greater with the pharmacy profession compared to employability.

Employability is an area for further research, to better understand the concept of employability at the point of registration. This is driven by the importance of employability and its support for the individual with career success from the point of registration and their subsequent progression. Understanding the concept of employability would enable a better understanding of what it means for the profession, its importance and how it is situated in the context of the associated terms.

## 4.7 Aims and objectives

From the scoping review, how employability of the NQP is viewed by UK pharmacy stakeholders is not known, discussion of which will stimulate consideration of issues within the pharmacy workforce, and how these might be approached. This should include how stakeholders view the concept of employability, whether this is different to how it is defined within the literature and whether there are different perceptions and the implication of this. With consideration of the student and trainee perspective, there are views from both groups about employability and its influence on curriculum. However, as these groups have not experienced practice as a pharmacist, their views on employability of the NQP is anticipated to be hypothetical. Whilst student and trainee views are imperative, the scope of the study is based on the experience of the NQP. As such student and trainee can be brought in at a subsequent stage with their reflections on the views of the stakeholders and the practicalities of this for curriculum design, especially considering revised educational standards.

Whilst there is no known evaluation of the current GPhC standards, there is recognition that further work is needed with respect to the development of particular skills within the initial education and training period. With revised educational standards and emerging roles for pharmacists, it is not known what the implications are for the NQP, so that they can effectively contribute to the workplace and provide high quality patient care. Additionally, considering changes to education standards, roles for pharmacists and independent prescribing at the point of registration, how pharmacy education and training is perceived with respect to employability needs to be explored. This is to see whether it aligns with practice requirements at the point of registration. From this, implications for education and training, enabling NQPs to meet health care priorities can be understood and how this might be achieved.

Effective NQP recruitment is required for delivery of patient care from the first day of practice. Recruitment processes need to best measure the desired employability characteristics. This needs to be explored, through understanding what the recruitment and selection processes entail, whether they are effective in assessing employer requirements, the degree to which employability influences the processes and whether improvements are needed.

Therefore, the aim of this study is to explore the concept of employability for NQPs, with a view to determining the employability characteristics required for NQPs.

To achieve this aim, the objectives of the study, are to explore with employers, NQPs and with stakeholder and professional organisations:

- Understandings of the term employability in the context of pharmacy practice.
- Views on the employability characteristics, knowledge, skills and attributes for NQPs.
- Whether and how pharmacist education and training needs to change to reflect the employability characteristics for NQPs.
- Perceptions on the recruitment and selection processes for NQPs.

It is hoped that by investigating this area, the study will make the following impacts. Firstly, this will support review of the existing curriculum for pharmacist education and training. Secondly, it will inform workforce planning developments for the pharmacy profession in the UK.

## 5 Methods

### 5.1 Introduction

This chapter discusses how the study is to be investigated, with a description and justification of the research approach. The method undertaken and the subsequent process of analysis are outlined.

### 5.2 Philosophical viewpoints

Initial reflection on research philosophy involved giving thought to position and beliefs and thus the chosen methods (Guba, 1990). How the researcher positioned themselves with respect to the study had implications for the assumptions made about the study, how its nature was perceived and how the study was undertaken. Consideration was given to perceptions of the nature of research and researcher's viewpoint based on the principles of ontology and epistemology.

The researcher's ontological and epistemological perspective gave rise to the philosophical position, having an impact on the chosen methodology and method. As a pharmacist, trained in the sciences, the researcher's ontological perspective aligns with a positivist view, that there is an ultimate reality in the world, that can be objectively measured by observation (Barbour, 2014). In practice, this includes studying clinical trial data as a way of understanding medicines knowledge. However, as a practising pharmacist and an educator, the researcher has experienced and seen that the world can be experienced in different ways. For example, when consulting with patients about medicines, this will elicit varied views based on the patient experience. The researcher's perspective and reflections led to a belief that the truth sought to be understood is not an absolute truth; it is a truth that may vary, based on people and their own versions of truth. The epistemological stance view is that truth can be subjective, in that it can be understood from understanding experiences, meanings and significance, and can be measured through observation (Ritchie, 2014). This gives rise to a philosophical position that tends towards the constructivist/interpretivist position, based on individuals having their own view of reality. Therefore it is important to understand how people interpret their world and the significance of the meanings that they ascribe to it (Bryman, 2015). The next stage was to consider the methodological approach and method.

## 5.3 Choice of method

### 5.3.1 Methodological approach

This study investigates the practice of various stakeholders within the pharmacy profession, seeking to inductively inquire and gain an in-depth understanding about employability. This is with an overall aim of enhancement of practice. This aligns with the philosophical viewpoint of wanting to understand the reasons for individuals' views on employability and how this influences their practice and the wider profession of pharmacy. Therefore, the study explores the meaning of employability within pharmacy and the implications for the education, training and the recruitment of pharmacists. The stakeholders operate in their world and construct their views and beliefs in relation to their world. It was important to understand not only their views, but also the world in which these views have been formed (Flick, 2023). For these reasons, a qualitative approach was chosen.

### 5.3.2 Qualitative methods

A qualitative approach is often used when the study is exploratory in nature (Stebbins, 2001, Ritchie, 2014, Bowling and Ebrahim, 2005), with exploration being used to go beyond the primary research question itself and seek to understand for example, the problem being investigated or the implications of the problem. This study is seeking to understand the concept of employability in pharmacy at the newly qualified pharmacist (NQP) stage and the reasons for those understandings of the concept. Seeking reasons and understanding lends itself to the posing of questions that involve open questions (Ritchie, 2014) where the response can potentially lead to a change in the direction of the research and/or the research question. In the field of qualitative research, several methods can be used, there is no single way of conducting qualitative research (Bowling and Ebrahim, 2005).

## 5.4 Interviews

Interviews are the most widely used method of data collection in qualitative research and are flexible (Bryman, 2015). Interviews tend to be open-ended in style, focusing more on people's experiences over general beliefs and opinions (King, 2019). They tend to be relatively informal and cover a range of topics around a particular theme (Mason, 2018). The advantage of using interviews is their nature allows for the generation of rich information, thereby supporting deeper understandings of phenomena. Additionally, interviews can be tailored to the individual based on their



understanding and the information that they provide. Interviews allow for adoption of structured, unstructured or semi-structured interviews (Bryman, 2015). Structured interviews can be used as part of a quantitative approach, with unstructured and semi-structured interview used as part of a qualitative approach.

The problem-solving aspect of this study, as well as trying to gather a collective understanding of employability made focus groups an appropriate method. Through participant interaction, consideration of problems can lead to detailed accounts, with subsequent consensus on possible solutions and a collective approach to understanding (Braun and Clarke, 2013, Barbour, 2014). However, concern was expressed with respect to focus group dynamics resulting in some participants dominating, other participants not feeling able to express their views, or even conflict between participants (Mason, 2018).

Interviews are based on a one-to-one interaction, allowing participants to talk openly, facilitating the discussion of potentially sensitive issues (Braun and Clarke, 2013). Enabling open discussions was the primary reason for not using focus groups. Concern arose from the potential negative impact on the focus group dynamic, due to participant demographics giving rise to response bias. There was a desire to avoid a situation where participants refrained from engagement based on potential hierarchy between employers and employees within the group, or employers not wishing to provide commercially sensitive information.

#### 5.4.1 Chosen interview method with justification

Interviews have been used to gather views on the perceived qualities, skills and attributes relevant to the pharmacy professional that makes them ready for the workplace with the underlying reasons and context for views provided (Langley and Aheer, 2010, Fejzic and Barker, 2015, Singh et al., 2020, Work Psychology Group, 2019). Interview data illustrates the varied ways in which participants articulate skills and attributes. These articulations provide context for demonstration of these skills and attributes, which can be used by students to enhance their understanding.

For the reasons outlined above, interviews were chosen as the research method. It was also recognised that interviews are time intensive which can be seen as a disadvantage, in that they require significant preparation in advance to make the interview meaningful and require the participant to use more of their time than completing a survey. This was also factored into the study design. Semi-structured

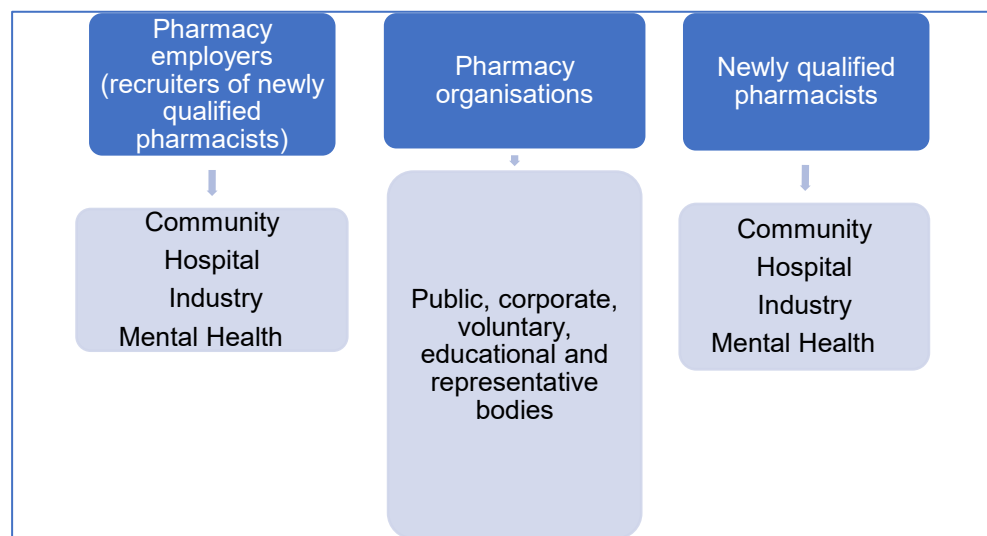
interviews were chosen for several reasons. Firstly, the need to have an exploratory approach to specific issues with respect to employability, recruitment and selection, and pharmacy education and training resulted in particular questions being asked. Secondly, interviews provide an environment that allows participants and the researcher to engage in discussion and gather reasons for the views provided. This enables obtaining of rich, in-depth data. This environment would make the interview conversational and allow for open discussion to gain understanding of participants' experiences. Finally, being able to talk to people and engage with them is an activity that was natural and comfortable for the researcher due to having had substantial experience of this process in his pharmacy practice. An ability to revisit matters discussed, ask additional questions, as well as compare responses between participants were additional drivers for the use of semi-structured interviews.

#### 5.4.2 Participants

Employability literature discusses the input and perspectives of different stakeholders and how perspectives vary across stakeholders (Tymon, 2013, O'Leary, 2017). Gathering a range of views across pharmacy employers, practising pharmacists including NQPs, workplace supervisors, individuals involved in pharmacy education and training has sought to better understand the skills and attributes for the pharmacy graduate and the implications for education and training (Alston et al., 2019, Frenzel et al., 2015, Frenzel et al., 2021, Langley and Aheer, 2010, Kairuz et al., 2010, Tee et al., 2018). Therefore, basing participant selection on these stakeholders was appropriate given their focus on pharmacy practice. The participants for the study were NQPs, employers of NQPs and other stakeholders. NQPs were defined as GPhC registered pharmacists who had been qualified up to 12 months. For this participant group, they have experience of working within pharmacy practice and are also a recent graduate, therefore providing the graduate viewpoint. Employers referred to the employers of GPhC registered NQPs. Stakeholders and Professional Organisations (SPOs) referred to pharmacy organisations within the UK that included public, corporate and voluntary bodies, as well as educational and representative bodies. These organisations were chosen due to the powers and remit they had and their ability to voice views across the profession. However, to maintain confidentiality, their details are not provided. Student perspectives are also important as they also have expectations of their careers (Tymon, 2013, Maxwell and Broadbridge, 2017) and their views on entering practice and the impact on the

curriculum have been evaluated (Almalki et al., 2022, Fejzic and Barker, 2015, Katoue and Schwinghammer, 2020, Malau-Aduli et al., 2022, Weldon et al., 2024, Willis et al., 2009). Following setting of the aims and objectives, further consideration was given about how to best explore student and trainees' views about employability, curriculum design and implementation. This was done through incorporation of them within the SPO participant group at a national level and would provide a strategic and holistic view. Figure 12 details the participants by group with examples of individuals and organisations in each category.

*Figure 12. Participant groups*



#### 5.4.3 Sampling

Sampling refers to the selection of participants to collect an overview of perspectives to generate data to answer the research question(s) (Saldana, 2011, Pope, 2020). The research questions guided which groups needed to be sampled (Bryman, 2015). With the number of employers and employees anticipated to be large and geographically spread, an appropriate sampling strategy was required to support transferability - the extent which findings can be transferred to similar populations or settings (Lincoln and Guba, 1985, Cohen, 2011, Pope, 2020). The sampling was undertaken with a view that recipients of the research were able to connect with the research and apply it to their contexts (Stalmeijer et al., 2024). A purposive sampling approach was considered appropriate as the identified participants would have the characteristics that would support a detailed exploration of employability (Cohen, 2011, Mays and Pope, 1995). This would be the employers and NQPs from specific sectors and of a range of sizes, as well as across the geography of the country. This

considers maximum variation so that the cases varied from each other as much as possible, aiming to capture a wide range of different perspectives (Pope, 2020, Bryman, 2015). This was also discussed and confirmed with colleagues, including within the pilot interviews. However, with a personal recognition of well-connected networks within the pharmacy profession, as well as the fast-paced environment of the pharmacy practice sector, a combination of sampling methods were used (Bryman, 2015). Therefore, convenience sampling was also used to obtain participants and enabled access to gatekeepers, who provided access to other participants (King, 2019). This enables selection of participants based on who is available (Ritchie, 2014), and was utilised based on being able to access the field and gather some initial data. Practically, this involved using social, personal and professional networks and contacts, to approach employers and gatekeepers. Contact was made via social media, e-mails, phone or face-to-face. Snowball sampling was also used through asking interviewees to identify other people they know who fit the selection criteria (Ritchie, 2014). Employers and NQPs were asked whether they knew of other potential participants, who were subsequently approached either by the researcher or the interview participant. SPOs were recruited through the purposive sampling approach, as these were defined individuals within this population who should be approached, guided by advice from the pilot interviews, supervisors, and other colleagues who had connections within the profession. The combination of sampling methods had the advantage of ensuring that potential participants could be efficiently identified, based on the range of experiences and backgrounds of the participants desired.

Another concept that had to be considered was that of data saturation, referring to a point where additional data fails to generate new information (Braun and Clarke, 2013, Bowen, 2008) and that the sample size is adequate for study of the given phenomena and therefore the point at which data collection should stop (Hennink and Kaiser, 2022). Due to the varying roles that NQPs, employers and SPOs have, there would likely be similarities and differences in views across the populations. Therefore, there was a preliminary concern that data saturation may not be achieved without a large sample size. The combination of sampling approaches was implemented to ensure that data collected would enable a rich analysis, whilst aiming for maximum variation across participants. Data collection can also be influenced practically by time and financial limitations (Pope, 2020). However, this

should not be the focus on when to stop data collection. Data saturation has been criticised for being difficult with a reflexive thematic analysis approach, due to the analysis based on the interpretative practice of the researcher and therefore potential for new understandings (Braun and Clarke, 2021). Therefore, interview data were analysed and compared to see whether there was agreement, with inclusion of discussion of interpretation and thought process. Continuation of data collection and analysis was continued until there was no outlier information presented but recognising differences in views.

## 5.5 Study process

### 5.5.1 Ethical approval

Before undertaking the interviews, ethical considerations included being mindful of whether the study could cause harm to the participants at any stage of the process, and participants' right to anonymity, given the potential for sensitive information being discussed. It was therefore necessary to adhere to the guiding principles of the University of Nottingham's Code of Research Conduct and Research Ethics. The study was reviewed and given favourable opinion by the University of Nottingham, School of Pharmacy Research Ethics Committee (040-2018).

### 5.5.2 Preliminary fieldwork and pilot interviews

Preliminary field work involved initial discussions with pharmacy employers and stakeholders to gather initial information from individuals in the field about the nature of the study. Individuals were chosen were based on recommendations from supervisors and from a personal knowledge of individuals within the profession for whom the area of employability would be of interest. Three individuals were spoken to, discussing the scope of exploration of the study and the rationale. Preliminary fieldwork is helpful and offers advantages (Smith, 2010, Cohen, 2011). With this study, information gathered from discussions provided an understanding of employability from the views of others, informed the sampling approach for interviews, scope the feasibility of the project and deem whether it was a worthwhile study. Discussions also supported development of the interview guide which was helpful in terms of content validity (Bowling and Ebrahim, 2005). Additionally, the interview guide was informed by theory and prior research in the area, the definitions and models of employability and guided by personal experience.

The interview guide was then used as part of two pilot interviews to inform the face validity (Bowling and Ebrahim, 2005). The initial areas of interest with rationale were:

- Participant definition of employability and perceptions of other stakeholder's views of employability – literature discusses the various definitions of employability that are used dependent on the audience and the context.
- Thoughts on current definition of employability – gauging the agreement with current definitions, given the different perspectives and definitions of employability.
- Employability of NQPs – understanding the achievements - skills, understandings and personal attributes required.
- Recruitment – views on recruitment process for assessment of required employability characteristics.
- Pharmacy education and training – whether initial education and training of pharmacists meets the expectations of stakeholders.

Following the pilot interviews, the interview guides (Appendices 3-5) were reviewed with respect to the phraseology, the order of discussion and addition of sub-questions. This also included production of a visual prompt of employability based on Knight and Yorke's (2004) USEM model, to talk around (Appendix 1). This was based on feedback that it was difficult to understand the definition and model and be able to talk about it. Visual methods have been helpful in interviews to enable greater levels of thinking and understanding, and therefore elicitation of information that may not have been possible solely with the verbal mode (Bagnoli, 2009). Final interview guides were developed that included discussion of topics that were relevant to the respective group (Appendices 3-5).

### 5.5.3 Recruitment

Participant recruitment used several strategies: personal and established professional networks, including social media and word of mouth. The researcher background as a pharmacist in addition to various career roles was advantageous. The advantage was enablement of access to a wide range of personal and established networks within pharmacy, for the purposes of employer recruitment. Additionally, this enabled access to gatekeepers and allowed employers to trust the researcher as one of their own. Sending out of timely reminders using professional

networks, including colleagues, and social media supported recruitment. The researcher made the initial approach with clear information provided to participants, including consent processes, information about the study and details of how the information would be used (Appendix 2).

#### 5.5.4 Interviews and data collection

Thirty-nine interviews were undertaken with forty-one participants (with two dyad interviews) between October 2018 and June 2019. All except two were conducted face-to-face, with the two conducted online, due to participant and researcher availability. All interviews were audio recorded with duration ranging from 34 to 75 minutes. Interviews were transcribed verbatim.

Once a participant agreed to the interview, a consent form for completion and a participant information sheet were sent ahead of the interview date. Before commencing interviews, obtaining and recording of consent was undertaken. Explanation was given as to how the interview would proceed including description of the audio recording, taking of notes, and participants' right to choose not to discuss a subject. Explanation was given to the role of the researcher, due to some participants knowing the researcher as a practising pharmacist and they should not assume prior knowledge based on knowing the researcher. Demographic data were collected about each participant, should it be helpful as part of the analysis, however it was not seen as relevant during the analysis.

During the interview, notes were made about how participants spoke, the body language used, as well as brief notes on what they said. Following the interviews, these notes were reviewed, with reflections on the interviews added, as well as ideas. This was done to support the analysis process and to inform any changes to subsequent interviews.

Employers ranged across the sectors of pharmacy where the majority of NQPs were employed, mainly community, hospital and industry. Employers of NQPs working in emerging sectors (primary care, care homes) were also sought. Thirteen pharmacy employers, and 17 NQPs were interviewed, displayed in Table 9 by sector and type of organisation. Nine SPOs were interviewed, displayed in Table 10 by area of work.

Table 9. Summary of interviews undertaken with employers and NQPs based on sector

Sector	Community			Hospital			Hospital based services	Industry
Organisation type	Large multiple	Small multiple	Independent	Acute teaching trust	District general	Mental health trust	Homecare service provider	Industry
Employer	2	2	1	3	1	2	1	1
NQP	2	3	1	8		1		2

Table 10. Summary of interviews undertaken with SPOs based on area of work

Educational body	Education provider	Representative body	Regulatory body	School of pharmacy
2	2	3	1	1



#### 5.5.4.1 *Reflexivity*

An important aspect to consider with the study and the interviews is the concept of reflexivity. Reflexivity related to my values, interests and position, shaping the design and conduct of the study. A reflexive approach was acknowledgement and reflection on my role within the study. This was about being an insider, having a knowledge of processes, systems and roles within pharmacy but also being an outsider due to a relative lack of knowledge of how pharmacy policy influences practice. With respect to being an insider, this includes background as a hospital and academic pharmacist and how I present myself (Braun and Clarke, 2013). Outside of employment, since being a student, I have held professional pharmacy roles at local, regional, and national levels, and therefore have connections with individuals and organisations across pharmacy. This potentially brought bias into the study through how data collection and analysis was undertaken, by wanting to gather results that were favourable to pharmacy. With respect to connections, this is something that could not change with concerns based on whether participants treat me as a pharmacist and presume an implicit understanding of what they said or say or not say things with respect to favourability. Practically, adopting a reflexive approach had an influence on the tone and language used, introductions, appearance and reminders to participants of my role as a researcher in advance as well as sometimes during the interview. Reflecting on these steps, I feel that they did assist to an extent. However, my perception is that I think attempts at neutrality during data collection was not fully mitigated due to people knowing me. This could only be addressed by someone else undertaking collection which was not feasible.

The impact of Covid-19 (see Covid-19 impact statement) on the research influenced the analysis. This was through a gap between initial analysis and revisiting of the analysis. Additionally, my changing role and responsibilities within the school provided me with a broader, strategic and greater depth of understanding of pharmacy education and training. This was used to revisit the analysis with a different perspective. However, I was also conscious of whether this influenced me as an insider. To address this, discussions with supervisors were undertaken to explain my thoughts for any changes made to the analysis, so that there was clear reasoning for these.

## 5.6 Analysis

### 5.6.1 Analytical approach

The analysis process had to be considered before and during collection of data, as the process began during data collection, which shaped ongoing data collection (Pope et al., 2000, Corbin and Strauss, 2015). Thoughts, reflections and ideas arising from the interviews initiated the analysis process, necessitating prior consideration of the process (Patton, 2015).

Whilst a number of approaches to qualitative data analysis exist, they were not appropriate to this study. Some of these are discussed below. Narrative analysis relates to the analysis of an account or story. The stories and their analyses are means through which individuals construct their worlds and the meanings of this (Bowling and Ebrahim, 2005, Bryman, 2015). A narrative analysis was not used as the study sought to explore understandings of employability rather than experiences of it. Grounded theory focuses on building theory derived from data (Bowling and Ebrahim, 2005, Braun and Clarke, 2013). As this study was informed by employability literature in including models and pharmacy literature, this meant that that theory would not be solely data driven. Content analysis was considered but deemed unsuitable, as the study was not looking to measure frequencies based on predetermined categories (Silverman, 2020, Harper and Thompson, 2011, Flick, 2023). Interpretative Phenomenological Analysis (IPA) places focus on understanding the personal and lived experience of a particular event. This allows exploration of events that cause an individual to reflect on (make sense of) what has happened to them (Barbour, 2014, Braun and Clarke, 2013). The study was not exploring a particular phenomenon and how it was experienced which made IPA not suitable for analysis.

The focus of analysis was on interpretation and meaning. The analysis approach needed to recognise the influence of existing literature, models and frameworks in addition to how the data might generate theory. Additionally, an approach needed to support gaining an understanding of the participants' thoughts, understandings, experiences and practices, therefore thematic analysis was seen as most appropriate (Kiger and Varpio, 2020). The benefit of using this approach was its helpfulness in processing the qualitative data to generate themes (Braun and Clarke, 2006, Braun and Clarke, 2019b, Braun and Clarke, 2017).

Thematic analysis has been used to understand issues and reasons associated with registration as a pharmacist (Davison et al., 2020, Mourh and Newby, 2019, Magola et al., 2018a). This influenced its use in enabling identification and interpretation of the important shared and common meanings across the data (Harper and Thompson, 2011, Braun and Clarke, 2017, Kiger and Varpio, 2020). There are different approaches to thematic analysis which are based on different philosophical assumptions (Braun and Clarke, 2019a), namely coding reliability, codebook and reflexive approaches. Coding reliability involves the development of themes following data familiarisation or the data collection questions, a structured codebook and multiple independent coders. The approach aligns with a positivist approach due to a belief in accurate coding (Boyatzis, 1998, Braun and Clarke, 2022). Codebook approaches rely on the use of a codebook but do not utilise the idea of coding reliability (Byrne, 2022, Braun and Clarke, 2022).

The researcher's philosophical viewpoint should be consistent with the analysis approach (Crabtree and Miller, 1999). Therefore, the analysis needed to consider the researcher's constructivist/interpretivist position. The researcher's own view of employability in pharmacy, based on being a pharmacist and having experience in pharmacy recruitment, lends itself to critique, as it can introduce subjectivity. This made a reflexive thematic analysis a suitable approach. With reflexive thematic analysis, this included the researcher's position, beliefs and practices and the influence of these on the analysis (Braun and Clarke, 2019b, Braun and Clarke, 2022).

Personal values influence the conduct of the research, analysis and findings (Boyatzis, 1998, Bryman, 2015), however subjectivity on the part of the researcher was an important part of the reflexive approach (Braun and Clarke, 2022). This is through how the researcher acknowledged and used their values, experiences and skills to shape the research process and knowledge generation (Finlay and Gough, 2008).

Where there is no theory prior to data collection, the coding and theme generation cannot be directed solely from existing concepts or ideas (Braun and Clarke, 2017, Braun and Clarke, 2006, Braun and Clarke, 2019b). An inductive approach refers to searching for patterns that support building of meaning, with theory generation based on meanings derived from the data analysis (data-driven approach) (Boyatzis, 1998). With the research questions and design interested in meanings and

perspective, an inductive approach was more appropriate. With a solely deductive approach, a researcher will use pre-determined codes to define a list of codes before the in-depth analysis is undertaken (Crabtree and Miller, 1999).

Whilst published prior research on employability in the UK at the NQP stage is limited, there is published literature about the employability and the initial education and training of pharmacists (which acknowledges knowledge, skills and attribute requirements). There is the literature on employability outside of pharmacy. Consideration was given to the influence of theory which can be published, widely acknowledged and can even stem from undertaking the research. The definitions and models of employability which discuss characteristics informed the interview guide and the data gathered and therefore the subsequent analysis cannot be separated from this. The researcher also had their own view of employability as a pharmacist. Whilst these influences were recognised as helping to identify whether particular information within the data was worth coding (Byrne, 2022), this did not result in the generation of pre-determined codes for subsequent use in the coding process and theme generation, as can be seen with non-reflexive forms of thematic analysis (Braun and Clarke, 2019b, Braun and Clarke, 2022). This further supported the dominance of an inductive approach (Byrne, 2022).

The level at which data were to be coded for meaning was also considered with respect to how it would be approached across the semantic to latent spectrum. Semantic refers to surface, obvious or explicit coding of the data whilst latent refers to the underlying, assumed implicit coding (Braun and Clarke, 2022, Braun and Clarke, 2024). With this study, it was perceived that there would be a combination of both semantic and latent coding. This approach was not only influenced by the researcher's experience of careers education and recruitment practice but also studies where participants had explicitly stated characteristics associated with the pharmacy graduate (Kairuz et al., 2010, Tee et al., 2018) as well as recognition of how characteristics can have a range of definitions (Jackson, 2010) that need to be implicitly understood.

As these considerations informed the steps undertaken within the analysis, this required a clear description of each stage with rationale provided for each stage, to ensure that it was undertaken objectively. Documentation also included thoughts, questions and feelings and what this meant for the research. (Braun and Clarke,

2022). Reviewing findings with supervisors also supported interpretation based on the data.

#### 5.6.2 Data analysis

Enabling identification of patterns required undertaking of the following: familiarisation with the data, data coding, theme development, revision of themes, defining and naming themes and then writing up (Braun and Clarke, 2017, Braun and Clarke, 2006, Braun and Clarke, 2019b, Braun and Clarke, 2022). The first two phases involved the managing of the data - looking for relationships, patterns within the data, from which codes were developed to enable the building of knowledge. The following four phases focused on interpretation of the data - arranging of codes into themes, with thematic coding aiming to identify patterns, relationships, and/or differences. These were then further explored as part of the analysis and where possible, generalisations were made. Linking of generalisations to the existing literature, knowledge and concepts was done to enable construction of new theory. These phases were not wholly sequential in that an iterative approach was used, meaning that the data were repeatedly revisited and involved moving back and forth between concrete bits of data and abstract concepts, between description and interpretation (Merriam, 2016). With respect to the analysis, this was demonstrated by revisiting transcripts following theme development, to ensure that the coding was consistent, and that there were no new codes or codes missed. During the writing process, this was exemplified by revisiting the research questions, as well as the interview data, to check that the data presented related to the research question.

#### 5.6.3 Familiarisation with the data

Data familiarisation involved transcribing of the initial interviews, which was also helpful for generation of thoughts about the interpretation (Braun and Clarke, 2006). Initial transcripts were read in conjunction with the audio transcript to check the accuracy of the transcription. The researcher corrected any errors. Audio recordings were listened to along with the transcripts, highlighting any phrases and/or words that were believed to be of meaning. Transcripts were read-through several times, in conjunction with notes made during and after the interviews, to gather an overall impression of the interview and to understand the content. Notes were made on the interpretation of the content and/or to highlight any potential areas that might be of interest during further analysis. Notes were also made about potential patterns in the data.

#### 5.6.4 Coding

NVivo (Lumivero, 2023) was used to organise and arrange the initial codes that were generated following the first analysis of the transcripts. Organisation and arrangement provided a structure to help with analysis of transcripts, by allowing for a systematic coding process.

Words, sentences and/or paragraphs that related to initial areas of interest, were highlighted, prior to interpretation (Braun and Clarke, 2022). These highlighted words, sentences and paragraphs were the initial codes and were named. This was undertaken at both semantic and latent level. Naming of the codes involved ascribing a word or short phrase that gave it a salient meaning (Saldaña, 2016). Once named, it was defined to help explanation of the code as well as help with recognising places in the transcript where there was a relevant moment for coding. This assisted with consistently assigning of the same codes to the relevant data. With a reflexive approach, this also meant that existing codes could be revisited and amended, as coding progressed. Coding was also confirmed with supervisors, who checked the coding process to ensure that it was undertaken robustly. This involved sharing transcripts of three interviews (one from each participant group) with supervisors, along with a description of the coding process undertaken by the researcher so that supervisors could understand and follow the process. Subsequently, the researcher met with supervisors to explain and discuss the coding process and agree that it was appropriate. Differences in the coding process were addressed through explanation of the researcher's interpretation with supervisors offering alternative viewpoints. This enhanced the researcher's understanding and interpretation of the data (Saunders et al., 2023) to enable subsequent coding of the remaining transcripts, but where necessary also involved revisiting and reviewing previously coded data for application of any further codes. Additionally, subsequent coding involved regular discussion with supervisors to present and explain codes, with discussion of interpretation and thought process. This was done to support a clear analytical process (Braun and Clarke, 2022) with recognition of how the researcher's values and experiences informed decisions made.

#### 5.6.5 Theme development

Once generated, codes were reviewed by looking for patterns and relationships between the codes. Codes were then arranged into potential initial themes that captured a commonality between them, which were then revised and refined after

each subsequent interview. Arrangement of codes into themes was undertaken using NVivo (Lumivero, 2023), with notes made on the rationale for the theme. This was advantageous as it also helped with the visualisation of relationships between themes. This was also compared against the initial list of potential themes. Once this was initially done, this gave a picture of main themes, and subthemes.

A reflection following this stage, was that there were multiple main themes and subthemes. There was not sufficient data within some of these themes or subthemes to describe them as such, suggesting a need for further refinement. This was discussed and agreed with supervisors, whose input helped to challenge decisions and enhance clarity in the analysis process. Revision of the main themes and subthemes involved reviewing and combining two or more of the subthemes into a single subtheme. An explanation was given to the rationale for this decision, to ensure a logical approach to the process and to maintain objectivity. In revising the themes, the coded information was re-read to ensure it was appropriate for the respective theme, with respect to there being a pattern within the codes. It was also important to do this, to ensure that nothing had been missed from the initial coding. Through this process themes were reduced from approximately 50 to 17.

Additionally, given that there was a gap between initial coding and revision of themes (due to Covid-19), it was essential to do this to also support familiarity. Whilst not of deliberate intent, the gap allowed for viewing of the data with a fresh perspective. Revised themes were presented to supervisors for explanation and agreement, with amendments based on feedback provided.

It is important to establish whether the researcher has represented findings as accurate (Lincoln and Guba, 1985, Bryman, 2015). This can through triangulation, respondent validation, reflexivity, discussing data that appear to contradict (Lincoln and Guba, 1985, Bryman, 2015, Mays and Pope, 2000). Reflexivity was approached through documentation that included thoughts, questions and feelings and what this meant for the research. This provided information about the decisions made with the reasons for these. Attention was given to the data that did not agree with the understandings and interpretations already noted. This was helpful in broadening the perspectives provided thereby adopting a comprehensive approach to analysis. Due to impact of Covid-19 on the workforce, triangulation and respondent validation was not undertaken.

The next three chapters present the results of the study. Codes that attribute each quote to a particular participant are used. The name of the code was decided by the participant group, then sector followed by a number based on chronological order of interview for the respective participant group (Table 11). This process also protected participant identities. References to the identity of the participants have been removed from the quotes.

*Table 11. Codes that attribute to participants*

	<b>Community (C)</b>	<b>Hospital (acute or district general) (H)</b>	<b>Hospital (mental health) (MH)</b>	<b>Hospital based services (HC)</b>	<b>Industry (I)</b>
<b>Employer (EMP)</b>	EMPC	EMPH	EMPMH	EMPHC	EMPI
<b>Newly qualified pharmacist (NQP)</b>	NQPC				
<b>Stakeholder&amp; Professional Organisation (SPO)</b>	N/A	N/A	N/A	N/A	N/A

Chapter 6 explores stakeholder understandings of the term employability in the context of pharmacy practice and their views on the employability characteristics, the knowledge, skill and attributes for an NQP. Chapter 7 presents whether and how pharmacist education and training processes need to change to reflect the employability characteristics for an NQP. Chapter 8 considers perceptions of the recruitment and selection processes that are in place and/or should be used for NQPs. Within the results and subsequent discussion chapter, presentation of thick description involved a detailed account of the data and interpretation, to support the transferability of findings by others to similar populations or settings (Lincoln and Guba, 1985).



## 6 Understanding employability and the characteristics of employability – the views of participants, with respect to the requirements for a newly qualified pharmacist

### 6.1 Introduction

This chapter presents the results relating to employability in the context of pharmacy, what it is, how it is perceived and what this means for the practice of a newly qualified pharmacist (NQP). This will be presented as the characteristics required for effective day one practice, currently and in the future.

This chapter presents the results as two overarching areas:

- Understanding of employability in pharmacy practice
- Characteristics of employability

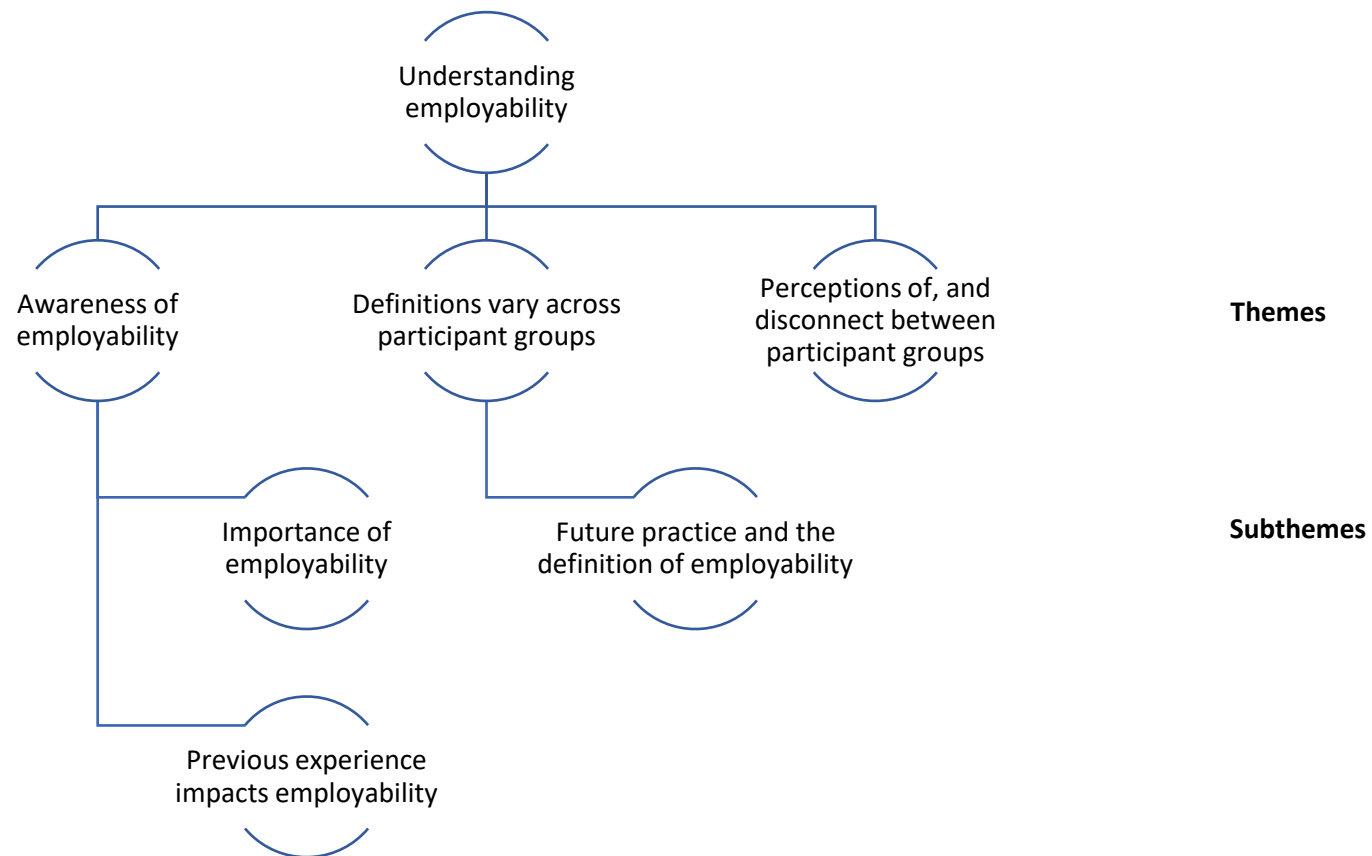
Participant discussion about employability and their views of it as a concept, together with what it means to them, the importance they ascribe to it and their views about what other stakeholders believe is presented in section 6.2.

A set of employability characteristics for NQPs (based on current and future practice) is presented in section 6.3.

### 6.2 Understanding employability

The themes and subthemes are visually presented in Figure 13.

Figure 13. Themes and subthemes related to discussion on employability



### 6.2.1 Awareness of the term employability

Across all participants, awareness of employability as a term was low to non-existent. Many participants had not heard of it, in a meaningful way prior to the interviews. This suggested that the term did not feature as common place within the profession.

*Not really, no. I know of the term but it's not something you really talk about.*

(NQPMH-001)

There was suggestion that employability did hold importance, but this was limited by awareness.

*I don't think many people would have heard of it or thought about what it means for them.* (SPO-005)

However, some participants had heard of employability during conversations but without any significant explanation or discussion. NQPs reported hearing of employability at university, as part of career-focused taught material.

*I am aware of it, but it's been thrown around all the time without any real meaning behind the word. Sometimes employers will say 'increase your employability,' but they don't really expand on what they mean by that. It's difficult because there are a lot of meanings behind employability.* (NQPH-002)

When expressed in the context of foundation training applications and career development, NQPs associated employability with needing to be able to secure a post-graduation job, with awareness increasing during recruitment processes. This stemmed from knowing and demonstrating employer requirements.

*I think I probably just became aware of it not so much with employment but just with everything you do where you've got to send an application in and meeting the criteria that people want.* (NQPH-006)

*When we were trying to think about trying to pin down a pre-reg place and trying to get our CVs and applications up to standard and things like that, it probably came in there.* (NQPC-006)

Employer awareness of employability was variable. However, there was recognition of employability gathering importance.

*I'm very up on it [employability], but I think it's a really new term on the block actually and something that is gaining traction but I don't think that actually many people, unless they're directly involved, are aware of yet. (EMPMH-004)*

*I've been recruiting junior pharmacists, but I haven't really come across the term employability. (EMPH-001)*

Across participants it was evident that employability held little to no familiarity, some referring to it as a new term. There was some awareness of employability as a concept, evidenced through discussion of success, and its importance in the field of employment. Awareness appeared to be primarily focused during the initial education and training stages to obtain a post-registration job. Employability awareness was enhanced through careers related discussions or active engagement with the area. This suggests that active engagement with employability processes would result in awareness, understanding of meaning and its relationship with employment. However, this was not the case for all participants. Terming employability as new further suggests that it may not be ingrained within the language of recruitment and selection within the pharmacy workplace.

#### *6.2.1.1 Importance of employability*

Participants believed in the importance of employability with respect to its impact on improving patient care, enhancing the capability of the pharmacy workforce and supporting individuals to realise their career aspirations.

Employers focussed on future employees possessing skills and attributes to be able to undertake the job. This was based on a desire to recruit and retain employees for the long term, making consideration of employability crucial at the initial recruitment stage.

*We're not just recruiting them to work with us just in that one post, just for one, two years. You know, we invest in them and we're very clear with them.... realistically we want them to stay with us for the duration of their profession. (EMPH-003)*

SPOs mirrored this but elaborated to acknowledge how employability related to the wider profession with the increasing and changing demands placed on the pharmacy workforce. There was also a sense of how employability was important throughout the career.

*As stakeholders, the regulators, the RPS, commissioners, we all need to get together really and have that discussion and debate about what it is that we need from the profession; how we can equip them with the necessary skills, knowledge and so on; for new roles, to be able to take on new challenges. And I guess it comes down fundamentally to what the role of a pharmacist is too, now and in the future. (SPO-005)*

Employers and SPOs saw employee attributes as fundamental from the outset, underpinning the demonstration of the requisite skills and application of knowledge.

*If you're thinking about employability in terms of how you progress, you want someone to become at a more senior level. Then as an employer you would probably be saying particularly some of the knowledge and skills become more important because you might say you've already got those attributes and behaviours, where is the stretch going to happen? The stretch might be in your knowledge and skills possibly. (SPO-007)*

NQPs expressed that employability was important for securing work and the demonstration of knowledge, skills and attributes (KSAs), but with greater focus on skills and attributes. Employability development appeared to start during the MPharm programme but with acknowledgement of other influences.

*My dad works from a garage. When they're employing new mechanics and things like that, it's employability straightaway. Because obviously, there's no academic skills there that they're looking for. They're just looking at the person to employ. (NQPC-004)*

*We had this module called capability ... and you have to demonstrate how you worked collaboratively with other people and the skills that you demonstrated and you have to actually analyse it. ... I think that prepares you quite well. I think, just so you get thinking of the employable skills that are relevant to pharmacy. (NQPH-007)*

#### *6.2.1.2 Impact of previous experience on employability*

Transference of past experiences of work positively impacted on employability, in terms of supporting career identity and success.

*You'd see, from an employer side, who was getting higher, not necessarily the people who had the best grades, it was the people who had the varied experience and the ability to express their ideas. (NQPI-002)*

Additionally, experiences did not need to be within pharmacy due to the idea of transferable skills.

*But suddenly you're thrust into this place where you've got to deal with customers [referring to working in a shop], not always happy customers. So, that definitely helped me with my job now when I'm face-to-face with people trying to problem solve and keep a happy face, trying to keep the customer happy. Which even though they're patients now, it is definitely transferable. (NQPC-006)*

This view highlights how the ability to work effectively in community pharmacy can be positively influenced through customer facing roles, which supports demonstration of patient-centred behaviours (O'Sullivan et al., 2020) and can be transferred to this setting. This view also places importance on the recipient, needing to benefit from the service. However, the transition to effective hospital practice was thought to require prior hospital experience as greater necessity than transferable skills.

*If I was to go and be a hospital pharmacist today, I wouldn't maybe be as effective at my job as if I'd done my training there or I'd had more experience whilst I was in my undergraduate course. (NQPC-002)*

An alternative meaning of this viewpoint is the compartmentalisation of experience rather than recognition of transferability, requiring individuals to reflect on experiences and contextualise them.

Employers were supportive of how experience improved an individual's employability profile.

*The best trainees that we've had have always been people that have got off their backsides and gone and worked for us in the summer. (EMPC-003)*

However, employers were concerned that the Oriel process negatively influenced student attitudes towards gaining experience. Students appeared to associate experience solely with job acquisition.

*I speak to students now who say, 'What's the point of me doing a summer placement because I'm going through Oriel and I don't need the experience?.' (EMPC-004)*

### 6.2.2 Varying definitions of employability across participant groups

All participants defined employability in their own words, followed by a reason for the definition. These reasons enabled an understanding of how employability is perceived and defined across the participant groups and whether there are any observed similarities and differences within the perceptions and understandings. Asking each participant for their definition enabled contrast and comparison between responses, drawing out any patterns between participant groups and/or the sector and/or any of the other collected characteristics. Across groups, there was no single definition of employability common to all, nor a common definition within each group, nor were significant differences noted across the sectors. There were overlapping commonalities within the sectors, groups and across all participants as to what constituted employability.

#### 6.2.2.1 Employer definitions of employability

Employer definitions primarily centred on aligning and demonstrating the vision and ethos of the employing organisation. The vision and ethos were underpinned by the attributes and skills of importance to the organisation. This grounds the idea that employers place a high value upon these aspects providing the basis for how definitions were described and reasoned. The repeated use of the phrase, fitting in, informally referred to aligning. This phrase gave the impression of a sense of belonging and assimilation into the organisation.

*People fit the ethos of [name of organisation], whether they have the same sort of standards that we would want, same aspirations that we would want. (EMPC-001)*

*Have they got the right qualities to take a job in my organisation, will they fit, that sort of thing. (EMPMH-007)*

Employers viewed employability foremost as possession of skills and attributes. Knowledge was also recognised but as an aspect that underpinned skills and attributes. Knowledge acquisition was also associated with a willingness to learn.

*I think employability is experience, skillset, but also showing the ability or willingness to safely adapt to something else. (EMPHC-001)*

*Employability, I think it's back to the... they've got to have a curiosity, scientific curiosity and show leadership. And I know leadership is a very difficult thing to pin*

*down within that, but we're looking for people who are dynamic, going out and can interact. (EMPI-001)*

Employability was viewed as work-readiness, with work-readiness encompassing skills and attributes.

*There's a broad definition ... but for me it would be about the readiness for the work environment, so from a candidate point of view that's a mix of having the right skill set to undertake a role but also having the right personnel skills as well as social skills and emotional maturity to be in a business environment. So, not just about knowing the right stuff but being able to conduct yourself in the right way and work as part of a team and take on the challenges, be autonomous, so that you're able to approach the roles in the right way. That will obviously be different depending on what the role is that you're coming in to do, it's not just about what you know, it's about the wider kind of person. (EMPC-004)*

#### **6.2.2.2 Newly qualified pharmacist (NQP) definitions of employability**

NQPs definitions centred on gaining and possessing the requisite KSAs to be able to apply for and attain the job and then having the capability (through experience) to subsequently undertake the job. This likely stems from their recent experiences of vocational education and training prior to entering the world of work.

*Employability means getting a specific skillset to match the job. Also, gaining the experience when you're in the job, getting as much experience as you can so then you're fully equipped to be employable. So, when a person sees you and sees what jobs you had previously and looks at your skillsets, then that improves and increases employability. (NQPH-002)*

Terminology varied, with different terms used to refer to knowledge and attributes for example.

*How much you can give to your employers. If someone's hiring you, what are your skills, your educational background, your determination and actually your passion that will determine your employability. (NQPI-002)*

NQPs saw their employability based on their potential and capability.

*Employability to me is the ability of an individual to be adaptable, maybe. And then also to achieve the task that is required for a certain job, for example. Because I think*



*a lot of employability probably comes down to how you come across in interview and in terms of your capability; your potential rather than actually maybe your ability at that time. Because there's always a kind of gap that you jump up each time you're employed, where you're not sure if you can do all those things but then you grow to do that in the role. (NQPH-005)*

Participants spoke about the relationship between knowledge and skills and how they work synergistically.

*I think employability isn't just having the knowledge to go about the daily task. It's about having the skills to do that well and efficiently. (NQPH-003)*

NQPs appeared to view their employability based on how they are viewed by the employer with subsequent validation and responsibility falling to the employer, rather than the focus coming from the individual and their self-awareness. Nevertheless, this does highlight recognition of the relationship between employer and prospective employee. NQPs viewed employers having the viewpoint of wanting requisite knowledge and skills as aspects in a prospective employee to then offer employment, as well as recognising their potential for development. When discussing the employer perspective, NQPs used words and phrases such as appeal, what they want/look for, and fitting in as part of their definitions.

*I'd say employability is knowing that the individual that is across you has a skillset which defines them as capable of taking on that particular role. And also, knowing that they are able to develop throughout that opportunity as well. (NQPC-003)*

*I would take employability to mean how employable you are to someone, how appealing you are on a CV or your application. How appealing you are through that, and again, how appealing you are in interview if you get that far. (NQPH-006)*

#### **6.2.2.3 Stakeholder and Professional Organisation (SPO) definitions of employability**

The areas that the SPOs associated with employability were, ability to get the job, to do the job/practice safe and effectively and meet the organisational vision/ethos.

*To be able to write a job application, to write a CV so that it comes across clearly that you have these attributes that an employer might want. (SPO-009),*

*The ability to do the job for which you've been appointed. (SPO-006),*

*Somebody who is able to integrate within the organisation that you are employing for. (SPO-001)*

Possession and demonstration of skills and attributes were the underpinning foundation to an individual's employability.

*I'd say it's about an individual having the skills and the attributes, therefore I guess their behaviours, to be effective for patients in the workplace. (SPO-008)*

Additionally, SPOs highlighted the need to engage in further learning and commit to develop, as well as cope with change. The comment about further learning advanced NQPs views about potential, adding in how individuals were to grow.

*That includes things like commitment to learn more, recognition that particularly at different stages in your career maybe you won't have everything that you should have. You want to be developing further, but you need to have that commitment to do that too. (SPO-007)*

After asking participants for their definitions, they were presented with and asked for their views on Knight and Yorke's definition. Across all participants there was agreement with this, with a strong focus on attributes, values and behaviours. The word potential was further expressed when employers and stakeholders talked about employability and what this meant.

*Has the potential not necessarily can hit the ground running but has the potential to develop and flourish in the role. (SPO-001)*

Following on from this was a narrative about seeing potential and recognising that the employed individual is not the finished product and can develop and be developed.

#### *6.2.2.4 Future pharmacy practice and its impact on employability*

When discussing the future of pharmacy, there was recognition of the concept of change. Acknowledging the inevitability of change in pharmacy practice, participants talked about what future NQP practice might look like.

Participants recognised that the practice and mindset of the NQP will change in response to unknown changes in practice, impacting the type of people being brought into the profession.

*Twenty years ago half the jobs that exist now hadn't been invented. So there's that sort of mentality that there's that flexibility people need going forward. Their jobs will change, so that's the mind-set which then goes back to how you're recruiting people into schools of pharmacy. (EMPI-001)*

Thoughts of changing practice included embedding of independent prescribing as part of core practice (at the time of interviews, it was not confirmed that prescribing would form part of the MPharm degree), greater emphasis on cross-sector roles, NQPs in general practice, a shift away from medicines supply to delivery of diagnostic and prescribing based services, greater use of technology to support medicines supply and working with new types of medicines.

Along with foreseeing a widening of sectors and greater multi-sector working, participants raised the idea of being employed by a region rather than an organisation.

*Instead of saying, 'I work in hospital' or 'I work in community,' they would say, 'I work in South Yorkshire.' And they would talk about the area and the community that they work for rather than the building that they worked in. (SPO-008)*

The comment about area related to the appreciation of increasingly complex health care situations, with patients having greater and more complex care needs, requiring a multidisciplinary cross-sector approach to care, including increased use of the pharmacist expertise and availability.

*One imagines that because of the challenges of the health service that the pharmacist will be the first port of call increasingly because their accessibility is far more than that. (EMPI-001)*

There was no suggestion that the definition of employability would change based on future practice. However, the characteristics of employability would change.

*Our concept of employability through working in that environment has to adapt to that. It's not totally different; it's still doing clinical therapeutic work, it's still engaging teams, it's still communicating with patients, you still have those basic building blocks. But probably arranged in a slightly different way if you're going to be working as a GP support pharmacist. (SPO-009)*

### 6.2.3 Perceptions of groups and the disconnect

Participants were concerned that the other groups would view employability differently, resulting in issues relating to management of expectations.

*I don't think everybody's always on the same page. And what that means is you're having to manage expectations. And we do a lot of managing expectations at the very beginning.* (EMPH-003)

This concern meant that participants wanted to know what other groups desired as requirements, gaining a better understanding of their viewpoints, including aspects that would ensure success.

*If we all had a good idea of what employers wanted as employees, so we would write the right thing on the CV and get noticed.* (EMPC-006)

Additionally, highlighting commonalities across all groups enabled a united vision across the profession.

*Pharmacy as a profession, whichever sector you go in, has to have fundamental traits of honesty, of care, of willingness to continually learn, then I think there's something wrong if all that isn't a thread through those 3 sections and the bodies involved.* (EMPC-001)

Each group had different perceptions of the other groups with respect to employability, the aspects of KSAs, as well as their relative importance. Employers were perceived to primarily focus on attributes, with knowledge and skills being already present within an individual.

*You've come out of uni with your degree and then you're registered, you should have the knowledge and skills. So, they're [employers] probably looking more at the values and behaviours side.* (NQPH-006)

Comments on the importance of knowledge were driven by what would help career progression. Examples given were industry perceived as needing a strong academic base and hospital requiring a focus on clinical skills and knowledge.

*In something like industry, it would be really important for academic performance.* (NQPC-004)

*You go to the interview and you're given a clinical test and if you fail that you have to go home. From the experiences I've had, I know in hospital you have to have the knowledge. (NQPI-001)*

Across employers, employers in other sectors were viewed as placing greater emphasis on either knowledge, skills or attributes, based on sector perception.

*I suspect that they [industry] will either expect to come in with a certain knowledge or, if not, they would expect to go training very rapidly to get the knowledge of a certain standard. (EMPMH-004)*

*I think probably the knowledge, the skills, would be the bit that they would focus on, possibly because maybe the pharmacist, if I go back to hospital again, they're not patient facing necessarily, in the same way ours are, patient/customer facing all of the time. (EMPC-005)*

*I think as a day one pharmacist in community, you are expected to be able to run. (EMPH-006)*

Employers and SPOs believed that NQPs would place greater importance on knowledge compared to skills and attributes, or place focus on knowledge and skills rather than attributes.

*They're very, very focused on knowing the stuff to pass the exam because that's the process that they've been through. (EMPC-004)*

*They have a higher focus on knowledge and skills. They're very much thinking about functioning in the role, perhaps. (SPO-008)*

Within NQPs, community was seen as being more patient facing, compared to hospital as more clinical and industry being removed from the needs of the patient.

*When it comes to hospital pharmacists ...they always relate to clinical skills, knowledge. (NQPC-005)*

Whilst NQPs associated attributes in the form of values for patient facing sectors, they were not able to recognise values as important for working with colleagues and peers in non-patient facing sectors.

*It should be values and behaviours for them [community] because ... you have to be quite nice to your patients and stuff and be able to handle everything in terms of your employers. (NQPI-002)*

*It depends which part of industry ... if you are just doing the research behind it, then it doesn't really matter in terms of your values and behaviours because you're not going to be having patient contact potentially. (NQPMH-001)*

Perceptions of SPOs' views were varied as it depended on the background of the SPO, and their objectives.

*It's very much depending on which one you're talking to and which way they want the pharmacist to go in. So if you're talking to the Department of Health or chief pharmacist then he's pushing in one direction. If you're talking to the NPA they want it to be all inclusive and allow a lot of people to do things. (EMPC-003)*

However, participants (including SPOs) believed that SPOs would be looking for KSAs, similar to employers.

*I think the stakeholders value the attributes and behaviours quite strongly because again you can develop their [NQP] skills and knowledge when they're in post to some extent. (SPO-002)*

*It would be similar to employers, overarching, but they won't have as much of a grasp of the detail as the employer ..., it'd be probably broad. (EMPH-001)*

But there were also instances where it was difficult to know what SPOs views were based on their position and perceived level of interaction.

*I don't know whether they've ever held a conversation with a day one pharmacist to actually see what somebody like that goes through. So, I don't know. (NQPC-001)*

The perceptions show that each group is perceived differently compared to how they express themselves with respect to definitions of employability. It would be interesting to know how groups respond when presented with these perceptions. Employer requirements were sector driven, which could be based on past experiences. When employers spoke about their own sectors, knowledge underpinned skills and attributes, but when discussing other sectors, knowledge being important was raised. Additionally, there were comments about not knowing what SPOs want. The reason for these views might be due to the variable

interactions between SPOs and NQPs, which can range from active membership of an organisation to little awareness of their existence.

When the notion of different groups having different viewpoints and/or perceptions of each other was proposed to participants or not knowing what the views of others might be, this elicited a feeling of discontent and a need to address the disconnect.

*That's sometimes feeding the newly qualified pharmacist's lack of reality about what they are able to do or their expectations about, kind of, demands and aspirations which aren't connected to day-to-day service pressures and – so, I think there's a bit of a disconnect between, you know, policies, or stakeholders and policy organisations, and employers who have got to deal with the coalface. (EMPH-003)*

*If you're thinking as an employee different to what your employer thinks when you're going for a job interview, for example, you're not going to get that job because you've both missed the mark. (NQPI-001)*

*I do think they do need to understand that and in a way maybe this is about the bigger picture because I think sometimes as newly qualified you don't necessarily think about the bigger picture and some of the constraints that stakeholders and to a certain extent employers have as to why they can't offer what it is that you want. (SPO-001)*

Overall, it appears that the perceptions made by groups of other groups highlight some misperceptions. The resultant disconnects expressed by participants considered the impact on the employer and NQP, which is understandable as they participate in the recruitment and selection process. Whilst the impact on SPOs was not discussed, potential impacts need to be further explored given the many ways in which SPOs interact with employers and NQPs. For the employer and NQP, the focus of the disconnect is the impact on being able to secure a job, but also what the NQP does within that job and whether this meets the expectation of the employer, as well as their own expectations.

## 6.3 Characteristics of employability

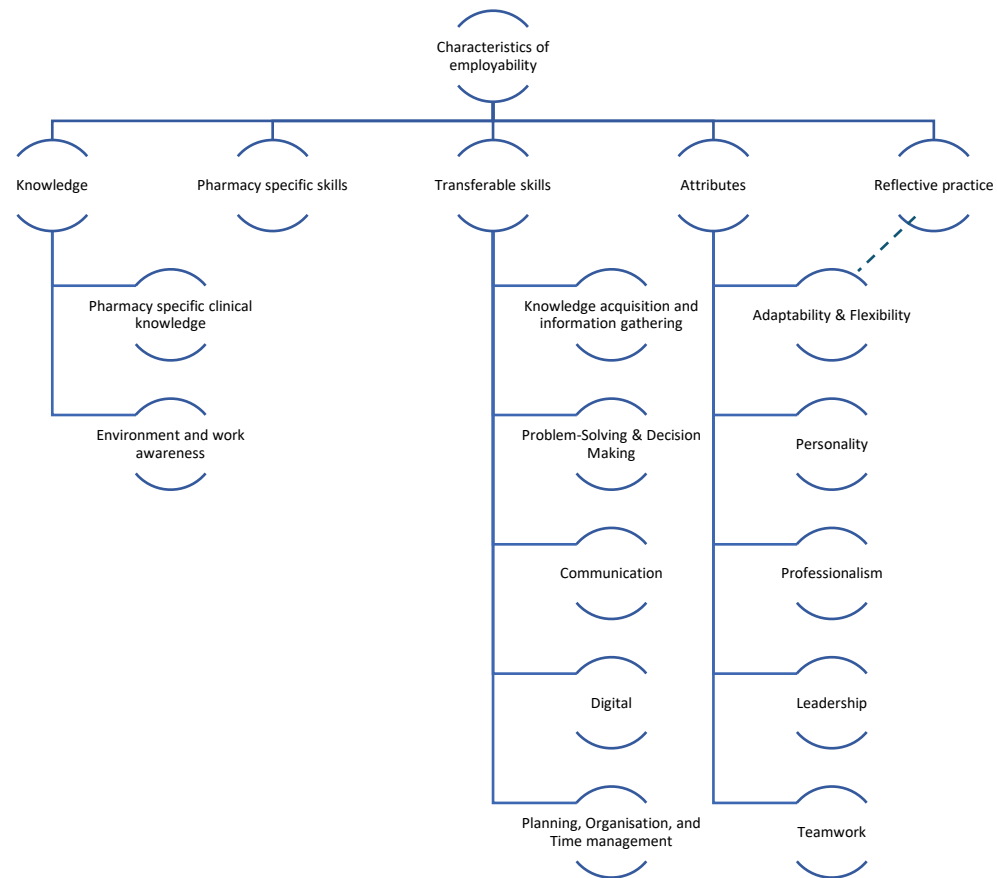
### 6.3.1 Overview of themes

Analysis identified five themes within employability characteristics: knowledge, pharmacy specific skills, transferable skills, attributes and reflective practice. These are discussed in relation to how they contribute to an individual's employability.

Themes and subthemes were named based on terminology used within current regulatory, professional, and educational frameworks. This was done to support understanding and to show how these themes map onto established frameworks, including Advance HE embedding employability, NHS England WTE PAF, GPhC standards, RPS Post-registration Foundation Curriculum (Health Education England et al., 2022, General Pharmaceutical Council, 2021, Royal Pharmaceutical Society, 2019, Advance HE, 2024). Participants did not necessarily use this terminology but used other terms to describe these and/or gave examples from their real-world perspectives and experiences. The themes and subthemes are visually presented in Figure 14.



Figure 14. Themes and subthemes related to characteristics of employability



**Themes**

**Subthemes**

### 6.3.2 Knowledge

Two subthemes were identified: *pharmacy specific clinical knowledge*, and *environment and work awareness/work experience*. The theme, subthemes, with the examples are given in Table 12.

Table 12. Subthemes related to knowledge

Knowledge	Employer	Newly Qualified Pharmacist	Stakeholder & Professional Organisation
<b>Pharmacy specific clinical knowledge</b>	Pharmacy Law		
	Knowing the science behind the clinical		
		Minor ailments	
		Medicines interactions	
			Application of guidelines
		Common drugs, their indications and dosage information	
<b>Environment and work awareness/Work experience/Experiential knowledge</b>	Experience of work		
	Knowledge of pharmacy operations		
	Experience of pharmacy		
	Experience of sector		

#### 6.3.2.1 Pharmacy specific clinical knowledge

All participants raised pharmacy specific clinical knowledge.

*Be confident in their checking and their clinical knowledge to be able to make sure that those prescriptions that are handed out in day one are of high standard and safety.* (EMPC-002)

*They need that clinical knowledge.* (NQPH-008)

*We look at obviously clinical knowledge. (SPO-002)*

Despite the uniformity of the term clinical knowledge, like employability the term carried different meanings and understandings. This was based on factors such as sectors of practice, experience and position held. What constituted clinical knowledge appeared difficult to explain and articulate succinctly. Most volunteered the term, clinical knowledge, without further explanation of what this meant. Potentially, this may be due to an implicit understanding of the term across the profession. Exploring clinical knowledge led to identifying it as an umbrella term, with a range of examples (Table 12), which potentially could have been expanded further to an infinite list of common drugs or conditions. This might explain why the term was used to encapsulate these aspects.

The employers and stakeholders assumed knowledge to be assessed and acquired by passing assessments.

*Take it for granted that you will acquire the knowledge that you need, that's so well established in education and training that it almost goes without saying. (SPO-006)*

Knowledge was described as knowing what safe and lawful practice was and operating in such a way.

*There's a piece around knowledge, pharmacy law understanding, but actually they need to be competent to practise. (EMPHC-001)*

#### **6.3.2.2 Environment and work awareness**

Employers wanted to see knowledge of pharmacy work, the pharmacy environment and an interest in the area.

*They should have some idea about how the pharmaceutical industry operates. (NQPI-001)*

### 6.3.3 Pharmacy specific skills

Skills are a particular ability, which can be observed and/or measured and can be categorised into subject specific skills or transferable skills (Knight and Yorke, 2004). Subject specific skills are focused on a particular job area, whilst transferable skills can be demonstrated across a range of job areas, including within a profession. Both aspects are recognised within employability models (Knight and Yorke, 2004, Dacre Pool and Sewell, 2007, Bridgstock, 2009). In this section, *pharmacy specific* are discussed and in the next section, *transferable* skills are discussed.

It was largely employers, but also some NQPs, who expressed that pharmacy specific skills are important, encompassing a wide range of activities undertaken by a pharmacist. The examples provided about pharmacy specific skills are given in Table 13.

*The skillset, the sort of ability to competently run a pharmacy or run and make decisions as well. So, I think that's the first thing that they should be able to do.*  
(EMPHC-001)

*Clinically checking FP10 or FB10MDA or something like that, and then also accurately checking it all those sorts of roles I knew what I would have to be able to do, and would have been able to do.* (NQPH-001)

SPOs did not discuss specific skills, aside from being able to apply the law and demonstrate medicines safety, which may be based on their profession wide viewpoint.

Table 13. Pharmacy specific skills

Pharmacy specific skills	Employer	Newly Qualified Pharmacist	Stakeholder & Professional Organisation
<b>Pharmacy specific (technical and procedural skills)</b>	Ensuring safe prescriptions/medicines safety		
	Apply the law		
	Ability to clinically check prescriptions		
	Counsel patients		
	Ability to supply medicines		
	Triaging patient		
	Medicines Information queries		
	Undertake basic literature reporting		
	Deliver pharmacy services		
	Operate a pharmacy		

#### 6.3.4 Transferable skills

Participants primarily focused on transferable skills (*knowledge acquisition, communication, digital skills, planning, organisation & time management, and problem-solving & decision making*) compared to subject specific skills.

*Employability is actually about the individual and that soft skill set.* (EMPMH-004)

Transferable skills were viewed as the foundation for the subject specific skills. This was evidenced through examples that related transferable skills to the working role of a pharmacist. NQPs did not discuss these to the same depth as employers, potentially due to limited workplace experience and therefore not fully scoping employer expectations. SPOs gave relatively limited views in this area, which could be due to not directly working with NQPs, and therefore not being able to fully articulate how these skills are demonstrated in practice. Examples of transferable skills are given in Table 14.

Table 14. Subthemes related to transferable skills

Transferable skills	Employer	Newly Qualified Pharmacist	Stakeholder & Professional Organisation
Critical thinking	Knowing where to find information		
	Know how to use information		
Problem-Solving & Decision Making	Have a logical approach		
	Ability to ask questions		
	Deals with mistakes		
		Shared decision making	
Communication	Listens		
	Communicates with range of audiences (overlap with teamwork)		
	Builds rapport		
	Ability to have honest discussions		
	Ability to influence		
	Ability to present/presentation skills		
			Communicates own limitations
Digital	Digital skills		
Planning, organisation, and time management	Plans workload		
	Prioritises workload		
	Time management		
	Preparation/Horizon scanning		
	Attention to detail		

#### 6.3.4.1 Critical thinking

Participants were more concerned with NQPs knowing how to use and apply information, rather than knowledge retention. The reason for this was knowledge being updated as practice changed.

*It's not the be all and end all if you don't know something because that's what the BNF is there for. That's what other resources are there for, you know, evidence-based decisions. You need to be able to do that. (NQPI-001)*

The importance lay in where to find and how to use information, which related to effectively using resources, and is an aspect of critical thinking (Persky et al., 2019). Participants saw appropriate use of resources an important basis for decision making. The ability to effectively use information was an important characteristic underpinning other skills and needed to be embedded within training.

#### 6.3.4.2 Problem-Solving & Decision Making

Participants wanted NQPs to be able to solve problems and make decisions as part of their practice.

*As well as applying knowledge appropriately, then it's problem-solving and decision making. Cos the better ones have those skills, already working with those, and they can think logically, they can reason through medication or a drug chart well. So, they've got that thought process. (EMPH-001)*

The confidence to make decisions was associated with being able to problem solve, and NQPs needed to make well thought through decisions and have belief in these decisions, but without being overconfident. The ability to ask questions (an aspect of critical thinking), was not mentioned by NQPs. However, the ability to ask questions, relied on communication which NQPs mentioned as an important characteristic.

#### 6.3.4.3 Communication

Communication skills were highly desired as important for the workplace.

*We need to be able to speak at our level to scientists in R&D to get them to do things. And also the other extreme in pharmacists may well be in manufacturing positions where they're supervising staff. So they've got to understand how to communicate to staff at the other extreme of that. (EMPI-001)*

Examples of communication skills, aside from using the phrase itself, included listening and being able to communicate with a range of people, connecting communication with an ability to work with people. Participants spoke about how communication skills underpinned everyday practice, citing examples of needing to speak to patients, the public, colleagues and other health care professionals.

Employers expanded further, highlighting the benefits of effective communication which acknowledged the relationship between communication and teamwork.

A critique of the term lies in its description. Whilst employers described and expanded on what communication entailed through the examples given, many participants cited the term without further explanation. This could be due to an expectation that individuals understand what it means, based on the professional importance ascribed to it.

#### 6.3.4.4 *Digital*

There was little further discussion about digital skills other than recognition of needing them.

*Being able to use the computer properly and the technology that's coming more into pharmacy. (NQPC-006)*

This was not further progressed as it was felt that this would hinder the outsider perspective the researcher was aiming to convey. It is possible that an implicit belief in digital skills being inherent to practice is why technology was not discussed further.

#### 6.3.4.5 *Planning, Organisation, and Time management*

Employers and NQPs spoke about this skill set in reference to the pharmacy workplace as fast paced, with multiple and changing priorities, thus requiring NQPs to plan and prepare accordingly, expressing that time was an expensive commodity that could not be wasted.

*I think if you are very good at prioritising and getting things sorted, you're very employable, in my eyes. (NQPH-007)*

*Do you have any idea how the hell you plan for next week on the run down for Christmas on your wards, so they don't all send us through their discharges and their leaves on the twenty fourth of December and that is a skill. (EMPMH-004)*



This gave a clear impression of its importance. Added to this was the need to be attentive, to ensure good time management. As such, employers and NQPs required this skill set included within education and training. However, SPOs did not express detailed views in this area, despite employers and NQPs doing so. This might be because this skill set relating to practical aspects of workload within the workplace, with SPOs having a more holistic approach.

#### 6.3.5 Attributes

NQPs saw attributes as equally desirable to knowledge and skills in terms of producing an effective employee, linked all three aspects together. This was different to when defining employability, where skills appeared to be of greatest importance.

*I'd say they're all equally weighted because they all build who you are as a person or what you bring to the table as a person. (NQPMH-001)*

Employers and SPOs gave information about how attributes support knowledge and skills and enable individuals to perform in their job as well as demonstrate practice-readiness.

*The ones that shine and excel are the ones that... demonstrate the right behaviours and have the right values. (EMPH-003)*

*Your values and your behaviours define how you use your knowledge and skills. (SPO-006)*

However, the absence of certain attributes was not necessarily seen as disadvantageous if there was recognition of this deficiency, with a subsequent plan to address.

*You need to have certain attributes for a role but just cos you don't have them again doesn't mean that you can't be good at that job.... but it's the insight into, 'oh right, I don't do this in this way and that's just how I am,' but actually, 'I can manage it in a different way.'* (EMPH-006)

An alternative perspective is that recognition and addressing of deficiencies is an attribute, demonstrating emotional intelligence and an awareness into one's own character.

The attributes discussed have been combined under five broad subthemes:  
*leadership, teamwork, personality, professionalism and adaptability & flexibility* as  
presented in Table 15 with examples.

Table 15. Themes related to attributes

Attributes	Employer	Newly Qualified Pharmacist	Stakeholder & Professional Organisation
<b>Leadership</b>	Leads team		
	Sets an example (role models)		Sets an example (role models)
	Visible to patients		
	Speaks up		
	Dynamic		
	Persistent		
			Coaches & mentors
<b>Teamwork</b>		Multidisciplinary team working	
	Team engagement & management		Team engagement & management
	Builds rapport & relationships		Builds rapport & relationships
	Achieves team goals		
	Inclusive practice		
<b>Personality</b>	Approachable		
	Ability to work independently/autonomy		
	Assertive		
	Confident		
	Empathetic		
	Friendly		
	Positive attitude		
	Instils confidence		Instils confidence
	Self-motivated		Self-motivated
	Interest in the area		
			Sense of humour

		Common sense	
<b>Professionalism</b>	Values (Organisational vision and cultural fit)/NHS values/GPhC standards		
	Knows limits of competence		
	Accepts responsibility/takes ownership		
	Patient-public engagement		
	Person focused		
	Attendance at work		
	Knows when to ask for help		
	Safe practice/practices safely		
	Professional appearance		Professional appearance
	Emotional Intelligence		
	Self-awareness		Self-awareness
	Honesty		
		Respectful	
		Work ethic	
		Polite	
		Adheres to rules and regulations	
<b>Adaptability &amp; Flexibility</b>	Shows initiative		
		Proactive behaviour	

#### 6.3.5.1 Leadership

Leadership was described as an attribute but demonstrated in different ways. SPOs spoke about coaching and mentoring and being a role model.

*Being a role model, leading by example, coaching, and mentoring as well. So, it's direct feedback from what I'm hearing from the members that I interact with. (SPO-005).*

NQPs discussed the need to lead a team but nothing further.

*Being able to take charge almost and direct people and take the lead. (NQPC-006)*

Employers wanted to see more than just leading others; it was about demonstrating certain leadership associated behaviours.

*It's about leading, not from a business and commercial point of view, but leading your team and being there for your patients, setting your relationships up. (EMPC-004)*

#### 6.3.5.2 Teamwork

Teamwork had various meanings for participants which related to active engagement with the team to improve and progress. NQPs focused on working with the multidisciplinary team, with whom they regularly interact with, to successfully complete tasks.

*They need to be able to work well as a team, not just with the pharmacy team but also the wider professional team. I think understanding that pharmacy is not made up of pharmacists is something that's been really important for me. (NQPH-003)*

This was further discussed by employers and SPOs who used terms like engagement, management, rapport and goals, which shares commonalities with other attributes (leadership), and skills (problem-solving, planning, organisation and communication).

*To be able to communicate, to be able to be appropriately assertive if necessary, to be able to interact with other members of the team, to understand how the team works, to be able to delegate and refer appropriately across the health care team, to integrate into that process of health care that we have. (SPO-009)*

The views suggest whilst teamwork is important to all participant groups, NQPs focus at the peer level, whilst employers and SPO broaden teamwork to recognise the NQP as a leader within the team. This potentially highlights a disconnect in the expectations of the groups.

#### 6.3.5.3 Personality

All participants shared commonalities in desirable personality traits such as assertiveness and confidence.

*I think confidence is definitely a part in it. Not bravado, but you do need to be confident in saying either, 'yes, I'll sign that off, that's fine' or, 'no, I'm not going to sign that off because a) I need to go and look at it, or b) because it's wrong'. (NQPH-006)*

There were also some traits that only certain groups of participants volunteered such as common sense and sense of humour.

*So, common-sense and people skills (NQPC-004)*

*We also look at sense of humour. (SPO-002)*

#### 6.3.5.4 Professionalism

Professionalism was expressed as an important attribute, but it was the employers and NQPs who gave greater practical detail as to how professionalism was demonstrated within the workplace, compared to SPOs.

*You're meant to behave in a professional manner so dressing appropriately, addressing people appropriately, following the guidelines of wherever you're working and the rules and regulations that they have in place. (NQPH-008)*

*They should be professional.... so professional meaning that they need to show a united front as a health care professional. (SPO-004)*

#### 6.3.5.5 Adaptability & Flexibility

Employers and NQPs used terms such as adaptability and flexibility, based on pharmacy and health care being constantly changing environments, and requiring practitioners to respond accordingly.

*If they're moving into other sectors that aren't the norm in pharmacy, then knowing how to adapt and how to change quickly under pressure is important. So, flexibility would be important then because I think the core is still going to be the same but in terms of how you deliver care for patients, that's the only thing that's going to be changed. (NQPH-002).*

These attributes were important for current as well as future roles as participants acknowledged that pharmacy is not a linear career, with practitioners changing where and how they work.

The awareness of change was relevant in participants' discussion about the future of NQP practice and the implications for characteristics of employability, whether these would change or stay the same. Views were driven by the concept of change, its inevitability, and how participants were actively seeing change taking place. In discussing the characteristics, it was apparent that having a flexible and adaptable approach was important, in managing change.

Participants believed that most attributes, particularly professional values, would not change as these were appropriate based on past and current experience. However, it would be the context in which they are discussed, which could change.

*The core values and attitudes and behaviours can't be any different really. What we're talking about is context. (SPO-009)*

*I think the core stuff will stay the same, all the behaviour, responsibility, attitude, that kind of thing. (NQPC-002)*

*Because you like to think that those values and personal attributes would stand the test of time and location. (EMPMH-007)*

However, the future called for a greater need for flexibility, adaptability, and confidence. Participants voiced how the rapidly developing role of the pharmacist would have implications for NQPs in terms of how they worked, where they worked, and the associated tasks undertaken. This led to views about there being little room for constancy in practice, with practitioners needing to be aware and be flexible in their approach so that they can adapt to change.

*I feel it will be a lot of being flexible, being adaptable, and it'll be a changing situation, so I don't know if anyone's day one will be a similar sort of situation. (EMPC-002)*

*I think you'd just have to be perhaps a bit more adaptable to what will be working. And more flexible. Because this is pretty much a nine to five job. You get the odd on-call, the odd weekends, the odd late night, but at the moment for me, it's quite a nine to five job. I think in the future, that will change and you'll become more like nurses, but you're doing shift patterns. (NQPH-006)*

The increased emphasis on confidence came from having the underpinning ability to cope with, and manage change, as well as the confidence to undertake and deliver new roles, as opportunities arise.

*That confidence needs to be there if we're going to go into these roles that aren't traditional, that aren't something that we've been engrained to learn for the last four years but are outside our comfort zones. (NQPI-002)*

A big aspect of confidence was based on the role of the NQP as a prescriber in undertaking complex consultations, managing problems and decision making.

*Being confident in what is the right thing to do and how you go about that because of the increased risk of what you are at the area you're practicing in. (EMPC-004)*

When discussing the context of change, this was primarily focused on the role of the NQP as an independent prescriber. The need for flexibility, adaptability and confidence influence knowledge and skills.

The concept of the NQP practising as an independent prescriber and the associated change in knowledge required in relation to prescribing raised mixed views. Where viewed positively, participants commented on the benefit of this to enable greater involvement in patient care, as well as addressing workforce issues. Some saw this as the inevitable direction of travel.

*I think it would be naïve to think that pharmacy wouldn't be prescribing on a regular basis. (EMPC-004)*

Others were less positive.

*If they change it so it's immediate, which I think would be wrong.... you'll need the skills to be able to do that. (EMPC-003)*

The reasons for these views were needing relevant skills obtained through experience and training rather than a deficit in knowledge.

However, some employers did acknowledge that their views were based on a relative lack of knowledge of the undergraduate course curriculum.

*I'm not sold on the idea, maybe that's because I'm older and I just don't understand that the undergraduates these days are trained differently to me and to a slightly higher level and they have more clinical skills and knowledge that I had. (EMPMH-007)*

NQPs welcomed the idea, with a view that this is an automatic and obvious course of progression for the profession.

*I think it's beneficial. I personally would find it beneficial if you could do it in both. So, in hospital and in community. (NQPC-001)*

*More independent prescribers across the board, whether it be in community or GP practice, even on the wards. Just because obviously this whole GP crisis that is happening. (NQPC-005)*



Comparing this to employers, the difference in view could be due to the understanding that NQPs have of education and training processes, having recently experienced these. Additionally, it might be based on NQPs recognising what they should be able to do, based on their current roles.

Whilst SPOs differed in their view on prescribing with differences in opinion as to whether prescribing as a NQP was appropriate, they took a more pragmatic view of the idea.

*I see us becoming a lot more involved in health care in 2025 and I see pharmacists in 2025 becoming a lot more involved in a patient's every day health care than they are now. (SPO-004)*

These views relate to pharmacists working across the primary and secondary care interfaces, and pharmacists working in new sectors such as general practice and care homes.

Educationally SPOs saw undergraduate programme as the environment to build the underpinning prescribing skills, which then could be further developed during foundation training and beyond.

*There's no reason why you couldn't do that in the MPharm. So that prescribing ready term that's being used, if you've got the knowledge, you might be able to do quite a bit of the skills teaching, you just don't have that life experience to be confident to deal with. (SPO-007)*

There were mixed views related to knowledge and its influence on the practicalities of prescribing training within the degree.

*We need to make sure that the knowledge is there, looking at how to prescribe safely, and the factors of ethics and the factors of, this is a cost based thing but it's also based on the patient's quality of expected life and looking at the quality and looking at the benefits and the negatives and looking at the side effects and a lot more that we need to now factor into every time we prescribe a medication. (SPO-004)*

*I think perhaps you'd need more training on the prescribing of things in general. (NQPH-006)*

*I think your knowledge is still going to be there, just maybe in different areas. So, less knowledge on pharmaceutical patents and more on pharmacokinetics and that kind of thing. But I don't think anything will change there. (NQPC-004)*

For employers and NQPs, implementation of independent prescribing, additional pharmacy services, and working across interfaces were the commonalities that drove their views on the implications for skills.

*It would be certain things like if you want to be qualified for vaccinating, like 'flu jabs or travel clinics, things like that. Or if you want to do blood samples, throat swabs, all those other services that you can provide. (NQPC-005)*

Participants saw these new roles as offering pharmacists opportunities to broaden how they work with patients and the wider health care team and therefore add to the pharmacy specific skills that were initially mentioned, with a greater emphasis on clinical and technical skills. However, as an example, underpinning these would be the enhancement of the transferable skills such as communication.

*You're going to have to be on point with your communication skills and your influencing skills with the GP surgeries and other services. (EMPC-005)*

SPOs were less specific than employers and NQPs with respect to skills. They acknowledged that the future would place a greater demand on skills but did not explicitly describe or explain what this might look like.

*We need to place greater emphasis on them. (SPO-004)*

Whilst not overly expressed as relating to prescribing, one aspect revisited was digital skills, but only briefly.

*They will need to be technically minded as well because robotics comes into play. (EMPC-001)*

*I come back to mathematics, digitally understanding, digitally connected. So that's one of the areas which we do look for within that and that will probably become more and more within the different pharmacy roles. (EMPI-001)*

Consideration of the future did draw out further thoughts about digital skills but not to the extent expected. Potential reasons for digital skills not being discussed in

further detail may have been based on how the participants currently understand and interact with digital technologies.

Overall, there were no additions or deletions to the required skills for NQP practice, but rather the advancement of the level of the demonstrated skill in relation to the level of practice.

#### 6.3.6 Reflective practice

Reflective practice and a willingness to learn were important practices process for NQPs. Employers and SPOs saw it as linked to development and personal growth.

*Eager to learn cos again, there's still lots to learn, and wants to keep developing themselves. (EMPH-001)*

Even though NQPs did not detail this theme to the same extent as employers and SPOs, it was nevertheless important to them.

*Accepting and willing to learn. Because I guess some people think that once you have a degree and once you've passed pre-reg, that's it. But you need to constantly be open to learning and accepting new ideas and information really. (NQPC-005)*

Table 16 details examples offered that described this theme.

Table 16. Reflective practice

Reflective practice	Employer	Newly Qualified Pharmacist	Stakeholder & Professional Organisation
<b>Reflective practice</b>	Willingness to learn		
	Revalidation		
	Ability to think		
	Professional development		
	Open to feedback		Open to feedback
	Recognises need for ongoing learning		Recognises need for ongoing learning
	Willingness to develop		Willingness to develop
			Interest in progression and performance

Revalidation, through reflection, is a regulatory requirement for pharmacy professionals and could have prompted these views. However, the idea of ensuring patient care by being up to date, transcended this.

*You need to be able to recognise as a pharmacist what you don't know and be able to come up with some strategies, a plan, of how you acquire the knowledge, skills, behaviours or whatever, so that you can do a good job and deliver effective patient care. (SPO-005)*

SPOs and employers believed that knowledge was something that would change over time (for example a change in the management of a particular condition or the release of a new medicine), and therefore requiring specific knowledge was not as important as being able to learn, critique information and apply knowledge as it develops. This was noted in the example of recognising a need for ongoing learning.

## 6.4 Chapter Summary

Awareness of, and the definition of employability varies with the context in which the term is used. NQPs work in different sectors where the focus might vary, for example, person/people focused, commercial focus, target focus, therefore what is seen as necessary for employability will vary. This provides a breadth of definitions and meanings to employability.

Whilst all groups recognise knowledge, skill and attributes, employers and stakeholders primarily focus on skills and attributes. For each of the characteristics, participants provided examples that demonstrate these. Participants discuss the importance of reflective practice in response to changing practice and the need to be adaptable and flexible. Reflective practice is also associated with development.

## 7 Views of employers, newly qualified pharmacists and stakeholders on pharmacy education and training, relating to employability

### 7.1 Introduction

This chapter presents participants' views about pharmacy education and training from the newly qualified pharmacist (NQP) employability perspective, the extent to which current education and training delivers the needs of the workforce, with recommendations and suggestions for how it can be improved.

The educational journey that an individual goes through before entering onto the MPharm programme through to registering as a pharmacist and establishing themselves to then allow career advancement is presented in section 7.2.

*The themes and subthemes are visually presented in*

. The themes are also chronologically presented in Table 17 as it enables the reader to see how the themes progress over the course of the journey. With some themes, as they cover several stages of the pharmacist journey, these are presented together.

Figure 15. Themes and subthemes related to education and training

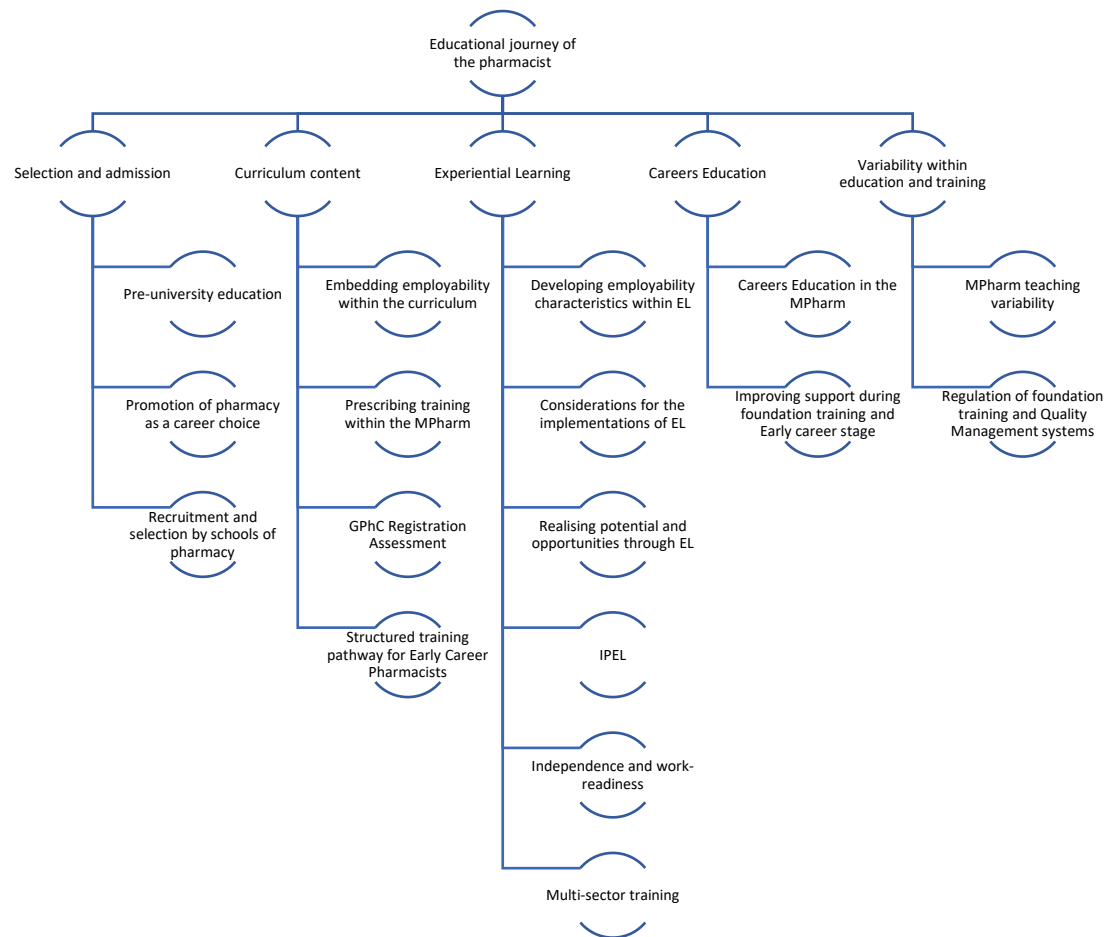




Table 17. Visual representation of themes

	Pre-admission	Student Pharmacist	Foundation Trainee Pharmacist	Early Career Pharmacist
Selection and admission	x			
Curriculum content		x	x	
Experiential Learning		x	x	x
Careers Education		x	x	x
Variability		x	x	

## 7.2 Exploring the educational journey of the pharmacist

### 7.2.1 Selection and admission

There are three sub-themes considered in this section: school education that prospective entrants receive, careers education given by secondary schools and the recruitment process undertaken by the SoPs.

#### 7.2.1.1 Pre-university education views

SPOs and employers viewed the selection and admission processes onto the programme playing a key role in student preparedness and understanding of their future professional role, and the appropriateness for entering the profession. The lack of NQPs views most likely reflects their lack of experience of recruitment processes.

Employers saw school education focused on knowledge, shaping what students consider is important for success.

*You're bringing that mindset up through the ranks from junior school, from high school, from colleges and stuff, where actually it's knowledge, it's knowledge, it's knowledge ... and I think that's a big problem. (EMPMH-004)*

This was an issue for employers as skills and attributes hold greater importance than knowledge, necessitating action to address this which could include how pharmacy as a career is presented.

#### 7.2.1.2 Promotion of pharmacy as a career choice

Participants wanted to see greater engagement by the profession with schools, to enable preparation for a career in pharmacy. The engagement was with respect to the core skills necessary for a pharmacist.

*It would be lovely if somehow we could get it [the profession] to engage before university level. (EMPMH-004)*

This approach might then seek to address concerns raised about how schools of pharmacy recruited students.

#### 7.2.1.3 Recruitment and selection by schools of pharmacy

Employers believed that selection and admission onto the course was driven by academic ability, and/or the need to fill a quota of places. This belief contrasted with employer views, that values were fundamental.

*I'm not always convinced that they [SoPs] choosing people based on their A level grades for a career in health and, particularly a career directly facing the public.....in reality there is a real need to make sure we're attracting people who understand the fundamental that this is about care and having 3A Stars in Sciences doesn't necessarily demonstrate that. (EMPC-001)*

Employers wanted to ensure that appropriate people were selected onto the course, based on their values.

*We talk about the kind of people that go into pharmacy, what kind of people go into pharmacy, what kind of values do they have, are those the values we need? (EMPMH-007)*

When discussing values, participants expressed a need for greater clarity with respect to operationalisation of Values Based Recruitment (VBR) in selection processes.

*We've changed to attributes now – without any clarity about what we should be looking for and who we should exclude from that process. (SPO-009)*

Where the source of clarity should be was not given, whether this should be the GPhC and/or other organisations. Additionally, caution with respect to VBR process was raised and the appropriateness of recruiting potential applicants who may not have had the opportunities for life experiences that demonstrate the desired values.

*I'm not okay with and I think is very challenging for us as a profession is what we do with seventeen year olds. I think it's actually bordering on immoral in terms of selecting on traits which they haven't had a chance to properly develop yet. (SPO-009)*

With recruitment and selection, there appears to be a disconnect between the perceptions and practices. Additionally, there are questions raised to the practices involved and how to ensure they are clear and appropriate.

#### 7.2.2 Curriculum content

There are four sub-themes, which discuss matters related to curriculum content of the MPharm and foundation training. These sub-themes consider ways in which employability teaching can be embedded within the pharmacy curriculum, how the role of the NQP as a prescriber impacts on education, foundation training structure and the support given to trainees. Curricular aspects, including what students and trainees need to be taught, how it is to be assessed and the structure, were a focal point of the discussions with all participants. Views were given as to suggestions for improvements with respect to preparing for practice.

##### 7.2.2.1 Embedding employability within the pharmacy curriculum

SPOs wanted to see the embedding of employability teaching within the undergraduate programme for preparation of the future pharmacist and initiate this from entry onto the course. Demonstration of activities related to patient facing practice and attributes were of greatest importance.

*We need to start earlier, we need to slowly increase the amount of clinical that they're getting in and making sure that we're also getting in the attributes, making sure we're getting the values, making sure that, at the end of the day, we are getting a well rounded individual and well rounded pharmacist. (SPO-004)*

Taking accountability, decision making and prioritisation, and then being able to learn from experiences were the focal points for skills and attributes education.

*Training students to start to be thinking all the time about their accountability for these decisions that they make. So that things are not black and white, there are various shades of grey and how they decide what shade of grey is the right shade of grey on this occasion. That they make that decision and take accountability. (SPO-007)*

*Focus on knowing how to learn and to work out how to prioritise .... some tasks aren't being done because they've wasted time on something else ... Decision making, so that they have the confidence to make decisions and knowing when they can't make the decision ... can they apply their knowledge and skills to every day practice, you then identify what they've done well, where they need to improve and guidance on how they can address those gaps. (SPO-003)*

Training delivery needed to be contextualised to practice but ensuring that the context considered potential future practice and less well-established roles. This also supports careers education.

*In order to prepare students properly for the world of pharmacy in six years' time, the examples we use, the contextualisation of their learning, the expression of their knowledge and skills needs to include these other contexts of care. In particular, working in GP practices and probably working in tertiary care which again is becoming a growing area which we didn't have twenty years ago. (SPO-009)*

The views given are strategic in nature and consider how pharmacy education needs to be delivered. This may be because views originate from SPOs whose perspectives have a broad professional approach.

#### **7.2.2.2 Prescribing training within the MPharm**

Whilst participants had varied views on NQPs as independent prescribers, underpinning prescribing skills needed to be addressed as a component of the MPharm. The reason for this appeared to be that this was needed before graduates entered the workplace to continue their prescribing journey.

*I'm happy if, at undergraduate level, if also other parts of the IP have been incorporated into that. I don't mind that, so in terms of understanding the legalities and the governance and all those things around prescribing (SPO-002)*

Greater focus on the communication and consultation skills at undergraduate level was needed to support prescribing decision making.

*We need to improve undergraduate ... consultation skills. So probably more patient-centred skills .... are you taking your meds, do you take them regularly, if not, why not, what are the barriers....so I think we need to really improve our communication skills, training at a much junior level. (SPO-002)*

Effective delivery of prescribing skills training were needed to allow student pharmacists the opportunities to practise their communication skills.

*It's the education style that I'm commenting upon, it's a machine, it's lectures, it's based on a majority of lectures and a few workshops, it's not a one to one, it's not a small little group where we're working on educational factors, where we're working on communication styles ... because there's that gap, people aren't doing it enough for students to come out of pharmacy being confident to speak to patients and being able to speak to patients professionally. (SPO-004)*

Recognising that student pharmacists are restricted by availability of experiential learning opportunities; views were given to how prescribing experience could be implemented.

*Having the undergraduate level more practical with workshops and scenarios and scenario-based type teaching ... a surgical patient, see a pathway of a patient through and you can look at all aspects so they [students] can get more rounded, but that would then influence that, when they started as a pre-reg and then as a qualified. Cos they're better prepared for that, rather than it all becoming new and having to be taught in the workplace. (EMPH-001)*

#### **7.2.2.3 The GPhC Registration Assessment (RA)**

Discussions around foundation training included commentary on the RA; an assessment that tests that trainees can apply knowledge appropriately, make professional judgements and perform calculations.

The RA was seen as important from the perspective of assessing knowledge and ensuring that trainees were able to meet a set standard to show that they had the required knowledge for preparation and practice as a pharmacist.

*It is hard but I think it lets you differentiate between the ones that should hopefully become a pharmacist because it's all about knowledge. (NQPC-001)*

*But we want to take it a step further and we want them to succeed, and we do them a disservice by not preparing them for the second part. (EMPC-002)*

Whilst seen as a measure of knowledge, it was also viewed as complimentary to skill and attributes measurement, enshrined in the outcomes. However, unlike the RA,

assessment of outcomes is not quality assured, placing an emphasis on the continued need for the RA.

*There are concerns about the process of that sign-off because it's difficult to quality assure and to equate that across different students is very difficult ..... the only evaluation we have is the national registration exam which doesn't measure the same traits necessarily. (SPO-009)*

Participant philosophy for foundation training primarily focused on whether the entire programme adequately prepares trainees for practice. However, employers believed that training had been designed with an outcome of passing the RA.

*It [foundation training] is much more heavily slanted towards actually passing an exam. (EMPH-005)*

An underlying reason cited for this was the RA Framework, which outlines what is being assessed within the assessment. Employers were appreciative of the need to ensure that trainees were able to pass the RA.

*There is that kind of we're trying to get them to pass the exam and that's what they're there for. (EMPC-002)*

Whilst fundamental in demonstrating the required baseline knowledge to be a pharmacist, the RA was seen as a potential distraction for progression to NQP, in that the focus was on an assessment rather than the holistic journey. This could also be the driving factor for a perceived need to spend money for additional training input.

*The really hard thing that I found as a pre-reg pharmacist is the amount of hype on social media and emails you'll get about, 'come to this training course. It costs two-hundred pounds but it will change your pre-reg life and you'll be so much better because of it.' (NQPH-003)*

Further concern related to the style and delivery of questions and how they favoured certain sectors over others or did not replicate real-life. This was viewed as unfair given that trainees do not experience every sector of practice and resources are not readily available.

*Last year's pre-reg exam was a lot more tailored to hospital pharmacy because there was a lot more clinical questions. So, I feel like sometimes community pharmacists do have a little bit of a disadvantage going into that exam. (NQPH-002)*

*There are certain aspects of the exam which I think were a little bit impractical as a pharmacist. You're not allowed the BNF in the exam, which I think is a bit ridiculous.* (NQPC-006)

#### 7.2.2.4 Structured training pathway for Early Career Pharmacists

Up until the point of becoming a NQP, there is a mandatory educational structure that students and trainees are educated and assessed against. There were concerns about Early Career Pharmacists (ECPs) (the early-career stage refers to the initial two to three years of practice) having no mandatory educational training pathway.

*Definitely having some kind of structure there would be really handy for these newly qualified pharmacists.* (NQPC-003)

*There is no scaffolding around the early years of practice.* (SPO-006)

Participants suggested that educational pathways developed by the RPS would be helpful to support professional development, but that uptake by ECPs would require formal recognition as a qualification.

*Thankfully the RPS foundation practice is recognising that actually you don't have all these [skills and attributes] from day one and you need to build on it.* (EMPMH-004)

*I think it matters only if it becomes a recognised qualification I guess.* (EMPC-002)

Participants viewed that demonstration of the relevant knowledge and skills, and associated attributes, required a structured educational programme, to support development. This needed to be made mandatory and associated with a qualification.

#### 7.2.3 Experiential Learning (EL)

Within this chapter, experience gained through placements is termed as experiential learning (EL). All participants were positive about the value of EL and agreed that it needs to be an integral part of the MPharm.

##### 7.2.3.1 Developing employability characteristics within EL activities

EL was seen to help develop skills and attributes, and to provide this practical experience without the associated responsibilities of a registered pharmacist.

*You've got more realistic and practical skills of .... all those skills, values and attributes.* (EMPH-001)

*That's the time you get out into the workplace without being the responsible pharmacist to train, to learn, to adapt, and get those sorts of skills that you need to be a pharmacist at day one. (NQPC-006)*

EL and the associated patient focus was seen as an enabler for the transition of the undergraduate with respect to knowledge of the world of work, work-readiness, and professional identity formation (PIF).

*Through placement experience, where you're dealing with actual people in their actual worlds and their actual problems and the disparate nature of what they tell you and how they explain themselves and also starting to think about what it is that they're not telling you that is actually important rather than what you're being geared up to find. (EMPC-004)*

*There's a great big bit about placement experience throughout from the start. And actually, I think that also helps galvanise your professional identity. Because you see how your role fits in the jigsaw puzzle for supporting patient care. (SPO-008)*

NQPs also recognised the value of placements in supporting PIF, particularly with placements of extended durations.

*You don't often get to follow the juniors on a full day, 'what do you do on a full day? How can I develop my skills to fit with that, ready for the role?' (NQPC-004)*

Participants were clear of the value of EL with respect to employability, but from a practicality perspective further considerations were needed, including the implementation of active learning in EL.

#### 7.2.3.1.1 Active learning during EL activities

Participants believed the ethos of EL required students to actively participate in tasks, rather than solely shadowing health care professionals. Active participation was seen to support identification as a practitioner.

*I don't think it should be just coming and shadowing. I think it should be more like, 'right, you're the pharmacist now. You go and talk to somebody.' (EMPHC-001)*

Passive EL activities offered little to the learning and development of the individual, compared to active learning, with NQPs recalling their observational activities as not helpful for learning and development. NQPs wanted to be actively involved, so that they could practice their knowledge and skills, under supervision.



*You can't do anything and I do accept that is quite boring to just stand and watch. You're never going to have that experience of making that decision or speaking to that doctor about that interaction until you have to go and do it. (NQPH-006)*

Whilst there was a desire to make EL more active to enable practice, such opportunities were limited by the availability of placements and the money to fund them.

#### *7.2.3.2 Considerations for the implementation of EL activities*

Participants discussed the practical considerations associated with EL activities, which related to finances, number of placements, and ensuring placements and the course linked together. Funding was fundamental in releasing capacity for active EL delivery with concern that sufficient funding was not available.

*It's limited by the fact that if you want to use patients or actors or get hospitals or community pharmacies to actually take your trainees to do this interactive stuff, you have to pay and that money isn't there. (SPO-006)*

Added to this was the concern about needing to increase the number of placements to reflect changes within the course, the implications of this and whether the workforce was able to support this expectation.

*It's the practicalities of delivering that at scale at the moment we deliver around thirty placements a year, we're talking about an eight to ten scaling up of that. (EMPMH-004)*

To ensure meaning and relevance, EL activities needed to reflect the value of simulation and the integration of EL within the curriculum. This was also seen to continue the expectation of active learning from placement into the classroom.

*The point is how do we build in experience from learning into MPharm programmes? Which can be through simulation, practice-based learning, contextualisation, some placement activities, having experiences where patients come in instead of students going out to placement, all those things forming a much bigger picture of experience from learning. So, if you're asking me should we move away from didactic teaching to a more, almost learning or team based learning or experiential learning approach, the answer is emphatically yes because all of learning theory supports doing that. How we represent the experiential part of it, let's not just count the placements in isolation, let's count the whole package. (SPO-009)*

### 7.2.3.3 Realising potential and opportunities through EL activities

Not only did EL offer an opportunity for development of EL characteristics, but they could also provide practical careers education. NQPs saw EL activities as an opportunity to the career options available to them, however the limited access to sectors available restricted career awareness.

*I didn't know there was anything other than community and hospital to pharmacy so I feel the exposure isn't great at universities. (NQPH-008)*

NQPs acknowledged having limited exposure to industry but felt this experience was important for career awareness.

*I really advocate that because I feel, as pharmacists, we don't know what we're capable of because we've never been shown it at university. So, at day one, I hope that pharmacists have had exposure to industry. For example, the engineers I work with, they all get one year, if they decide to, they can do one year in industry. If their universities can form those links with small pharma or big pharma, why can't our universities that do pharmacy? What stops them from forging those links and getting their students to do one year in industry? (NQPI-001)*

It was clear that for NQPs who are at the beginning of the career journey, there was a need for better career awareness at a practical level. Aside from pharmacy careers, EL was important for learning about the roles of others.

### 7.2.3.4 Interprofessional Education & Learning (IPEL)

Participants viewed IPEL as valuable experiences that supported the work-readiness of the student. The experiences provided opportunities for appreciation of the mutual relationship that different health care professionals have with pharmacists.

*Have that MDT [multidisciplinary team] learning so they understand actually, how does a doctor work? How does a nurse work? What's the pressures on a nurses environment? And if the MPharm can provide some of that to get them ready, I think that would be really beneficial. (EMPH-003)*

Whilst reflecting on the value to the individual of working within a team, participants commented that the education that emphasises, enhances and prepares for this was not present.

*You don't see where you fit in, whereas once you've qualified or once you're in a job, you see how you fit into that team, where you fit into that multi disciplinary team and where you all work together but you get taught about it but you don't see any and you don't understand it until you start working full time. (SPO-004)*

One NQP reflected that despite undergraduate teaching, this made them not appreciate the wider multidisciplinary team, thus supporting the need for IPEL.

*It's so important to be able to have the skills to be part of the multidisciplinary team. I think at uni I hadn't quite understood that. (NQPH-003)*

Despite highlighting the known positive benefits of IPEL, participants raised that there needed to be more IPEL provision, and that current provision was variable.

*There are some programmes ... that have a very rich interprofessional education experience and that fulfils that aspiration of what it wants as graduates. But I don't think it's the norm yet. I don't think it's the norm across HEIs. (SPO-004)*

#### **7.2.3.5 Independence and work-readiness**

Participants discussed independence and work-readiness in relation to both the transition from student pharmacist through to NQP, with practical examples of suggested additional training. This was focused on the NQP needing to be ready to manage complex situations.

*The patients that we're seeing are increasingly presenting with more complex clinical situations. And I don't think pharmacists or newly qualified pharmacists really have the confidence sometimes to deal with it. (SPO-005)*

At MPharm level, employers wanted to see teaching on the legalities associated with operating a pharmacy and PIF through role modelling opportunities, within the HEI and elsewhere.

*They have to understand the regulations and disappointingly some of them don't. (EMPC-001)*

*Learning the type of pharmacist that you want to be and watching people around you and you can only get so much of that from university. (EMPC-005)*

Employers wanted to see the latter stages of foundation training when trainees had more experience in independent working in readiness for becoming a NQP. A

significant period to work independently would enable the active demonstration of skills in readiness for day one practice.

*They only get, like, a week of their own commitment or something. That's not right, in my personal opinion. They should be given more sooner. 'Cos' that's the real world.* (EMPH-003)

*Six months, nine months in, they should be more or less functioning as pharmacists.* (EMPH-005)

Employers cited examples of trainees being given increasing independence subject to completing specific work-based activities, bridging the gap between being a trainee and taking on the autonomous responsibility of pharmacist.

*A good model to have where they get more and more independent work in over the pre-reg, so they're effectively working as a junior pharmacist by the time they finish pre-reg, passing those validations, competencies, that really sets them up well for day one of newly qualified.* (EMPH-001)

NQPs agreed with employers about the value and benefit of the firsthand experience. They viewed foundation training where they learnt about becoming ready for work and needing to have a sense of independence to enable this.

*When you're with someone, it's more learning, it's more felt that you're following someone, you're shadowing and it's more a learning experience. If you're doing it yourself, it's more of a working experience. So you have that feel. So you can then test yourself on what you know and what you don't know.* (NQPMH-001)

*Pre-reg I think should change to giving people, rather than no responsibility in terms of screening and counselling and things like that, half the responsibility. So, almost like an F1 for doctors where you come out of uni and you are allowed to do things and you do take the responsibility. Because in pre-reg, you're always referring complete responsibility to your pharmacist. But if you were to take some of that responsibility in some way ... I think that would help people develop during that year. Instead of day one, checking something for the first time that goes out to a patient and thinking, 'oh my gosh. This is so weird,' we're developing that slowly and maybe it would be better.* (NQPH-005)

SPOs saw increasing responsibility for trainees as an area for focus. Work-Based Assessments (WBAs), which includes Entrustable Professional Activities (EPAs), decision making, and holistic thinking activities were seen as favourable for trainees, to demonstrate their performance and competence. This would give reassurance to their employer of their ability to take on this increasing responsibility.

*Does it come back to entrustable professional activities in that we increase the amount of responsibility that they can have early on in their pre-registration training.* (SPO-001)

*Much more focus on workplace based assessments; look at the medical model; you still have exams but the exams are part of your competency sign-off by a range of health care professionals and your medical tutors network. So, it's in there and it's in the mix and you can't get through without it, but it puts it in the context of actually, you've got to demonstrate your evidence quite robustly and much more professional indicators along the way* (SPO-008)

Across all participants, there was a clear need for foundation training to shift to a model that incorporated greater independent working practice, underpinned by WBAs.

#### 7.2.3.6 Multi-sector training

Participants spoke about how the structure of pharmacy education and training might change in the future. At the time of the interviews, the practice of multi-sector working was in its infancy, however participants spoke about the multi-sector training built into some 5-year integrated MPharm programmes.

##### 7.2.3.6.1 Multi-sector training for trainees

Employers could see the benefits of multi-sector training, but the extra demands placed upon the organisation involved was the largest barrier to its implementation.

*From a commercial side 'that's great, come and do six months here, six months there' from a commercial business nobody wants that, they want the full year, they want the person to be fully fledged they don't want to spend the time training somebody and then training them again.* (EMPC-002)

A reduction in time spent in one sector was seen as disadvantageous to employers, as it was believed NQPs would not have the experience to be prepared for practice in a single sector, negatively impacting both the NQP and their employing organisation.

NQPs recognised limitations of multi-sector programmes for themselves; reduction of time within an area and how this limited exposure and experience available to them, and the potential impact on NQP practice.

*I didn't get to experience the rotation fully, like other pre-reg students did who were a year pre-reg students, so I had to quickly move through rotations. (NQPH-007)*

Despite this, NQPs remained in favour of multi-sector placements and reflected that they would have liked to experience this during their foundation training.

*Because when you get a discharge back to your community from hospital, you know what process they've gone through with that patient ..... You can do a post-discharge MUR on someone and know what they've already gone through. Whereas if you haven't had that placement and haven't had a full view of how hospital works, I don't think you'd be able to do that to the best of your abilities. (NQPC-004)*

Whilst multi-sector training offers advantages, the practicalities need to be fully considered to ensure acceptance across the profession.

#### 7.2.3.6.2 Multi-sector working for Early Careers Pharmacists

Participants discussed multi-sector working for ECPs. For ECPs, multi-sector working offered an opportunity for structured training and development, and the application of a wider variety of skills, based on increased exposure to practices within differing settings.

*You'd be able to gain more through having split placements. Cos you're not in the same team all the time, you're forced in a new environment, you develop your own skills and attributes which may vary, your knowledge would definitely be broader in terms of what you're exposed to. As opposed to, like, clinical knowledge, your knowledge of how different things work in different places, so maybe, like, organisational knowledge and stuff, would be very, very different. Which I think is a good thing actually. (EMPH-006)*

However, the overall views on multi-sector working focused more on the barriers to integration, the practicalities and the philosophy of this approach. The funding and financial aspects of the model were seen as potential barriers to achieving integration between sectors.

*Pharmacists do clinical in the community, but the business model for community pharmacy doesn't support that. (EMPC-002)*

Another barrier to implementation was the additional training requirements placed upon employers, which would limit operational delivery and therefore be financially disadvantageous.

*They can do a lot of work but that takes lots of time for people to actually be trained up, which is one of the issues within that. They can't hop from one company to the other straight away. Moving one sector to the other. So industry will probably be out of it. Even trying to rotate around industry would be challenging. (EMPI-001)*

The additional training needs and requirement to move across sectors were also not favourable to NQPs.

*Hearing about that makes me feel like it's another year of training ... but I think perhaps you'd lose a little bit of the values and behaviours and you being a person. Because here, you're making friends along the way with working and you're really learning to fit into this environment. If someone told me, 'in a month's time you're going to go out into a community pharmacy,' I think that would be quite a different feel towards it. (NQPH-006)*

Like foundation training, multi-sector training for ECPs elicited similar comments about practicalities to implementation but to a greater extent. This was likely due to the impact on service delivery.

#### 7.2.4 Careers Education

##### 7.2.4.1 Careers Education within the MPharm

NQPs believed the value of undergraduate careers education had two focal points - awareness of the roles available upon graduation and support for student pharmacist transition to pharmacist. This was to be provided through discussion of subsequent stages of their career with associated expectations. Most careers education within the MPharm was focused on the community and hospital sector, with little to no discussion of the other sectors of practice, such as industry.

*A lot of the time you were pushed towards community and hospital. (NQPI-002)*

However, NQPs wanted information about lesser-known roles, such as industry, emerging roles including general practice and roles outside of pharmacy.

*They can do roles in finance, wherever they want to go. There are so many grad schemes out there, like, they're not saying you need a finance degree, but because we've worked so hard to be pharmacists, that's what we think. And, if you want to be a pharmacist, that's amazing, that's great, that's what you did your degree for.*

(NQPI-001)

NQPs offered careers education supporting transitions and preparedness for graduation.

*There's no bridge between undergrad and going into your pre-reg year. As in, you're almost not taught what to expect from that year.* (NQPC-003)

Additionally, NQPs wanted careers education to include greater experience on career preparation techniques such as interviews. However, this can extend to applications, CVs and assessment centres.

*More on people skills, how you manage yourself in an interview, interview techniques, I don't know if that.... I guess they are touched upon, I think, in uni as a whole. I don't know if they were addressed in our MPharm course but then I guess you do get the one on one sessions, which are good.* (NQPMH-001)

Given the proximity to starting a pharmacy career, this is the likely reason why it was the NQPs who had views on careers education.

#### *7.2.4.2 Improving the provision of support during foundation training and the Early career stage*

NQPs suggested a need for provision of pastoral support during foundation training for support of personal and professional development.

*Having that third party who you can talk about what you want to do .... having that extra person who has those different values, the different knowledge, different skills, I think will help give you that wider perspective.* (NQPI-002)

SoPs were considered as suitable collaborators for support, given their position, infrastructure and relationship they shared with foundation training providers.

*I think not losing the universities when they're on the pre reg and also okay, we know with our hospital pharmacists, ... they have their study days when they go round the hospital, what do the community pharmacists get and outside of the multiples, I imagine it's nothing and again if the universities are still involved, the community*



*pharmacists would be able to access the training more readily because they make up the bulk of the pre regs. (SPO-003)*

This view was in response to what the SoPs could provide to trainees and foundation training providers with respect to educational support and ensuring consistency across settings. This was seen as a potential opportunity for closer working between SoPs and providers.

*Should we ensure there's closer articulation between the MPharm programmes and pre-reg? Because at the moment there's virtually none. When was the last time an employer went to an MPharm provider and said, 'bring us up-to-date; what exactly do you think you're sending your graduates out with in terms of the values, skills and knowledge?' (SPO-009)*

There is a gap in the pastoral support provided to trainees, provision of which would assist in peer feedback, reflection and mentorship. HEIs could play a role in the delivery of this.

In addition to multi-sector working, participants also discussed the training and pastoral support needs for ECPs.

Participants advocated the need for ongoing peer and pastoral support for ECPs in addition to formal educational support.

*In hospital that's a little easier because you have people to talk to, because there is always someone around there is always someone on the next ward usually even if a decision has to be made quite quickly. You've still got time to phone someone, you know who else is contactable, ... in community pharmacy you can feel quite isolated like 'well, I'm the only one in this room right now and have I got someone to turn to? Can I ask other people?' I think social media groups have definitely helped with that. I know I'm still part of like several different group chats where we daily still get, even now, get questions about 'how are things going?' or 'I've just got a question about this, how do I claim for that, what do I do in this situation?' I think that's helping to remove the isolation. (NQPH-001)*

#### 7.2.5 Variability within education and training

Comments about variability within training centred around the standards of teaching and training across the MPharm and foundation training, which had an impact on the perceived quality of training.

#### 7.2.5.1 MPharm teaching variability across Schools of Pharmacy

Views were given on the undergraduate standard 10 outcomes that were in existence before the 2021 educational standards. Participants found teaching on programmes variable and wanted to see more consistency. However, they recognised SoPs need for autonomy in how they deliver teaching. Participants appreciated that SoPs focused on specific areas to varying extents, potentially guided by teaching practices and where their research strengths lie.

*A lot of universities still do it very differently though. So, speaking to people from different universities, they're prepared very differently. Some places focus on X, some places focus on Y. Like, really sciencey or really patient-focused. (NQPH-005)*

There was a suggestion that the standards are subject to interpretation, due to their broad nature therefore leading to variation in implementation.

*GPhC set out these very broad educational guidelines and it's down to interpretation. (EMPMH-004)*

*I think the university programme depends from university to university what their focus is and also depends on what research they're doing and then that feeds through to the course and what the course focuses on. (NQPI-001)*

Employers felt that the standards were not reflective of practice and did not align with the aspects they believed to be of greatest importance to them. Employers believed that they themselves were responsible for addressing the need to prepare future pharmacists, rather than a partnership with those that set the educational direction.

*If you look at the GPhC standards and things like that they don't ask for that, they don't ask for them to be leaders or have leadership skills (EMPC-002)*

Participants believed pharmacy education focused largely on knowledge acquisition, with little attention to attributes and transferable skills. This suggested a need for review.

*You actually hit the knowledge really hard and ... I have this feeling that from literally the age of five in England, you are told, education, education, education in regards to knowledge only. So I'm not saying all universities, but I certainly think there is an element of where universities enforce this. I know when I did my undergraduate*

*degree, very, very little of my training was around my skill set, it was around my knowledge. (EMPMH-004)*

*They have their standards and their knowledge and a lot of them based on your knowledge and skills but there are a few of them that are based on your attributes, so your ability to talk to patients, your ability to manage things that are quite hard and stressful situation. (NQPI-002)*

Variability within the MPharm was raised due to how the standards are interpreted and implemented. This resulted in a perceived focus within the course on aspects that were not as relevant to the workplace.

#### *7.2.5.2 Regulation of foundation training and Quality Management systems*

The views on variability within foundation training centred on the quality of training. Participants saw these issues related to the governance and quality assurance processes and procedures set by the GPhC. Concerns were raised about the variability with respect to the level of standard of training, arising from the sector of training and the quality of the Designated Supervisor (DS). Whilst participants expected variation in training, this should not negatively impact its quality.

*It also depends where the pre reg is, if you go into community and I've got plenty of my friends who are either community pharmacists or did community pre regs and transferred to hospital, actually they [community] are much more interested in dealing [with] how to file properly. (EMPMH-004)*

*I think the way pre-reg tutors are managed, some are fantastic, some are really good, and some are absolutely shocking. And I don't think that's right. It's not right at all. I think there should be more enforcement on whether people are fit to be pre-reg tutors or not. (NQPC-004)*

A point of concern was the guidance provided to the DS to enable them to undertake their role, which the GPhC as regulator needed to improve, to ensure that trainees were appropriately trained. Discussions in this area centred on the quality of the DS in supporting the development of skills and attributes of the trainee, which was also raised as important with respect to careers education.

*Someone needs to set a minimum standard of who can be a pre reg tutor, what is the support that's being provided and make sure there is a minimum standard because, at the end of the day, someone might be clever and pass the exam, it doesn't mean*

*they have the ability, yes they have the knowledge, but it doesn't mean they have the skills or the attributes or the behaviours. (SPO-004)*

Participants raised that the position of the trainee and whether they are an employee, a trainee or both impacted on the quality and variability of training.

*No time for education, only time to be an employer's free dispenser and that. (NQPI-001)*

*If you feel like you've just been recruited as a bit of a cheap slave, you gonna have a view of the professional aren't you and either grow up and become that slave master yourself in terms of how you operate and run or broken and be disillusioned by pharmacy because you're not being given the opportunity to learn and to develop within the pre reg year. (EMPC-001)*

These views were from the perspective of foundation training in the community, where the perception was that of a reduced focus on training and greater emphasis on being an employee. This presented a situation where the balance between working and training could lead to potential conflict between the two.

*We're paying them quite a lot of money, so we expect a service to be provided by them ... but they probably still see themselves almost like a student in terms of receiving training. So it's hard to get that balance between what the employers want from them and what the pre regs want from their year. (SPO-002)*

Participants shared frustrations about the GPhC, based on viewing the GPhC as distant from the training provision, and needing them to better understand and regulate training, with the aim of increasing its quality of training.

*The GPhC have to take a certain amount of responsibility on the fact that we are not preparing our pre regs suitably enough. (EMPMH-004)*

*The GPhC have inspectors. They'll come and talk to you and monitor your practice and things like that. And whether we'd have similar again – yeah. (EMPHC-001)*

For NQPs, the perceived distance of the GPhC resulted in a loss of trust.

*The GPhC need to realise what students really want and not take a back seat when it comes to learning in our pre-reg year because I think it takes away the trust that we have with the GPhC. (NQPI-001)*

### 7.3 Chapter Summary

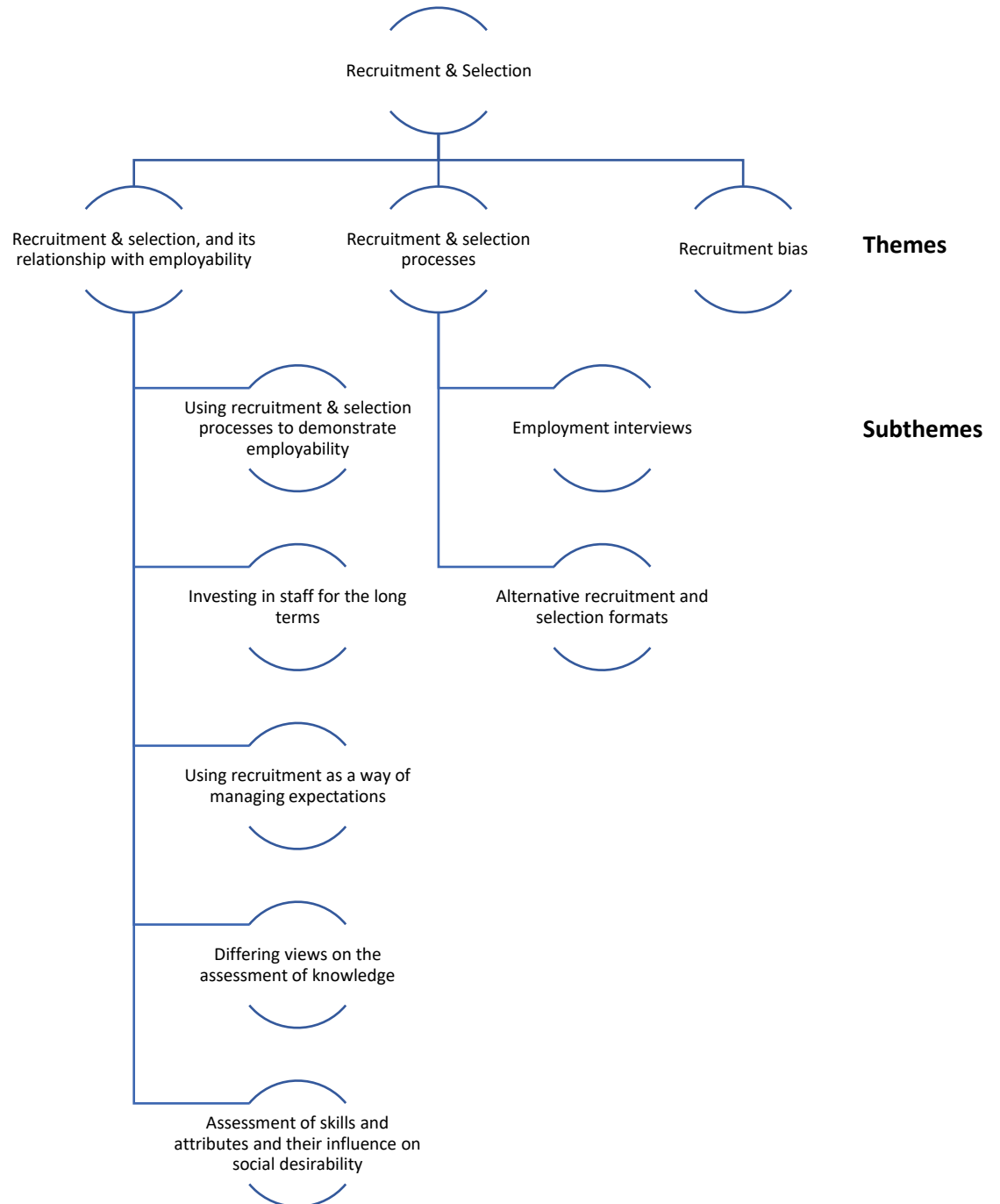
Participants provided views on the MPharm programme and foundation training, which include discussion of format, logistics, overarching philosophy, curriculum, relevance with reference to practice, teaching and assessment strategies and ideas for improvement. Chronologically, views cover the duration from entering onto the programme to the early years of practice and considered several aspects relevant at various points along this timeline.

## 8 Views of employers, newly qualified pharmacists and stakeholders on the recruitment and selection of newly qualified pharmacists

### 8.1 Introduction

This chapter presents the results on the perceptions of the recruitment and selection processes for NQPs used within pharmacy to support employability requirements. In this chapter several themes and subthemes are presented. These are visually presented below in Figure 16 showing each theme and associated subthemes. The theme of recruitment and selection, and its relationship with employability highlights participants' views on employability. This influenced their ideas about the strategy and processes of recruitment and selection. Selection methods for the recruitment of NQPs are discussed. Finally, the concept of recruitment bias is considered whether it is prevalent within NQP recruitment and how to mitigate against it. Themes are discussed with reference to each participant group, comparing between the groups.

Figure 16. Themes and subthemes related to recruitment



## 8.2 Recruitment & selection and its relationship with employability

Participants spoke about the use of recruitment processes of various format(s), being used to recruit NQPs, with reasons why these were used or opinions of their own experience(s) of being recruited.

### 8.2.1 Using recruitment and selection processes to demonstrate employability

NQPs primarily used the experience of recruitment to their first pharmacist post, whilst employers gave perspective of being recruited as well as undertaking recruitment, giving insight into both sides of the process. NQPs reflected on their experience of their recruitment processes as well as critiquing. The individuality of the recruitment process for each NQP resulted in a wide variety of views.

*I thought employability was about experience and transferable skills. And I feel like that's how it was with my recruitment. (NQPH-004)*

Some community NQPs talked about opportunities where they had been involved in recruitment, which gave them an alternative viewpoint, that of being a recruiter, due to their awareness of the recruitment process.

*I have helped my boss employ people in the pharmacy. So, I have been involved in that process. So, that's been useful. I guess for me, definitely skills and attributes would be important on their CV because that's kind of what stands out. (NQPC-006)*

Community NQPs also explained about the various systems their organisation implemented including training days and specific meetings to discuss careers, recruitment and the preparation required.

*I think maybe the recruitment process was also tied into the training process. Obviously, if they've seen you grow throughout the year and they see how you've been working and your training days and that kind of stuff, it plays a massive part into your employability as well, apart from the actual career discussion interview side of things. (NQPC-002)*

This view considered the relationship between foundation training and employability, as well as recruitment. This was seen as a positive aspect. From an employer perspective, one employer spoke about how they provided recruitment support during foundation training but did not specify how they did this. It is not



known how widespread such initiatives were and whether they were perceived as helpful by the recipients.

*That's something we do in the pre-reg year to try and help prepare them for the interview process. (EMPH-001)*

Whilst recruitment practices and processes are varied, the expectation is that there is a focus on assessment of skills and attributes.

#### 8.2.2 Investing in staff for the long term

Employers sought to use foundation training as a way of retaining staff as NQPs and mitigate against further investment of time and resources. From a broad experience, they saw recruitment as a fundamental process for the success of the organisation and were also aware of the risks associated with it, should it not be undertaken appropriately.

*It's all about finding the right people to stay within the business. Because recruitment's so expensive though, so if you mess it up and you get it wrong you have to re-recruit it's also quite pricy, so we need to get it right. (EMPC-002)*

Employers wanted an employee to stay within the organisation, ideally for the long term and therefore wanted to employ individuals who will deliver on the organisation's mission.

*I'm looking, five to ten year plan for that pharmacy, for that environment, for those teams. (EMPC-005)*

Costs associated with recruitment limited what employers could do to ensure the most appropriate candidate was appointed.

*It could be done even better, but ... there is ultimately a line in the sand where it comes to time available and resource available to go into actually that recruitment process. (EMPH-005)*

Whilst employers did not provide anecdotal information to contextualise their views, it is expected that their views were informed by their experiences of recruitment and selection.

### 8.2.3 Using recruitment as a way of managing expectations

Recruitment was also viewed as a way of expectation setting between employers and the potential employee, ensuring that any employment offered was beneficial for both parties.

*'This is what it means from our side of it and is this attractive to you?,' and then it's the, 'Do you fit what we then want?' So, it's a partnership sort of working. (EMPC-004)*

However, employers outlined a barrier to this, in that they had experienced recruitment where the potential employee had presented themselves in a way that they perceived the employer wanted, rather than being themselves.

*That's where this whole, 'I want to be perceived as, I want them to know that I know this' – and it starts pretty much from the application process. (EMPH-006)*

Employers look to use recruitment as a means for setting expectations between themselves and future employees. However, differing views of the importance of key areas means that there may be a mismatch between employers and NQPs' expectations as exemplified by their views on knowledge.

### 8.2.4 Differing views on the assessment of knowledge

An area where there was a difference in understandings and expectations between NQPs and employers was in relation to knowledge and its assessment during recruitment. Community employers agreed that knowledge in the context of clinical knowledge, did not need significant testing as part of NQP recruitment. Assumptions of knowledge were based on having graduated with an MPharm degree, but with no stipulations with respect to the class. There was a sense that the higher the class, the greater the quality of candidate but this did not influence the recruitment process.

*You have to assume that everyone has the correct knowledge and skills..... some [Schools of Pharmacy] produce very clever, bright ones who can cope with a multiplicity of situations. But I've been looking for someone to, not have the best degree, but certainly not have the worst degree, and I'd be looking for them to have done other things, because if they've done those other things then a lot of the other things fall into place. (EMPC-003)*

This view was shared by some hospital employers for whom clinical knowledge demonstration did not dominate the recruitment process. However, other hospital

employers took the opposing view, suggesting that the view of the importance of clinical knowledge differs across hospitals.

*There was twelve questions on their interview, which sounds massive but it actually only took less than an hour but only one was clinical. (EMPMH-004)*

*We put a clinical case to look at to assess clinical knowledge. (EMPH-001)*

Non-hospital employers and NQPs with experience of hospital interviews perceived that hospital employers were interested in assessing clinical aspects.

*Well they will be testing their clinical skills and that's because that's in that role. (EMPC-002)*

This was confirmed by NQPs who discussed their experiences of the clinical aspects of the interviews, as well as their concerns.

*I felt, was quite tough because I've never really seen drug charts before and they were assessing me on different things on the drug charts. (NQPH-002)*

Employers also highlighted concerns from applicants about the clinical knowledge aspects.

*I get emailed before the interviews, oh how much do you expect me to know about mental health (EMPMH-004)*

#### 8.2.5 Assessment of skills and attributes and their influence on social desirability

Intertwined with discussion on clinical knowledge, employer's recruitment processes were driven towards demonstration of skills and attributes. This likely stemmed from the focus on Values Based Recruitment (VBR).

*You understand what they do, you understand their, sort of, skills and gaps. So, there's all the behavioural things that you can do which was what we do. (EMPHC-001)*

Employers gave examples of the ways that they assessed for demonstration of these and claimed that they wanted applicants to show how they meet the required skills and attributes. For example, some employers used scenarios or assessment centres. However, alongside examples, there was also reflection on the part of the employer as to whether the current recruitment processes adequately assessed what employers wanted in their NQP.

*It's a bit concerning sometimes that people that did very well on the [initial assessment] but then couldn't, when you scratched the surface, technically couldn't get any further and couldn't answer the questions. (EMPI-001)*

*I have repeatedly amended, how I ask questions, where I ask them, how I do it, to try and address that where possible. (EMPH-005)*

The impression arising from the employers was a sense of frustration, in that they had various processes in place to ascertain the skills and attributes, but there were instances that the performance of the appointed NQP in practice did not demonstrate the required skills and attributes. This relates to earlier comments about issues relating to the setting and of managing expectations. However, what is not known from this comment is what has necessitated the need to amend the questions, and whether it is based on an evaluation of NQPs' practice and comparison to their interview.

SPOs reflections and views on recruitment highlighted the importance of the attributes, including values and behaviours as the focus of recruitment, compared to knowledge and skills.

*That's where you put your most value to ... is your behaviours and values, have you got the questions or tasks for them to do that would assess that, likewise you think what are our attributes and what questions could we ask that check that they've got that. (SPO-003)*

Recruitment was viewed as an opportunity for the foundation training to demonstrate ambition and a desire to develop.

*They [trainees] want to see that development of growth, they want to see what else they can do on top of things, especially if they have further goals. (SPO-004)*

### 8.3 Recruitment and selection processes

Participants spoke about specific recruitment and selection processes used and/or could be used and their views of these.

#### 8.3.1 Employment interviews

The method that was discussed in the greatest detail was the interview. In this section, the use of the term interview relates to employment interviews, rather than the study interviews. These interview types are presented separately; however,

participants spoke about these interview types based on combining them within their interview practice.

Participants' views on interviews included what they felt was good about them, what was not good about them, how they are used, associated logistics and where improvements could be made. The need for the face-to-face interview was viewed as important, due to the ability to visibly see a candidate and therefore provide an opportunity for employers to get to know them and assess whether they are appointable.

*You can get an idea of, would they fit into the team that you work with. (SPO-003)*

This supported the employer view of managing expectations. For NQPs, the face-to-face aspect held greater importance than the application, which did not present the candidate in their entirety.

*That face-to-face thing is important because what you've got on paper, on a CV, I don't think necessarily reflects the person. (NQPC-001)*

Online and/or telephone interviews were touched on as alternative interview formats. At the time of the study, most interviews in pharmacy were known to be conducted in the physical environment, but there were examples of using the online environment for example, applying for a role in another country. However, despite the availability of this technology, it was not a system that was palatable to all. Employers wanted to physically meet candidates to gather an understanding of the person in front of them.

*We do still control in the sense that there is the face-to-face element because there are things you just can't test over the video on that. (EMPI-001)*

Participants also expressed concerns that interviews may not always show an individual's true personality, which relates to comments about interview faking behaviours, and social desirability.

*I could be a total idiot. They don't know. If I can talk my way into this and fluff it up a little bit, they'll hire me. (NQPC-005)*

This potentially implied that employees view the recruitment experience as artificial and separate to the employment itself. Other criticisms were reflected in similar

comments about the nature of the interview and its validity, which centred around the interview not testing how the candidate operates within the workplace.

*Interviews are a very artificial environment... very much snapshot. (SPO-001)*

Comments were also raised about the reliability of the interview, with respect to how responses are scored, and whether there is a degree of subjectivity within the process.

*They score you on your response, but yeah, I guess they try to anyway. Whether or not they do it accurately, it's a different story. (NQPMH-001)*

A consideration made by both employers and NQPs to improve the validity of the interview and to address some of the criticisms was the involvement of individuals outside of the pharmacy field, and the value this offered. Some organisations spoke about the involvement of patients for non-NQP pharmacist roles.

*With a senior clinical post we'll have a two-step interview process where they have the normal interview with professionals, but they'll also have an interview panel made up of patients or carer reps. (EMPMH-007)*

Drawing on this conversation, participants offered ideas about whether other non-pharmacy health care professionals might be involved to improve the robustness of the process and support the assessment of employability characteristics.

*I think a nurse is probably more concerned about the way you're going to interact with their patients and the way you're going to explain and deliver on your promises to them than actually what knowledge you might have. So, I guess if you were involving an MDT member in the interview, you'd probably be drawing out a lot more skills and attribute based employability than knowledge based. (NQPH-003)*

#### **8.3.1.1 Values-based recruitment interviews**

For all participants VBR was a concept that was not only familiar to them, but it was also agreeable to them, and something that was actively used to differentiate between candidates.

*Values and behaviours, I think that sometimes can make you choose between different candidates. (NQPI-001)*

For the employers, the key reason for assessing values within recruitment was that unlike knowledge, values were not something which can be assumed a candidate

would possess. Possession and demonstration of values was imperative for employers, as it indicated whether a candidate would meet the requirements of the organisation.

*I don't want them working for me because they don't fit the behaviour and values that we have. (EMPC-005)*

*We take it for granted that they will all have that qualification, so actually is it more about their potential, about the pharmacist they're going to grow into. (EMPH-003)*

Whilst expressing a similar view to employers, concerns were raised by some SPOs about whether employers genuinely place importance on VBR, and as a result effectively embed the process within recruitment.

*Some [NHS] Trusts that have done a huge amount in training all their staff in the techniques that you need, and others that just tick the box. (SPO-007)*

#### **8.3.1.2 Competency-based interviews**

Only employers spoke about the use of competency-based interviews and their value. This may be because of their active use of such processes leading to familiarity.

*We also have competency-based questions (EMPHC-001)*

The competency-based approach was not solely restricted to the interview but also used as part of the application process.

*It's definitely around the competency-based questions we ask and all the pre-screening we do as well. (EMPC-004)*

#### **8.3.1.3 Case study or scenario-based interviews**

Participants gave differing views on what clinical knowledge is assumed and the expectations of what needed to be assessed within interviews and the degree to which it is assessed. Where clinical knowledge was assessed, the case study/scenario approach was used, with candidates needing to demonstrate their clinical knowledge.

*We have a test, which is a clinical test which puts people under time pressure in a clinical scenario. (EMPMH-007)*

Where an NQP had no work experience within the hospital sector, they commented on the difficulty of the clinical aspect, based on the format of using a drug chart, rather than the therapeutic aspect, requiring knowledge of systems and the environment.

*With the hospital, even if you look at the way that they interview you nowadays, it's a test, you get a drug chart ... I think from that I could see that you need to have a basis knowledge before you start working in this field. (NQPI-002)*

Aside from clinical knowledge, NQPs discussed other examples of scenarios and/or case studies that they had encountered during the interviews in hospital and industry. These scenarios required candidates to demonstrate their skills and attributes.

*You have five different scenarios with five different interviewers. (NQPI-001)*

*Questions like, 'pretend you're the pharmacist on the ward and the doctor is beeping you. (NQPH-002)*

#### **8.3.1.4 Work-based interviews**

Some employers and NQPs discussed the use of a work-based interview as an alternative recruitment format to the traditional face to face interview. The value of the work-based interview is that it enabled practical demonstration for assessment of suitability for the role.

*If you've got someone running the pharmacy for a day in terms of a manager, are you fit to do it, are you not, can you deal with the pressure, don't know. So, a trial day, definitely. (NQPC-001)*

The trial approach was viewed to mitigate against the interview faking behaviour, which was commented on by the employers.

*I can think of a couple of individuals, and not quite recently, who are not very employable people, and yet did really good interviews. (EMPH-005)*

NQPs presented an alternate version of the work-based interview; offer of employment based on performance within existing employment, for example, work as a student pharmacist or as a trainee.

*Because they were good at what they did, their employer decided to keep them on as a permanent role. (NQPI-001)*



Whilst positive towards the idea of a work-based interview, the feasibility of it presented a barrier.

*If I had time and resource, I would love to have them with me longer. (EMPH-005)*

### 8.3.2 Alternative recruitment and selection formats

Participants were favourable towards the use of simulation as a way of applying theoretical knowledge, demonstrating skills, and showing attributes.

*You can have all the theory and be able to tell someone the theory of it all, but you need to be able to practically reason through it, problem solve, process, prioritise what you're doing which can probably come out more from an OSCE. (EMPH-001)*

*We're assessing their communication skills. I know it's artificial but we either get them to talk to a doctor or we get them to talk to a patient (SPO-002)*

Participants further broadened the discussion of simulation within recruitment by discussing the Oriel process and its extrapolation to NQP recruitment. The feelings about the national Oriel process were focused on the lack of personalisation within the process, with feelings that employers did not have an input into training allocation as they previously did.

*Oriel doesn't involve employers, it's really difficult for them to really know. Because on paper, they [a candidate] might look great. But you need to have a personal conversation to really get to know someone, I think. And Oriel doesn't allow them to do that. (SPO-005)*

Despite the feelings of lack of employer input, employers and SPOs did appreciate the reasons for the Oriel process, with respect to the values-based approach.

*I get the fact that you've got to have values and behaviours, I get the knowledge and skills and attributes. I think it does give you a framework for it. (EMPC-003)*

SPOs were the only group to propose the use of portfolios as a form of recruitment.

*Something like a portfolio which could include testimonials witness statements as well as evidence of the things that they've done could give you a much broader perspective. (SPO-001)*

## 8.4 Recruitment bias

The topic of bias was raised with participants, to see whether awareness and/or experience of this was prevalent within pharmacy recruitment. Due to the sensitive nature of this topic and participants potentially not wanting to cite examples, they were reminded that they could opt out of discussing any matter relating to bias.

All three groups acknowledged the existence of bias within recruitment and selection processes. Some used specific examples (own or others), others from an understanding of the concept of bias and how it could feed into recruitment. When discussing bias, it was noticed that there was hesitancy in how participants spoke, suggesting possible concerns about what could and should be said during the study interview. Employers spoke about bias, from their insight into how they conduct recruitment processes, discussing how they mitigate against bias, and how bias might occur. Some employers acknowledged their own bias and their reasons for this.

However, an alternative view to take is of an ability to network and make connections.

*Mine are around people that are not white, because I'm white and that's not entirely unusual and yet were able to sit in a room together and have very productive conversation. (EMPMH-007)*

*I would probably be biased to people I know, but then all the people we've ever recruited or advertised for have actually come through our pipeline. (EMPC-003)*

There was a sense of accepting that unconscious bias exists as a human characteristic and is inherent within everyone. This was highlighted across each of the groups, along with the issues that this presents.

*I think wherever there are human beings, there's always going to be some form of bias. (NQPC-002)*

*We are imperfect humans and the way that we see things and the way that we value things is conditioned by who we are not necessarily by being an impartial person. (SPO-001)*

*We're human beings at the end of the day. So, there's a risk with bias in anything. (EMPH-003)*

How unconscious bias manifested for the participants was drawn out through comments about fitting in. This centred on recruiting an employee who was the right fit for the organisation, with fit being synonymous with, someone like me/us.

*People do tend to recruit the same people if you're not careful.* (EMPI-001)

Some employers reflected on their own unconscious biases, citing examples and again how this is related to fitting in.

*Any women around the same age as my mum, elicit a reaction from me.* (EMPMH-007)

*There's an affinity for people who you are more familiar with or have similar hobbies.* (EMPC-003)

The potential for bias varied depending on the size of the organisation, with larger organisations being able to mitigate against bias, due to the governance arrangements that advise on multiple people involved in the process. This Person-Organisation (PO) bias was based on recruiting individuals that are already known to the organisation, rather than having an open recruitment process.

*The NHS recruitment process tries to structure some of that out.* (EMPMH-007)

*In a small, family business then you could imagine that might happen within that.* (EMPI-001)

*There are instances where people have got employed [in reference to community pharmacy] because of who they know.* (NQPI-001)

Participants mentioned their peers shared this experience, suggesting widespread feeling. These views pointed towards the independent community sector being where a degree of bias took place. However, there were similar comments about the hospital sector with bias towards those with hospital experience. This could introduce discrimination against those without hospital experience into the recruitment process, irrespective of their performance.

*Even when I got the interview [NHS Trust] one of the interviewers opened with 'we don't get many community pre-regs, you've done well to get this far.'* (NQPH-001)

*I think there's a massive bias towards hospitals recruiting hospital pharmacists.* (NQPH-005)

## 8.5 Chapter Summary

Recruitment and selection methods are used to not only assess the required characteristics of employability for NQP practice, but also as a way of setting expectations of employment. For employers, this is associated with a desire for staff retention. Values underpin recruitment processes to ensure the most appropriate candidate is recruited for the organisation, who could potentially be further developed within the role, which has positive implications for staff retention and workforce development. Therefore, there is greater assessment on skills and attributes in comparison to knowledge. However, there is a disconnect in how knowledge assessment is viewed by NQPs and employers. The most widely used recruitment and selection method is the face-to-face interview, which can encompass competency-based, case-study or scenario-based question styles and approaches. These approaches are used in conjunction with each other. Additional to interviews, there are alternative recruitment and selection methods such as OSCEs, portfolios, work-based interviews and simulations, which are practical in their nature and enhance the validity of the recruitment. Each method has benefits and drawbacks, and there are considerations that need to be made with respect to feasibility of using them.

## 9 Discussion

### 9.1 Introduction

The discussion in this chapter is framed against the study aims and objectives and presented as the following sections: understanding employability, characteristics of employability, exploring the educational journey of the pharmacist and, recruitment & selection and its relationship with employability.

### 9.2 Understanding employability

This section discusses employability and its understandings in the context of pharmacy practice. The section considers how employability is defined within pharmacy at the newly qualified pharmacist (NQP) stage.

#### 9.2.1 Awareness of the term employability and its importance

The value and importance of employability for participants lay in its meaning and how this impacted its use, rather than using the term. Views highlighted a need for improved articulation and regular reference to employability as part of professional career development learning (Bridgstock et al., 2019). Where employability is not used, this can mean the concepts within it not being considered. The resultant outcome being that employability discussions excludes the stakeholders who need to participate for it to be meaningful (Harvey, 2001, Williams et al., 2016). The findings of the scoping review (Chapter 4) propose that the relative lack of awareness of employability at the NQP stage could be due to greater awareness for associated terms such as work-readiness, readiness to practice or preparedness to practice. However, further investigation is required to compare the use of employability and associated terms and the degree of resonance within the profession.

#### 9.2.2 A definition of employability for pharmacy

Whilst variations in employability definitions are acknowledged (McQuaid and Lindsay, 2005), the varying participant definitions were not significant to suggest alternative definitions within pharmacy or a particular pharmacy sector. Participant definitions arose from a description of employee requirements within the job. This description was then synonymous with the respective definitions of employability. These commonalities and differences are summarised in Table 18. Added to this are the findings of the scoping review that highlight where the associated terms show overlap with the aspects of employability proposed by participants.

Table 18. Summary of definitions of employability across groups

Employer	Newly Qualified Pharmacist	Stakeholder and Professional Organisation	Findings from scoping review
apply for a job (ready for work)	apply for a job (ready for work)		Employability - job acquisition Work readiness
	job acquisition	job acquisition	
undertake a job	undertake a job	undertake a job/practise safe and effectively	Practice readiness, preparedness for practice and readiness to practice Independent practice Transition
meet organisational vision/ethos		meet organisational vision/ethos	
engage in further learning/commitment to develop		engage in further learning/commitment to develop	
cope with change		cope with change	
			Possession of knowledge, skills and attributes (KSAs)

Associating employability with being able to undertake a job was observed across all participants, reflecting the idea of work-readiness (Caballero and Walker, 2010). Undertaking a job is also associated with practice readiness, preparedness for practice and readiness to practice (Alston et al., 2019, Mak et al., 2013, James and Cole, 2016, Huray et al., 2023). It can further refer to fulfilling of roles and responsibilities and can be viewed as independent practice (Bradley et al., 2024). Participants saw the definition of employability not influenced by future pharmacy practice, aside from emphasising the concept of needing to respond to change within health care. Change management refers to the continuously changing work

environment where there is little constancy and the need for the employee to respond and adapt appropriately (Fugate et al., 2004). Therefore, employees need to continually grow, engage in learning, change management and self-awareness development. This is reflected in employability models (Knight and Yorke, 2002, Cheng et al., 2022, Knight and Yorke, 2004, Bridgstock, 2009, Dacre Pool and Sewell, 2007).

The Interviews and scoping review acknowledge the importance of human capital. Development of human capital to support work-readiness are important facets of employability (Evans et al., 2022, Hovey et al., 2023, Caballero and Walker, 2010, Cheng et al., 2022), aligning with employer group expectations of meeting the vision of the organisation and environment (Morley, 2007, Schmitt, 2014). The human capital focus is based on a need for pharmacist (and other health care professions) to demonstrate competence to practice autonomously (Halimi et al., 2023, Jee et al., 2016b, Lim et al., 2023, Mak et al., 2013, Monrouxe et al., 2018, Ni Sheachnasaigh et al., 2022, Bell et al., 2018). Study findings reflected greater recognition of transferable skills and attributes as crucial for supporting careers, compared to qualifications (where the focus was critical thinking), largely correlating with past workplace experiences irrespective of whether pharmacy or health specific (Archer and Davison, 2008, Cheng et al., 2022, Small et al., 2018, Tymon, 2013, Sarkar et al., 2016). Whilst work experience can enable human capital development, enhancing employability, subsequent reflection with application of learning is required (Dacre Pool and Sewell, 2007). However, human capital needs contextualisation to the NQP role (Ni Sheachnasaigh et al., 2022).

Participants wanted NQPs to meet the organisational vision/ethos, an expectation largely tested during the recruitment process (Mason et al., 2009, CBI & Universities UK London, 2009, Donik et al., 2015). Meeting organisational vision/ethos is important for value congruence and offers a perspective of employability that alludes to the changing nature of the workforce and how to subsequently succeed and thrive (Knight and Yorke, 2004, Leadbeatter et al., 2023, Health Education England (HEE), 2014). However, aspects of thriving such as making impact, management and entrepreneurial skills were not noted. Thriving also recognises an individual having a professional and career identity, where the individual defines who they want to be and subsequently acts in this way (Fugate et al., 2004, Cruess et al., 2016), enabling them to make an impact (Leadbeatter et al., 2023).

Participant views about critical thinking, employability requires an ability to engage in continuous learning (McQuaid and Lindsay, 2005, Dearing, 1997, Harvey, 2001), to advance and develop oneself within their careers (Clarke, 2018). The idea of continuous learning supports the requirement of reflective practice that is seen in numerous professions, including health care (Mantzourani et al., 2019) as well as exemplifying what employability refers to when it highlights being successful in chosen occupations (Knight and Yorke, 2004). Whilst need for a reflective identity was noted by participants, its relation to self-awareness and growth were not articulated (Bell et al., 2018).

The interviews and scoping review did not recognise and explicitly discuss social capital, career management and career building skills, despite these being important for job acquisition (Clarke, 2018, Fugate et al., 2004, Bridgstock, 2009, Dacre Pool and Sewell, 2007, Holmes, 2013). The lack of awareness of concepts within employability may explain this. Or it may be that careers education is seen as being fulfilled by the HEI, rather than a consideration at the NQP stage. However, career advancement and development is established within post-registration competency frameworks (Bruno et al., 2010, Mills et al., 2005) and therefore should be included as part of employability discussions.

Collation of participant views, the scoping review and wider literature proposes a definition of employability for NQPs that includes job acquisition and retention, growth and responding to change. This emphasises employability as a process, necessitating embedding of attributes upon which individuals develop their employability to thrive in the workplace (Fugate et al., 2004, Leadbeatter et al., 2023). The multifactorial view encompasses career preparation, through to successful acquisition of employment, ongoing career progression and development. This proposes a continuous cyclical process, with all aspects related and needing to be considered together. The definition of employability for NQPs is:

*the building and use of career management skills for job application, possession and use of human capital for job acquisition, and the sustaining of work through fulfilling the requirements of the job and adoption of a reflective identity.*

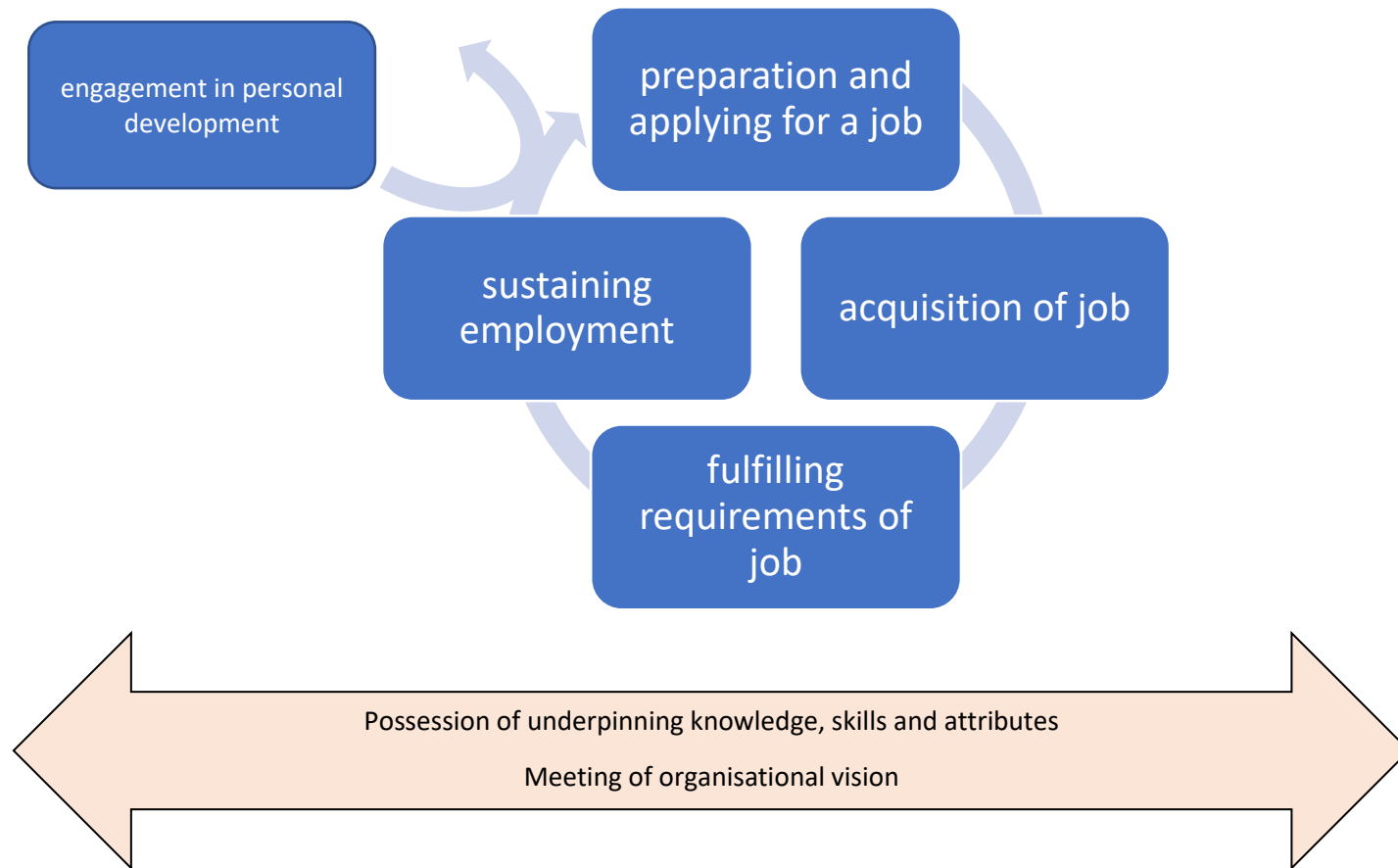
Drawing on implications of future pharmacy practice on employability places further importance on sustaining employment. Sustaining employment requires an ability to



cope with change, linking with adaptability and flexibility behaviours. A reflective identity necessitates development of a professional and career identity, incorporating career management and building skills. Figure 17 draws together a visual representation of a definition of employability for NQPs.

The definition of employability for NQPs aligns with widely cited and used definitions as well as Leadbeatter's (2023) conceptualisation of employability (Knight and Yorke, 2004, CBI & Universities UK London, 2009, Watts, 1996, Bridgstock, 2009, Dacre Pool and Sewell, 2007, Fugate et al., 2004). This demonstrates how the definition from a vocational profession, does not widely differ from the broader context but it is personalised to how it could be operationalised in the profession. A strength of this definition is its inclusion of stakeholder views including the Government, employers, employees, HEIs (Cheng et al., 2022) and those of students and foundation trainees from a strategic perspective. The definition indirectly references work-readiness, preparedness for practice, readiness to practice, practice readiness and independent practice showing the importance of these terms in feeding into employability but not equivalent to employability. A limitation to this definition is that it does not account for the perceptions made by participant groups of each other, including misperceptions. This disconnect could impact whether the groups agree with the definition provided. Therefore, employability needs to be discussed within the profession to gauge whether this is an issue.

Figure 17. Visual representation of pharmacy definition of employability for the NQP



### 9.3 Characteristics of employability

This section draws together perceptions of the employability characteristics for the NQP, contextualised to their practice. These characteristics are interwoven into the wording of some of the GPhC outcomes (Appendix 7), providing recognition of employability within pharmacy education. Stakeholder views provide helpful examples of how these outcomes can be demonstrated by students and trainees as part of their ongoing employability.

#### 9.3.1 Knowledge

Knowledge was described in varying ways, and its value cannot be underestimated. The majority pharmacy workforce is patient facing (General Pharmaceutical Council, 2019b) and requires the possession of underpinning knowledge to deliver safe practice, but not at the expense of being able to deal with real-life people (Kairuz et al., 2010). Educationally, stipulating achievement of clinically knowledge focused outcomes, sets a baseline for what is essential for safe practice, as seen in other countries (Vlasses et al., 2013, Pharmaceutical Society of Australia, 2016). Employers additionally required knowledge of the work environment, due to its ability to facilitate of work-readiness via practical application of skills and attributes, leading to workplace competence and confidence (Walker et al., 2013, Herbert et al., 2020, Fejzic and Barker, 2015, Girvin et al., 2023).

#### 9.3.2 Pharmacy specific skills

Participants discussed how knowledge underpinned delivery of pharmacy specific skills, demonstrating their recognised relationship (Knight and Yorke, 2004, Dacre Pool and Sewell, 2007, Bridgstock, 2009). Pharmacy specific skills were consistent with similar activities that trainees and employers believe patient facing pharmacist should be able to undertake (Mak et al., 2013, Frenzel et al., 2015, Frenzel et al., 2021). Views on being able to deliver paralleled with aspects of employability definitions such as workplace effectiveness (CBI & Universities UK London, 2009), based on possession of human capital.

#### 9.3.3 Transferable skills

The requirement for NQPs to demonstrate a comprehensive range of transferable skills arose from increasing complexities surrounding patients, medicines and health. These are articulated in the outcomes (General Pharmaceutical Council, 2021), the PAF (Health Education England et al., 2022), and post-registration frameworks.

However, with a wide range of examples given and overlap between transferable skills, this necessitates clarity when describing skills.

Examples implied the importance of critical thinking. Critical thinking supports application of clinical-reasoning skills, including effective using and evaluation of literature, decision making, communication and resolving medication problems, thereby overlapping with problem-solving (Cone et al., 2016, Persky et al., 2019). Whilst problem management was recognised, NQP views inferred that the supportive critical thinking construct is not fully appreciated. Problem-solving skills support career success, the development of confidence and autonomous practice that enables decision making and accountability (Ward et al., 2019, Bradley et al., 2024). Problem-solving is further used to improve and implement services, demonstrate innovation and develop entrepreneurial skills (Laverty et al., 2015).

Effective communication between pharmacists and patients was widely acknowledged as a multi-faceted skill, which is seen within job descriptions (Jackson, 2010). Ensuring understanding of the multi-faceted nature of communication is becoming increasingly important across the profession, with a positive relationship between effective communication and a patient's capacity to follow medical recommendations (Alston et al., 2019, Huray et al., 2023, Lim et al., 2023, O'Brien et al., 2017, Thompson et al., 2012, Jalal et al., 2018, Jee et al., 2016a, Girvin et al., 2023). Oral communication also infers a relationship with interpersonal skills, demonstrating how attributes and skills support the delivery and improvement of each other (Hannah et al., 2009).

Prioritisation and demonstration of organisational skills are important characteristics associated with the successful pharmacist (Ward et al., 2019, Al-Haqan et al., 2021, Bartlett et al., 2021). This was reflected by employers to a greater extent than NQPs and are important skills for job performance and improving patient safety (Irwin and Weidmann, 2015, Mourh and Newby, 2019). Other literature categorises these skills under problem-solving and critical thinking (McLaughlin et al., 2017, Patterson et al., 2019), acknowledging their relationship, but also how different terminologies are used. From an employability perspective, this skillset aligns with individuals being successful and contributing to the wider workforce.

There was no further discussion aside from mentioning digital skills. The lack of education and training in this area could be the reason for this. Technology is an

increasing inherent part of health care practice, with advances in informatics, electronic prescribing, robotics and diagnostics (Trenfield et al., 2022). There is however a lack of evidence of the training needs for pharmacy professionals calling for inclusion within curricula of cognitive, conscious, and effective use of digital tools (MacLure and Stewart, 2016, Silva et al., 2022).

#### 9.3.4 Attributes

Attributes highlighted many areas as being important for success as well as showing their connection with knowledge and skills. This strengthens the linkage between knowledge, skills and behaviours, enabling practice-readiness and job performance and places attributes as an area of focus for development (Tee et al., 2018, Alston et al., 2019).

Leadership was viewed as an essential aspect for the delivery of patient care. It is associated with career success, readiness to practice and independent practice, particularly in the community sector (Ward et al., 2019, Tee et al., 2018, Kennedy et al., 2024, McDermott et al., 2024, Magola et al., 2018a, Irwin and Weidmann, 2015). However, leadership was not discussed in detail or with descriptors that parallel the importance placed upon it from the literature, including education standards (General Pharmaceutical Council, 2021) (Appendix 6). A review of leadership in pharmacy literature highlights that whilst leadership is underpinned by relevant KSAs, definitions vary, leading to a lack of consensus with respect to how it is measured, assessed and evaluated (Reed et al., 2019). These nuances may explain why leadership was used as an umbrella term to encompass these considerations.

NQPs focused on the peer aspect of teamwork, whilst employers and SPOs also referenced leadership. Engaging in effective teamworking is essential for supporting the ability to collaborate, communicate and understand the professional roles of others for appropriate health care provision (Frenzel et al., 2015, Frenzel et al., 2021, Tee et al., 2018, Ward et al., 2019). These factors could support why employers and SPOs recognised teamwork as important. Teamwork relates to leadership aspects such as relationship-building, personnel management and orientation of oneself within a team, as well as a behaviour associated with professionalism (Reed et al., 2019, Chadha et al., 2022, Mill et al., 2023). NQPs need to understand how employers and SPOs envision teamwork and its expectations.

Positive personality traits were important due to their influence on patient-centred care. Personality was used a collective term that is synonymous with 'what someone is like as a person'. Positive personality traits are viewed as important by patient and the profession for demonstration of patient-centred care, undertaking of clinical-decision making roles and are linked with personal achievement and career success (Thompson et al., 2012, McMillan et al., 2014, Alston et al., 2019, Kamath et al., 2023).

Whilst the association between personality and professionalism is acknowledged (Mill et al., 2023), feeding into professional identity formation at the 'is' level (Cruess et al., 2016) these are presented separately to reflect an individual's innate behaviour, their distinctive character (Patterson et al., 2015) and the professional expectations with being a health care professional. With consideration of how professional values and behaviours may be at the development stage for the applicant into pharmacy (Eisenberg et al., 2006), presentation of personality may be helpful as an introduction to the expectations of being a pharmacist for those interested.

Participant examples of good professionalism reinforced the idea of overlap between KSAs. Examples aligned with the seven tenets of professionalism that are crucial for developing and maintaining patient trust, relationships with health care professionals and delivery of high quality care (Chadha et al., 2022, Mill et al., 2023). The multitude of examples provided to describe professionalism support how professionalism is a difficult concept to describe without a clear definition of how the term is applied to pharmacy (Langley and Aheer, 2010, Schafheutle et al., 2012, Mill et al., 2023).

NQPs need to be adaptable and flexible, terms associated with recognition/responding/adapting to change and cited as important for the transition to independent practice (McLaughlin et al., 2017, O'Sullivan et al., 2020, Magola et al., 2018b). Adaptability and flexibility are also important for thriving within the workforce, in the face of challenges and labour market influences (Leadbeatter et al., 2023, Halimi et al., 2023). Despite this, a view suggesting pharmacists do not like uncertainty has a negative impact for adaptation in the face of change (Luetsch, 2017). Resilience, a term associated with adaptability and flexibility was not used. Resilience can positively relate to flexibility and the strength to cope with degrees of

change (Halimi et al., 2023) but also negatively through knowingly or unknowingly tolerating extra demands on workloads or resorting to other negative behaviours (Schommer et al., 2020, Mahdiani and Ungar, 2021). The negative connotations of resilience may explain its lack of inclusion. Use of resilience as a term requires a degree of caution to ensure it focuses on the ability to cope with change, but not at the expense of the individual.

Advancing and evolving pharmacy practice requires pharmacists to recognise this and respond. Future NQP roles are prescribing focussed, involving complex consultations, diagnostics and a problem-solving approach. This was reflected in the idea of skill advancement. Therefore, characteristics of employability need to evolve in tandem with greater need for adaptability and flexibility.

#### 9.3.5 Reflective practice

Views about reflective practice placed importance on a willingness to learn, with employers and SPOs acknowledging greater breadth to this concept through comments about thinking and development. However, views did not specifically draw on reflecting on and in action as a means of learning through experience as proposed by Schön (1987). Health care has adopted various models of reflective practice, a review of which proposed reflective practice as a five-component model, resulting in a process of *'engaging the self in attentive, critical, exploratory and iterative interactions with one's thoughts and actions, and their underlying conceptual frame, with a view to changing them and with a view on the change itself'* (Nguyen et al., 2014). Lack of recognition of all components could suggest why reflective practice is seen as challenging for health care practitioners (Mantzourani et al., 2019) and could explain participants' limited views. Reflective practice faces barriers to engagement with criticism for being time intensive, perception as an assessment, lack of structure, needing additional guidance and support for practitioners and facilitators, and elicitation of emotional issues (Sandars, 2009, Taylor, 2010, Gathu, 2022). These aspects could have influenced participants views.

Participation in patient focussed continuous learning and reflective practices has a positive impact on providing optimal patient care through supporting knowledge, skills and behaviour maintenance required for effective personal practice (Mantzourani et al., 2019, Gathu, 2022, Micallef and Kayyali, 2019). This was identified by SPOs who through their professional experience, associated reflective

practice in improving patient care. With NQPs working in areas with little to no prior experience, adopting a reflective approach and learning from experiences links to an ability for skills transference (Kolb, 2015, Mantzourani et al., 2019). Reflective practice requires assessment of self-efficacy throughout situations and monitoring of problem-solving abilities, which is important for adapting and respond to change (Eva and Regehr, 2005, Mantzourani et al., 2019). Collectively, this supports critical thinking. It can therefore be seen as the key underpinning aspect of what participants discussed. Reflective practice is a core strand of employability definitions and models, with recognition of how it supports career engagement and development, career success, recognition of personal potential and goal setting (McQuaid and Lindsay, 2005, Dearing, 1997, Harvey, 2001, Bell et al., 2018, Fugate et al., 2004, O'Loan, 2019, Watts, 1996, Knight and Yorke, 2004, Bridgstock, 2009, Dacre Pool and Sewell, 2007). Consideration of self-efficacy also strengthens self-understanding and enables self-awareness (Knight and Yorke, 2002). Given participants' narrow focus, reflective practice needs to be recognised as a means for advancing KSAs, career building and self-development. There is a need to ensure that understanding and facilitation of reflective practice within the practice environment is addressed, to support practitioner engagement. Emphasising the association of reflective practice with employability could be a strategy to enable this.



## 9.4 Exploring the educational journey of the pharmacist

This section discusses whether and how pharmacist education and training needs to change to reflect employability. This is discussed in the context of implementation of the GPhC 2021 outcomes.

### 9.4.1 Embedding employability within the MPharm curriculum

Embedding of employability into the curriculum was viewed as essential with proposition of skills and attributes to be embedded, and is a wider HEI approach leading to a embedding employability framework (Advance HE, 2024). Assimilating employability into the curriculum and wider teaching and learning environments, can result in improved understanding of the concept, its importance, enhancement of student experience, preparation for graduation, and obtaining work (Daubney, 2022, Igwe et al., 2022, Bridgstock et al., 2019). Strategies that include attribute development can also mitigate against the issue of students not being able to access workplace experience (Daubney, 2022, Cake et al., 2021, Leadbeatter et al., 2023, Sarkar et al., 2016). Achievement requires consideration of specific teaching, learning and assessment approaches with integrated strategies that allow multiple opportunities for revisiting and building upon employability, rather than a stand-alone approach (Cake et al., 2021). Such activities can develop student competence through demonstrating how knowledge is applied and include components such as empathy and professionalism (Tee et al., 2018, Hope et al., 2022).

#### 9.4.1.1 *Challenges and barriers to embedding employability*

Participant views appeared consistent with views that it is for the HEI to address employability (Leadbeatter et al., 2023). However, due to differing participant views, involvement of all relevant stakeholders is important to gather an holistic understanding with employer engagement fundamental for student pharmacist work-readiness, confidence and competence (Herbert et al., 2020, Pereira et al., 2020). Through that viewpoint, employers offered suggestions for teaching activities that are valuable for enhancing employability. A challenge is how to best overcome the practicalities associated with involving a pressurised workforce within the curriculum, to mitigate against criticism of employees not meeting employer requirements, whether this be part of teaching and learning or more globally as part of curriculum design (Tee et al., 2018, Diver, 2019).

The position of knowledge places a barrier in the embedding of employability. Views may be due to relative ease with which knowledge can be taught and assessed compared to attributes and values which are difficult to assess directly and may require observational assessments, guided reflections and portfolios (Cake et al., 2021, Cruess et al., 2016). Programmes can be viewed by educators as knowledge focussed, with employability as a separate entity (Daubney, 2022). Whilst staff can be supported to consider how to include employability within taught activities, this requires time and resource allocation for staff to meaningfully engage (Diver, 2019). Assessment requires consideration given how it drives student learning and teaching satisfaction (Peeters and Vaidya, 2016, Preston et al., 2020, Diver, 2019). An understanding of where employability assessment is situated within summative, criterion-driven assessment approaches is required but also whether workplace-based and/or formative assessments could enable individuals to reflect on their self-perceptions and development (Cake et al., 2021, Bell et al., 2018). A challenge for pharmacy educators is how to integrate and strengthen employability as a common thread for students to frame their experiences and development against (Dunne, 2017). Potential enablers include outcomes that reflect employability (Appendix 7), Entrustable Professional Activities (EPAs) and the PAF.

MPharm teaching was viewed as variable across SoPs, with concern that the teaching and learning may not be that helpful within the workplace. There are differences in how each course operates and delivers its curriculum will occur. Looking at particular aspects of the curriculum which contribute to employability development, such as professionalism teaching, social science teaching, number of placement hours and IEPL practices (Schafheutle et al., 2012, Ryan et al., 2007, Jacob and Boyter, 2019, Patel et al., 2016) does highlight differences in delivery. Variation can ultimately result in differences in how graduates are prepared for practice during foundation training.

#### *9.4.1.2 Selection and admission*

Whilst recruitment and selection of prospective student pharmacists require the adoption of a Values Based Recruitment (VBR) approach (General Pharmaceutical Council, 2011, General Pharmaceutical Council, 2021, Pharmacy Schools Council, 2024, Pharmacy Schools Council, 2022), participants suggest improvement in communications to prospective applicants and schools about the changing role of the pharmacist and associated expectations. This is supported by experiences from

SoPs open days (Pharmacy Schools Council, 2023a). Improving collaboration with employers also ensures their inclusion in the recruitment and selection of student pharmacists onto the programme.

The appropriateness of testing of values pre-university was raised, based on whether individuals have developed the expected traits at that stage. This is consistent with the development of prosocial behaviours; voluntary behaviours that benefit others and include helping, cooperating, comforting, sharing and donating, which maps against NHS values and employability (Eisenberg et al., 2006, Department of Health & Social Care, 2023, Knight and Yorke, 2004). Prosocial behaviours increase with age and are shaped during adolescence but it is not clear whether these increase in mid- and late adolescence (Eisenberg et al., 2006, Patterson et al., 2015) necessitating caution in the degree to which they can be assessed.

Participant views called for the profession to engage with schools, which could be reciprocated based on recommendations within the Gatsby Benchmarks for schools, further education and sixth form colleges to provide careers guidance (Department of Education, 2015). Whilst non-mandatory which can lead to variation in their implementation, these benchmarks are used to develop career programmes, enabling students to gain self-development and careers management skills, and learn about the skills required by employers. This provides an opportunity for pharmacy employers to contribute to national initiatives, taking an active role in informing and attracting prospective candidates (Health Education England (HEE), 2024b, Royal Pharmaceutical Society, 2024b).

#### *9.4.1.3 Prescribing training*

Participants wanted greater emphasis on advancing the level of both subject specific and transferable skills. Implementation of prescribing skills supports demonstration of employability characteristics including communication, consultation, clinical and diagnostic skills as well as developing confidence and knowledge (Warner et al., 2025). Gradual implementation from undergraduate level would seek to address workplace barriers in prescribing skills training such as time (Girvin et al., 2023, Jebara et al., 2018, Alhawas et al., 2024).

Implementation could also incorporate active learning approaches that stimulate higher order thinking as well as problem-solving (Gleason et al., 2011, White et al., 2016, Singh et al., 2020, Wood, 2003). Proposals for case- and problem-based

teaching to develop prescribing skills could facilitate and increase student's exposure to practical learning. Both methods are forms of active learning and a combination of these enables demonstration of communication, interpersonal skills, and professionalism (Gleason et al., 2011, Singh et al., 2020, McLean, 2016). Whilst valuable in developing employability, active learning approaches face challenges due to time in planning and delivery, staff and student engagement and resources available (Gleason et al., 2011, White et al., 2016, Børte et al., 2023). Incorporation of active learning approaches requires opportunities for structured reflection post action for effective decision making (Mantzourani et al., 2019) and greater appreciation of constructs of problem-solving.

#### *9.4.1.4 Experiential Learning*

Experiential Learning (EL) was viewed as valuable for providing experiences for the demonstration and development of employability characteristics, social capital and career preparation (Magnier et al., 2011, Batistic and Tymon, 2017). This improves understanding of the workplace, supporting professional identity formation (PIF) development at the Shows How level (Patel et al., 2016, Cruess et al., 2016, Moseley et al., 2021, Bullen et al., 2019). EL further provides opportunity for demonstration of those characteristics that benefits others, through engagement with a variety of patients, promoting appropriate and personalised care (Hall, 2006, Kerr et al., 2021). EL also enables reflection on practice (Kolb, 2015), which is important for identity development as a prescriber. However, this requires both educational and EL providers to support students and supervisors with structure and time for reflection and learning (Girvin et al., 2023), and is also dependent on the extent to which engagement and reflection takes place (Dunne, 2017).

Despite recognising the importance of EL, participant's awareness of the impact of non-EL work experience on employability appeared variable. The issue of not recognising the transferability of work experience is potentially impacted by the view that experience is not necessary for the Oriel process. The result is variation in graduate's work-readiness. This is counterintuitive and needs addressing due to workplace experience positively impacting employability and career success, enhancing the development of transferable skills, preparing students, influencing values and enablement of reflection (Dacre Pool and Sewell, 2007, Fejzic and Barker, 2015, Kerr et al., 2021, Girvin et al., 2023, Mason et al., 2009, Patterson et al., 2015, Rathbone et al., 2021).

Participants envisioned how EL could be enriched through extended placements, active learning and Work-Based Assessments (WBAs), including EPAs (Bullen et al., 2019, Rathbone et al., 2021). Implementation requires structure in the form of guidance, supervision, with opportunities for feedback and questions being needed (Magnier et al., 2011). Structure should include learning and practical activities but may include shadowing, subject to opportunities for reflection (Gleason et al., 2011). With appropriate training and once competency is demonstrated, EPAs can drive the move to more practical EL activities, thereby bridging the gap between theory and practice (Rathbone et al., 2021, Abeyaratne and Galbraith, 2023, Ten Cate et al., 2007, Katoue and Schwinghammer, 2020). EPAs have been used widely across health care including pharmacy with use during EL work-based learning activities, such as blood pressure testing (Abeyaratne and Galbraith, 2023, Shorey et al., 2019) (Nazar et al., 2021, Jarrett et al., 2022). With EPAs used as part of pharmacy residency training programmes there is potential for use during foundation training (Scott et al., 2019, Richardson, 2024). The increasing interest in EPAs and potential use across pharmacy to support transition from classroom to practice, provides assurance of independent working and the ability to take responsibility (Abeyaratne and Galbraith, 2023), contributing to practice and work-readiness (Jarrett et al., 2022) but will need further evaluation once implemented.

Participants wanted experience of the regular working day of the pharmacy professional, to give the real-life perspective. Incorporating flexibility in the activities that students can do, can help mitigate against issues of capacity due to workplace pressures, and reflect the diversity of pharmacy environments and the individual provider (Lucas et al., 2018). NQPs highlighted EL activities as enabling realisation of self-potential, career awareness and career opportunities (Plott et al., 2021). This was reflected through having little awareness of industrial pharmacy, leading to having certain perceptions as to what it entails. Limited awareness may dissuade from exploring certain sectors such as industry, as a career path (Kirby-Smith et al., 2008). Whilst EL capacity is being reviewed, progress will take time and is dependent on factors such as resource, funds, engagement and availability of providers. These were expressed by participants as barriers to securing placement provision.

Participant concerns about EL funding, availability and supporting scaling up EL provision is also recognised at a national level (Girvin et al., 2023, Hindley et al., 2023, Jacob and Boyter, 2019). This presents an issue with making EL activities active

and meaningful to support employability. Therefore providing an opportunity for providers to collaborate in the design of meaningful EL activities that are integrated into other teaching and learning, should be considered (Lucas et al., 2018).

Simulation was considered as supportive of the EL strategy and can motivate learning, develop transferable skills and enable application of knowledge (Fens et al., 2020).

IPEL provision was viewed as valuable for supporting PIF and professional socialisation, but realisation only became apparent once working. The contributions of a community of different professions to a complex health care case, give rise to a sense of identification and pride in one's own profession, as well as collaboration and teamwork (Hawkes et al., 2013, Noble et al., 2019, Moseley et al., 2021, Patel et al., 2016, Hind et al., 2003, Aziz et al., 2011). Negative views of professions by other professions (Tunstall-Pedoe et al., 2003), strengthens the need for IPEL to break down boundaries and perceptions. Issues such as curriculum design, timetabling, time taken to plan and funding present further challenges (Hall, 2006, Machado et al., 2022) and may explain participant views about IPEL provision and delivery. The pharmacy profession response to the NHS Long Term Plan (Department of Health & Social Care, 2019) impacts its PIF. As the profession adjusts to new roles and responsibilities, this challenges the previously established professional identity and can lead to difficulties in teaching student pharmacists to understand themselves, their role as a pharmacist and associated preparation (Noble et al., 2019, Martina et al., 2019) (Jamie et al., 2020). IPEL can address this (El-Awaisi et al., 2018) with greater exposure to the multidisciplinary team as a trainee. IPEL importantly supports professional socialisation through the acquisition of the values, attitudes, morals, knowledge and skills required, as well as supporting transitions (Goldenberg and Iwasiw, 1993, Higgs et al., 2004), placing value upon multidisciplinary education within the employability field.

#### *9.4.1.5 Careers Education*

Despite regulator and HEI requirements for career management and skills to develop employability and enable student achievement (Artess et al., 2017, Steeb et al., 2021, Quality Assurance Agency, 2018, General Pharmaceutical Council, 2021), HEI careers education provision was viewed as variable and not meeting NQP expectations. Variation in careers education provision and lack of awareness of roles is recognised (Silverthorne et al., 2003, Kirby-Smith et al., 2008, Ives et al., 2020),

which if not addressed through the degree or work experience availability, can impact transition to practice, and preparation for future career destinations (Siracuse et al., 2004, Silverthorne et al., 2003, Hanna et al., 2016). Despite negative views towards careers roadshows, and teacher practitioner guidance not seen as influential for careers education (Silverthorne et al., 2003), engaging employers and stakeholders in the incorporation of curricular and extra-curricular activities benefits students through enhancing networking behaviours, important for social capital, and increases knowledge and confidence in recruitment processes (Batistic and Tymon, 2017, Fugate et al., 2004, Koenigsfeld et al., 2012, Medina et al., 2018, Powell et al., 2015).

#### 9.4.2 Foundation Training, independence and work-readiness

Foundation training was viewed as appropriate for demonstrating independence and work-readiness, enabling operational delivery from day one. This sets a professional expectation for Early Career Pharmacists to be able to manage complex patients, strengthening the requirement for training and development of work-readiness within MPharm and foundation training (Royal Pharmaceutical Society, 2019, Department of Health & Social Care, 2019, National Health Service England, 2023). A well-structured programme is seen as a period in which professional behaviour development can take place (Tee et al., 2018, Jee et al., 2017, Ireland et al., 2022). Increasing independent working requires demonstration of decision making, autonomy and accountability, empowering the trainee to take responsibility and become accountable for the health and well-being of others, supporting professional socialisation and maturation (Goldenberg and Iwasiw, 1993, Ireland et al., 2022, Bradley et al., 2024). This improves preparation for becoming a pharmacist (Jee et al., 2016b, Bartlett et al., 2022).

Participants suggested WBAs could be used to increase independent working. Enacting this relies on trust, effective supervision and feedback mechanisms (Hindi et al., 2022b). WBAs have been increasingly used within foundation training and Early Careers training programmes (Royal Pharmaceutical Society, 2019, Health Education England (HEE), 2023a). These have been well received with respect to supporting active learning but may be lacking opportunities for reflection (Maundu et al., 2023, Hindi et al., 2022b). Despite the opportunity for active learning, foundation training faced challenges due to perceptions related to the GPhC Registration Assessment (RA). An increased focus in the latter stages of training on assessment preparation,

reduces focus on in-practice learning and development opportunities (Jee et al., 2019). The focus on assessment could be based on concerns on the likelihood of passing, stemming from pass rate data (highlighting differences based on training sector, SoPs and ethnicity) and therefore driving learning (Peeters and Vaidya, 2016, Bennett et al., 2019, Andalo, 2015, Torjesen, 2015, Kam, 2019).

NQPs desired opportunities during foundation training for mentorship and engagement in feedback discussions for their development. GPhC data shows that only 20% of trainees who were dissatisfied overall with their training experience agreed they were provided with constructive feedback to aid development, compared to 83% of satisfied trainees (Marshall et al., 2016). Trainees are exposed to a myriad of people who could provide the desired support. SoPs could indirectly provide support through education of providers on feedback practices, which would mutually benefit both parties through closer collaboration. Whilst experiences from nursing highlight mentorship as a positive experience, the appropriateness and usefulness of these structures in pharmacy require evaluation as well as careful selection of mentors (Jee et al., 2019, Lee and Chiang, 2021). The RPS mentoring platform has shown potential benefits in driving the profession forward through job satisfaction and performance, but there needs to be an organisational and professional culture towards recognising its value (Chang et al., 2022) before it becomes established profession wide. Initially, extending the platform across foundation training provides an environment for reflective practice that supports development of employability characteristics and career development (Micallef and Kayyali, 2019, O'Loan, 2019). Effective career preparation for the NQP requires a combination of knowledge of desired career paths, supported by the foundation training provider enabling development of employability characteristics, and grounding these within the outcomes as well recruitment preparation.

NQPs saw the value of multi-sector foundation training value in providing a more holistic view of the patient journey. This is consistent with the rationale for its approach and may reflect its popularity with students (Bartlett et al., 2022, Hindi et al., 2022a, Health Education England (HEE), 2023b). From an employability perspective multi-sector training is beneficial for understanding the roles and responsibilities of the health care team, professional socialisation, PIF (Hawkes et al., 2013, Noble et al., 2019) and providing greater insight into careers available upon registration.



Foundation training was viewed as variable with potential for this to negatively impact the trainee experience. The GPhC's role in the regulation of foundation training was viewed as passive and distant and given as reasons for a poor training experience. As a result, greater regulation of training was called for. Sector differences impact how trainees are supervised, assessed and given feedback with variability amongst Designated Supervisors (DSs) (Jee et al., 2019). Concerns about the trainee's dual role as trainee and employee arise from no clear guidance on the relationship between the two, particularly in the community sector. The views may be explained by how in community pharmacy the DS generally being a pharmacy employee, with no incentive to act as a trainer (Jee et al., 2019). The views about the training experience in the community sector could be a wider issue when looking at Oriel system and GPhC data which shows most dissatisfied trainees being in community pharmacy and fewer community pharmacy training places filled compared to GP and hospital due to a greater emphasis on training (Marshall et al., 2016, McEwen-Smith et al., 2020, Health Education England (HEE), 2023b). Whilst trainees can end up in a different sector as an NQP, experiencing both foundation training and NQP practice in community could potentially lead to greater dissatisfaction with the profession, compared to other sectors due to feelings of isolation, stress and being unsupported (Magola et al., 2018a, Meilanti et al., 2022).

The operational aspect of quality assurance has now been delegated by the GPhC to NHS England WTE or respective counterparts for all trainees from July 2025. The revised requirements for foundation training consider recommendations for DS training and support networks (Mills et al., 2014, Davison et al., 2019, Health Education England (HEE), 2021) but do require clearer processes for monitoring or accrediting foundation training premises (Jee et al., 2019). Whilst welcomed and seen as beneficial, the effectiveness of revised requirements could be negatively impacted by lack of protected time for teaching and training (Davison et al., 2019, Knott et al., 2020) and this needs to be monitored. An aspect to consider is how effective educational supervision models (studied in context of post-registration) could potentially be scoped in the field of foundation training (Styles et al., 2023).

#### 9.4.3 Education and training for Early Career Pharmacists

The employability journey continues post-registration, where participants called for a structured training pathway and support initiatives, to further develop employability over the Early Career stage. The need for peer and pastoral support for Early Career

Pharmacists (ECPs), reflects the NQP journey of learning. This stemmed from challenges faced by NQPs, with recognition of support and training in the hospital sector but a lack of this within the community sector, where NQPs experience isolation (Magola et al., 2018a). Evidence across a range of professions also recognises challenges and the need for NQP support to develop confidence and competence (Scholes et al., 2017, Cameron et al., 2014, Kilminster et al., 2011, Kreedi et al., 2021, Magola et al., 2018a, Mourh and Newby, 2019, Warner et al., 2025). Whilst such a structured training pathway has been developed and evaluated (Mcdermott et al., 2023), it is not mandatory, nor part of a nationally recognised qualification and has variable funding processes, all of which could be barriers to uptake. Until such issues are addressed, a nationwide implementation of a programme is not feasible and therefore the desired impact is not realised.

Whilst pharmacy practitioners are expected to have the ability to effectively work across sectors (Picton et al., 2022, Bartlett et al., 2022), there are very few examples of established multi-sector programmes for ECPs (National Health Service England, 2023). Employer concerns about current funding systems, place a barrier in implementation of multi-sector working, with payment based on whether the pharmacist is NHS employed, paid through contracting NHS services, or through commercial funding. Funding varies across community pharmacy within the countries within Great Britain with potentially no incentive for use of clinical knowledge and skills if focus is on the number of items dispensed.

## 9.5 Recruitment & selection and its relationship with employability

This section discusses stakeholder perceptions on the recruitment and selection processes that are in place and/or should be used for NQPs to support employability requirements.

### 9.5.1 Recruitment and selection considerations

Employability and its characteristics influenced participant's thoughts on recruitment and selection, with it being the basis for selection (Harvey, 2001, Jackson et al., 2022). Support systems during foundation training, suggested that employers consider interview preparation as important, in turn supporting development of employability. Recruitment and selection can relate to the idea of progression and career advancement (Knight and Yorke, 2004, Bridgstock, 2009) where candidates can use the opportunity to discuss ambition and development. This is important to the employee for their self-employability and advantageous to the employer, as they potentially gain an employee who drives the organisation forward. This further links with employability and pharmacy practice through the concept of reflection and professional development (O'Loan, 2019). Therefore, ensuring NQPs secure their desired employment requires opportunities throughout the initial education and training years to demonstrate and develop these.

Employers sought to retain staff for the long-term and this was important for their investment into recruitment and selection processes. However, cost impacted these processes. Employee retention is critical to organisational success with organisations such as the NHS introducing strategies to improve staff experience, retention and stabilisation within the workforce (Weyman et al., 2019, Department of Health & Social Care, 2019). Failure to retain staff is expensive and disruptive, through loss of skills, experience, negative impact on staff morale, and increased training of new staff (Carley, 1992, Goldstein, 2017). Therefore, employers used recruitment and selection to set expectations between themselves and applicants. Using recruitment to showcase the organisation and its values (Yeung, 2011, Goldstein, 2017), shows the process as equal between both parties. This supports employment longevity and aligns with what employers sought, as well as career satisfaction and development the employee seeks (Yeung, 2011). However, this is limited should employees present themselves in a socially favourable light (Levashina and Campion, 2007), with potentially concealing an undesirable aspect of their personality through modification of behaviour and/or language (Goldstein, 2017, Cartwright and Cooper,

2008, Funder, 1995). This can relate to the concept of social desirability. With recruitment processes requiring candidates to self-report information about themselves, there is a possibility for candidates to purposely fake or distort information (Schmitt, 2014). Furthermore, interview-faking behaviours may not always be detected (Weiss and Feldman, 2006, Schudlik et al., 2021, Roulin and Powell, 2018), even with the inclusion of an experienced interviewer (Melchers et al., 2020). Whilst employers discussed their attempts to revise recruitment processes to mitigate against social desirability issues, these are limited by time and available resources (Bill and Melchers, 2023). This strengthens the need to consider and manage expectations of employment across for both parties and avoiding appointing an unsuitable candidate who subsequently cannot fulfil the job requirements.

The potential disconnect regarding the importance of demonstrating clinical knowledge prompts an interesting discussion about what knowledge is assumed, what needs to be assessed, how it is assessed and how it is perceived. This maps with views on the importance of knowledge with respect to employability requirements. Whilst there is limited information within UK recruitment, clinical knowledge assessment is incorporated in the USA as part of post-graduate year 1 recruitment (Eudaley et al., 2020), but is largely in the hospital sector, which is comparable with participant perceptions. However, views on its use and evaluation of performance to help gauge acceptability, are lacking. Within the UK Medical Foundation Programme application and allocation process, clinical skills are measured as part of the Educational Performance Measure (EPM) framework. Whilst not an interview, this process does show how clinical ability is used as part of assessment and is also met with favourable opinion from the medical profession (Sidhu et al., 2016).

Views about skills and attributes as the most important aspects of employability translated to VBR approaches. VBR was driven by several high-profile NHS inquiries such as the Mid Staffordshire Inquiry (Mid Staffordshire NHS Foundation Trust Public Inquiry, 2013), with attraction, screening applications and interviews designed to explore for demonstration of professional and organisational values (Health Education England (HEE), 2016). Assessing attributes highlights whether employees will fit into the environment and organisation and ideally tease out candidate's capabilities. Person-Environment (PE) fit is the combined consideration of KSAs and the environment characteristics (Schmitt, 2014), which can be based on different

aspects, including other individuals, teams, jobs and the organisation itself. These are important for NQPs as raised by participants. Person-Organisation (PO) fit relates to a congruence of values between the person and the organisation, and is a basis for the employment decision (Morley, 2007, Health Education England (HEE), 2014). This is not only important for being aware of the world of work but also about who they are in relation to their work (Chadha et al., 2022). Comments about cursory nods to VBR may suggest that some employers do not attribute importance to values or it is possible that employers are not fully aware of how to assess for values (Kristof-Brown, 2000), or they do not have facility or resource to do so. Another viewpoint is that maybe not all pharmacy employers have an overarching set of values, with employers using their own personal values during recruitment (Kristof-Brown, 2000). However, the GPhC standards for pharmacy professionals could be used as a basis for establishing the baseline values to be assessed.

#### 9.5.2 Recruitment and selection processes

Participants discussed employment interviews which are also the most common form of employee selection more widely (Schmitt, 2014). Face-to-face interviews were preferred, with a sense of little acceptance of alternative formats. This was due to providing an environment for the mutual understanding of expectations but also for assessment of a candidate's personality for PO fit (Kristof, 1996, Kristof-Brown, 2000). Removal of the physical environment impairs the ability for employer and candidate to engage and body language assessment (Blackman, 2002, Silvester and Anderson, 2003). It could also potentially discriminate against certain groups (Jeske et al., 2018), however the non-face-to-face interview may mitigate against discrimination in people with visible disabilities (Tagalakakis et al., 1988).

Views on interviews highlighted issues that have been described in the recruitment and selection field, necessitating implementation of valid and reliable recruitment processes that predicts future job performance (Cartwright and Cooper, 2008). The comment about '*fluff it up*' (NQPC-005), presented an alternative picture of the interview, suggesting that it may not be a valid form of assessment. To address concerns about the traditional interview format, participants discussed current or potential practices that sought to enhance the validity of recruitment, in addition to demonstration of employability.

Experiences and attitudes towards including individuals such as patients and families is beneficial for drawing out values such as compassion, empathy (Spilsbury et al., 2022, Goldstein, 2017) and decision making, therefore demonstrating the person-centred approach (General Pharmaceutical Council, 2017). But further work is required, with respect to patient training, and the specific depths of their input (Charlton et al., 2015, Thomsen and Hølge-Hazelton, 2020). Panel interviews support job performance prediction and accurate assessment (Goldstein, 2017), therefore including individuals with whom NQPs will regularly work with, could be suitable for assessing the concept of multidisciplinary working.

Incorporation of competency-based approaches enabled assessment of the required competencies (or behaviours) of the organisation (Roberts, 2005, Golec and Kahya, 2007), echoing views about the importance of attributes. Effective competency-based approaches within applications enables interviewing those candidates who show they know and understand the organisational competencies as well as suggestion of their values (Patterson et al., 2015, McGuire et al., 2016), saving investment of time, personnel and resources. However, restricting candidates to talk about past experiences in the hope that it meets required competencies (McGuire et al., 2016) can disadvantage those candidates who do not have a specific experience to draw upon. Candidates can use competency-based interviews to deliver pre-prepared answers, reducing the natural conversational interview process (Derek Martin and Pope, 2008), adding to social desirability concerns.

Case study or scenario-based interviews were viewed to help assess clinical knowledge and problem-solving skills. When used as part of a structured interview, case study or scenarios also require candidates to demonstrate analytical and judgement skills, as well as attributes, by exploring the behaviours exhibited to address and solve the problem (Roberts, 2005, Oostrom et al., 2016). Through this, it is possible to help to predict job performance (Ingold et al., 2015).

Work based interviews were suggested as a tangible and valid assessment method for demonstrating competence. This approach would mitigate against social desirability bias (Levashina and Campion, 2007). However, measuring observation requires standardisation of the process with parity to both internal and external candidates. Awareness of being observed can limit validity, due to the influence on the candidate behaviour exhibited - the Hawthorne Effect (Adair, 1984). However,

the degree to which behaviour is altered by the presence of an observer (Goodwin et al., 2017) suggests that it may not be an issue.

Simulation, which includes OSCEs (Objective Structured Clinical Examinations) and MMIs (Multiple Mini Interviews) assess competence through testing relevant KSAs (Schmitt, 2014). Both are used to improve the validity and reliability of assessment of performance (Khan et al., 2013), with MMIs also used to demonstrate skills and attributes, serving as a better indicator than traditional interviews (Patterson et al., 2016a, Austin Szwak et al., 2020). Whilst accepted amongst candidates and employers (Oyler et al., 2014), concerns about the logistical aspects and cost (Patterson et al., 2016a) and employers' experience of the Oriel process may explain why the process has not been implemented more widely for NQP recruitment.

Whilst not known whether used for NQP recruitment, portfolios are primarily used within postgraduate pharmacy education and professional credentialling. Portfolios evidence demonstration of competence in practice, as well as capturing associated reflections to support improvements within the learning process, patient care, career development and engagement (Clayson, 2019, Mantzourani et al., 2019, O'Loan, 2019, Micallef and Kayyali, 2019). Whilst the foundation training portfolio could be used for NQP recruitment, extra work (Leece, 2005, Purcell, 2009) by the trainee may be required. Additionally, employers would not solely use a portfolio to make recruitment decisions, with its impact dependent on its structure (Clayson, 2019).

### 9.5.3 Recruitment bias

Participant views reflected that unconscious bias exists within NQP recruitment. Recruitment bias manifests through prejudices, judgements and stereotypes, resulting in discrimination, leading to the most suitable candidate not being selected (Roberts, 2005, Adamovic, 2020, Suveren, 2022). Whilst participants referred to how knowing people influenced recruitment, knowing people acknowledges social capital through which individuals can network and become aware of employment opportunities, thereby enhancing career success (Fugate et al., 2004, Gowan, 2012).

Participants expressed positive and negative aspects of fitting in. Employers look for the PO and PE fit (Kristof, 1996, Kristof-Brown, 2000, Morley, 2007, Schmitt, 2014, Health Education England (HEE), 2014). Appropriate assessment for values is objective (Kristof-Brown, 2000), however subjective assessments such as perception, features or preferences can lead to a bias towards certain candidates based on the

idea of 'similar-to-me' (Consul et al., 2021, Kristof, 1996). PO and PE fit was strongly associated with community pharmacy and could be due to independent community pharmacies not required to use centralised recruitment processes. Views about unconscious bias in the hospital sector could stem from perceptions of hospital pharmacy requiring greater clinical knowledge compared to community (Mourh and Newby, 2019). NHS Trusts historically cite hospital experience as an essential criterion within NQP person specifications, but with a gradual shift towards desirable. This further adds to the perception about how previous experience might impact future career choices.

Comments about gender and race, reflected how protected characteristics have and might be discriminated against during the recruitment process (Ju et al., 2012, Timming, 2017, Horvath and Sczesny, 2016). Discrimination against certain ethnic groups during applications for post-graduate residency programs (Hovey et al., 2023), parallels with reports of a smaller number of male black hospital trainees (Marshall et al., 2016). These individuals could be discriminated against when applying for hospital NQP posts, due to a requirement for prior hospital experience. Whilst the Oriel process has made positive impact in Black, Asian or other Minority Ethnic (BAME) applicant recruitment into hospital training posts (Shamim et al., 2023), the Pharmacy Workforce Race Equality Standard (PWRES) shows BAME pharmacists are underrepresented at higher job levels (NHS England, 2023).

Participants did not explicitly propose practices that could help address bias, however suggestions about improving interview validity can mitigate against bias. These align with guidance with recommendations from organisations and wider literature which includes training of recruitment panels, objectively focussing on values and skills and improved use of inclusive language (Roberts, 2005, Lucy et al., 2023, Consul et al., 2021, Mullany and Cordell, 2021, Evans et al., 2022, Hovey et al., 2023). Despite these initiatives, organisations can circumvent rules and regulations. As an example, using phrases such as 'like you and me' within recruitment material, could be seen as a euphemism for discriminating based on ethnicity (Hennekam et al., 2021) and relates to similar comments from participants about recruiting based on shared likes and dislikes or recruiting from within the family.



## 9.6 Summary of findings

### 9.6.1 Employability and the pharmacy viewpoint

Employability is an important and necessary concept for becoming ready for work, getting a job, showing an ability to effectively fulfil the requirements of the job and career management. Human capital underpins these processes with a need to develop, engage in learning and change management for effective practice. Drawing together the various viewpoints provided a pharmacy definition of employability, showing comparability with existing definitions, with consideration of career management, career success and benefitting of society.

### 9.6.2 Characteristics of employability

The findings describe a wide range of examples of KSAs relevant for NQPs. The respective groups articulated characteristics in varying ways. Drawing practical examples together shows how they are connected and can lead to the production of a set of indicators for each employability characteristic, useful for the purposes of teaching, development and recruitment.

Employability characteristics reflect those within the outcomes, the PAF and post-registration frameworks, demonstrating the importance of developing these throughout the educational and career journey in a progressive manner. Whilst discussions reveal how attributes support knowledge and skills; there is disconnect with respect to NQPs giving knowledge relatively greater importance than skills and attributes compared to the other groups. Concern exists that pharmacy education will not be able to maintain pace with practice changes. Therefore, a key focus of employability development is critical thinking, continuous learning and reflective practice. Given the nuances and importance of reflective practice, practitioners need to be supported to engage with the process of self-development but also self-assessment about situations they are presented with.

### 9.6.3 Recruitment of pharmacy students

Reflecting on participant views on the educational journey of the pharmacist is they appear to be driven by three aspects: transition, preparing for practice and quality of training. Participants discussed the transitions, how each stage prepared for the following one and the need to ensure this is seamless. Preparing for practice - participants described the practicalities, considerations, logistics and content required for practice. Quality of training – participant views focussed on how

improving the quality of the pharmacist's journey comes from a supportive perspective. These aspects underpin the themes and provide suggestions for the collective objectives of the participants with respect to education and training.

Attracting suitable student pharmacists requires career promotion. SoPs should engage schools in discussions about student pharmacist recruitment, to reach a shared understanding. However, SoPs and employers need to be mindful that prospective applicants are not likely to have developed their prosocial behaviours.

#### 9.6.4 Employability and the MPharm degree

Pharmacy courses should embed employability within the curriculum. The study results align with the Advance HE (2024) framework, primarily at the educator level. Student pharmacists need to view how employability characteristics relate to each other, with opportunities for repeated exposure, thereby having an opportunity to reflect and develop them. Challenges in the delivery and assessment of employability need to be understood and addressed, with the PAF and EPAs as potential enablers. An active learning strategies can stimulate higher order thinking and problem-solving behaviours that support prescribing skills. With the outcomes spanning the initial five years of education, SoPs and employers need to collaboratively consider undergraduate education as the preparatory aspects for foundation training.

Careers education is an aspect of employability and needs embedding within the programme to allow exposure to available careers. Not only is this beneficial for promotion of the organisation and attraction of potential applicants, but it also gives clarity of expectations, for potential applicants to use this as part of career planning. Careers education can also be a route by which employers can contribute to course design and development.

#### 9.6.5 Employability and foundation training

Foundation trainees need to be given the responsibility of being an independent pharmacist, gradually and in a scaffolded way. Variations in structure, assessment, and supervision, influence a trainee's ability to independently apply the relevant skills and attributes. Foundation training structure needs to ensure consistency and an equitable experience across all sectors. The perception of the GPhC's passive role in foundation training regulation and management is viewed as the reason for the negative impact on trainee experience, and the training and quality of the DS. There is a need to address how the RA is viewed, delivered as well as its position within

foundation training. Incorporation of EPAs as a WBA is a potential solution strategy; also contributing to work-readiness. This supports active learning and provides assurance of independent working, the ability to be given responsibility and enable reflective practice.

#### 9.6.6 Recruitment of NQPs

With NQP employers requiring potential employees to demonstrate certain employability characteristics, foundation training provides a practical opportunity for developing these. There is recognition of the importance of a values-based approach to recruitment. An advantage of this approach is it signals to student pharmacists and trainees about the relative focus on knowledge. Due to a focusing of preparation on clinical knowledge demonstration rather than skills and attributes, this can lead to a mismatch of expectations resulting in poor interview performance.

The relationship between employability and recruitment is focussed on skills and attributes being what the employer primarily assesses for. However, alignment of employer and NQP vision, and management of expectations is needed, so that employment is successful for both parties. The face-to-face interview process could be improved to help assess employability characteristics.

The fact that bias was recognised impresses that broader actions are needed to address this. Whilst no specific examples were given, the extent of the issue is unknown and warrants further investigation. Improvements to practices could reduce subjectivity to help mitigate against bias.

#### 9.6.7 NQP practice

NQP development needs to be supported during their ECP journey. Concurrent to the suggestion for need for a mandatory educational pathway to scaffold the early years of practice, there is need to provide mentorship for NQPs and early career pharmacists to ensure adequate preparation and support. With independent prescribing responsibilities facing the ECP population in 2026 (General Pharmaceutical Council, 2021), this will require additional educational, governance and pastoral support that ensures practitioners can practise safely.

## 9.7 Strengths and limitations

### 9.7.1 Preliminary fieldwork

A strength of the study was the benefit gained from being able to speak to employers and SPOs during the initial stages. Preliminary fieldwork allowed sharing of ideas and gauging of interest in the exploration of this area. Additionally, the discussions influenced the development of the interview guide, as well as the recruitment strategy.

### 9.7.2 Sectors of practice for NQPs

Pharmacists working in general practice rapidly developed in 2016, with it now a recognised sector of pharmacy practice. Consideration of inclusion of general practice pharmacists was made as part of the study, however due to pharmacists in this area not being NQPs, it was decided not to scope this area. Growth of pharmacists in this area has extended to NQP level, and therefore a limitation of the study is whether any aspects of the results are applicable to this sector. However, the concept of changing and emerging practice was recognised through the preliminary fieldwork and from a personal knowledge of pharmacy practice. For this reason, the interview guide purposefully included a discussion about future practice, and its impact on employability, which drew comments about this sector as an example, considering how employability characteristics would be demonstrated and the level, but not necessarily the specific characteristics themselves.

### 9.7.3 Transferability of findings

A limitation is the transferability of the findings. The number of participants within the study means this represents a small proportion of NQPs and employers. Even within the SPO population, whilst those who participated largely reflected the profession, inclusion of other SPOs would have provided a holistic view.

Transferability was a consideration made as part of the study design, as part of the sampling strategy, leading to ensuring maximum variation within the population, particularly with respect to NQPs and employers. Whilst this was achieved with respect to variation within sector of practice, which is a strength, a limitation is that most NQPs who participated were from the acute hospitals, with acknowledgement of a greater number of pharmacists in community, but also hospital pharmacists working in district general settings. This could infer that the results are more transferable towards hospital. Additionally, due to the logistics of the interviews and

the period associated with the study, NQPs and employers were based in England, and therefore the study does not necessarily represent views from Scotland, Wales and Northern Ireland, despite recruitment directed towards all the countries. Additionally, presentation of the results and discussions with a thick description, supported the transferability of findings. These initial findings can be used as a stimulus for wider discussions with the pharmacy population, to enable engagement with employability, and to also promote further research in this area.

#### 9.7.4 Changes to education and training standards

Chapter 2 introduced how the education and training standards changed from having two sets of educational standards to the current single set covering both MPharm and foundation training. The period of data collection, and therefore participant views, were based on the 2011 standards, and their strength and limitations, and these views cannot be fully transferred to the 2021 standards. Whilst it was pre-empted that revised educational standards were due to be published, an exact time was not known and therefore these views are also helpful in feeding into how the revised standards should be approached and that they need to reference employability. The views presented can be used to recognise that once the pharmacists who have graduated to the 2021 standards are practising, the standards will need to be evaluated based on practice, as well as preparation for independent practice. The discussion considered the results in light of the 2021 standards, to ensure the context in which recommendations for improvements were given reflected current practice.

#### 9.7.5 Position of the scoping review

The scoping review was undertaken later than what was ideal. Ideally the scoping review should have been undertaken alongside the broader literature review so that the findings would have sequentially informed the aims of the study and the discussion of the results. However, in undertaking the scoping review after the interviews, its findings have been used to revisit the aim, objectives and findings of the study.

## 9.8 Implications for policy, practice, and research

### 9.8.1 Implications for policy

Employability should be widely discussed. Discussions around health care and pharmacy workforce issues brings employability to the forefront as a term that can resonate across stakeholders. Acknowledging the importance of employability and having a collective definition signifies need for profession wide engagement to employability. Discussion needs to include what employability means with respect to responsibilities and actions, and implications for recruitment and selection.

Employability brings student pharmacists, trainees, employers, pharmacists, SoPs and other stakeholders, to discuss the NQP KSAs requirements, using a shared language. Inclusion of NHS England WTE, GPhC, RPS, BPSA and PhSC in a profession wide roundtable event should be initiated, to address current workforce challenges, using the findings of this study and goals set out in the NHS Long Term Workforce Plan. The outcomes, PAF and FPC should be considered for their contribution towards an individual's employability. Employability discussions should be regular and integrated into all workforce planning discussions, to maintain relevance.

Career building and management enhances an individual's employability, and therefore adoption of a profession wide careers strategy that builds on existing best practices is required. A collaborative approach could strengthen existing initiatives (national careers tools and strategies, materials for schools, SoPs specific material, HEI careers and employability resources and foundation training support activities). Secondary schools could use this resultant guidance to promote pharmacy as a career as well as setting the expectations of being a pharmacy professional. The study supports recommendations for a mandatory structured educational pathway for all patient facing NQPs, to support development of practitioners during the early career stage, and career progression.

### 9.8.2 Implications for practice

The AdvanceHE framework for Embedding Employability should be used to review pharmacy education. This framework enables a profession wide approach towards employability. This framework provides structure for SoP engagement with external stakeholders, to shape the educational priorities aligned with the direction of the profession. Engagement needs to be regular to ensure relevance and include input into the recruitment practices of student pharmacists onto the programme and

articulation of the value of experience on future employability. The study also highlights where the employability characteristics are connected and mapped to the teaching, learning and assessment practices within the programme, bringing the student into the discussion as a stakeholder and co-creator.

Detailing how employability characteristics can be progressively demonstrated within undergraduate and foundation training needs to be undertaken. Employability should be explicitly stated, detailed within the GPhC guidance that supports implementation of the outcomes. The PAF should be integrated into the NHS WTE England Training and Assessment strategy and used as a development tool to enhance employability. The PAF can set expectations for independent working and the roles and responsibilities of the trainee at specific stages. This can support assessment of the outcomes and preparation for the RA. With employability characteristics interwoven within the outcomes, weaving these into career preparation processes would strengthen their articulation, contextualisation, assessment and relevance.

Career preparation during foundation training could be improved with advice and guidance to trainees, regarding employment applications. Guidance should be practical, collegiate and collaborative across sectors and highlight good practice for recruitment. Collaboration between pharmacy employers across sectors could lead this. Standardisation of NQP recruitment processes provides clear expectations for employers and trainees. This would include information on aims and expectations of the recruitment process, bias minimisation, embedding diversity and inclusion, with examples of job descriptions, person specifications and adverts that include employability characteristics, ensuring a common language across sectors. Use of PAF terminology is beneficial and helpfully maps to the GPhC standards for pharmacy professionals, and NHS values. Actioning recommendations of the STEMM Change consortium would assist in mitigating bias. Guidance should include information on objective and valid recruitment methods for assessing KSAs, with benefits and limitations highlighted. Current methods should be reviewed with respect to their appropriateness for assessing the required KSAs. This improves employers and trainees understanding of requirements. Clear articulation benefits the recruitment process but also the trainee, who practice needs to reflect requirements.

### 9.8.3 Implications for research

Focus groups should be undertaken to gauge the acceptability and significance of the results, and how their use could impact practice. Representatives from the participant groups in addition to representation from Scotland, Wales and general practice pharmacy should be included. This will also enable review of the findings against current practice.

The study should be expanded with the aim of establishing a profession wide consensus on the employability characteristics provided by participants. A quantitative approach could investigate this through use of a survey. This would support dissemination of findings but investigate the level of agreement with proposed characteristics, with consideration of current and future sectors of practice, changing roles and responsibilities, and ideally result in greater involvement in employability across the UK.

Patients and the public are employability stakeholders through being recipients of pharmacy services. It is anticipated they have expectations of the pharmacist caring for them. Whether expectations differ based on the duration of registration of the pharmacist is unknown, nevertheless, understanding this could inform further investigation. A qualitative approach using focus groups with patients could be used. Using the proposed characteristics to inform the topic guide, focus groups would seek to understand patient perceptions of these characteristics across sectors, differences based on duration of registration, the pharmacist as a prescriber, and the implications for patient and public satisfaction.

As recipients of employability strategies, exploration of the student understanding of employability, their career goals, and alignment of these with the priorities of the profession is needed. It is timely to investigate the impact of NQPs as independent prescribers on students and their career preparation. This could be undertaken through focus groups across SoPs. Implementation of the findings from this study as part of employability strategies must include students as co-creators. Evaluation of employability strategies with findings shared across SoPs promotes good practice. A survey to evaluate student views on employability strategies could be undertaken.

Clinical knowledge is prevalent within undergraduate training, the RA and recruitment processes but prompts discussion within this study. Improved understanding of its definition, characteristics and expectations would help promote



a shared understanding and management of expectations across stakeholders. Views of student pharmacists, trainees and NQPs of the RA, could investigate and explore the concerns highlighted and how these might be addressed. An area for further investigation is the position of clinical knowledge assessment in NQP recruitment, whether and how it should be assessed. A clearer understanding of knowledge expectations would support clarity with respect to recruitment and help the understanding and expectations of employers and prospective applicants.

Investigating recruitment would help inform career preparation initiatives. Potential research could study online interview use within pharmacy, personality assessment, acceptability amongst employers and candidates, and variations in the experiences of online versus face-to-face employment interviews. Further investigation of portfolios due to their use within foundation training assessment is required. With a view to improving the processes, the use of patients, carers and other staff within recruitment should be investigated. This should consider the feasibility, acceptability, and evaluation of benefit of implementing such an approach. This could be undertaken through scoping and evaluation of the experiences of pharmacy professionals, other health care professionals and candidates involved in multi-person interview panels. Recruitment bias could be further investigated as to the extent of the issue within pharmacy and how it might be addressed.

## 10 Conclusion

This thesis was driven by a desire to help newly qualified pharmacists (NQPs) be the best they can be by enabling them to demonstrate independent and autonomous practice from day one. The aim of this study was to explore the concept of employability for NQPs, with a view to determining the employability characteristics required for NQPs.

Within pharmacy, employability is important and holds a range of meanings. Unpicking the meanings at an individual level shows different views and varying definitions, but drawing these together resulted in a definition of employability at the NQP stage for the profession, which is: the building and use of career management skills for job application, possession and use of human capital for job acquisition, and the sustaining of work through fulfilling the requirements of the job and adoption of a reflective identity. Employability must be recognised and discussed across the profession; included as part of regular workforce discussions. This calls for a collaborative approach when discussing employability ensuring that no-one is excluded. The common goal for the profession is to have an effective, competent and capable workforce that does not only improve patient care but also drives the profession forward.

Employability characteristics for a NQP can be understood as knowledge, skills, attributes and reflective practices, examples of which were described by participants and appear in the literature. These examples can be used practically as indicators for the purposes of teaching, learning, assessment, development and recruitment. Any indicators should use the language and terminology of existing educational standards and frameworks to ensure a mutual understanding and demonstration of seamless transition. There is a requirement to revisit these characteristics as practice changes and advances.

Employability needs to be strategically embedded within pharmacy education and training. This requires employability to be stated explicitly within the GPhC standards for the initial education and training of pharmacists (General Pharmaceutical Council, 2021). Embedding requires the involvement of all stakeholders to ensure that effective and relevant teaching, learning and assessment practices are that reflect the characteristics of employability. Discussions on employability, its characteristics and associated teaching need to recognise change and therefore need to be

undertaken regularly to ensure that current and future practice is acknowledged and therefore reflected within initial education and training practices. Teaching practices need greater focus on learning how to learn, than possession of knowledge, particularly to support the idea of ongoing personal development, and the ever-changing health care sphere. The foundation training stage is fundamental for trainees to demonstrate independent practice. Addressing issues in the quality of training, will not only enhance the foundation training experience, but also enables trainees to practise safely and independently on registration.

To support the education journey through into NQP practice, greater support for career management and career building skills are needed, that scaffold the development of the student pharmacist and enable them to meet their career aspirations. Recruitment and selection processes play in a significant role for ensuring that appropriate candidates are recruited. However, there are improvements that need to be made to improve the experience for both the employer and prospective employee. Initiatives to support career management and career building need to align with the requirements of the employer and be articulated within recruitment and selection processes, so that prospective employees are clear on the expectations of them and are best prepared for entering the world of work.

This study has highlighted key recommendations for the profession. Firstly, employability must be part of workforce planning discussions. This should be in the form of a profession wide roundtable event that discusses employability based on the findings of this study, and goals set out in the NHS Long Term Workforce Plan. Secondly, as employability development must be part of pharmacy education, the AdvanceHE framework for Embedding Employability should be used as the basis for reviewing pharmacy education. Employability also needs to be situated within the outcomes. This will inform curriculum design, policy and practice as well as student support.

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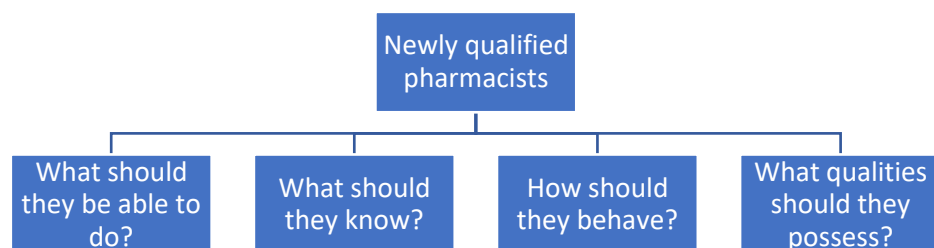
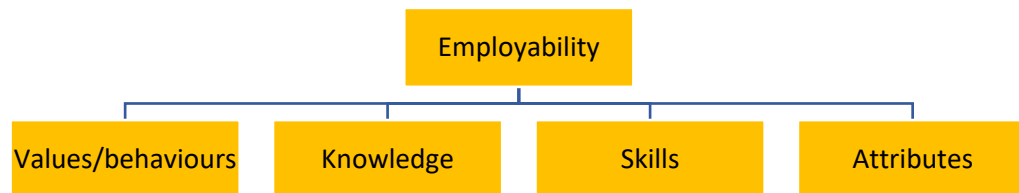
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## Appendix 1: Supporting information about employability for interviews



## Appendix 2: Consent form and Participant Information Sheet

### CONSENT FORM

**(FINAL Version 1.0 July 2018)**

Title of Study: Exploration of employability in pharmacy. Supporting transition from undergraduate to registration

Name of Researcher: Mr Gautam Paul

Name of Participant:

1. I confirm that I have read and understand the information sheet version number 1.1 dated August 2018 for the above study and have had the opportunity to ask questions.
2. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason, and without my legal rights being affected. I understand that should I withdraw then the information collected so far cannot be erased and that this information may still be used in the project analysis.
3. I give permission for the researcher to collect, store, analyse and publish information obtained from my participation in this study. I understand that my personal details will be kept confidential.
4. I understand that the interview will be recorded and that anonymous direct quotes from the interview/ may be used in the study reports.
5. I understand that the information collected about me will be used to support other research in the future, and may be shared anonymously with other researchers.
6. I agree to take part in the above study.
7. I would like to receive a summary of the study findings

_____	_____	_____
Name of Participant	Date	Signature

Gautam Paul	_____	_____
Name of Person taking consent	Date	Signature

## **Participant Information Sheet**

(FINAL Version 1.1 August 2018)

Title of Study: Exploration of employability in pharmacy. Supporting transition from undergraduate to registration

Name of researcher: Mr Gautam Paul

We would like to invite you to take part in our research study. Before you decide we would like you to understand, why the research is being done and what it would involve for you. One of our team will go through the information sheet with you and answer any questions you have. Talk to others about the study if you wish. Please ask us if there is anything that is not clear.

### **What is the purpose of the study?**

Pharmacists must possess appropriate knowledge, skills, values and attributes, to provide high quality patient care. Leading up to registration (becoming a “newly qualified pharmacist” or “day one pharmacist”), pharmacists need to have opportunities, support and experiences to gain the relevant knowledge, skills, values and attributes to meet the needs of the market into which they will enter. Therefore, the purpose of this study is to find out what a “newly qualified pharmacist” should be in the context of knowledge, skills, values and attributes.

To find out about:

- Your understanding of the term “employability” in the context of pharmacy practice
- What you think a “newly qualified pharmacist” should be able to do, what they should know, how they should behave and what qualities they should possess
- The recruitment and selection processes that are in place and/or should be used for “newly qualified pharmacists,” and whether they are fit-for-purpose
- Whether (and how) the MPharm degree and/or pre-registration training needs to change to reflect what is necessary for a “newly qualified pharmacist”

### **Why have I been invited?**

You are being invited to take part because of your direct involvement in the employment (recruitment and selection) of “newly qualified pharmacists.” We are inviting other participants like you to take part, ensuring that all areas where “newly qualified pharmacists” are recruited, are reached.

### **Do I have to take part?**

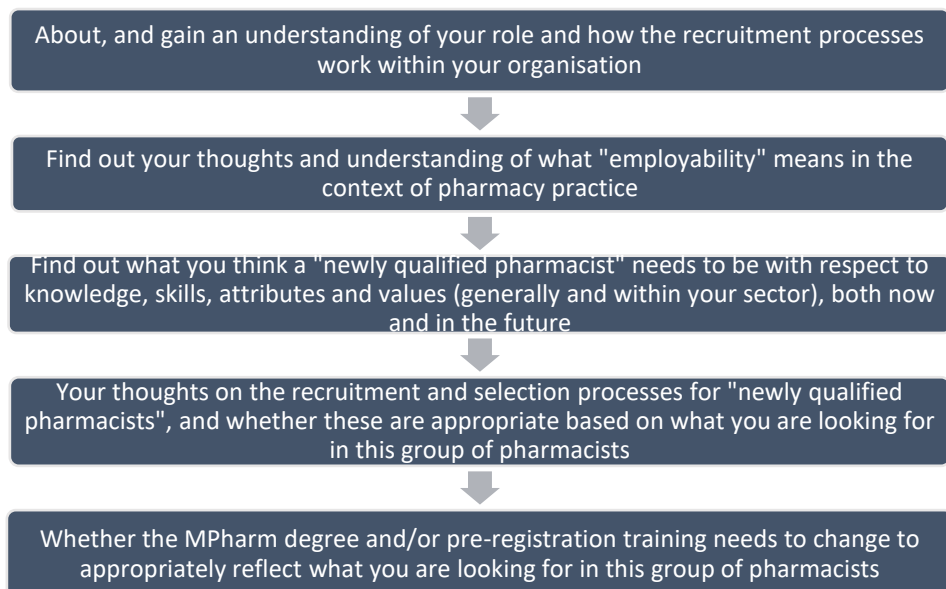
No. It is up to you to decide whether or not to take part. If you do decide to take part you will be given this information sheet to keep and be asked to sign a consent form. If you decide to

take part you are still free to withdraw at any time and without giving a reason. This would not affect your legal rights.

What will happen to me if I take part?

If you decide to be included in the study you will be asked to sign a consent form to indicate that you agree to take part in an interview which will last for about an hour. We would look for the interviews to take place outside of your working hours, and ideally outside of your place of work (at a location of your choice) but understand that you may choose to be interviewed at your workplace.

The interviews will be about your experience of recruitment and selection of “newly qualified pharmacists” and how this relates to knowledge, skills, values and attributes required of these pharmacists. We would like to find out:



With your permission we would like to audio record the interviews.

#### **Expenses and payments**

Participants will not be paid to participate in the study. Travel expenses will be offered for any visits incurred as a result of participation.

#### **What are the possible disadvantages and risks of taking part?**

We hope that you will find taking part in the study to be an interesting experience. We understand that you may find it difficult talking about issues relating to recruitment and selection, and that this may make you consider how you would feel about sharing this experience with the researcher. We will not be sharing any recruitment and selection processes with others outside the study (including in any reports). It is important that you understand what is involved and discuss this fully with the researcher before you decide to

take part. However, you will never be under any pressure to answer questions or talk about topics that you prefer not to discuss. You can stop the interview, take a break, or withdraw from the study, at any time.

#### **What are the possible benefits of taking part?**

We cannot promise the study will help you but the information we get from this study may help (primarily) in two ways:

1)           Development of “employability characteristics”

The “employability characteristics” will detail the skills, knowledge, values and attributes required for “newly qualified pharmacists,” identifying both core and sector specific characteristics. These characteristics can be used to support review of existing curriculum for undergraduate and pre-registration training.

2)           Informing the wider pharmacy profession

The results from the study will be shared with pharmacy professional organisations such as the professional bodies, government bodies, Higher Education Institutions, pharmacy employers and other stakeholders who are supporting workforce planning and workforce development for the profession. It is hoped the results from this study can inform their work by providing an insight into the requirements of the pharmacy workforce at “day one” level.

#### **What happens when the research study stops?**

The results of the study will be analysed by the research team and there should not be any need to contact you again about the data that you have provided. However, if following analysis of the data, there is a need to clarify aspects of the data, then we may contact you. All participants will be sent a summary of the findings and recommendations at the end of the study if they would like to receive this. We will therefore ask for your consent to hold your contact details.

#### **What if there is a problem?**

If you have a concern about any aspect of this study, you should ask to speak to the researchers who will do their best to answer your questions. The researchers’ contact details are given at the end of this information sheet. If you remain unhappy and wish to complain formally, you can do this by contacting Dr Franco H. Falcone, Chair, Research Ethics Committee, School of Pharmacy, Phone: 0115 84 66073, Email: franco.falcone@nottingham.ac.uk.

In the event that something does go wrong and you are harmed during the research and this is due to someone's negligence then you may have grounds for a legal action for compensation against the University of Nottingham but you may have to pay your legal costs.

**Will my taking part in the study be kept confidential?**

Yes. We will follow ethical and legal practice and all information about you will be handled in confidence.

If you join the study, we will use information collected from you during the course of the research. This information will be kept strictly confidential, stored in a secure and locked office, and on a password-protected database at the University of Nottingham.

To safeguard your rights we will use the minimum personally – identifiable information possible.

The data collected for the study will be looked at and stored by authorised persons from the University of Nottingham who are organising the research. They may also be looked at by authorised people from regulatory organisations to check that the study is being carried out correctly. All will have a duty of confidentiality to you as a research participant and we will do our best to meet this duty.

Where possible information about you which leaves the location of the interview will have your name and contact information removed and a unique code will be used so that you cannot be recognised from it, however sometimes we may need to follow up an aspect of the interview with you, as part of the research. By signing the consent form you agree to the above.

Your contact information will be kept by the University of Nottingham for 12-24 months after the end of the study so that we are able to contact you about the findings of the study and possible follow-up studies (unless you advise us that you do not wish to be contacted). This information will be kept separately from the research data collected and only those who need to will have access to it.

Although what you say to us is confidential, should you disclose anything to us which we feel puts you or anyone else at any risk, we may feel it necessary to report this to the appropriate persons.

**Data Protection Privacy Notice**

Privacy information for research participants

The University of Nottingham, University Park, Nottingham, NG7 2RD, United Kingdom (+44 115 951 5151) is committed to protecting your personal data and informing you of your rights in relation to that data. The University of Nottingham is registered as a Data controller under the Data Protection act 1998 (registration No. Z5654762 – <https://ico.org.uk/ESDWebPages/Entry/Z5654762>).

One of the University's responsibilities as a data controller is to be transparent in our processing of your personal data and to tell you about the different ways in which we collect

and use your personal data. The University will process your personal data in accordance with the General Data Protection Regulation (GDPR) and the Data Protection Act 2018.

For information about the University's obligations with respect to your data, who you can get in touch with and your rights as a data subject, please visit:

<https://www.nottingham.ac.uk/utilities/privacy.aspx>.

If you are concerned about how your personal data is being processed, please contact the University's Data Protection Officer at [dpo@nottingham.ac.uk](mailto:dpo@nottingham.ac.uk). The postal address of the Data Protection Officer is:

Data Protection Officer,  
Legal services  
A5, Trent Building,  
University of Nottingham,  
University Park,  
Nottingham, NG7 2RD  
United Kingdom

#### **Why we collect your personal data**

We collect personal data under the terms of the University's Royal Charter in our capacity as a teaching and research body to advance education and learning.

Legal basis for processing your personal data under GDPR

The legal basis for processing your personal data on this occasion is Article 6(1a) consent of the data subject.

#### **How long we keep your data**

The University may store your data for up to 25 years and for a period of no less than 7 years after the research project finishes. The researcher who gathered and processed the data may also store the data indefinitely and reuse it in future research. During this time all precautions will be taken by all those involved to maintain your confidentiality, only members of the research team will have access to your personal data. Measures to safeguard your stored data include

Electronic data will be kept on an encrypted USB drive. The encrypted (encrypted using a one way encryption method) USB drive that includes your information will be stored in the locked drawer at the University of Nottingham. The data will only be accessed by the research team. Electronic data will be backed up every 24 hours to both local and remote media in encrypted format.

Computer held data including the study database will be held securely and password protected. All data will be stored on a secure dedicated web server. Access will be restricted by user identifiers and passwords.



Paper documents that include your data will be held securely, in a locked room, or locked cupboard or cabinet. Access to the information will be limited to the researcher and PhD supervisors and any relevant regulatory authorities.

**What will happen if I don't want to carry on with the study?**

Your participation is voluntary and you are free to withdraw at any time, without giving any reason, and without your legal rights being affected. If you withdraw we will no longer collect any information about you or from you. The data will be erased when you request withdrawal from the study.

**What will happen to the results of the research study?**

The ultimate aim of the study is to ensure that pharmacists are able to provide the best possible care for patients and the public. The results of the study will be used to help pharmacists improve the care and support they provide to patients and family carers, by ensuring that they have appropriate knowledge, skills, values and attributes. The study is part of a PhD research programme, being undertaken by the researcher. The researcher will prepare a thesis as submission for a PhD qualification. The results of the research will be made more widely available through professional and academic journal publications and conference presentations. You will not be identified in any report or publications resulting from the research. All participants will be sent a summary of the findings and recommendations at the end of the study if they would like to receive this.

**Who is organising and funding the research?**

This research is being organised by the University of Nottingham and is being funded by the School of Pharmacy.

**Who has reviewed the study?**

All research in healthcare is looked at by independent group of people, called a Research Ethics Committee, to protect your interests. This study has been reviewed and given favourable opinion by University of Nottingham, School of Pharmacy Research Ethics Committee.

**What do I have to do?**

Please let the researchers know if you are interested in taking part in the study, or would like to discuss this further. You can contact them using the details given below by email, phone or post. The researchers will contact you directly to discuss the study further.

**Further information and contact details**

Researcher

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## Appendix 3: Interview guide – employers of newly qualified pharmacists

### **The participant and their organisation**

An understanding of the role of the participant (background, experience, professional roles and positions)

### **Employability**

Explore meaning/understanding/awareness/importance of employability – to them, their organisation, the profession. Reasons for these views

### **Views on current models of employability (give these in advance for consideration)**

How do you think other groups that I am interviewing [give generic information, without naming individuals and/or organisation] might view employability?

### **Newly qualified pharmacists (day 1 pharmacists)**

What do you think that day 1 pharmacists should be able to do, what should they know, how should they behave, what qualities should they possess? (ask in the context of sector specific and general experience). *Stress that this is day 1 of being a pharmacist.*

### **Gather reasoning for the responses given**

Gather information on the relative importance of the responses

How does this align with the intelligence that you have on the current and future landscape of the profession and health care

### **Recruitment**

How do your views on employability and day 1 pharmacists inform how you have (align with) /are/will recruit day 1 pharmacists? Can recruitment be improved in anyway (thinking across the profession)?

Explore thought on whether any possibility that bias (conscious/unconscious) might influence recruitment processes. Any experience of this? How can bias be mitigated? *(Remind that they do not need to answer this)*

### **MPharm and pre-registration**

To enable employers to be able to recruit a successful day 1 pharmacist, does undergraduate and pre-registration pharmacy education need to change? If so, what should happen?

### **Additional comments**

Is there anything else that you would like to discuss?

## Appendix 4: Interview guide – newly qualified pharmacists

### **The participant and their organisation**

An understanding of the role of the participant (background, experience, professional roles and positions)

How were you recruited into the roles that you have been working in since being registered as a pharmacist (for example, assessment centre, informal chat, MMI, values-based interview, scenarios etc)?

### **Employability**

Explore meaning/understanding/awareness/importance of employability – to them, their organisation, the profession. Reasons for these views

Views on current models of employability (*give these in advance for consideration - need to give people a definition and then get them to talk about it and ask them add and comment on it*).

How do you think other groups that I am interviewing [give generic information, without naming individuals and/or organisation] might view employability?

### **Newly qualified pharmacists (day 1 pharmacists)**

Looking back on your day 1 of being registered, what do you think that day 1 pharmacists should be able to do, what should they know, how should they behave, what qualities should they possess? (ask in the context of sector specific and general experience). Stress that this is day 1 of being a pharmacist.

Gather reasoning for the responses given

Gather information on the relative importance of the responses

How does this align with the intelligence that you have on the current and future landscape of the profession and health care

### **Recruitment**

Looking back on how your own recruitment (as a day 1 pharmacist), and your views on employability, comment on the alignment of these. Any recommendations for how day 1 pharmacists should be recruited?

Explore thought on whether any possibility that bias (conscious/unconscious) might influence (might creep in) recruitment processes. Any experience of this/have you heard of this? Why might this have happened? How can bias be mitigated?

### **MPharm and pre-registration**

To enable employers to be able to recruit a successful day 1 pharmacist, does undergraduate and pre-registration pharmacy education need to change? If so, what should happen?

**Additional comments**

Is there anything else that you would like to discuss?

## Appendix 5: Interview guide – stakeholders and policy organisations

### **The stakeholder/organisation role**

An understanding of the role of the stakeholder/policy organisation and the interaction/influence with the profession

### **Employability**

Explore meaning/understanding/awareness/importance of employability – to them, their organisation/health care, the profession. Reasons for these views

Views on current models of employability (give these in advance for consideration)

How do you think other groups that I am interviewing [give generic information, without naming individuals and/or organisation] might view employability?

### **Newly qualified pharmacists (day 1 pharmacists)**

What do you think that day 1 pharmacists should be able to do, what should they know, how should they behave, what qualities should they possess? (ask in the context of sector specific and general experience). *Stress that this is day 1 of being a pharmacist.*

Gather reasoning for the responses given

Gather information on the relative importance of the responses

How does this align with the intelligence that you have on the current and future landscape of the profession and health care

### **The profession**

How do you perceive the future of the profession of pharmacy and the role of pharmacists (sector specific, general) based on the current landscape and intelligence?

### **Recruitment**

How does your views on employability and day 1 pharmacists inform how employers should recruit day 1 pharmacists? Should anything change from your understanding of what is currently done?

Explore thought on whether any possibility that bias (conscious/unconscious) might influence recruitment processes. Any experience of this? How can bias be mitigated?

Their influence on recruitment of health care staff and/or pharmacists

### **MPharm and pre-registration**

To enable employers to be able to recruit a successful day 1 pharmacist, does undergraduate and pre-registration pharmacy education need to change? If so, what should happen?

**Additional comments**

Is there anything else that you would like to discuss?

## Appendix 6: Educational standards associated with leadership

<p>GPhC Learning Outcomes (Undergraduate and Foundation Training)</p>	<p>Demonstrate effective leadership and management skills as part of the multi-disciplinary team.</p> <p>Make use of the skills and knowledge of other members of the multi-disciplinary team to manage resources and priorities.</p> <p>Develop, lead and apply effective strategies to improve the quality of care and safe use of medicines.</p> <p>Actively take part in the management of risks and consider the impacts on people.</p> <p>Use tools and techniques to avoid medication errors associated with prescribing, supply and administration.</p> <p>Take appropriate actions to respond to complaints, incidents or errors in a timely manner and to prevent them happening again.</p> <p>Recognise when and how their performance or that of others could put people at risk and take appropriate actions.</p> <p>Demonstrate resilience and flexibility, and apply effective strategies to manage multiple priorities, uncertainty, complexity and change.</p>
<p>Professional Attributes Framework (Foundation Training)</p>	<p>Understands, values and respects all roles (including their own) within the immediate and wider team, as well as team members' skill sets and knowledge.</p> <p>Willing and able to facilitate others' learning through sharing own knowledge/experience and/or supporting others when learning; takes a proactive role in sharing expertise around medicine.</p> <p>Builds and maintains meaningful and trusting relationships with team members and other health and social care professionals.</p> <p>Demonstrates an awareness of other team members' workloads and pressures and adapts their interactions accordingly.</p> <p>Works collaboratively; provides assistance, support, supervision and guidance to other members of the team for the benefit of the person receiving care.</p> <p>Provides constructive feedback for both individual development and continuous improvement.</p>



<p>RPS Post-registration Foundation Curriculum (Early Careers Pharmacist)</p>	<p>Proactively demonstrates and promotes the value of pharmacy to the public and other health care professionals.</p> <p>Communicates vision and goals to the wider pharmacy and multidisciplinary team to support with achieving group tasks.</p> <p>Critically analyses business needs; is mindful of commercial aspects within the pharmacy context; recognises the changes to and the opportunities within the future role of pharmacists; seeks out opportunities to modify own approach and deliver/promote new pharmacy services.</p> <p>Draws upon networks to understand the range of clinical, medicines related and public health activities offered by pharmacy across sectors and the care pathway.</p> <p>Is open to new approaches and ways of completing work tasks and appropriately challenges others to consider change to improve the quality of care; shares own innovative ideas to improve working practices, both internally and externally.</p> <p>Effectively identifies and raises concerns regarding patient safety; applies principles of risk management; seeks to improve the quality and safe use of medicines routinely.</p> <p>Demonstrates self-awareness and emotional intelligence within the role, reflects on and understands the impact a situation may have on one's own health and wellbeing.</p> <p>Remains composed even in challenging or high-pressured situations; develops and draws upon support network in challenging situations.</p> <p>Effectively, efficiently and safely manages multiple priorities; maintains accuracy when in a challenging situation; manages own time and workload calmly, demonstrating resilience.</p> <p>Adapts and works effectively in different environments within pharmacy by applying previous learning to new settings.</p>
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## Appendix 7: Learning Outcomes associated with employability

GPhC Standards - Learning Outcomes
1 Demonstrate empathy and keep the person at the centre of their approach to care at all times
2 Work in partnership with people to support and empower them in shared decision-making about their health and wellbeing
3 Demonstrate effective communication at all times and adapt their approach and communication style to meet the needs of the person
6 Treat people as equals, with dignity and respect, and meet their own legal responsibilities under equality and human rights legislation, while respecting diversity and cultural differences
9 Take responsibility for ensuring that personal values and beliefs do not compromise person-centred care
10 Demonstrate effective consultation skills, and in partnership with the person, decide the most appropriate course of action
14 Work collaboratively and effectively with other members of the multidisciplinary team to ensure high-quality, person-centred care, including continuity of care
15 Demonstrate the values, attitudes and behaviours expected of a pharmacy professional at all times
16 Apply professional judgement in all circumstances, taking legal and ethical reasoning into account
17 Recognise and work within the limits of their knowledge and skills, and get support and refer to others when they need to
20 Act openly and honestly when things go wrong and raise concerns even when it is not easy to do so
45 Demonstrate effective leadership and management skills as part of the multi-disciplinary team
46 Make use of the skills and knowledge of other members of the multidisciplinary team to manage resources and priorities
50 Take appropriate actions to respond to complaints, incidents or errors in a timely manner and to prevent them happening again
51 Recognise when and how their performance or that of others could put people at risk and take appropriate actions
52 Demonstrate resilience and flexibility, and apply effective strategies to manage multiple priorities, uncertainty, complexity and change
53 Reflect upon, identify, and proactively address their learning needs
54 Support the learning and development of others, including through mentoring