- Methods

Chapter Three – Methods

3.1 Introduction

This chapter outlines the research methods used to carry out the study. The methods are justified for their relevance in determining the attitudes of student nurses towards older people and how this might be associated with their knowledge and awareness of dementia care. The rationale for the chosen methodology is explained along with the ethical considerations involved in conducting the study. How the chosen methods were assessed for their reliability and validity and the methods of statistical analysis are described.

3.2 Methodology

There are two main methodological approaches in healthcare research: qualitative and quantitative. Determining which approach to use is a first requirement for any study and is therefore a crucial step in ensuring a clear and precise research design (Oppenheim, 2000). Although both methodologies do share some similarities in technique, there are some major differences between the two and the correct approach should be chosen on whichever is most appropriate to achieve the aims and objectives of the study (Burnard and Hannigan, 2000). Qualitative research generally deals with words rather than numbers (Pope and Mays, 2006) and is usually through observation and unstructured interviews (Blaxter et al, 2001). Qualitative research is a form of social enquiry that explores the perspectives, behaviour, feelings and experiences of people through description of lived experience (Holloway & Wheeler, 2002). Quantitative research on the other hand is a systematic process which focuses its attention on amounts and measurements. Quantitative research uses numbers and statistical methods in order to seek explanations and predictions (Thomas, 2003). They are also often used to prove a relationship

between two factors (Burnard and Hannigan, 2000). As highlighted in the literature review, various methods have been used to research this area.

With qualitative research, data collection is often complex and time consuming which leads to a smaller sample size. Although qualitative methods have been used to study the topic area, for this particular study, a potentially large number of respondents are needed in order to measure the level of dementia awareness and attitudes towards ageing amongst student nurses and assess whether a relationship exists between the two. For this reason, a quantitative research method was chosen as most appropriate for this study.

3.3 Research aims and study design

The research design consists of a survey of student nurses. The survey is carried out using a self completion questionnaire. The use of questionnaires in a research study is often criticised as being too simple and basic (Murray, 1999). However, they are often the only way to gather data from a potentially large number of respondents and were therefore chosen as the most appropriate research method for this study. Furthermore, a self completion questionnaire allows anonymity and privacy in responses which is crucial in a study such as this where personal opinions on sensitive areas are needed (Robson, 2002).

The aim of the study is to examine the association between attitudes to ageing and knowledge of dementia among a sample of student nurses. There are three main objectives of the study which are to, (1) measure the attitudes of student nurses towards older people, (2) explore the awareness and knowledge of dementia among

student nurses and (3) test whether attitudes towards ageing and knowledge of dementia are related to each other.

3.4 Setting

Student nurses within the University of Nottingham division of nursing were approached as part of the study[1]. Participants were therefore all from one university which will limit transferability of my study. However, the University of Nottingham is unlikely to be atypical in this respect making it easier to generalise the findings.

3.5 Participant selection and recruitment

In order to help provide data on the research question, the chosen sample must be able to provide information on the question area (Mason, 2002). My research question for this study focuses on the attitudes and knowledge of student nurses and an opportunity sample was therefore used, using the student nurses available at the Division of Nursing. These students were therefore easily accessible and gave a true representation of the target population.

Student nurses were chosen mainly as they are easily accessible. The research that has already been carried out into ageism and dementia has been mainly with general practitioners and therefore the study of nurses addresses a gap in the research. In order to look at whether differences exist between types of course, students on both the diploma and masters courses were approached. All years and branches of student nurses, except those who were undergoing child branch were included in the

[1] Following discussion with my supervisor, the setting of the study has purposely not been disguised. No information that gives away identity regarding specific participants is asked of during the study and all questionnaires are both anonymous and confidential.

study. Child branch nurses were omitted from the study as they are unlikely to deal with older people with dementia.

3.6 Seeking access and consent

3.6.1 Seeking access

As all of my participants were studying within one teaching hospital, the easiest way of accessing participants was through the Division of Nursing. Before commencing this, a letter was sent to the Course Director of both the masters and diploma courses (see appendix one). This letter asked for permission to contact individual lecturers about seeking permission to speak to their students to complete my questionnaire either at the beginning or end of a lecture at a time that suited both the lecturer and his/her students. Included in the letter was a copy of the research proposal so that the course directors were aware of the aims, objectives and methodology of the project. After an agreeable decision from course directors, individual lecturers were contacted and times and dates for the questionnaires to be distributed arranged.

3.6.2 Consent

There is a great deal of debate into whether consent is necessary in all studies (Corrigan, 2003). As this study involves minimal risk, signed informed consent was not sought. The advantages and disadvantages of gaining consent were carefully analysed prior to making this decision. Gaining written consent would not only threaten the anonymity of participants but would also result in additional burden to all involved. Therefore signed informed consent was not gained but measures were made to ensure that all participants fully understood the study before they agreed to take part. In order to ensure this, as well as a verbal explanation, information sheets

were available to all participants wanting further information about the study. It was stressed to participants that they were under no obligation to take part in the study and consent to take part was implicit by completion, or otherwise, of the questionnaire.

3.7 Method

There are two main principal modes of data collection that would have been appropriate to use in this study. They are interviews and questionnaires, the latter of being used in this study. Although both methods have advantages and disadvantages, evidence from studies provides no consistent picture of superiority between them with regards to quantity and quality of responses (McColl et al, 2001). High response rates are crucial to this type of study as they increase precision of results and minimise non-response bias and therefore questionnaires were chosen for their simple and quick completion. Although questionnaires have been known to get low response rates, various ways to maximise response rate were used. Careful verbal explanation was given to all participants and information sheets were available to those who required further information about the study. Furthermore, I stayed present whilst all questionnaires were completed in order to ensure that any questions that arose during completion could be answered. Finally, negotiation with session leaders ensured that my questionnaire was handed out at suitable occasions.

3.8 Study instruments

The study instrument is a crucial part of any study and its layout, wording and overall format can affect response rates. Therefore all aspects of the questionnaire were considered carefully. The completed questionnaire is available in appendix two.

3.8.1 Questionnaire layout

Successful questionnaires must look easy, attractive and interesting rather than complicated, unclear and boring (Cohen et al, 2000). The questionnaire used in this study was divided into three sections. All questions were written in clear large black font and spaced out over one double sided page of A3 white paper, folded in two to created a four page A4 booklet. It is important to accompany each section of a questionnaire with short and clear instructions so that the participant knows exactly what to do (Presser, 2004). Therefore where necessary, aspects of the questionnaire were explained clearly and concisely.

3.8.1.1 Section One – Demographic data

Section one was designed to collect demographic data including gender, 'age and course information, all of which are factors that may influence the study's findings. This demographic data could then be used to compare responses between different groups and see whether response rates were consistent across samples. Age and course year is highly relevant within this study, as the more mature student may have received increased dementia training and may have different attitudes towards ageing depending on their life experiences. Age was grouped into mutually exclusive categories under 21, 21-25, 26-35 and 36 and over in order to avoid people not completing the question because they did not want to give their actual age. Gender was also collected and although it was anticipated that the sample would be predominately female, analysing the males responses in comparison to the females will be another variable of interest.

3.8.1.2 Section Two – Attitudes towards ageing

Section two aimed to examine attitudes towards ageing by asking participants to characterise the average 80 year old person. In order to do this, a scale of ageing was included with a list of fourteen contrasting adjective pairs such as independent/dependent and busy/idle. Participants were asked to mark on the scale where they characterised the average older person. Participants were asked to give an honest and immediate reaction.

For the purpose of the questionnaire, the original 28 contrasting objective pairs in Knox et als AGED inventory (1995) were studied and reduced to a more suitable 14 pairs. The final 14 objective pairs were chosen for their descriptive rather than evaluative nature. The descriptive items were more appropriate for this study as they give a realistic picture of how participants describe the older person. They are also easily understandable which is crucial for questionnaire questions. The descriptive items were subcategorised into two factors, vitality and maturity. By reducing the contrasting pairs to 14 descriptive items, a more concise ageing scale has been produced, and burden to participants is also reduced. Furthermore, a test into the reliability of the AGED inventory found the descriptive factors to be more reliable (Knox et al, 1995). Knox et al also suggest that the inventory can be used in three ways and by using only the vitality and maturity descriptive dimensions, an assessment of stereotype that is relatively independent of attitude is permitted.

3.8.1.3 Section Three – Dementia awareness quiz

The final section of the questionnaire aimed to investigate dementia knowledge. Section three took the form of a short dementia quiz consisting of twelve multiple choice questions. All questions within the dementia awareness section were chosen to ensure that all aspects of dementia were covered. Risk factors, prevalence,

causes, associated factors, cost and diagnostic methods were all assessed in order to give a true picture of dementia awareness for each participant.

3.8.2 Question wording

It is important that questionnaires are worded in a simple manner so that they are understood by all participants. Research has shown that question wording can easily affect responses in that not everyone may interpret it in the same way (Bowling, 2002). Even though my questionnaire was aimed at student nurses, participants varied from students just starting their course right up to students nearly finishing and therefore is was important to use simple unambiguous terminology.

3.8.3 Question type

All questions within the questionnaire were closed questions with multiple choice tick box answers. This made the questionnaire both quick and easy to complete. Closed questions do have a number of disadvantages in that they do not allow for expansion by the participant (Robson, 2002). However for the purpose of this study the advantages of closed questions outweighed the disadvantages and they were deemed appropriate.

3.9 Validity and Reliability

3.9.1 Validity and Reliability

Validity refers to the degree to which a study and more specifically the measures involved accurately reflect the concept that the researcher is trying to measure, where as reliability is the extent to which a study will yield the same results on repeated trials (Howell et al, 2005). With regards to validity, it was important that all the questions within the questionnaire were related to the factors that were set out

to be measured; in this case attitudes towards ageing, and dementia awareness. The AGED inventory used to measure attitudes towards ageing is a well known scale of ageing which previous studies have suggested valid. Prior to the introduction of the AGED Inventory, many researchers emphasised the need for a multi-dimensional measure of stereotype (Kite et al, 1991) and the inventory fulfils this need. The questions regarding dementia awareness were chosen carefully from reliable sources in order to ensure that levels of knowledge of all aspects of dementia were examined (Alzheimer's society, 2007).

Validity was tested in both the pilot study and when applying for ethics as on both occasions, the questionnaire was reviewed. Reliability was also tested to some extent during these processes. However it is not possible to test reliability completely as students were only seen at one time point and in order to gain full reliability, students would need to be questioned on more than one occasion.

3.9.2 Pilot Study

The term pilot study refers to a mini version of a full scale study and usually involves testing a particular research instrument, in this case the questionnaire. Although conducting a pilot study does not guarantee success in the main study, it does increase the likelihood (Van Teijlingen et al, 2001).

In order to ensure that no potential participants available to complete the actual study were excluded from the results by participation in the pilot study, it was carried out on five nurses from child branch who were ineligible for inclusion in the main study. Although this group of people were excluded from the main study, they were likely to be similar to the main sample in that they were also nursing students from within the same university. Although the child branch nurses were unlikely to

have had experience of working with older people and those with dementia, it is anticipated that some of the first year students in the main sample did not have either. Therefore if the pilot study participants can successfully complete the questionnaire, then it is likely that all in the main sample will also be able to.

Everyone who was asked to complete the questionnaire in the pilot study did so, although this was unlikely to be replicated in the actual study as a result of sample size. All pilot study participants completed the questionnaire within five minutes and with no suggestions for improvement, no changes were made to the original questionnaire following the pilot study.

3.10 Ethical Issues

3.10.1 Burden

One of the main ethical considerations that must be taken into account in this study is burden. I am aware that student nurses are generally very busy and by asking them to take part in my study, the participant's time and resources were used. It was made clear verbally that the participants only had to complete the questionnaire should they want to, but at the same time the importance of a large sample and the value of their contribution to the project was expressed. There was also possible burden on the lecturers leading the classes who were also generally busy. All lecturers who helped me to access the sample and all student nurses who completed the questionnaire were personally thanked for doing so.

3.10.2 Confidentiality

As in all research, it is important that anonymity is maintained. Participants were assured that their results would remain confidential both on the questionnaire and

information sheet. This was also confirmed verbally by myself. No identifying information was asked for and therefore participants would not be able to be identified after the study. Maintaining confidentiality is crucial to valid results as it is more likely that people will answer honestly (Robson, 2002).

3.10.3 Ethical approval

All research has ethical implications which need addressing before commencing the study. Before starting any data collection, ethical approval needs to be granted. After applying for ethical approval by sending my research proposal and relevant documentation to the ethics board, a favorable ethics review decision was granted in June 2009. The decision was granted by the Division of Nursing sub-committee of the University Medical Ethics Committee (see appendix three).

3.11 Data analysis

Following data collection, data was entered into a dataset using Statistical Package for the Social Sciences (SPSS) version 17. SPSS was chosen as it is amongst the most widely used software for survey analysis and allows for quicker and more accurate statistical analysis that manual analysis (Pallant, 2007). To identify any data entry errors, frequencies of all categorical variables were produced along with descriptive statistics for continuous variables.

Initial analysis focused on demographic data, missing data, and overall response rates. Potential response rate was calculated by seeing what percentage of the total sample size completed the questionnaire. Actual response rate was then determined by the percentage of the actual sample size on the day of competition. In order to assess dementia awareness, each question was translated into a correct score, and

each participant was given a total score out of 24 for their dementia awareness. The higher the score, the more the individual knew about dementia. With regards to ageism, each participant was given a score out of 84 which measured their attitude towards ageing by summing the 14 individual scores, each ranging from zero to six. The higher the score, the more ageist views the person held. Each participant was therefore given a total ageist attitude score and a total dementia awareness score. These two score variables were then analysed to see if a relationship existed between them. Results were then put into tables and figures and will be presented and explained in the results section of this dissertation.

3.12 Summary

In summary, this chapter has illustrated the methods used in order to carry out this study. A quantitative research method was deemed as most appropriate for this study as it allows study of a relationship between two variables. Knowledge and awareness of dementia was measured, as well as attitudes towards ageing. It was then tested whether there was a relationship between the two. Furthermore, a quantitative research method allows for a potentially large sample size. The research design consisted of a survey of student nurses via self completed questionnaires. Questionnaires were chosen as the most appropriate method of data collection as again they allow response from a large sample. Issues with validity, reliability and ethics of the study were addressed in order to ensure they were considered prior to the study.

Results

Chapter Four – Results

This chapter outlines the results from the data analysis described in the methodology. Figures and tables showing the findings from the questionnaire data are presented in a logical and systematic order and each one is explained and key aspects outlined. All percentages in this section are rounded up to one decimal place resulting in easier and cleaner analysis (Cramer, 1994). Probability (p) values are given to two significant figures.

4.1 Demographics

4.1.1 Response Rate

A total of 483 questionnaires were distributed to eight different cohorts of nursing student from two different programmes (Table 4.1). Out of these 483 questionnaires, 454 were returned fully completed giving an overall response rate of 93.4%. Had there been full attendance at each session where the questionnaire was distributed then the total potential sample size would have been 672. Therefore the proportion of eligible students given the questionnaire was 71.9% (n=483/672). This could be as a result of absenteeism. Response rates varied between cohorts from 75.6% to 100%. Lowest response rates were found in the first year students. The study had an overall response rate of 93% with two of the cohorts completing the maximum potential amount of questionnaires.

Table 4.1: Potential and actual sample size and overall response rate of the questionnaire

	Class Size	Actual Sample Size	Number Returned	% of class approached	Response Rate (%)
MNursSci Yr 1	62	41	31	66.1	75.6
MNursSci Yr 2	58	39	34	67.2	87.2
MNursSci Yr 3	48	45	43	93.8	95.5
MNursSci Yr 4	27	23	23	85.2	100
Dip/BSc Yr 1	167	158	149	94.6	94.3
Dip/BSc Yr 2	90	63	63	70	100
Dip/BSc Yr 3 (07/10)	120	65	64	54.2	98.5
Dip/BSc Yr 3 (07/05)	100	49	47	49	95.9
Total Sample:	**672**	**483**	**454**	**72.5**	**93.4**

4.1.2 Description of sample

Table 4.2 describes the sample in terms of age, gender and course details. As expected the sample was predominantly female. Out of the 454 completed questionnaires 6.6% (n=30) were completed by males and 93.4% (n=424) by females. Nearly half of the respondents were under 21 (212/454, 46.7%). Just 44 of the sample (9.7 %) were over the age of 36. Again, these figures were expected with the majority of students coming straight from school or college. With regards to course, the majority of questionnaires were completed by diploma and degree students (71.1%, n=322) and the rest were completed by masters students (28.9%, n=131). This split however is fairly representative of the school with total masters students equalling 224 (20.1%) and total diploma/degree students equalling 888 (79.9%). Out of the 454 questionnaires distributed, 180 (39.6%) were completed by first year students, 97 (21.4%) by second year students and 154 (33.9%) by third year students. Just 23 participants (5.1%) were in their fourth year. This is because the diploma and degree courses finish after three years so therefore only master's students had the potential to be in their fourth year. With regards to branch, no child

branch students completed the questionnaire as they were outside of the inclusion criteria for the study. A large majority of students (80.8%) were studying, or planning to study adult branch nursing. The next highest proportion were mental health branch students (12.1%) with the reminder reporting themselves as learning disability branch (5.9%) while five students (1.1%) were still undecided about which branch to study.

Table 4.2: Frequency and percentages of the demographic information of the sample (n=454)

	Frequency	Percent
Gender		
Male	30	6.6
Female	424	93.4
Age		
<21	212	46.7
21 - 25	131	28.9
26 - 35	67	14.8
>36	44	9.7
Course		
Diploma/BSc	322	71.1
Masters	131	28.9
Missing	1	0.2
Course Year		
One	180	39.6
Two	97	21.4
Three	154	33.9
Four	23	5.1
Branch		
Child	0	0
Mental Health	55	12.1
Adult	367	80.8
Learning Disabilities	27	5.9
Undecided	5	1.1

4.2 Dementia awareness

Answers to the dementia quiz were analysed and each completed questionnaire was given a score for dementia awareness out of 24. A higher score represents a higher knowledge of dementia. Figure 4.3 shows a histogram of these results. Dementia awareness scores ranged from 8 to 23. The average awareness score from the 454 questionnaires completed was 14.2, which is slightly over half of the available marks.

Figure 4.3: Histogram to show the total dementia knowledge score out of 84 for each questionnaire completed

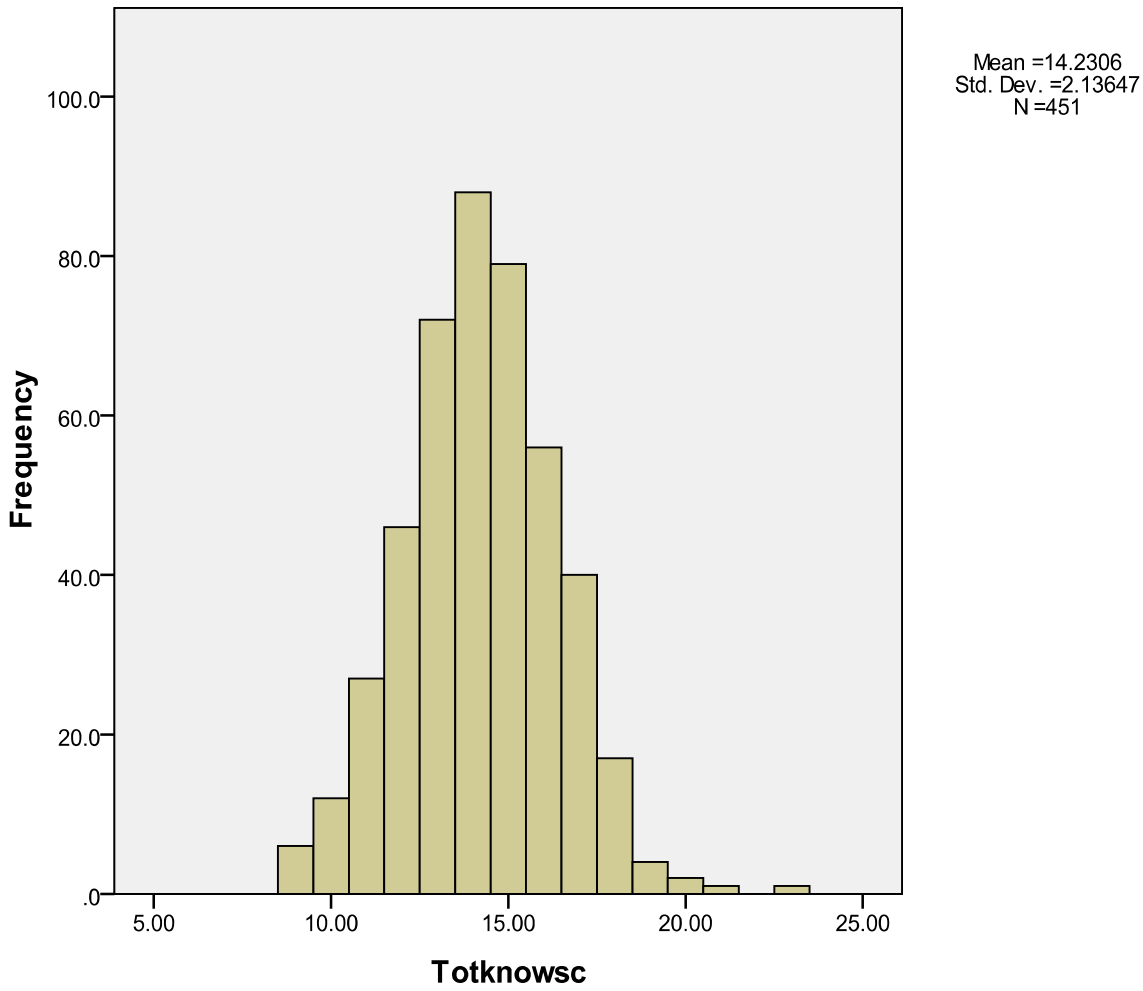


Table 4.4 shows all the questions assessing dementia awareness within the questionnaire and the correct answers from those questions. The correct answers are those that are marked with an asterisk. The percentage of people who selected each answer is shown within table 4.4. With regards to risk factors associated with dementia, the majority of people correctly recognised the two main risk factors as age (87.7%, n=398) and family history (84.8%, n=385). The prevalence of dementia in England was underestimated with the most popular response being 200,000 to 500,000 (35.2%, n=160) while only a quarter (25.8%, n=117) responded correctly by ticking the 500,000 to 1,000,000 option. Over half of respondents (54.2%, n=246) were aware that two thirds of people with dementia are women. Only a few respondents considered dementia not to be a progressive and incurable disease with the vast majority (97.1%, n=441) answering this question correctly. The majority of people (63.7%, n= 289) were also aware that the most common cause of dementia is Alzheimer's disease. 73.6% (n=334) of respondents were aware that dementia is not part of the normal ageing process and 66.5% (n=302) correctly knew that keeping physically and mentally active throughout life helps to keep the brain active and therefore reduces the risk of dementia. With regards to factors associated with dementia, 61.2% (n=278) were aware that head injury is an associated factor and 48.7% (n=221) recognised malnutrition as such. However, only 16.3% (n=74) knew that mercury poisoning was associated with dementia and even less (11.0%, n=50) were aware that human immunodeficiency virus (HIV) was related. The cost of dementia to the NHS was grossly underestimated with just 12.3% (n=56) giving the correct answer of £17 billion. Most of the respondents thought the cost to the NHS was less than this with 50 respondents believing it to be as little as £100 million

Another factor that was substantially underestimated was the number of deaths that are directly attributed to dementia. The majority of respondents (35.7%, n=162) thought that dementia is not a deadly disease and just a quarter gave the correct answer of 60,000 deaths a year being directly attributed to dementia. With regards to diagnostic tools, 93.8% (n=426) correctly identified a mental status examination as a common initial diagnostic method for someone showing signs of dementia. 73.3% (n=333) also correctly identified family history investigation. Just 28.9% (n=131) however identified the third common initial diagnostic method of a physical examination. Finally, with regards to the age of people affected by dementia, interestingly nearly the same proportion of respondents (35.7%, n=162) identified that dementia affects people of all ages equally as ticked the correct answer of 15,000 people under the age of 18 living with dementia in the UK (35.9%, n=163).

Table 4.4: A table to show the correct answers from the questionnaire and the percentage of people who answered specific questions correctly

	% who answered (n)	* = correct
1. What is the most significant risk factor for dementia?		*
Age	87.7% (398)	
Gender	22% (98)	
Socioeconomic background	13.4% (61)	
History of tobacco use	8.4% (38)	
Genetic / family history	84.8% (385)	*
History of head injuries	22.0% (100)	
2. How many people are living with dementia at present in England?		
Less than 100,000	2.0% (9)	
100,000 - 200,000	22.0% (100)	
200,000 - 500,000	35.2% (160)	
500,000 - 1,000,000	25.8% (117)	*
Over one million	14.8% (67)	
3. Which one of the following statements is correct?		
Dementia affects equal numbers of men and women	32.4% (147)	
Two thirds of people with dementia are women	54.2% (246)	*
Two thirds of people with dementia are men	13.0% (59)	
4. Dementia is a progressive and incurable disease		
True	97.1% (441)	*
False	2.4% (11)	
5. What is the most common cause of dementia?		

Head Trauma	3.5% (16)	
Vascular Dementia	26.7% (121)	
Alzheimer's Disease	63.7% (289)	*
Huntington's Disease	1.7% (3)	
Parkinson's Disease	2.4% (11)	
Normal Pressure Hydrocephalus	2.4% (11)	
6. Would you say dementia is part of the normal ageing process?		
Yes	26.0% (118)	
No	73.6% (334)	*
7. Do you think that remaining physically and mentally active throughout life keeps the brain active and therefore directly reduces the risk of dementia?		
Yes	66.5% (302)	*
No	33.3% (151)	
8. Which of the following are factors associated with dementia?		
Malnutrition	48.7% (221)	*
Cancer	11.5% (52)	
Head Injury	61.2% (278)	*
Heart Attacks	13.2% (60)	
Human Immunodeficiency Virus	11.0% (50)	*
Mercury Poisoning	16.3% (74)	*
Injuries resulting in broken bones	19.6% (89)	
All of the above	15.6% (71)	
9. What is the estimated cost of dementia to the NHS each year?		
£100 million	11.0% (50)	
£750 million	18.7% (85)	
£1 billion	23.6% (107)	
£9 billion	29.5% (134)	
£17 billion	12.3% (56)	*
£25 billion	4.6% (21)	
10. Which of the following statements is correct?		
Dementia is not a deadly disease	35.7% (162)	
15,000 deaths a year are directly attributed to dementia	35.2% (160)	
60,000 deaths a year are directly attributed to dementia	24.7% (112)	*
One million deaths a year are directly attributed to dementia	4.2% (19)	
11. Which of the following are common initial diagnostic methods for someone who is showing the symptoms of dementia?		
Physical Examination	28.9% (131)	*
Oxygen Saturation Levels	11.0% (50)	
Reflex/Balance Testing	29.7% (135)	
Mental Status Examination	93.8% (426)	*
Blood/Urine Testing	14.1% (64)	
Family History Investigation	73.3% (333)	*
12. Which of the following statements is correct?		
Dementia only affects people over the age of 65	27.1% (123)	
Dementia affects people of all ages equally	35.7% (162)	
15,000 people under the age of 18 live with dementia in the UK	35.9% (163)	*

Table 4.5 shows the mean dementia awareness scores for different groups within the sample. Although the varying means are not statistically significant, some subtle differences are apparent. Males and females both had the same mean knowledge score of 14.2 (P=0.99). The mean score with regards to age varied from 13.9 in the 26-35 age group to 14.5 in the 36 and over age group. Diploma/degree and masters students had similar mean awareness scores with 14.3 and 14.1 respectively. Surprisingly final years had a lower average for dementia knowledge than other years although the average was only minimal with final years scoring 13.9 and none final years scoring 14.3. There was very minimal difference between branches with those on adult branch scoring an average of 14.2 and those on other branches scoring 14.1. There was no evidence that dementia awareness was associated with any of these demographic factors (gender, age, course, year of course and branch).

Table 4.5: A table to show the mean dementia awareness score and its significance for varying groups of the sample

	Mean Score	P Value
Male	14.2	
Female	14.2	0.99
<21	14.3	
21 - 25	14.2	
26 - 35	13.9	
>36	14.5	0.40
Diploma / BSc	14.3	
Masters	14.1	0.87
Final Year	13.9	
Not Final Year	14.3	0.99
Adult Branch	14.2	
Other Branches	14.1	0.66

4.2.1 Dementia awareness findings for further investigation

Two questions with interesting results worth further investigation were those regarding (1) whether dementia is part of the normal ageing process and (2)

whether dementia is a deadly disease. Because responses to these questions suggested some fundamental misunderstandings of aspects of dementia they were investigated in more depth.

4.2.1.1 Is dementia part of the normal ageing process?

Table 4.6 shows a breakdown of the percentage of different demographic and course groups who answered this particular question correctly. This question was chosen for further investigation because over a quarter of all participants incorrectly thought that dementia was part of the normal ageing process. A higher percentage of males (80.0%) correctly stated that dementia is not part of the normal ageing process than females (73.3%) but this was not statistically significant (p=0.52). With regards to age, the age group with the highest proportion of correct responses was the over 36 category (79.5%). However there was no evidence to suggest that correct response was related to age (p=0.23). With regards to course, there was no significant difference (n=0.13) in terms of correct responses with 76% compared to 68.7% of masters students answering this item correctly. While there was no evidence that adult branch students compared to students from other branches were more able to distinguish dementia from the normal ageing process (p=0.13) there was a more interesting finding in relation to year of course. Final year students compared to others were less likely to answer this question correctly (67.2% versus 76.7%, p=0.051)

Table 4.6: Percentage and number of people who answered question six

Statement: Would you say dementia is part of the normal aging process?		
	% incorrect (n)	P value
Male	20% (6/30)	
Female	26.7%(113/423)	0.52
<21	25.9% (55/212)	
21 – 25	23.8% (24/123)	
26 – 35	35.8% (24/67)	
>36	20.5% (9/44)	0.23
Diploma / BSc	24.0% (77/321)	
Masters	31.3% (41/131)	0.13
Final Year	23.3% (74/164)	
Not Final Year	32.8% (44/288)	0.051
Adult Branch	27.9% (102/366)	
Other Branches	19.5% (17/87)	0.13

4.2.1.2 Is dementia a deadly disease?

Table 4.7 shows a breakdown of the percentage of different demographic groups who answered this particular question. This question was chosen to investigate further as worryingly over a third of all respondents (36%, n=162) thought that dementia affects people of all ages equally. With regards to gender, more females (36.8%) incorrectly suggested that dementia affects all ages equally that males (26.7%) but this was not statistically significant (p=0.22). The age group with the highest percentage of incorrect answer was 26 to 35 with 39.4% of participants in this category thinking that dementia is part of the normal ageing process. However again there was no statistical evidence to suggest that correct response was related to age (p=0.70). 38.9% of diploma students agreed with this false statement compared to 29.3% of masters students. This is statistically significant (p=0.07) and suggests that masters are not as knowledgeable with regards to this aspect of dementia awareness. With regards to course year, results were very similar with 36.2% of final years and 36% of non final years thinking that dementia affects people of all ages

equally. Finally, 36.9% of adult branch students incorrectly put this statement as their answer compared to 33% of student nurses form other branches.

Table 4.7: Percentage and number of people who answered question twelve

Statement: Dementia affects people of all ages equally		
	% who said it was correct (n)	P value
Male	27.6% (8/29)	
Female	36.8%(154/419)	0.22
<21	37.4% (79/211)	
21 - 25	31.0% (41/128)	
26 - 35	39.4% (26/66)	
>36	37.2% (16/43)	0.70
Diploma / BSc	38.8% (123/317)	
Masters	29.2% (38/130)	0.07
Final Year	36.2% (47/130)	
Not Final Year	36.0% (114/317)	0.53
Adult Branch	36.9% (134/363)	
Other Branches	33.0% (28/85)	0.32

4.3 Attitudes towards ageing

Table 4.8 shows the proportion of people who selected each number on each item of the ageism scale. For all but two of the 14 items, the most popular choice was the middle option (3). The descriptive pair that most people chose '0' to reflect their attitude to ageing was with relation to dignity with 12% of respondents suggesting student nurses find older people are extremely dignified. The descriptive pair that most people answered '6' to and therefore the most negative answer was with relation to sex with 19% of the sample regarding older people as extremely sexless.

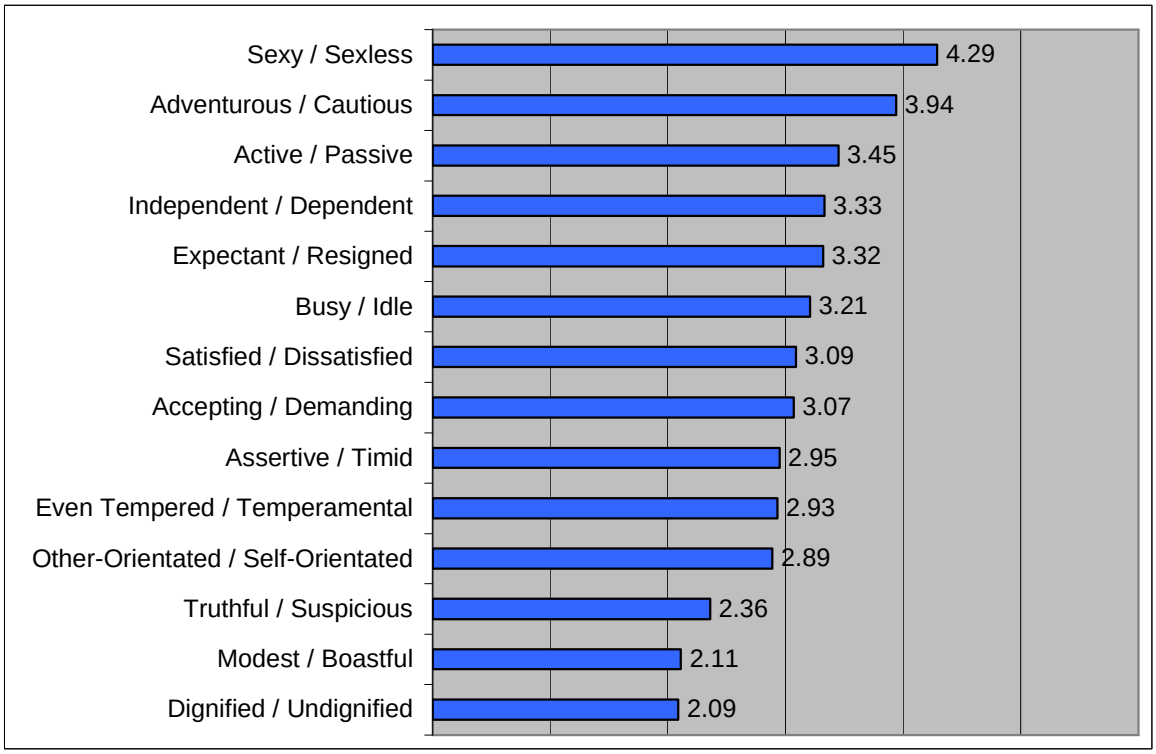
Figure 4.9 shows a bar chart of the average ageism score of each contrasting objective pair for all the completed questionnaires. The answers have been placed in descending order from the most negative answer down. The most negative answers

given were with regards to sex, adventurousness and activeness. The highest average of 4.29 suggested that the average older person was seen as sexless rather than sexy. The second and third highest averages suggested that the average older person is seen as cautious rather than adventurous (3.94) and passive rather than active (3.25). The most positive averages were with regards to dignity, modesty and truthfulness. An mean of 2.36 suggested that student nurses consider that the average elder person is more truthful than suspicious and a similar mean of 2.11 suggested that they considered them more modest than boastful. The most positive answer with a mean of 2.09 was with regards to dignity which suggested that the average older person is seen as more dignified than undignified. Out of the 14 descriptive pairs, eight scored an average of over three and therefore more negative answers were given than positive. For the remaining six contrasting pairs, the average was below three suggesting more positive attitudes to ageing. The most neutral answer given was with regards to assertiveness (2.95) which suggests that on average, the older person is seen as neither assertive nor timid but firmly in between these two extremes.

Table 4.8: Table to show the percentage of people who answered each number on the ageism scale

	0	1	2	3	4	5	6	
Independent	0.9	8.1	14.8	26.4	33.3	15.6	0.9	Dependent
Busy	1.1	4.0	19.4	36.1	28.4	10.1	0.9	Idle
Active	0.4	2.4	14.8	33.0	33.5	15.2	0.7	Passive
Expectant	0.7	5.1	14.8	38.3	28.9	11.0	3.3	Resigned
Assertive	2.2	10.4	23.1	31.1	22.0	10.6	0.7	Timid
Adventurous	1.3	1.5	7.3	26.0	26.9	29.1	7.9	Cautious
Sexy	1.1	1.8	3.3	24.9	17.6	32.4	18.9	Sexless
Satisfied	1.3	9.0	18.9	37.4	18.9	12.1	2.2	Dissatisfied
Truthful	8.8	22.5	20.3	29.3	12.1	5.7	1.3	Suspicious
Other-Orientated	2.4	11.2	20.0	37.7	18.9	9.3	0.4	Self-Orientated
Accepting	2.6	9.7	18.7	32.2	22.7	12.1	2.0	Demanding
Dignified	11.9	24.9	21.6	29.5	8.4	3.5	0.2	Undignified
Modest	8.6	24.4	24.2	35.0	6.2	1.3	0.2	Boastful
Even Tempered	3.1	11.0	15.6	41.4	19.4	7.7	1.8	Temperamental

Figure 4.9: Bar chart to show overall attitudes towards ageing of each of descriptive pairs in descending order.



A total AGED inventory score for each person was calculated. The total score was out of 84, with a higher score equalling a more ageist attitude. Figure 4.10 shows a histogram of a total knowledge score for each of the 454 competed questionnaires. Ageism scores varied from 10, the least ageist score, to 69, the most ageist score. The overall average ageism score is 43, which is very close to neutral.

Figure 4.10: Histogram to show the total ageism score out of 84 for each questionnaire completed

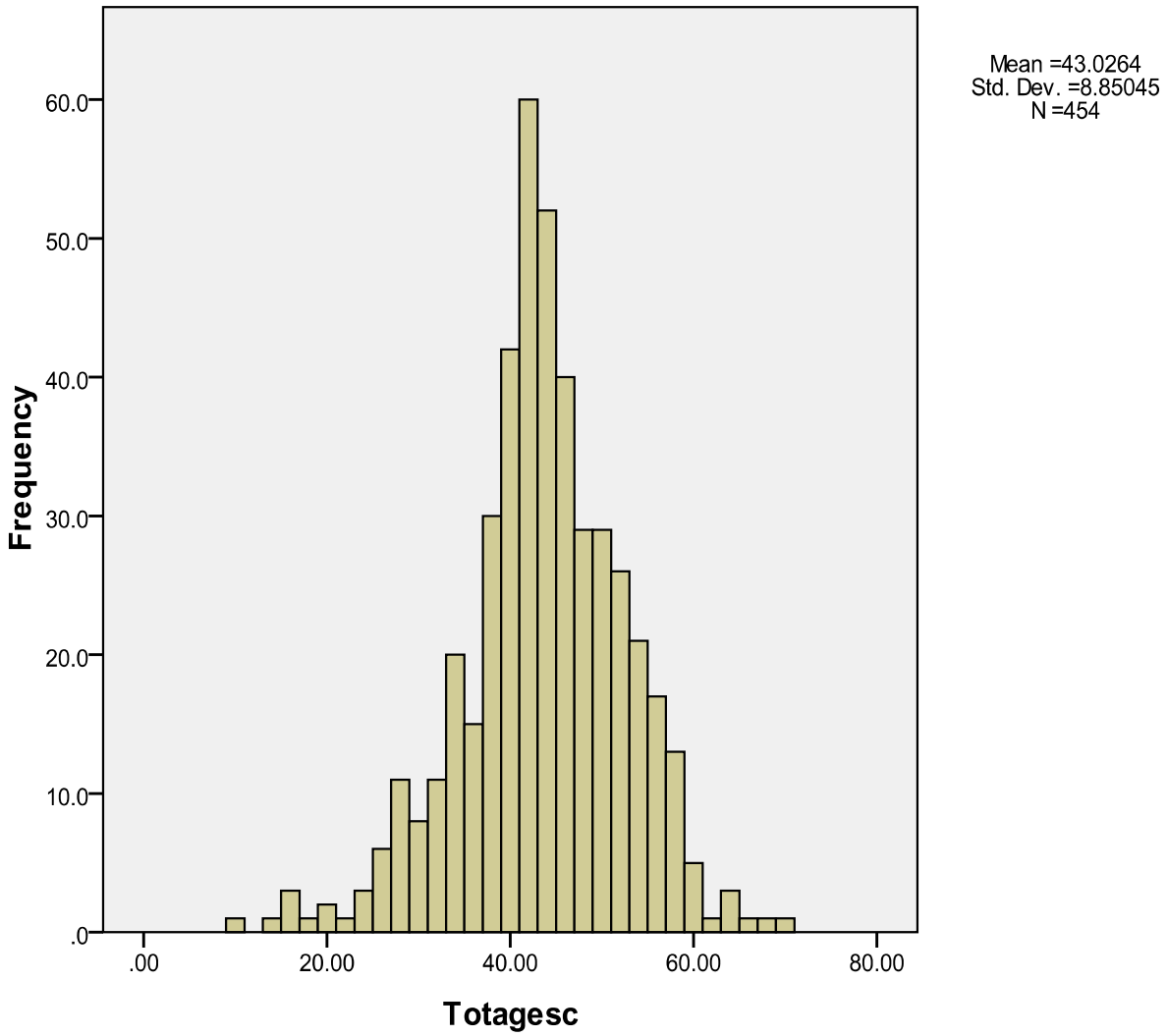


Table 4.11 shows the mean score for different groups within the sample and their significance value. The mean score for males was 44.2, slightly higher than the mean score for females which was 42.9, but this was not statistically significant (p=0.30). Mean scores with regards to age varied from the 40.9 in the over 36 age group to 44 in the under 21 age group. However there was no evidence to suggest that correct response was related to age (p=0.12) There was marginal difference in the course means with BSC and masters students scoring 43.1 and 42.9 respectively, but again this was not statistically significant (p=0.13). Final years scored 41.6 and were therefore less ageist overall than other years who averaged at 43.6. Adult branch students had a mean ageism score of 42.8 and other branches collectively had an ageism score of 44.8 suggesting that they are more ageist than adult branch students.

Table 4.11: A table to show the mean ageism score and its significance for varying groups of the sample

	Mean Score	P Value
Male	44.2	
Female	42.9	0.30
<21	44.0	
21 - 25	42.3	
26 - 35	42.9	
>36	40.9	0.12
Diploma / BSc	43.1	
Masters	42.9	0.13
Final Year	41.6	
Not Final Year	43.6	0.94
Adult Branch	42.8	
Other Branches	44.8	0.52

4.4 The relationship between attitudes towards ageing and dementia awareness

Figure 4.12: A scatter plot to show the relationship between total knowledge and total ageism scores

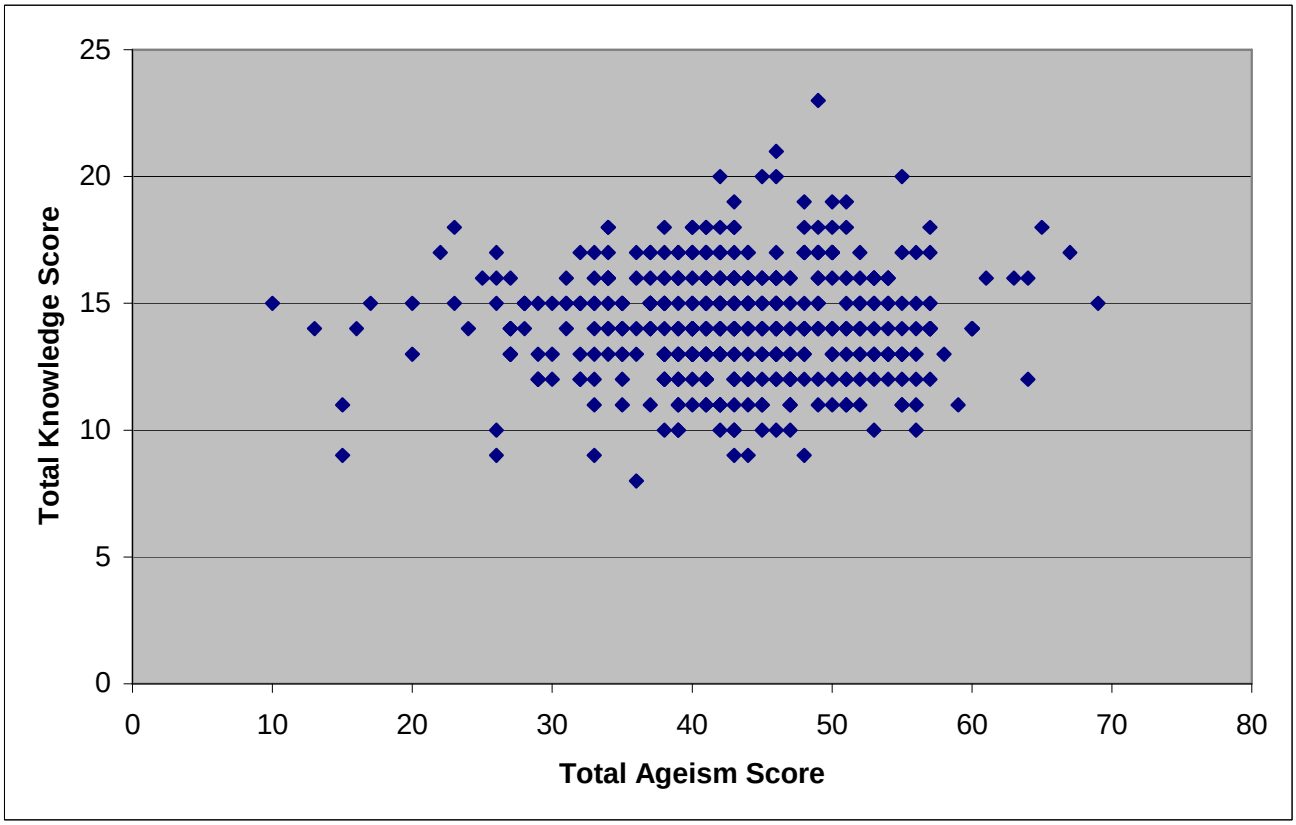


Figure 4.10 shows a scatter plot of total ageism score against total knowledge score for each of the 454 completed questionnaires. No direct relationship between knowledge and ageism was found. The most knowledgeable respondent who scored 23 out of 24 for dementia awareness scored 49 for their ageism score. The least knowledgeable respondent who scored eight out of 24 for dementia awareness was less ageist than the most knowledgeable respondent. The least knowledgeable respondent had a total ageism score of 36. Pearson's correlation coefficient was 0.041 (p=0.39) suggesting no evidence for a linear relationship between dementia awareness and ageist attitudes.