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THE INFLUENCE OF AN EDUCATIONAL PROGRAMME UPON  
THE ATTITUDES OF NURSING STUDENTS TOWARD THE  
CARE OF ILL OLDER PEOPLE:  
A CRITICAL REALIST EVALUATION STUDY.

STEPHANIE MILLNS SIZER

A thesis submitted to the University of Huddersfield  
in partial fulfilment of the requirements for  
the degree of Doctor of Education

The University of Huddersfield

December 2013

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## **Attitude**

by

Winston Churchill (n.d.)

*“Attitude is a little thing that makes a big difference”.*

## **Dedication**

This work is dedicated to my Dad, L. P. Smith (genius).

It is also dedicated to the memory of my Mum, Molly Smith.

Finally, it is dedicated to my own family, Shaun, Harrison and Cameron;

'masters of my universe' (E. L. James).

## **Acknowledgements**

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## Abstract

The primary aim of this longitudinal study was to evaluate the effect of an educational programme upon the attitudes of nursing students toward working with ill older people, with two main objectives:

1. To explore the contextual conditions necessary for the programme mechanisms to work, and
2. To investigate how these contextual conditions may influence the success of the programme mechanisms in changing attitudes.

Critical realism provided the theoretical framework, which guided the study design, from inception through to data analysis. Katz' (1960) functional approach to attitude change was used to develop the educational programme.

The study was quasi-experimental, using an interrupted time-series design. The attitudes of two groups of nursing students were measured over a period of 20 months, prior to and after the educational programme. A questionnaire-based tool was used to measure attitudes, selected because of its acknowledgement of the importance of contextual factors when measuring the attitudes of nursing students toward the field of older person care. One group attended the educational programme, the other did not. The attitudes of the second group were measured at identical points, to provide data for comparison.

The findings showed that the programme had no effect on the attitudes of nursing students toward working with ill older people, either immediately, or over time. Both existing and new mechanisms were identified, that appear to adversely affect the context in which nursing students learn about the practise of nursing, and make it difficult for students to experience the care of ill older people in a positive way. Detailed analysis showed that elements related to the clinical learning environment have a strong impact on students' attitudes towards the care of ill older people; very often, this impact is negative. The reality of clinical practice, it appears, is highly influential on students' attitudes toward working with this group.

The critical realist conception of a stratified clinical learning environment was developed in this study, informed by the work of Brown (2009). Mechanisms related to the structures and people in the clinical learning environment were identified which if addressed locally, may be pivotal in improving the contexts in which nursing students learn about the nursing care of ill older people.

The original contribution that this study makes relates to how nurse educators can begin to improve the attitudes of nursing students toward the nursing care of ill older people, by improving the contexts in which they learn, with reference to their mechanisms. In line with this study's findings, developmental work should begin within the psychological stratum, with concurrent action in both the socio-cultural and curricular strata of the clinical learning environment, in order to provide more immediate improvements in students' placement experiences. A number of recommendations were made that would begin this developmental process, and may result in negating the need for attitude change programmes, with the ultimate intention of improving the quality of care for ill older people.

## List of Abbreviations

This list details commonly abbreviated words and terms, used throughout the thesis. Other abbreviations are used within each chapter, when appropriate; their meaning is given within the relevant chapter.

[ <i>cf.</i> ]	Is used to point the reader in the direction of work that supports a point being made.
[ <i>sic.</i> ]	Is used in square brackets after quotations which contain alternate spellings to the English equivalent; it shows that the word is quoted exactly as it is in the original.
AACN	American Association of Colleges of Nursing
CINAHL	Cumulative Index of Nursing and Allied Health Literature
DH	Department of Health
NHS	National Health Service
NMC	Nursing and Midwifery Council
NSF	National Service Framework
ONS	Office for National Statistics
RCN	Royal College of Nursing
SPSS	Statistical Package for the Social Sciences
UK	United Kingdom
UKCC	United Kingdom Central Council for Nursing, Midwifery and Health Visiting
USA	United States of America
WHO	World Health Organisation

# Chapter One

## Introduction

### 1:0 Introduction to the Study

The lead aim of this longitudinal study was to evaluate the overall effect of an educational programme upon the attitudes of nursing students toward working with ill older people. The background to the study and its rationale are explained in this chapter, along with an outline of the objectives behind its development. The overarching theoretical framework of critical realism will be introduced, highlighting the importance of the concept of context within this study. An introduction to functional approaches to attitude change is also given (*cf.* Katz, 1960).

A quasi-experimental design was used in this study, hence the research hypothesis and secondary questions are introduced, along with a brief overview of the research methodology. The study population and samples are also briefly described in this chapter, along with the ethical issues considered. These elements, which relate to the study design, will be discussed in specific detail in chapter three.

### 1:1 Background and Rationale to the Study

The global population is ageing rapidly, and people are living longer; by the year 2050, the number of people over the age of 60 will double, reaching two billion (WHO, 2011). The national picture reflects these statistics (figure 1.1); in the UK, the percentage of people who are the 'oldest old', those over the age of 85, will double over the next 25 years (ONS, 2012).

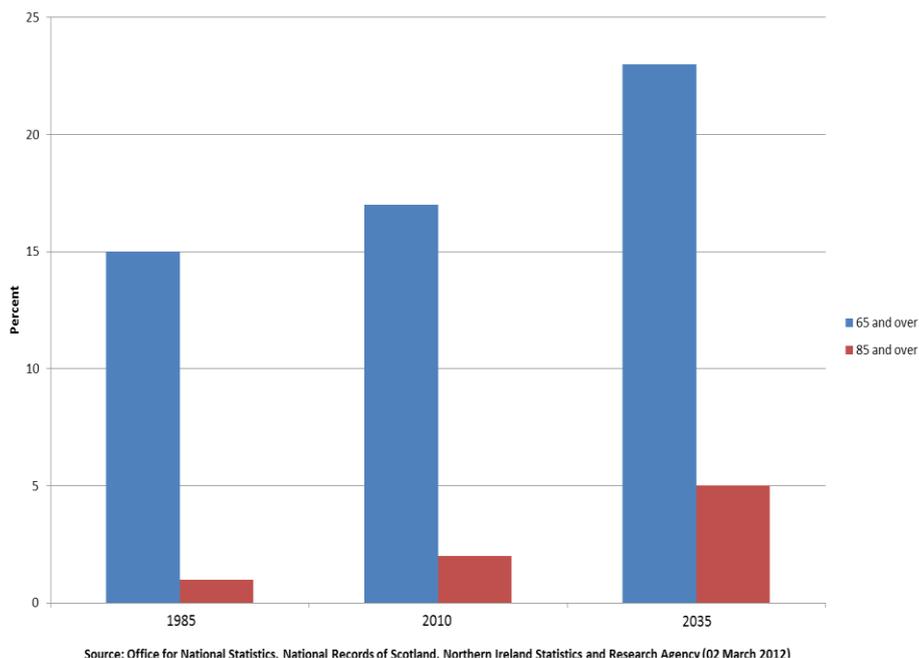


Figure 1.1 Percentage of older people in the UK 1985, 2010, 2035 (ONS, National Records of Scotland, Northern Ireland Statistics and Research Agency, 2012).

But historically, caring for older people has been unpopular within nursing, leading to fewer students choosing to work in the field upon qualification (Koh, 2011). In view of the ageing of the world population, global acknowledgement has been given to the need to encourage the care of ill older people as a positive career choice, for newly qualified nurses (Koh, 2011). The effect of educational interventions upon the attitudes of nursing students toward working with ill older people is a topic worthy of consideration for nurse educators, as over two-thirds of hospital beds are occupied by people over the age of sixty-five (DH, 2001). Hence, caring for ill older people falls within the remit of all healthcare professionals, especially nurses, as it is they who tend to maintain a continuous presence in many healthcare settings.

Since 2011, there has been a steady flow of 'inquiries' within the UK into the care of older people, each presenting a seemingly damning view of the care given in a variety of locations (Equality and Human Rights Commission, 2011; Commission on Dignity in Care, 2012; The Patients Association, 2012; Francis, 2013; Care Quality

Commission, 2013). However, these concerns are not new. In the late 1990s, the 'Health Advisory Service<sup>2000</sup>' (1998) published their report into the care of older people on acute hospital wards. This provided an insight into what it called unacceptable standards of care often experienced within the NHS (Health Advisory Service<sup>2000</sup>, 1998). In direct response to this, the DH developed the NSF for Older People (DH, 2001, pp. 12 -13), which promised to improve care values through the implementation of eight standards based around the themes of 'respecting the individual', 'intermediate care', 'providing evidence-based specialist care' and 'promoting an active, healthy life'. Work by the RCN soon followed: 'Caring in partnership' (RCN, 2006, p. 3), which set out a strategy to underpin nursing practice in this field, through valuing older people, maximising their potential, and working in partnership with them. In 2009, the NMC published 'Guidance for the care of older people' (NMC, 2009), which advocated an individualised approach to care. It would appear that very little has changed in the last fifteen years, despite this recognition from the professional bodies within nursing, and investment from the government.

In addition, it appears that caring for older people remains an unpopular specialty within nursing, as it seems to lack professional status for a variety of reasons, such as there being a degree of stigma associated with it (Kydd, 2012), and a perception that such work is unskilled (McCann, et al., 2010). Additionally, caring for ill older people has been acknowledged to be both physically and emotionally demanding (Cornwell, 2012). These points will be discussed further within the review of the literature, in order to show that concerns about the care of ill older people persist.

Work by de Guzman, et al., (2009) was suggestive of a link between attitudes and the quality of care; negative attitudes led to a decline in the quality of care provided. Hence, the idea for this study came from apparent enduring concerns about the standard of the nursing care of older people, and its unpopularity amongst nursing

students; this is why nursing students' attitudes were the main focus in this study. It was predicated on the notion that if attitudes can be improved, then the quality of care may improve alongside in the future. Both of these points are of relevance to me, as a lecturer in the nursing care of older people.

Previous empirical research has explored how the attitudes of nursing students toward working with older people might be changed, and over time, their conclusions have been surprisingly similar; that pre-registration education is the key to improving the attitudes of the next generation of nurses toward this field (Lookinland and Anson, 1995; Wells, et al., 2004). However, other research suggests that nurse education has tended to confirm such negativity, particularly because faculty were 'inadvertently conveying negative attitudes' (McLafferty and Morrison, 2004, p. 446). It appears that despite a plethora of research examining the potential effects of education, the question of whether nurse education can positively influence nursing students' attitudes toward this field, and how it might do so, remains. This study attempts to answer this question.

### **1:1:1 Ageing and the status of older people in society**

Because of advancements in medical science, and improvements in socio-economic status, people are living longer. The ONS (2012) report that the numbers of the 'oldest old', those aged 85 and over, will more than double by 2025. However, in the UK, it appears that old age is commonly viewed in a negative light, with particular reference to the 'burden of dependency'; the number of people either too young or too old to work, whose needs must be provided for through taxation, for example (Redfern and Ross, 2004). As Timonen (2008, p. 88) noted, there is a widely held perception that 'population ageing poses a demographic time bomb due to the unaffordable costs associated with it'.

A consequence of increased longevity in the population is the likelihood that someone who is aged 65 and beyond may need access to nursing care in that time; with advancing age comes the prospect of illness (Moyle, et al., 2010). The aim of the dominant biomedical approach to care, where 'anything other than cure was lacking' aimed to intervene early in an older person's illness (Brooks, 2010, p. 227). The intention was to reduce hospital admissions, but this approach has led to old age becoming 'constructed almost exclusively by a process of *physical* decline', which also contributes to the negative connotations associated with it (Vincent, 2003, p. 4). However, social decline also appears to be viewed as a characteristic of old age. Gilleard and Higgs (2010, p. 121) refer to this as 'aging [*sic.*] without agency'. Ageing is characterised by them as:

a fear of passing beyond any possibility of agency, human intimacy, or social exchange, of becoming impacted within the death of the social. (Gilleard and Higgs, 2010, p. 125)

In other words, old age may rob the person of their agency; the capacity to make choices and to participate in the social world.

So, there appears to be a perception that old age inevitably equals both physical and social decline, alongside a lack of productivity. Phelan (2010, p. 893) suggests that 'nursing can be influenced by such negative discourses', which again raises the importance of attempts to positively influence the attitudes of nursing students. It appears that little recognition is given to 'the contributions and opportunities offered by an ageing society' (Cook, 2011, p. 141). Cook (2011) goes on to suggest that recognition be given to the economic contribution that older people make to society. Timonen (2008) outlines ways in which older people make such contributions: through paid employment, in undertaking child care duties for their grandchildren, as an informal carer of a spouse for example and through voluntary work. Many of these are often overlooked; a renewed focus on these roles may help old age to be

viewed more positively, and raise the status of older people, generally (Timonen, 2008). However, this suggests that older people must have a 'role' in order to be valued by society, which may be a naïve assumption.

## **1:2 Aim and Objectives**

The lead aim of this longitudinal study was to evaluate the effect of an educational programme, upon the attitudes of nursing students toward working with ill older people. In order to do this, a quasi-experimental study was designed and conducted. An approach grounded in functional attitude change theory has not been empirically tested before within the field of caring for older people. As Schigelone (2003, p. 31) noted, much of the prior research in this field, alluded to above, has been 'atheoretical', suggesting that neither the philosophical nor theoretical underpinnings of the educational 'interventions' applied were made explicit. This makes it difficult to interpret reported results in a philosophical or theoretical context; claims made for the data generated may not stand up to scrutiny (Campbell, 1986). In addition, the lack of detail in relation to these interventions makes it hard for others wishing to build upon any positive outcomes reported, to do so.

It also appears that methodological weaknesses, usually related to pre-test/post-test experimental designs, make it difficult to discern whether improvements in participants' attitudes were down to the educational interventions applied (Cook and Campbell, 1986). In such designs, it is difficult to rule out other potential explanations for improvements, related to elements within the contexts that the interventions were delivered in. Additionally, in cases where a positive effect was reported, data collected using the pre-test/post-test design are unable to demonstrate whether the measured changes in attitude were sustained. Because

data are only collected immediately before and after an intervention, this design may also have led to a negative or nil effect being reported, when an actual effect was delayed, and hence, not reported upon (England, 2005). It was against such a background that this study's objectives were developed. These could only be achieved once the relevant data had been collected, and when each phase of analysis had been completed. Hence, the timescales for their completion was 36 months, allowing for data collection, in line with the longitudinal design of the study, analysis and writing up. Its objectives were to identify:

1. What are the contextual conditions necessary for the programme mechanisms to work? and
2. How do contextual conditions influence the success of the programme mechanisms in changing attitudes?

### **1:3 Critical Realism**

Critical realism provides the theoretical framework for this study. It is a relatively new philosophy of knowledge, primarily attributed to the works of Roy Bhaskar (Collier, 1994). Despite its 'newness', its potential within educational and nursing research has been recognised, as critical realism offers an alternative to the 'unhelpful dualisms between quantitative and qualitative methodologies' (Scott, 2005, p. 633; Angus and Clark, 2012). Ontology concerns the nature of the existence of things; what can be known about the world (Bullock and Trombley, 2000). Positivist and constructivist viewpoints show useful ontological contrasts which illustrate its meaning; positivism dictates that reality is independent of the mind, whereas constructivism suggests that it exists only within the mind of the observer (Lipscombe, 2008). Epistemology is related to how such knowledge might be possible; how data can be collected to portray the existence of things (Bullock and Trombley, 2000). These are important because both ontological and epistemological

beliefs will govern what phenomena can be studied, and how they can be studied. In turn, this informs the selection of appropriate data collection techniques.

Bhaskar posited that within a critical realist ontology, reality exists irrespective of our knowledge of it, and that there would be interplay between factors, or mechanisms, lying beneath what can be directly seen (Bhaskar, 1978). Within critical realism, this means that when the mechanisms within an object or event are brought together, outcomes ensue, which can be seen and studied (Bhaskar, 1978). A number of important precepts underpin critical realism, which highlight its potential as a 'new paradigm' for nursing research (Wainwright, 1997, p. 1262). These will now be discussed, as each of them has a bearing on the study design and analysis of data.

### **1:3:1 Structure and agency**

Critical realism acknowledges the importance of structure: 'contextual factors such as social norms, culture and environment', and agency: 'individual factors such as beliefs, attitudes, and personal meanings' (Clark, et al., 2008, p. E72). Both structure and agency may impact upon the perception of phenomena in the social world. Within a critical realist ontology, both structure and agency are understood to be interdependent:

Social structures provide resources that enable individuals to act, as well as placing limits on individual behaviour. However, the behaviour of human agents is not exclusively determined by social structures, as agents are also able to transform social structures by responding creatively to the circumstances in which they find themselves. (McEvoy and Richards, 2003, p. 413)

This means that from an ontological perspective, context is necessarily placed in a prominent position in understanding how people interact with their environment, and influence each other in certain situations. This also highlights the appropriateness of the study's objectives. In addressing these, specific reference will be made to both structure and agency, when discussing the findings.

### **1:3:2 Mechanisms**

Critical realism alludes to the existence and action of mechanisms (Bhaskar, 1978). Mechanisms are responsible for making things work the way that they do, underlying what can be seen and experienced (Pawson and Tilley, 1997). A common metaphor used to describe the action of mechanisms is the working of a clock. The hands on a working clock move around, but why they do this can not be seen from merely looking at the clock's face (Astbury and Leeuw, 2010). Mechanisms are typically hidden below the surface of reality. Applying this to the analogy of the clock, only by looking at its inner workings, going behind its face, can it be understood how it works. Although its workings, or mechanism, cannot be seen directly, it exists, with the potential to cause an effect.

In addition, mechanisms are 'sensitive to variations in context, as well as to the operation of other mechanisms in a particular context' (Astbury and Leeuw, 2010, p. 369). This means that elements such as the time of day and the lighting within a context may impact upon the action of mechanisms, as can mechanisms already present within that context, such as staff morale for example. The 'causal tendencies' of mechanisms are triggered, fired or activated through agency; people have the capability to respond to cues in their environment, and 'make things happen' (Astbury and Leeuw, 2010, p. 370). So, both structure and agency influence the action of mechanisms. Again, the importance of context is recognised. When applied to research in educational contexts, this implies a complex reality, where many mechanisms may be operating at any one time, often in competition with one another.

Within this study, mechanisms are acknowledged to be generative, with causal powers, and explanatory, in that they can explain why certain effects are seen. They are also acknowledged to be 'countervailing' in their nature:

In Context A, mechanism ( $M_1$ ) is not activated. That is,  $M_1$  is dormant; still possessing causal “tendencies” or “capacities” but not the conditions that “enable” it to be triggered. In Contexts B and C, the conditions are conducive to triggering  $M_1$ . However, in Context C, no effect or different effects are observed. This could be due to a countervailing mechanism ( $M_2$ ) that is present in Context C but not in Context B. (Astbury and Leeuw, 2010, p. 369)

This suggests that mechanisms can also prevent expected effects, or cause different effects from those hypothesised.

### 1:3:3 A stratified and differentiated reality

Critical realists propose a stratified ontology (Bhaskar, 1978). Mechanisms exist in each stratum, and they have emergent properties, that is, they come together to form something new within a higher strata, that is irreducible to their mode of existence in a lower one (Clark, et al., 2008). ‘Each new stratum is formed by powers and mechanisms of the underlying strata’, and the strata become increasingly ‘open’, the higher they are (Danermark, et al., 2002, p. 60). Figure 1.2 shows how these strata are currently understood to be related to one another, and how the emergent properties of mechanisms are revealed through them.

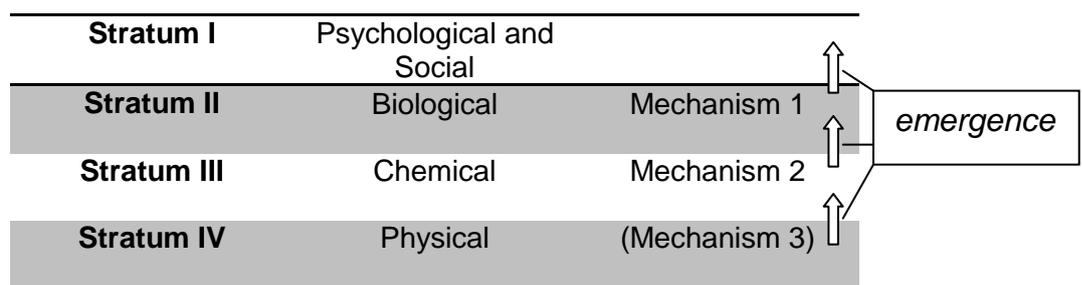


Figure 1.2 The stratified nature of reality, showing the emergent properties of mechanisms (adapted from Bhaskar, 1978, p. 169 and Danermark, et al., 2002, p. 60).

To explain phenomena, Danermark, et al., (2002) suggest that the researcher would start at lower strata, and work upwards through them to look for the root

mechanisms that caused an event to happen or not happen. Bhaskar used the notion of chemical equations to illustrate this point:

the observable reactions of chemistry, which are represented in textbooks by formula such as  $2\text{Na} + 2\text{HCl} = 2\text{NaCl} + \text{H}_2$ , are explained by reference to the atomic hypothesis and the theory of valency and chemical bonding. (Bhaskar, 1978, p. 168)

This quote demonstrates that exploration below the surface of what can be seen gives a deep dimension to critical realist research, in attempting to explain how and why things happen. The adoption of a critical realist position is fitting, considering this study's objectives to find out about the influence of context upon nursing students' learning.

Critical realism asserts that reality is also differentiated, between the domains of the 'actual', the 'real' and the 'empirical' (Bhaskar, 1978). These domains exist within each stratum of reality, giving it additional 'ontological depth' (Scott, 2010, p. 13). The 'actual' domain is where phenomena 'are more likely to be observed' (Clark, et al., 2008, p. E69). Within this study, the attitudes of nursing students in response to the educational programme, and the educational programme itself exist in the actual domain. These are objects for knowledge and have mechanisms of their own, and they exist independently of the ability to know them, within the domain of the 'real'. The acknowledgement of the real domain in particular adds to knowledge of mechanisms and their effects, because as Clark, et al., suggest:

Mechanisms in the real domain may not be visible or exercise influence on the actual domain at any one point. Yet, under the right circumstances, the power of these structures in the real domain can become active and influential. (Clark, et al., 2008, p. E70)

This illustrates that circumstances, or context, influence the action of mechanisms. It should not be presumed either, that because a mechanism appears to have had no effect, that it does not exist.

Any search to confirm mechanisms takes place in the 'empirical' domain, as in this study, where the emergent effects of potentially many competing mechanisms, may or may not be observed, acknowledging the fallibility of the possibility of knowledge (Bhaskar, 1978). This is in line with the realist view of causation, which acknowledges that a posited mechanism exists not only in situations where 'A leads to B', but also in situations where 'A does not lead to B' (Danermark, et al., 2002, p. 55).

### **1:3:4 Positivism and post-positivism**

Critical realist approaches are very different from the positivist approach, traditionally seen within experimental research designs (Lipscombe, 2008). It is useful to briefly consider the positivist paradigm, in order to highlight the appropriateness of adopting a critical realist stance within this study.

Positivist research promotes the systematic and controlled application of scientific techniques, in order to establish the 'absolute truth' about phenomena; because a phenomenon has been observed, it is real (Parahoo, 2006). If a phenomenon can not be seen, then it does not exist in this view, which is suggestive of a difference between the positivist approach and critical realism. Brown (2009) suggests that positivist empirical studies have influenced the direction of educational developments in the UK.

As the social sciences became more established, attempts were made to apply these principles to the study of social phenomena (Cook, 1983). However, because the concepts under scrutiny were people and processes, a purely positivist approach proved insufficient, not least because the social world is 'open', as

opposed to the controlled and 'closed' environment favoured within a positivist approach (Parahoo, 2006). In addition, Mishler (1979, p. 14) wrote about the importance of context within research, suggesting that 'Meaning is always within context and contexts incorporate meaning'. Hence, Mishler (1979) viewed positivist approaches as inadequate, because they are ignorant of context; the methods within the natural sciences rid context from analyses. Mishler (1979, pp. 1 - 2) described this as 'context-stripping'; the lack of acknowledgement of the importance of context. So, the experimental methods used within the natural sciences are more difficult to apply in isolation to the open systems found within the social sciences.

Cook (1983) suggested that realist approaches embrace a fallibilist epistemology, which means that such approaches acknowledge that 'certainty' is difficult to achieve in any research endeavour. It has been suggested that post-positivism may be more acceptable than positivism, as it acknowledges this fallibility, and accepts that knowledge is likely to be value-laden. However, this approach has also been criticised, on epistemological grounds. Patomäki and Wight (2000, p. 213) put these criticisms succinctly, suggesting that post-positivism 'does little more than advocate subjectivism, irresponsible relativism and lack of standards, which work against conducting proper research'. They suggest that usually, this has been resolved by the adoption of 'a methodological middle ground', with the aim of viewing data generated in a more objective fashion (Patomäki and Wight, 2000, p. 213). They go on to say, however, that the 'middle ground' approach may not provide an improved theoretical position (Patomäki and Wight, 2000). This debate is not new, and philosophers have in recent years attempted to move the discussion forward, by advocating a critical realist approach to the pursuit of knowledge, instead.

It is hoped that the results from this study might be considered in curriculum design. Brown (2009, p. 6) discusses the 'policy elite's' focus upon empiricism, and that

findings from hermeneutic approaches may be 'found lacking'. Critical realism provides researchers with a new way of providing evidence about the social world, and may be more effective in persuading curriculum planners that either further research should be conducted, or that content on the care of ill older people be purposefully included within pre-registration nurse education. This may contribute toward the development of more positive attitudes, but should not happen in isolation; high quality clinical placement experiences must also be developed alongside, in order that theoretical and practical education can complement one another (RCN, 2012b; Topaz and Doron, 2013).

The tenets described above are essential to an understanding of critical realism. These will be expanded upon in chapter three, in order to highlight how it was operationalised as the theoretical framework within this study.

#### **1:4 Functional Approaches to Attitude Change**

This study uses Eagly and Chaiken's (1993, p. 1) 'conceptual definition' of attitude: 'Attitude is a psychological tendency that is expressed by evaluating a particular entity with some degree of favour or disfavor' [*sic.*]. Schigelone (2003, p. 33) asserts that 'behaviours are often based on attitudes'. This means that if an individual holds a positive attitude toward an 'entity', similarly, their behaviour toward it will be positive; if the attitude is negative, then negative behaviours toward that entity will be displayed (Schigelone, 2003). There is a suggestion that such an attitude-behaviour link exists (Ajzen, 2005), and this is congruent with the idea that there is a connection between attitudes and the quality of nursing care (Schigelone, 2003; de Guzman, et al., 2009). However, it is acknowledged that improvements in attitude alone may not be sufficient to improve the quality of care; the care culture that is

prevalent within a particular setting will certainly have an impact. This is highlighted within the review of the literature.

Whilst a working definition of 'attitude' is important and useful in indicating the meaning of the concept as it applies to this study, it does not denote its function (Stones, 2007). Within the functional approach to attitude change, Katz (1960) posited that in order to change a person's attitude, an awareness of the function of the attitude for the individual would be advantageous in attempts to persuade others to change their attitudes (Katz, 1960). So, educational programmes aimed at changing attitudes may be more successful if consideration is given to the needs met by a person holding a particular attitude. Schigelone (2003, p. 33) suggests that 'Only then can we hope to develop effective interventions aimed at improving attitudes toward, and care provided to, older adults'.

Functional approaches to attitude change first gained momentum in the 1950s, with major contributions from Katz (*cf.* Katz, et al., 1956; Katz and Stotland, 1959). These theorists placed emphasis on the motivational bases of attitudes, in that holding particular attitudes 'may serve a variety of purposes important to psychological functioning' (Shavitt and Nelson, 2002, p. 137). When using functional approaches within research, the researcher should attempt to create the conditions necessary to arouse particular attitudes, in order that the attitude can be manipulated and hopefully changed (Eagly and Chaiken, 1993). The idea was that a particular attitude being stimulated would depend upon the 'excitation of some need in the individual, or some relevant cue in the environment' (Katz, 1960, p. 176).

So, designers of attitude change programmes based upon the functional approach must be mindful to first create the conditions necessary for attitude arousal. For example, if a person holds a particular attitude toward a phenomenon in order to

avoid it, exposure to that phenomenon may cause that attitude to be aroused. Katz also suggested that:

the most effective techniques of attitude change would be those aimed at the particular motivational sources that support the attitude under investigation. (Katz, 1960, p. 163)

These approaches were followed in order to identify the most suitable context for programme delivery, and to identify the change mechanisms within the educational programme. Both of these are discussed fully in chapter three.

### **1:5 Rationale for the Development of the Study Design**

In order to overcome some of the perceived shortcomings of previous research in this area, particular approaches were utilised to support a stronger research approach: quasi-experimentation and an interrupted time-series design. The rationale for using these will now be explained.

This study employs a quasi-experimental approach. Campbell and Stanley (1963) gave this label to social science experiments, often conducted with human subjects, as a means of making them distinct from experiments conducted within the natural sciences. This distinction is important because certain experimental features (randomisation and closure) used to strengthen research designs within the natural sciences are not always possible or practical within the social sciences (Cook and Shadish, 1994). For example, random assignment is not always feasible, as those being researched are often voluntary participants who self-select for inclusion, as in this study. Closure of the research environment would also be difficult, and perhaps, undesirable, in the social sciences; it is far better to see how humans function within their own world. Cook and Campbell (1979) suggest that it was against this background that quasi-experimental methods were developed, making it a useful approach for this study. This study necessarily takes place in a higher stratum of

reality, with all of the forces, in terms of structure, agency and mechanisms, which might be brought into play. Experimental elements, such as control groups and pre-tests have been adopted to augment quasi-experimental research designs (Cook and Campbell, 1979), and were incorporated into the design of this study, to enhance its methodological rigour.

Within critical realism, Danermark, et al., (2002) highlight the importance of acknowledging contextual complexity within research designs, and when selecting methods and tools for data collection; they must be responsive enough to capture this complexity. Quasi-experiments facilitate the use of approaches specifically designed to account for the complex nature of the social world. Applied here, these approaches will attempt to provide a degree of certainty about the role of attitude change programmes and their mechanisms in the reported findings, that has been absent in prior research in this field (Wagner, et al., 2002). The interrupted time-series is one such approach (Michielutte, et al., 2000).

The interrupted time-series is so called because it uses a number of measurements, in this case of attitudes, at discrete points over time which are 'interrupted' by a specific intervention; an educational programme in this case. Hence, it facilitates longitudinal data collection. Wagner, et al., (2002, p. 299) referred to the interrupted time-series as being 'the strongest quasi-experimental design to evaluate longitudinal effects', which made the interrupted time-series a useful method here, in view of the shortcomings of previous attitude change research in this area employing pre-test/post-test designs. So, this was the method of data-collection utilised within the quasi-experimental approach. It also counters some of the remaining criticisms of previous research in this field, as follows: interrupted time-series analysis can be used to determine the impact of a programme both immediately and over the course of time, so this design makes it less likely that a

delayed effect would be overlooked (England, 2005). It would also allow the researcher to give detail as to whether or not any reported changes in attitudes were sustained.

Michielutte, et al., (2000) suggest that adding in a control group further strengthens the interrupted time-series design. This is particularly useful, as both the control and experimental groups in such designs are exposed to similar environmental and social stimuli, not associated with the programme. Hence the recruitment of both an experimental 'programme group' (PG), who attended the programme, and a 'comparison group' (CG), who did not. Collecting data for comparison assists the researcher in their aim to rule out other possible explanatory mechanisms which may have caused an effect, within their study design, such as the possibility of the students modifying their attitudes in response to the negative perception of nursing older people, which appears to have prevailed over time (Health Advisory Service<sup>2000</sup>, 1998; Francis, 2013), and not the programme.

It should be acknowledged that the effects of external exposure for both groups as a whole could not be accounted for completely, however the effects of this type of exposure on individual attitudes was not viewed to be as great a risk to the quality of any causal claims made; the attitudinal measures of the whole groups were important. The creation of the time-series, through repeated measures of attitude, does assist in managing these effects (Glass, 1997). For example, if the CG showed positive attitudes over the course of the study, this tendency would be seen through visual analysis of the time-series. However, there may be ethical concerns regarding the inclusion of a group for the purposes of comparison. These concerns will be discussed in section 1:8 (pp. 38 - 39), and expanded upon in chapter three.

## 1:6 Research Hypothesis Development and Methodology

Meadows noted that:

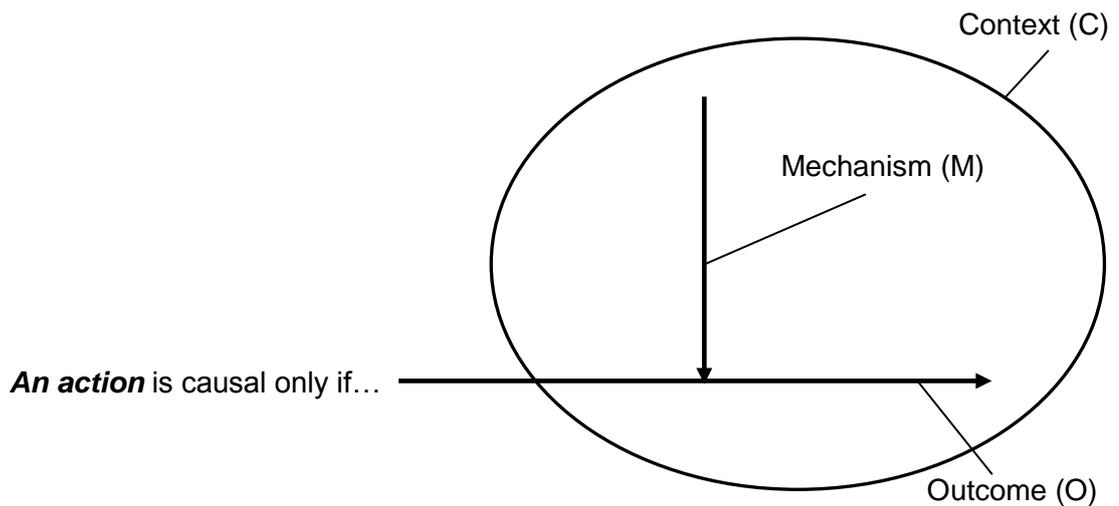
without a well-defined and specific research question or hypothesis, even if the research is carried out to the end, it is unlikely to provide much information. (Meadows, 2003, p. 397)

Hence, this is acknowledged to be a crucial phase of any research study. Providing sufficient detail and focus at this stage guides the researcher to make robust decisions about how relevant data will be gathered and analysed.

Hypotheses are generally declarative statements which predict the outcome of a research study (Cormack, 2000). Pawson and Tilley clearly outline how this applies within realist research:

programme theories are tested for the purpose of refining them. The basic question asked, and hopefully answered, is thus multi-faceted. Realist evaluation asks not, 'What works?' or, 'Does this program work?' but asks instead, 'What works for whom in what circumstances and in what respects, and how?' (Pawson and Tilley, 2004, p. 2)

So, the scientific discourse of the natural sciences, such as the 'null hypothesis', and the 'intervention' do not fit with the purpose of this study. The intervention is 'the mechanisms within the programme', and the hypothesis was developed around exploring what it was about the programme that worked, or not. As Pawson and Tilley (1997, p. 77) note, 'evaluators will always construct their explanations around three crucial ingredients of any initiative: context (C), mechanism (M) and outcome (O)'. They acknowledge the likelihood of variation in the effectiveness of mechanisms, and the outcomes, depending upon the context in which they are introduced. This is expected within research conducted within a higher stratum of reality, as in this study. Pawson and Tilley (1997, p. 58) called this 'generative causation', accepting that there will be 'interplay between mechanisms operating in a particular context' (Powell, et al., 2010, p. 6). This is summarised in figure 1.3.



...its outcome is triggered by a mechanism acting in context

Figure 1.3 Generative causation (Pawson and Tilley, 1997, p. 58).

This could be considered congruent with the realist view of causation already discussed, on page 27. So, it is necessary to articulate how these three elements might come together, to address the main aim of the study, and to make clear in what configuration they are being employed. Hence, data were collected to test the following research hypothesis:

The mechanisms within an educational programme ( $M_1 - M_{16}$ ), delivered in the clinical learning environment (C) will improve the attitudes of nursing students toward caring for ill older people (O).

The mechanisms referred to in this hypothesis ( $M_1 - M_{16}$ ), are identified and expanded upon in chapter three, along with the identification of the context for programme delivery.

A number of secondary questions related to this hypothesis were identified, related to whether or not a programme effect of any type would be demonstrated, as follows:

If an effect is demonstrated within the context of the clinical learning environment, what was it about the programme that worked, and who did it 'work' for?

What is the nature of the effect? Is it immediate and sustained, or delayed?

If no effect is demonstrated within the context of the clinical learning environment, what mechanisms within this context made it inhospitable to the operation of programme mechanisms?

In order to address the hypothesis and secondary questions, the study was designed as follows: the attitudes of two separate groups of nursing students toward working with ill older people were measured, using McLafferty's Attitude Scoring Tool (MAST - McLafferty, 2001), over a period of twenty months, at identical points in time; the groups were studying at different Universities, and both had just commenced their two-year 'adult' field of practice programme. There were five-week intervals between these measurements being made, which was decided following pre-testing. The PG attended the educational programme related to the nursing care of ill older people, whilst on clinical placement, and supplementary to pre-registration education. The CG did not know about, or attend the educational programme, but completed MAST at the same intervals, or data points, as the PG. Both groups of students were in the 'adult' field of practice of their particular pre-registration nurse education programme, so each group was likely to encounter ill older people throughout the course of their clinical placements (NMC, 2010). The attitudinal measurements for the PG were 'interrupted' after the seventh measurement by the educational programme.

The 'care of older people' is a theme which is integrated throughout the curriculum being studied by the PG. This means that the 'older person', and 'ageing' as concepts were not explicitly examined in modular format, by the PG, but rather were studied as a theme throughout the two-year 'adult' field of practice programme. The CG, on the other hand, studied a module on the care of older people, upon commencement of their 'adult' field of practice programme. Despite these two groups having had exposure to different educational programmes, this can be accounted for to some extent, during the visual inspection of the time-series, once

created. A sustained difference in attitude scores between both groups might be seen, if this difference in the content of their pre-registration programmes were having an effect upon attitudinal scores. The baseline measures made at the start of the study would also allow a judgement to be made about whether there were marked differences in attitude scores for each group. Additionally, any effect of the educational programme employed in this study, if realised, would still be apparent in the PG scores, when assessed alongside CG scores. The level of scores across the time series may be different for each group, but a programme effect would still be clearly seen (Ramsay, et al., 2003).

A further eight measures of the attitudes of both groups were made after the programme had been delivered. Repeated measures analysis was used to look for significant effects, both immediately after the programme, and at the end of the study, ten months after programme delivery (Pallant, 2007)<sup>1</sup>.

## **1:7 Populations and Samples**

As Parahoo (2006) notes, when designing research, a central task is to make a decision about who will be invited to participate, and in what numbers. The 'theoretical population', which is made up of 'all the units of a population', is the one from which a sample can be drawn for the purposes of research (Parahoo, 2006, p. 257). In this study, this was governed by the size of the individual cohorts of students approached at each University, and the PG and CG were recruited through the process of gaining informed consent.

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<sup>1</sup> Study timelines, as applied to each group, are included as appendices, referenced within chapter three.

Probability sampling is a technique whereby 'the chance of selection for each unit is known in advance' (Parahoo, 2006, p. 259). This approach was used to select a sub-sample of ten students from each consented sample, at each data point, through a process of simple random sampling. This sub-sampling technique was used as a means of generating sufficient data to measure attitudes, whilst also trying to keep potential respondents in their respective groups, in order that the PG and CG remained comparable, by making sure that respondents were not overburdened by repeated testing (Jaegar, 1997). This is discussed more fully in chapter three.

### **1:8 Ethical Considerations**

Approval to carry out this study was gained from both the regional Local Research Ethics Committee (LREC), and the Research Ethics Committee of the academic faculty attended by the CG<sup>2</sup>. In each of these applications, four main ethical issues were raised when designing the study, as follows: the PG in particular could be seen as being a 'captive audience', recruiting a group for the purposes of comparison, informing both the PG and CG about each other, and the use of incentives. Each of these will be discussed in brief here, however the implications of these are discussed in full, in chapter three.

There was a danger that the nursing students from the PG in particular, might feel compelled to take part, because of my role as a lecturer. They could be viewed as a 'captive population' in that sense (Parahoo, 2006, p. 269). However, it would have been of little value to focus on any other group. Students in the CG were not necessarily 'captive' in the same sense as the PG; they did not know me, although

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<sup>2</sup> Copies of these approvals/documents are included as appendices, referenced within chapter three.

my job role was made known. Information sheets<sup>2</sup> were designed to reassure students about the voluntary nature of their participation, further outlining how neither volunteering to be included or excluded would interfere with their progression on their respective programmes. The information sheets also reminded both groups of their right to withdraw from the study at any time, without having to give a reason.

With regard to informing both the PG and CG about one another, the Research Ethics Committee at the University where the CG students were studying were specifically asked for advice in relation to this point. They offered that the two groups did not need to be made aware of each other, but that consideration should be given to answering questions from the CG at a later date, should they become aware that their scores were compared with students from another group.

The recruitment of a group of people for comparison may also raise ethical concerns. In this case, denying them the programme could be considered unethical, because the perceived benefits of the programme, if realised, are not immediately available to them; they may feel that their 'rights to equal access' have been restricted (Trochim, 2006).

With respect to the use of incentives, this study was viewed to be low-risk for potential participants, and it was necessary to try to keep those who had consented 'on board'. With that in mind, three incentives (book tokens) were offered to both the PG and CG, in the form of prize draws at the start, middle and end of the study. This also may have brought a particular bias, related to the make-up of the samples, which must be acknowledged. Each of these issues is discussed within chapter three.

## 1:9 Realist Evaluation

Pawson and Tilley (1997) suggest that realist research, or evaluation, should be cyclical and continuous, in order to inform further theory development, through acknowledgement of the interaction between context, mechanism and outcome. As such, this study should be considered as ongoing; only one part of a greater endeavour to find out if and how nurse education can influence attitudes in this area. The outcomes reported in this study will give a view of the answers to the research hypothesis and secondary questions (outlined in section 1:6; pp. 34 - 37), at the particular timeframe that it was undertaken, in one context (Danermark, et al., 2002). This was facilitated through the use of the interrupted time-series design, which promotes the identification of 'point specific causal inferences'; the relationship between programme mechanisms and attitude change within this context, at this time (Cook and Shadish, 1994, p. 562). This means that attempts to establish applicability to other settings and populations would be premature, because of the notion of context-specificity (Campbell, 1986; Powell, et al., 2010). However, as Cook and Shadish (1994) stated, it is hoped that the results found here would, at some point, form part of a review of the literature in relation to the field, that may help to refine future educational programmes aimed at improving attitudes. As Astbury and Leeuw (2010, p. 376) note, this approach 'helps avoid the problem of one-off discrete evaluations that do little to develop generalizable [*sic.*] knowledge about social programming'. This makes the adoption of a critical realist position when exploring the impact of the programme mechanisms upon the attitudes of nursing students particularly pertinent and useful.

## **1:10 Summary**

This chapter set out to outline the background to the development of the study, making clear why it was worthy of investigation by a nurse educator. The primary aim and objectives were also outlined. The appropriateness of a critical realist approach was highlighted, because it places structure and agency, mechanism and context at the centre of understanding phenomena. The utility of functional approaches to attitude change was explained, as a basis for the development of potential attitude change mechanisms within the educational programme. The research hypothesis and secondary questions were introduced, along with a brief overview of the research methodology, including description of both the study populations and samples, and the ethical issues taken into account, at the design stage. These concepts were briefly introduced within this chapter; they will be expanded upon in detail in chapter three.

The intention is to disseminate the findings of this study at the University where the PG were studying, in order to inform curriculum developments as outlined on pp. 28 - 29. A poster presentation detailing the initial findings was awarded third prize in the 2012 Annual Research Festival of the University where this doctoral study was undertaken. The abstract was also accepted for concurrent presentation at the 2013 RCN International Education Conference. Publication of articles from this main body of work will also be sought in peer-reviewed nursing and educational journals, and within the Journal of Critical Realism, as there are still relatively few examples of research citing critical realism as a guiding framework, from inception through to completion.

The review of the literature will be presented in two parts. In view of the centrality of structure, agency, context and mechanism in this study, part I will identify and discuss the contexts in which nursing students learn, and the mechanisms that may

be present in each, related to both structure and agency. Part II will review the background and development of the key approaches used in this study. In doing so, it will highlight the gap in knowledge and evidence that this study sought to fill.

## **Chapter Two**

### **Review of the Literature**

#### **2:0 Introduction**

In order to provide a contemporary view on the state of knowledge relevant to the nursing care of ill older people, the review of the literature is presented in two main parts. Part I presents a review of the literature related to the contexts of both the university and the clinical learning environment (CLE), where nursing students learn about the theory and practice of the profession. Hence, structures, agents and mechanisms present within each context are identified and discussed, which illustrates that negativity appears to prevail with regard to the nursing care of ill older people. In part II, literature concerning attitude measurement in relation to nursing and older people is discussed. Previous research into the effects of both nurse education and of educational interventions upon the attitudes of nursing students toward caring for ill older people is also reviewed. Hence, part II highlights the gaps in knowledge and in the evidence-base that this study sought to fill. However, the chapter begins by explaining the search methodology used, in order to make explicit the process followed in identifying pertinent literature for review.

#### **2:1 Search Methodology**

To address the aim and objectives of this study effectively, both electronic and manual searches were carried out. Initially, systematic searches of both CINAHL Plus and Medline were conducted; these databases can be searched simultaneously, via the library portal. The search terms were identified after having broadly scanned through the literature obtained when completing the research proposal for this study, which gave a picture of the terms most commonly used in

this field, and also different ways of expressing similar ideas. For example, some studies refer to student nurses, others to nursing students; both terms describe the same entity. Boolean operators 'or' and 'and' were used to enhance the sensitivity of the search, through combining the search terms, which are listed in table 2.1. CINAHL Plus allows the user to select further limits to their search, such as requesting results in the English language only, and limiting results to literature published between 2009 and 2013; both of these limitations were applied.

In some cases, literature published before 2009 has been included, where appropriate; seminal works for example (*cf.* Kogan, 1961). Its inclusion also demonstrates the historical nature of some of the concepts identified. For example, a publication by the RCN (2004) is included, as it demonstrates that the idea of registered nurses in the field of older person care who are unable to articulate their skills to nursing students is a longstanding issue.

Table 2.1 Search terms used within this study

<b>Key concepts</b>	<b>Search terms</b>
<b>Health professional</b>	Nurs* <b>or</b> student nurse <b>or</b> nursing student <b>or</b> faculty <b>or</b> lecturer
	<b>AND</b>
<b>Measuring attitudes</b>	Attitud* <b>or</b> measure* <b>or</b> education
	<b>AND</b>
<b>The older person</b>	Old* <b>or</b> elder* <b>or</b> aged <b>or</b> geriatric*

The electronic search returned 1190 results, in accordance with the specified limitations. The process of reviewing these results revealed 471 duplicate results, 447 were not relevant, in that they related to aspects other than attitudes, and 37 were not research reports, survey results, conference proceedings or policy documents. This left 235 results, which were obtained for assessment of their eligibility for inclusion.

Inclusion criteria were as follows:

1. Must be related to older people in general, and not attitudes toward older people with a named condition;
2. Must be either a research report, survey results, conference proceeding or policy document, and
3. If attitudes are measured, must be predominantly those of registered nurses, or faculty, and/or student nurses, or providers of direct 'hands-on' care.

These criteria excluded 181 papers. After this process, 54 results remained, and the reference lists of each of these were manually searched. This process revealed only a further five references for inclusion, giving 59 references in total for inclusion in this review (figure 2.1). At this point, it was encouraging that the same articles and authors appeared repeatedly in the manual search, indicating that the search process had been largely comprehensive (Depoy and Gitlin, 2005).

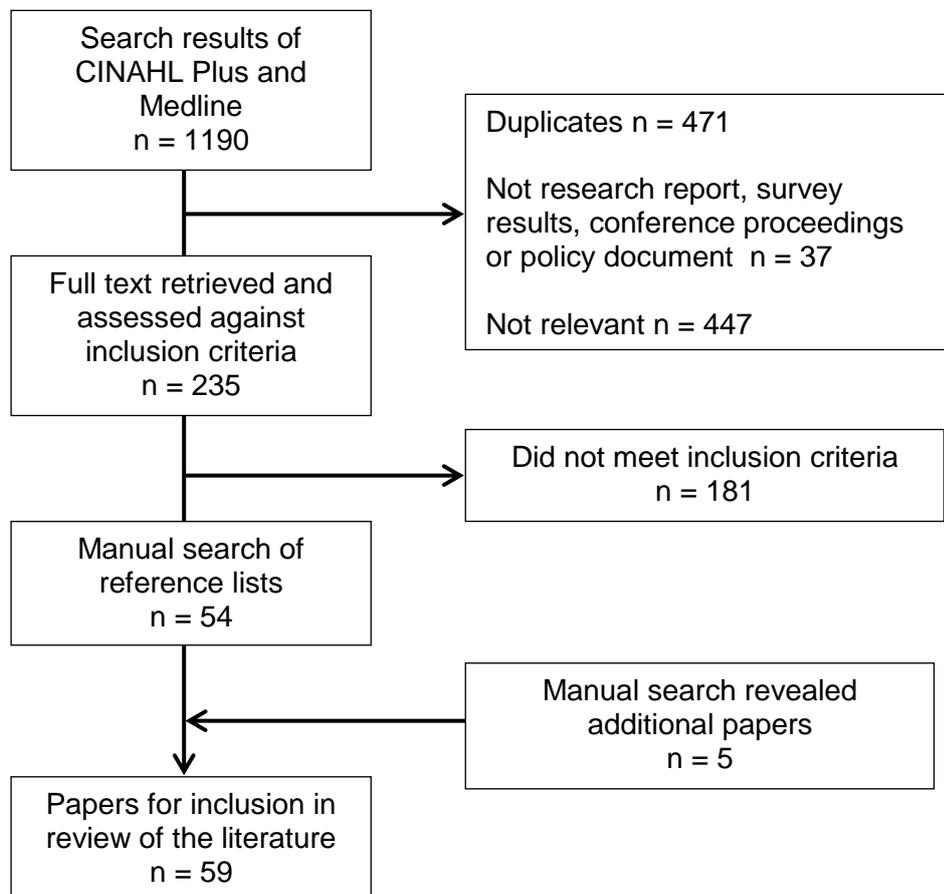


Figure 2.1 Flow chart detailing process of literature identification and retrieval.

### **2:1:1 Data reduction and analysis.**

This large volume of literature required management, both for ease of reference, and to allow relationships to be identified (Hart, 1998). A paper database was built to facilitate this process, using a data reduction form (appendix 1; p. 237). This was invaluable in displaying relevant data in summary form, and in simplifying the process of searching for key themes across the identified literature base. Once completed, each form was assigned a number corresponding to the source article. This allowed quick and easy references to be made between the summary and the source, to enable contextually appropriate discussion of the themes identified.

## **PART I**

### **2:2 The Status of the Nursing Care of Older People**

In order to highlight why the nursing care of older people appears to remain unpopular amongst nursing students and newly qualified nurses, the status of this type of care within nurse education curricula, and within the wider nursing profession is reviewed; it appears to act as a mechanism which affects its perceived value with key agents such as registered nurses, and the nursing students themselves. Bakewell (2009) suggested that there has always been a requirement for nurses specialising in the field of older person care. However, it would appear that it is an unpopular career choice, for newly qualified nurses in particular (Shen and Xiao, 2011). A contributory mechanism seems to relate to the perception that the nursing care of older people lacks professional status, and continues to do so (Kydd, 2012; Kydd, et al., 2013).

It has been suggested that there is a degree of stigma associated with the nursing care of older people (Bakewell, 2009; Kydd, 2012). Kydd, et al., (2013, p. 21) found

that between 1999 and 2009, nurses reported positivity toward caring for older people, but that 'their work carried little professional kudos'. Schrader (2009) reported a commonly held view that some seem to think either that nurses work in this field because they cannot 'cut it' in an acute environment, or that there are no other jobs available. This latter view is aligned with personal experience; my decision to work in older person care was presumed to be because there were no other jobs to go for, and a 'great waste', resulting in a loss of skills. Anecdotally, this anticipated loss of technical skills did not occur; intricate skills such as urinary catheterisation and venepuncture were still required, alongside the development of complex communication skills.

It is a common misconception that caring for older people is unskilled, which seems to contribute to its unpopularity (McCann, et al., 2010). This can be exacerbated by the negativity of staff already working in such settings. Students reported being told that it would be a waste of time to apply for a job in the care of older people, as there was no future in it, and that it may actually have a negative impact upon their career trajectory (Stevens, 2011); registered nurses in de Guzman, et al's., (2009, p. 271) study referred to it as a 'career graveyard'. The development of a defined career structure within the field may go some way toward improving its status amongst potential new recruits (Bakewell, 2009; Koskinen, et al., 2012; Kydd, 2012), and may have a positive impact upon recruitment and retention (RCN, 2012a). Formal certification may also contribute to more positive perceptions of this work, amongst students and the wider health professions, through showing that this work is valued, and staff rewarded accordingly (RCN, 2012a).

Stevens (2011) noted that in fields where technical skills are more commonly used, the intensive care unit for example, students associated these with greater status; little priority was given to the acquisition of the expert, fundamental nursing skills

required to care for older people. Anecdotal experience supports these findings; students seem concerned that accepting employment in a setting where older people are cared for will cause them to lose technical skills. Practical skills, for example venepuncture and male urinary catheterisation, that often previously came within the remit of the medical profession, are considered more valuable than core caring skills, because they afford the nurse higher status (Stevens, 2011). The essential skills required to help an older person with their hygiene needs, for example, are not deemed as important, and simplistic (McCann, et al., 2010). It is as though these very actions, which should be considered to be at the heart of nursing, are perhaps not valued by those entering the profession. In the latter months of 2012, the Chief Nursing Officer for England, and the Secretary of State for Health spoke publicly about the need to put the spotlight on compassion within nursing, which begins with the sensitive provision of fundamental care to all patients irrespective of age, however, both emphasised the importance of focusing on older people (BBC News, 2012a and b; Cummings and Bennett, 2012).

This negative view of fundamental care can be exacerbated by nurse educators in some instances, where curricula are designed with a heavy focus upon technical, acute care delivery (Duggan, et al., 2012). Students commented that 'adult nursing' seemed to mean 'acute care nursing' (Duggan, et al., 2012). In the University attended by the PG, the two-hour session on the care of older people was replaced by one which focused on arterial blood gas monitoring. Of course, it is important that students do learn some of the more technical aspects of nursing, but it should not be at the expense of the development of skills concerned with empathy and caring. Carper (1978) referred to this as 'aesthetic knowledge', to which empathy and intuition are central in understanding the patient's experience. So, Carper (1978) gives recognition to the importance of *how* the nurse practices; this can be just as important as *what* they do.

Of particular concern is the fact that students' interest in pursuing a career in the care of older people decreased, as their pre-registration education progressed (McCann, et al., 2010; Shen and Xiao, 2011; Stevens, 2011). However, Bleijenberg, et al., (2012) and Matarese, et al., (2010) reported 'slightly positive' and 'positive attitudes' toward caring for ill older people, respectively. Despite this, respondents in their studies expressed no desire to work with older people upon qualification, a finding also reported by Swanlund and Kujath (2012). Where a worsening interest was reported, this seemed to be related, in part, to poor experiences whilst on clinical placement (Shen and Xiao, 2011). Nursing students in the UK recently reported poor quality placement experiences, across the board. The RCN surveyed students in the latter months of 2012, and found that almost half of their sample reported having had 'poor experience on a practice placement' (RCN, 2012b, p. 14). In addition, several studies suggest that a deficit in educational content was found to impact upon career choice (*cf.* Deschodt, et al., 2009; Skaalvik, et al., 2012). Knowledge has been linked to nursing students' career intentions, after qualifying, hence, ensuring that they have sufficient knowledge via their pre-registration curriculum is important (de Guzman, et al., 2013).

Students recognised this lack of content on older people within their curricula, reporting that this left them feeling unprepared to effectively care for them (Alsenany, 2009; Duggan, et al., 2012; Topaz and Doron, 2013). Engström and Fagerberg (2011) found that students' attitudes toward older people were more negative in the first year of their education. They suggested that this was more likely 'if students do not know how to cope with situations they are exposed to' (Engström and Fagerberg, 2011, p. 5). McGarry, et al., (2009) indicate that nursing students do not feel adequately prepared for this type of care, which can lead to avoidance. Matarese, et al., (2010) suggested that caring for older people was the least preferred option for respondents in their study; Shen and Xiao (2011) reported that

caring for older people was the second to least preferred area to work in upon qualification, with psychiatric nursing being the least preferred specialism. One of the reasons for this was a lack of confidence in their ability to care for older people, a finding also reflected by Duggan, et al., (2012). Gould, et al., (2012, p. 481) noted that nursing students must be helped to acquire the skills that enable them 'to work safely and comfortably' with ill older people. This may be applicable to nursing students whose reasons for holding a negative attitude toward ill older people serve the ego-defensive function. As Katz noted:

When threatened, these attitudes come into play, and defensive people either avoid the unpleasant situation entirely..... or exhibit hostility. (Katz, 1960, p. 180)

Many authors highlight the need for a renewed focus on educational preparation, delivered by faculty who are enthusiastic and knowledgeable about the field (*cf.* Alsenany, 2009; Runkawatt, et al., 2013). So, the need to develop appropriate content is acknowledged, but this could present problems, as it is often viewed by faculty as being the responsibility of someone else (Schrader, 2009).

### **2:3 The Context of the University Learning Environment**

Nurses' education is equally shared between both clinical<sup>3</sup> learning environments and higher education institutions; this is referred to as the university learning environment (ULE) in this study (NMC, 2010). Both of these are contextually complex structures, with a number of influential agents impacting within each. It could be argued that theoretical education may have a crucial role to play in ensuring the recruitment and retention of nurses with the right attitudinal disposition

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<sup>3</sup> 'Clinical' is intended to describe the location of learning that occurs whilst students are on field placements, outside of their University.

and skills for working with ill older people, through improving the status of such work (Kydd, 2012; Kydd, et al., 2013).

'Theory', primarily learned within the ULE, has equal weighting in terms of time, as that spent within the CLE (NMC, 2010). For example, courses leading to professional registration as a nurse must have at least 4600 hours, split as follows: 2300 hours' practice experience, and 2300 hours of theoretical input (NMC, 2010). The idea is that the theoretical component should inform and augment students' experiences on clinical placement. Hence, students studying the 'adult' field of practice should be equipped with the skills: cognitive, behavioural and affective, to care for adults across the lifespan. However, the care of older people is not laid out in explicit terms, within the standards for pre-registration programmes, within the UK (NMC, 2010), which has not helped to ensure its inclusion in pre-registration curricula. Such a lack of older person content as a mechanism, can lead students to doubt their capabilities in this field, leading them to avoid it (McGarry, et al., 2009). Such competencies are delineated in the USA (appendix 2; p. 238) (AACN, 2010), so this content is necessarily included within their pre-registration programmes. It has been suggested that defined competencies in the care of older people would be useful in assisting nurse educators to incorporate such content into their curricula (Deschodt, et al., 2009; Ironside, et al., 2010). Clendon (2011) recommends that the key skills required to effectively care for ill older adults need to be identified. Bakewell (2009) suggests that job growth in caring for older people will be potentially vast, so ensuring a suitably prepared future nursing workforce requires that education play its role in meeting this need.

The lack of specificity regarding required competencies from the NMC (2010) has meant that content related to caring for ill older people is not standardised, is often ill-defined, and delivered in differing formats, reporting different levels of success in

influencing students' attitudes. In some cases, such content has been lost altogether, meaning that the required skills remain unrecognised (RCN, 2004). As already discussed in section 2:2 (pp. 46 – 50), this may do nothing to help improve the status of the nursing care of older people, which may have a 'knock-on' effect on recruitment (McGarry, et al., 2009).

### **2:3:1 Faculty: attitudes and influence**

The influence of faculty appears to be a key finding in much of the work relevant to the education of nursing students in this field (*cf.* Rodgers and Gilmour, 2011). McGarry, et al., (2009) proposed that faculty can exert both an overt and covert influence on students' attitudes toward caring for older people. Some were seen to place most emphasis on the value of placements in settings that are considered acute in nature, involving hi-tech care (Schrader, 2009). Evers, et al., (2011) found that students were able to identify lecturers who had a positive attitude and passion for caring for older people, and that they were influential in prompting students to think differently about the field. However, the students in Evers, et al's., (2011) study referred to being given the impression that lecturers discouraged them from working with older people, because it would be 'wasting their education away' or that caring for older people 'is not the kind of nursing we've been trained to do', and 'lacking in challenge' (Evers, et al., 2011, p. 407).

This view was overtly expressed in Schrader's (2009) work; working in long-term care settings was not viewed to be clinically challenging by faculty. Hence, they tended to encourage students to follow careers within acute environments. Faculty reported a desire to provide the best for students, and so they avoided using long-term care settings for placement allocations, as there were perceived to be so few

opportunities to hone technical skills. As Gould, et al., (2012) note, it is important to demonstrate that caring for ill older people is intellectually challenging, requiring complex skills. Interestingly, Schrader (2009) discovered that faculty were also influenced by the negativity of students' attitudes toward the field of older person care. Holroyd, et al., (2009) also noted this correlation between the fostering of positive attitudes in students, and faculty holding positive attitudes. This reciprocity of influence is of concern, as it seems that one may be influencing the other, with the effect of worsening the status of older person nursing amongst both of these important agents, further diminishing the value of such nursing care.

It appears to be widely recognised that faculty must be positive role models for nursing students (Schrader, 2009; Duggan, et al., 2012; Gould, et al., 2012). Schrader (2009) advises that this is not just important for students, in that it applies to faculty as well; they need access to good role models in relation to older person care just as much. However, it appears that a number of issues may impact upon the ability of faculty to act in this way, both for nursing students, and for each other.

Providing sufficient numbers of positive role models amongst faculty members may be difficult to achieve; faculty who promote the care of older people felt either that there were insufficient numbers of them to make their voices heard, or that they were, in fact, a solitary voice (Deschodt, et al., 2009; Schrader, 2009; Bardach and Rowles, 2012). Schrader (2009) suggested that a renewed focus should be placed upon the recruitment of faculty in this field, in order to counter negative perceptions amongst students. This is important, because students are increasingly being placed in long-term care settings, for clinical placements in the UK. Faculty need to engage with staff and students in such settings, to ensure that it is a positive learning experience for the student (Schrader, 2009; RCN, 2012a), and to reverse the perception that there is very little to learn in these placements (Deltsidou, et al.,

2010). The NMC (2008) requires that all clinical settings are audited for the quality of the learning experience their staff provide, and what the environment has to offer, prior to it being accepted as a placement for nursing students. This highlights the significance of this quality assurance process, but may also raise concerns as to its sufficiency in doing that.

Deltsidou, et al., (2010) reported that students felt faculty were out of date with current practice in relation to the care of older people. In view of their influence, faculty should be made aware of this potential, particularly when the care of older people is not their specialism. It may be that faculty could benefit from professional development in the field of caring for ill older people (Clendon, 2011). This development could brief faculty not just about advancements in the care of older people, but about the possible impact of their veiled influence on the attitudes of students (Deschodt, et al., 2009).

## **2:4 The Context of the Clinical Learning Environment**

From a nursing perspective, structure and agency may factor in how the CLE is perceived. This is congruent with the critical realist view of context being concerned with more than just location (Danermark, et al., 2002). Placements appear to be the primary means through which nursing students are professionally socialised (NMC, 2010). The CLE is undoubtedly complex; it is highly probable that many mechanisms will be operating simultaneously. It is difficult to identify and measure the effects of them all, but it cannot be ignored that clinical placement experience is most highly valued by students themselves (RCN, 2012b).

It has long been recognised that poor experiences on clinical placement are likely to be a contributory mechanism in attrition from nurse education programmes (Eick, et al., 2012). Negative placement experiences can also turn students away from considering the care of ill older people as a potential career (McCann, et al., 2010; Shen and Xiao, 2011; Stevens, 2011). Taken together, the impact of these mechanisms make it important for nurse educators and service partners to improve the quality of clinical placement experiences in older person care (Clendon, 2011). Recognition of how structures, agents and mechanisms within this context might influence students may be helpful in this aim; it may be that these factors should be considered in the educational audit process (NMC, 2008). Xiao, et al., (2012, p. 331) suggest that governments should provide funding in order to develop such placements, to help to 'remove the structural constraint to effective teaching' within environments where ill older people are cared for. Again, this is of relevance in this study, as the some of the CLEs in which students are placed cater specifically for ill older people.

#### **2:4:1 Supernumerary status**

It would appear that the structure of supernumerary status has affected the ways in which nursing students are socialised into their profession, as it seems to affect their perception of nursing (Allan and Smith, 2009). Supernumerary status for nursing students was first proposed in by the UKCC in 1986, as an integral part of a new style of nurse education, called 'Project 2000'. It meant that students were to be 'additional to the workforce requirement and staffing figures' (RCN, 2007, p. 16). Alongside this, there were associated changes to the makeup of the workforce, to include a new carer and helper role: the healthcare assistant (UKCC, 1986). In this model, the registered nurse was to lead the clinical team, delegating certain aspects of care to the healthcare assistant (HCA). It appears that working alongside HCAs

influences students' clinical learning experiences, and how they perceive 'nursing' (Allan and Smith, 2009). The traditional model of nurse training involved nursing students in providing fundamental care, alongside registered nurses. This approach was phased out with the introduction of Project 2000. However, nurses trained in the traditional style did all of the bedside care when they were students, and hence, this is how they have tended to facilitate the clinical learning of students today, the difference being that the students are learning it alongside HCAs (Allan and Smith, 2009).

So, nursing students now see a different organisation of nursing work. They observe and assist the HCAs in giving 'hands-on' care, with registered nurses carrying out the more technical aspects, such as medication rounds, and administration of injections, for example. This may have led to the notion that what HCAs do does not constitute 'real nursing', which could be why students often complain when asked to work alongside HCAs in the delivery of fundamental aspects of care. It could be that this change in the organisation of the team contributes to this type of work being seen as unskilled, with 'hands on' nursing care often being referred to as 'basic' (Allan and Smith, 2009); a view which was sustained by the fact that students see it being delivered by unqualified staff, and therefore not something that they need to focus upon in order to function as the registered nurse within a team, once qualified (Xiao, et al., 2012).

This way of organising nursing care has been endorsed by the Willis Commission (RCN, 2012a), so it is unlikely to change. Lord Willis set about identifying the 'essential features of pre-registration nursing education' in the UK, in response to the poor standard of nursing care experienced by some; there was a widely held perception, amongst the public in particular, that these may be explained by failings in the current system of nurse education (RCN, 2012a). No such failings were found

within pre-registration nurse education, and the need for graduate nurses to be the leaders of clinical teams, delegating to an unqualified support team, was re-emphasised. HCAs are currently not registered with a professional organisation; the need for the registration of HCAs was emphasised in the Francis Report (Francis, 2013). Following this, Cavendish (2013) was asked by the Government to review the role and education of those in HCA roles. Her review established that there is currently no minimum standard of training for HCAs, although the Government has pledged to put such standards in place early in 2014 (DH, 2013).

#### **2:4:2 Registered nurses: attitudes and influence**

It would appear that registered nurses report positive attitudes toward the care of ill older people (*cf.* Engström and Fagerberg, 2011; Zampieron, et al., 2012). Kydd, et al., (2013) studied the attitudes of healthcare professionals, comparing results over a decade apart; attitudes were first measured in 1999, and again in 2009. Over this period, they found that staff had remained 'enthusiastic and positive in their approach towards caring for older people' (Kydd, et al., 2013, p. 21). However, it seems that such positivity can be compromised by a number of factors which mean that nurses find that they must 'walk the line between the possible and the ideal' (Hall and Høy, 2011, p. 291). In their secondary analysis of data, Hall and Høy (2011) talk about an apparent discrepancy between what nurses say they will do, and what they actually do. For example, nurses expressed a desire to provide individualised nursing care, but acknowledged that this was often left by the wayside, in favour of following routines and protocols, with a focus on the provision of physical care.

This approach was found to be at the root of failures within the NHS in the Francis Report:

This failure was in part the consequence of allowing a focus on reaching national access targets, achieving financial balance, and seeking foundation trust status to be at the cost of delivering acceptable standards of care. (Francis, 2013, p. 3)

Although the Francis Report (2013) concerned one NHS trust, the failings there were viewed to be endemic within the NHS. Francis (2013) makes a number of far-reaching recommendations, which seek to put patients back in a central position within the NHS, with financial management taking less priority than it had been allowed to in the Mid Staffordshire NHS Foundation Trust.

Other contextual mechanisms can affect the attitudes of registered nurses toward caring for older people, and their recruitment to the field. The kind and the amount of work in such settings are also reported as being influential on both of these (de Guzman, et al., 2009; Adibelli and Kiliç, 2012). De Guzman, et al., (2009) also report low staffing as a contributory factor in whether or not staff stay in such settings, meaning that staff turnover is often quite high. Factors related to the physical environment are also influential upon staff attitudes (Kydd, et al., 2013). Adibelli and Kiliç (2012, p. 5) found that the registered nurses in their study felt they had 'insufficient knowledge, skills, and experience' to properly care for ill older people; this finding is supported by the work of Topaz and Doron (2013), who suggest that the nurses in their study had poor knowledge about older people, in general. They recommend that 'the more people know about old age and older people, the more positive are their attitudes towards them' (Topaz and Doron, 2013, p. 10). Specific support and continuing educational preparation for staff appears to be as important as it is for nursing students (Doherty, et al., 2011; Zampieron, et al., 2012).

There is consensus over time that both the motivation and attitudes of registered nurses has a direct impact upon the quality of care provided to ill older people (de Guzman, et al., 2009; Gould, et al., 2012). In the UK, this has been brought to the

fore by Cummings and Bennett (2012), who stressed the importance of developing the value of compassion within nursing care. They identified six areas that nurses must 'take the lead in', in order to improve the quality of care, generally. Referred to as the 'Six C's', these are: care, compassion, competence, communication, courage and commitment (Cummings and Bennett, 2012, p. 24). With regard to nursing students, The Council of Deans of Health (2012) responded by saying that only those with all of these values should be recruited to nurse education programmes. This is in line with the findings of the Francis Report, which recommends the recruitment of people who have 'the appropriate values, attitudes and behaviours' to care for others (Francis, 2013, p. 1513). The DH (2013) announced plans to change nurse education, with nursing students working alongside HCAs for a year, learning to provide fundamental care to patients, and being involved in its delivery. Full details of this new initiative have not yet been unveiled, and it has been opposed by the RCN, as it implies that people are coming into nursing for the wrong reasons (Triggle, 2013). This is of concern, in view of the paucity in training and education that HCAs currently get (Cavendish, 2013).

### **2:4:3 The attitudes and experiences of nursing students**

As already suggested, having sufficient numbers of adequately prepared nurses to care for the growing older population appears to be a worldwide concern (*cf.* Berntsen and Bjørk, 2010). It is interesting that in cultures where older people are revered and respected, and seen as a source of wisdom and experience, the attitudes of nursing students toward caring for ill older people are generally positive (Alsenany, 2009; Pan, et al., 2009; Celik, et al., 2010; Ozkaptan, et al., 2012; Usta, et al., 2012; Zverev and Blantyre, 2013; Runkawatt, et al., 2013). These studies were conducted in Saudi Arabia, Taiwan, Turkey, Malawi and Thailand, respectively. The authors suggest that the future efforts of nurse educators needed to be directed

toward maintaining this positivity; each makes similar recommendations about a continued focus on the care of older people within pre-registration nurse education curricula.

In studies where a less positive attitude is portrayed, a number of themes emerge from the research exploring the student experience in caring for older people. A major theme was the influence of the CLE upon attitudes, particularly the importance of having access to positive role models in their mentors, whilst on clinical placement (McGarry, et al., 2009; Berntsen and Bjørk, 2010; Duggan, et al., 2012; Gould, et al., 2012; Newton, et al., 2012). It is these role models who should direct the students' experiences, whilst fostering the ability to manage the often competing demands of clinical practice, allowing students to remain faithful to their beliefs (McGarry, et al., 2009; Duggan, et al., 2012). In being a good role model, the staff member should display a positive attitude toward their work as a nurse, and to older people in particular (Duggan, et al., 2012). This could be challenging in trying to improve students' attitudes, as it has already been highlighted that sometimes, registered nurses openly discourage them from working in the field for a variety of reasons (de Guzman, et al., 2009; Stevens, 2011).

When students witness poor standards of care, and a negative disposition toward caring for older people, an 'impoverished' learning environment is created, where such negativity toward the field is projected onto students (Doherty, et al., 2011). Interestingly, some students in the study by Duggan, et al., (2012) cited witnessing poor standards as a motivating force to work in caring for older people once qualified, in order to challenge the status quo. They suggest further research is needed to explore this finding in more detail.

This lack of role models whilst on placement can mean that students are often left to navigate the complexities of clinical practice alone in this environment (Skaalvik, et al., 2012). Hence, students are in danger of adopting the 'most effective way of acting learned so far', which may not necessarily equate with quality nursing care and positive attitudes (Berntsen and Bjørk, 2010, p. 18). If this way of working is being witnessed by students, within a stressful CLE, they too may adopt these negative strategies, just in order to survive their placement. The concern is that these negative practices are carried through into their nursing career, potentially creating a vicious cycle in terms of negative influence.

The nature of the CLE as both a place of work, and a place of learning is also acknowledged by Berntsen and Bjørk (2010). They noted that this can create a tension which places students under pressure, compromising their learning. McGarry, et al., (2009) go on to suggest that if a caring ethos is not endorsed during clinical placement experiences, and hence not carried through into the practical aspects of nursing care, then the good intentions of students may be eroded. This message is reinforced by Berntsen and Bjørk (2010, p. 18) who discuss the importance of placements where a 'context of learning' is promoted. Xiao, et al., (2012) suggest that funding should be put in place to 'remove the structural constraints to effective teaching' in CLEs where ill older people are cared for.

In much the same manner as faculty influence nursing students, McGarry, et al., (2009) suggest that both the inward and outward attitude of staff on placement can impact upon the perceived quality of the CLE. Often, staff were seen to focus on getting the work done as quickly as possible, and maintaining order; there was little opportunity for students to interact with older people, in a person-centred way (McGarry, et al., 2009; Skaalvik, et al., 2010; Skaalvik, et al., 2012). These students associated this with negative perceptions of the CLE. Once again, the importance of

ensuring that clinical staff in mentoring roles are made aware of their possible influence upon the attitudes of nursing students is highlighted.

The significance of the provision of positive CLEs and experiences appears, then, to be widely acknowledged (McGarry, et al., 2009; Berntsen and Bjørk, 2010; NMC, 2010; Shen and Xiao, 2011; Duggan, et al., 2012; Skaalvik, et al., 2012). For example, McGarry, et al., (2009) suggested that attention should be paid to developing the CLE in order that students are helped to realise the potential of caring for older people, whilst balancing its demands. Berntsen and Bjørk, (2010) link the development of a positive CLE to affording nursing students appropriate support, so that the context is positive for both learning and working, with opportunity for professional dialogue (Skaalvik, et al., 2012). Absence of this dialogue meant that students often reported feeling 'totally invisible' and 'worthless', where there were little opportunities to discuss and reflect upon care given to older people (Skaalvik, et al., 2012, p. 414).

The importance of providing students with a 'comprehensive orientation' to the CLE within older person care has been emphasised (Robinson, et al., 2009; Schrader, 2009). Interestingly, the authors of these studies point out that much attention is given to induct newly qualified nurses into their first employed position, and that similar attention perhaps ought to be paid to nursing students starting a placement in a new CLE in older person care. This may be particularly relevant, as it would appear that students report perfunctory attention to orientation on such placements, with the effect of students feeling unsupported (Robinson, et al., 2009). It is interesting to note that this orientation to placement is included and required in the educational audit process (NMC, 2008), but it may be that the importance of this needs greater emphasis. As already suggested, this may lead students to manage this stress by adopting ritualistic approaches to care, in order to be able to carry on,

or to avoid the care of ill older people altogether (Berntsen and Bjørk, 2010; Duggan, et al., 2012). Again, the danger is that if students learn this way of being whilst a student, it may continue into their professional career, with a negative impact upon patient care, or lead them to avoid the specialism altogether as a potential career.

Gould, et al., (2012) make an important point about the sequencing of placements in care of the older person settings. They found that 'novices were significantly more negative about working with older patients, particularly after experiencing a first clinical placement' (Gould, et al., 2012, p. 471). CLEs where ill older people are cared for are often used as the first CLE to which students are exposed, which may be problematic. This may contribute to the view that students are going there because it is easy, to learn 'the basics', which they would routinely do alongside HCAs.

The first part of this review set out to demonstrate how the structures, agents and mechanisms within the contexts that nursing students learn have continued to contribute to the development and maintenance of negative attitudes toward the nursing care of ill older people. In part II, literature concerning measuring attitudes toward caring for older people is reviewed, alongside research into the effects of both nurse education and of educational interventions upon the attitudes of nursing students toward caring for older people. This part of the review of the literature will highlight the gaps in knowledge and in the evidence-base that this study sought to fill.

## PART II

### 2:5 Measuring Attitudes Toward Caring for Older People

Since the 1980s, much research has directed effort toward testing the general effect of nurse education upon attitudes, in a range of formats (*cf.* Spier and Yurick, 1989; Lookinland and Anson, 1995; McKinley and Cowan, 2003). This commitment has continued, with a number of studies having been conducted between 2009 and 2013 (table 2.2).

Table 2.2 Measurement tools used in prior attitude measurement and change research with nursing students (shows study purpose).

Kogan's Attitude to Old People Scale	Palmore's Facts on Aging 1 Quiz	McLafferty's Attitude Scoring Tool	Other
<b>General effect of pre-registration education</b>			
Lambrinou, et al., (2009)	Troutman Flood and Clark (2009)	Deltsidou, et al., (2010)	Troutman Flood and Clark (2009)
Holroyd, et al., (2009)	Bleijenberg, et al., (2012)		Shen and Xiao (2011)
Matarese, et al., (2010)			Bleijenberg, et al., (2012)
Bleijenberg, et al., (2012)			Swanlund and Kujath (2012)
<b>Effect of educational interventions</b>			
Chen and Walsh (2009)	Baumbusch, et al., (2012)		
Lamet, et al., (2011)			
Rodgers and Gilmour (2011)			
<b>To measure student attitudes</b>			
Alsenany (2009)	Alsenany (2009)		Pan, et al., (2009)
Engström and Fagerberg (2011)	Evers, et al., (2011)		Usta, et al., (2012)
Ozkaptan, et al., (2012)			de Guzman, et al., (2013)
de Guzman, et al., (2013)			
Runkawatt, et al., (2013)			
Zverev and Blantyre (2013)			

As table 2.2 shows, the majority of these studies used Kogan's Attitude to Old People Scale (KAOPS - Kogan, 1961), either alone or in conjunction with an additional tool to assess knowledge. In all but two of these studies (Chen and Walsh, 2009; Lamet, et al., 2011), Kogan's original version of the scale was used. A revised version of KAOPS has been developed, and will be discussed later in this section. Palmore's Facts on Aging 1 [sic.] Quiz (FAQ1 - Palmore, 1998) was used primarily to assess knowledge about older people.

A number of studies were concerned with validating either KAOPS or the FAQ1 (table 2.3). Attitudes were measured, but were not reported upon in detail in their published work. Hence, their work is not reviewed within the section on the effect of pre-registration nurse education upon attitudes.

Table 2.3 Studies concerned with testing the reliability and validity of KAOPS and FAQ1.

<b>Kogan's Attitude to Old People Scale</b>	<b>Palmore's FAQ1</b>
Erdemir, et al., (2011)	Wang, et al., 2010
Küçükgüçlü, et al., (2011)	
Rejeh, et al., (2012)	
Matarese, et al., (2013)	

Literature related to the development and use of KAOPS will now be reviewed, in order to highlight deficiencies in its suitability to measure the attitudes of nursing students.

### **2:5:1 Kogan's 'Attitude To Old People Scale'**

KAOPS (Kogan, 1961) was developed to 'facilitate the study of attitudes toward old people with respect to norms and differences' (p. 144). In order to do this, Kogan

(1961) utilised a six-point Likert scale, with 17 pairs of statements; each matching pair contains both a positive and a negative statement, which were intended to measure the same facet of the attitude held by an individual (appendix 3; pp. 239 - 240). Hence, there are 34 items in total, to which the respondent gives a score ranging from 'strongly disagree' (scoring one), to 'strongly agree' (scoring six) (Kogan, 1961). The range of scores for KAOPS is 34 to 204; the higher the score, the more positive the attitude.

KAOPS was adapted from a scale designed to measure attitudes toward ethnic minority groups, in view of Kogan's (1961) assertion that older people could be classed as a minority group. This 'adaptation' involved the substitution of the word 'ethnic' with the word 'old'. These items were supplemented with items from Kogan's and his associates own intuitions about societal attitudes toward older people at the time (Kogan, 1961).

KAOPS has been used extensively in attitude change research within nurse education (*cf.* table 2.2; p. 64). However, the use of KAOPS in particular could be questioned, from a critical realist point of view. As already stated, the notion of context is particularly important within critical realism, and hence within this study (Danermark, et al., 2002). McLafferty (2007) criticised KAOPS for seeming to ignore context, in relation to nurses and their work with ill older people, measuring instead societal attitudes. Only Engström and Fagerberg (2011) and Rodgers and Gilmour (2011) concede this point, but suggest that they made the decision to use it based on the reported reliability of KAOPS. This is perhaps surprising, considering the importance of contextual referents within educational research (Hinds, et al., 1992). Only a tool that acknowledges the centrality of context would have been appropriate in this study, in view of its basis in critical realism. Deltsidou, et al., (2010) cite this absence of reference to the context of nurses' work with ill older people as the

reason for utilising McLafferty's Attitude Scoring Tool in their study. As McLafferty (2007, p. 84) notes, KAOPS, in particular, does not reflect the 'specific conditions under which nurses work with older people', and that 'consideration must be given to the contextual impact on nurses' attitudes'.

The internal consistency of KAOPS (1961) is repeatedly cited as the rationale for its use to measure attitudes within nursing (*cf.* table 2.2; p. 64). However, more recent work on KAOPS has revealed what the authors refer to as 'major flaws' in its internal consistency, in relation to the paired statements (Iwasaki and Jones, 2008, p. 145). Iwasaki and Jones (2008) were mindful of the fact that Kogan's (1961) sample from his seminal work, where he validated KAOPS, was predominantly upper class and male. Hence, their approach necessarily involved a sample more representative of the population. In testing KAOPS, they found a weaker than expected relationship between the pairs of statements, which raises questions about its reliability. This, they suggested, was problematic, because each statement in the pair was intended to measure the same aspect of the attitude. So, although some of the researchers who used KAOPS to measure attitudes did their own estimation of its reliability for their particular population, it may be that failings in its actual design, highlighted by Iwasaki and Jones (2008), mean that alternate tools may now be more appropriate for the measurement of attitudes.

The final criticism of KAOPS (1961) relates to the age of the tool, having been developed in the 1960s (Matarese, et al., 2013). As they suggest, older people were 'different then' in terms of 'life expectancy, health status and resources', offering that perhaps measurement tools ought to reflect current society, by taking into account these variables (Matarese, et al., 2013, p. 182). It is perhaps remarkable, then, that they recommend KAOPS for use in future pre-test/post-test research [in Italy]. Using a tool that does not necessarily measure attitudes toward older people in today's

society may be challenging, particularly in view of its apparent failure to take into account contextual factors (McLafferty, 2007). Additionally, using KAOPS, within a weak research design, as recommended by Matarese, et al., (2013), may not move the debate forward, in terms of if and how nurse education can influence the attitudes of nursing students.

The revised version of KAOPS was developed by Hilt and Lipschultz (1999). Based on their use of KAOPS in previous studies measuring the attitudes of television personnel, they revised the scale by reducing the number of items from 34 to 22. This revision was intended to make KAOPS less onerous to complete. However, the process by which the item pool was reduced is not explained in detail, and the essence of the remaining statements within the scale remain the same. Hence, the revised version could be criticised on the same grounds as the original version; it is still ignorant of the context in which nurses and nursing students work with ill older people.

McLafferty's Attitude Scoring Tool (McLafferty, 2001) was used to measure attitudes in this study. The development of this tool, and the rationale for using it will be explained in chapter three.

## **2:6 The Effect of Pre-registration Nurse Education Upon Attitudes**

Seven studies specifically tested the effect of pre-registration education upon nursing students' attitudes (*cf.* table 2.2; p. 64). Work by Shen and Xiao (2011) was also reviewed; their focus was upon eliciting factors within pre-registration curricula which were influential in whether or not students chose to work in older person care upon qualification. So, although the measurement of attitudes toward older people

during pre-registration education were not their main focus, attitudes were measured, hence the inclusion of their study in this review.

The effects of both integrated curricula, where content related to the care of older people is a theme throughout (Holroyd, et al., 2009; Lambrinou, et al., 2009; Deltsidou, et al., 2010; Bleijenberg, et al., 2012), and stand-alone modules, where older person content is delivered in a solitary way, were tested (Troutman Flood and Clark, 2009; Shen and Xiao, 2011). No detail is given about the curricular content of two studies (Matarese, et al., 2010; Swanlund and Kujath, 2012). Students' attitudes were generally measured longitudinally, at points throughout their respective nurse education programmes, with the exception of the work by Deltsidou, et al., (2010) and Swanlund and Kujath (2012). In these studies, students were selected from each year of their nursing programme, and their attitudes measured simultaneously, so it cannot be seen how their attitudes changed from one year to the next. However, a cross-sectional view is obtained about attitudes generally, in each year of their programme.

Contradictory findings are reported, in relation to both integrated curricula, and supplementary 'stand-alone' modules. In testing the effect of an integrated curriculum, Holroyd, et al., (2009) found that in spite of four years of nurse education, there was no significant change in students' attitudes toward the care of older people. The more senior the student, the more negative their attitude became. Holroyd, et al., (2009) put this down to the integration of 'older person' concepts within their curriculum, as half of their sample described a lack of content related to older people, despite the fact that it was reportedly included throughout. The 'integration' of older person content meant that there was no easily distinguishable reference to older people within the curriculum, according to their students. They

suggest that in order to remedy this, 'curriculum revisions are essential', to provide a clearer, inspirational message to nursing students (Holroyd, et al., 2009, p. 379).

In direct contrast to the work of Holroyd, et al., (2009), integrated curricula have been reported to positively influence attitudes (Lambrinou, et al., 2009; Deltsidou, et al., 2010). In both of these studies, conducted in Greece, attitudes were better by or in the final years of students' nurse education, respectively. In line with a critical realist view of causation, the common sense approach would be to look to these studies to find out what it was within their curricula that worked in those contexts. However, the mechanisms that may have been responsible for the reported improvements in attitude are not made explicit, and cannot be readily utilised by others (Pawson and Tilley, 1997). No reference is made to the possible influence of the culture in Greece toward older people, which may also have had an impact upon the improvements they report. However, the impact of culture upon the care of older people should not be presumed; Runkawatt, et al., (2013) specifically investigated the impact of culture upon attitudes, in Sweden and Thailand, in that order. These two cultures dictate differing norms, in relation to the care of older people within society, for example, however, they found no significant differences in relation to culture, across their study groups.

Bleijenberg, et al., (2012, p. 5) reported that students' attitudes moved from being 'neutral, to 'slightly positive' by their third year studying an integrated curriculum. Despite this improvement, relatively small numbers identified an interest in working with older people, after qualifying. Although no detail was given with regard to curricular content, both Matarese, et al., (2010) and Swanlund and Kujath (2012) reported positivity amongst students toward working with older people, but that very few students wanted to work in this specialism, once qualified.

Troutman Flood and Clark (2009) hypothesised that their stand-alone ageing and health module, supplementary to pre-registration education, would produce better knowledge amongst students, and that better knowledge would lead to better attitudes. Their hypothesis was accepted, and they went on to suggest that inclusion of older person content within nurse education curricula be promoted. In the curriculum studied by students in Shen and Xiao's (2011) work, one module on older people was studied in the third year. Again, a contrast in the findings is seen, as they reported that, unlike Troutman Flood and Clark (2009), attitudes worsened as education progressed; their module had no apparent effect upon attitudes. They postulate that this increased negativity may be explained in part by exposure to clinical placements of variable quality in older person care. Interestingly, Zverev and Blantyre (2013, p. 62) found that the attitudes of nursing students in their study were generally positive, and that these were not affected by the year of study. They postulate that this is because 'respect for older people is still a notable tradition in the Malawian society'. In view of the findings reported by Runkawatt, et al., (2013), (*cf.* p. 68) it seems that culture, as a mechanism, has generated differing impacts.

## **2:7 The Effect of Educational Interventions Upon Attitudes**

Pawson (1996, p. 300) asserts that researchers wishing to design attitude change programmes should start by 'considering cases where there is a positive outcome'. The studies listed in table 2.4 each report improvements in attitudes following their interventions. With regard to context, the mechanisms within these interventions were deployed within the university setting, by faculty, in all cases. Particular attention has been paid in this section to how attitudes might be changed by the reported mechanisms, through reference to Katz' (1960) theory on attitude change.

Table 2.4 The mechanisms used in attitude change research with pre-test/post-test design.

<b>Author/s</b>	<b>Theoretical Framework</b>	<b>Mechanisms</b>
Chen and Walsh (2009)	Self-transcendence theory	Creative-bonding intervention versus friendly visit
Lamet, et al., (2011)	Self-transcendence theory	Creative-bonding intervention
Rodgers and Gilmour (2011)	None stated	Life-span focus incorporating application to older people
Baumbusch, et al., (2012)	Critical realism	Covered common conditions of major systems

Since 2009, the focus appears to have been upon testing the effect of integrated interventions on attitudes (Chen and Walsh, 2009; Lamet, et al., 2011; Rodgers and Gilmour, 2011; Baumbusch, et al., 2012). Improvements in attitudes are reported in each case, which involved classroom-based theoretical input, with a related clinical experience either running alongside (Chen and Walsh, 2009; Lamet, et al., 2011; Baumbusch, et al., 2012), or straight afterward (Rodgers and Gilmour, 2011).

The potential flaws of the attitudinal measurement tool used in these studies have already been highlighted (*cf.* section 2:5:1; pp. 65 - 68). In each of these study designs, there are additional perceived methodological weaknesses, which make it difficult to adopt any of the mechanisms used, with confidence, in this study. Table 2.4 outlines the mechanisms each used.

Many of these mechanisms appear to aim at improving nursing students' knowledge about wellness in older people (Rodgers and Gilmour, 2011; Baumbusch, et al., 2012). This is in line with Palmore's (1998) assertion that better knowledge will equate to better attitudes, but as Katz (1960) suggested, this can be unreliable. The mechanisms employed by Chen and Walsh (2009) and Lamet, et al., (2011) may be more applicable to modifying attitudes which serve the ego-defensive function; they

may be successful in allowing the student to perceive older people in a more positive way, which 'removes the threat' of the students' involvement in caring for older people (Katz, 1960, p. 182). Their approach offered nursing students alternative ways of experiencing this.

Rodgers and Gilmour (2011) and Baumbusch, et al., (2012) each used a one group, pre-test/post-test design, acknowledged to be weak, because of the inability of these designs to rule out other causes for improvements in the variable being measured (Cook and Campbell, 1986). Perhaps the issue of most concern in interpreting the results of these studies is the effect of mechanisms entirely unrelated to the integrated modules; these may have had a positive impact upon attitudes. Or, the groups tested may have been changing spontaneously over time, anyway, with an associated improvement in attitude. Only longitudinal data collection, and the inclusion of a CG can account for mechanisms of this kind (Cook and Campbell, 1986). A longitudinal study design also allows judgements to be made about the longevity of any reported attitude changes, which is acknowledged by Baumbusch, et al., (2012).

Both Chen and Walsh (2009) and Lamet, et al., (2011) used a pre-test/post-test design, but included comparison and control groups, respectively. Although this additional study design feature represents an improvement in approach, it is still impossible to discern whether the improvements they each reported were really down to their 'creative-bonding interventions', or whether the improvements were sustained. Only repeated pre and post-intervention measurements can provide support to their assertion that the improvements in attitudes were caused by their interventions<sup>4</sup>, both of which were lacking (Wagner, et al., 2002). For example,

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<sup>4</sup> How repeated measurements can provide support to a study which tests the effects of programmes is discussed in chapter three.

students may have been measured at the pre- intervention test when they were having a bad day, making their pre-intervention scores seem worse, and consequently, the post-intervention scores show a marked improvement.

In addition, each used the revised version of KAOPS (Hilt and Lipschultz, 1999). The use of this tool to measure attitudes within attitude change research related to the nursing profession has been criticised, because it takes no account of the context in which nurses work with ill older people (McLafferty, 2007). Hence, the improvements reported in each of these studies should be viewed cautiously.

The importance of knowledgeable and enthusiastic faculty within attitude change programmes, and in nurse education, in general was acknowledged (Chen and Walsh, 2009; Rodgers and Gilmour, 2011; Baumbusch, et al., 2012). The importance of faculty 'role-modelling positive attitudes and behaviours towards older people' is also put forward by Rodgers and Gilmour (2011, p. 19). Baumbusch, et al., (2012, p. 7) report the need to 'build capacity' among nurse educators, in order that they are enabled to positively integrate and promote content related to older people. It is of interest that Baumbusch, et al., (2012) cite critical realism as their theoretical framework. After a review of their work, it is difficult to discern how critical realism guided their study design, and analysis of data, as they make no mention of it in their discussion.

Table 2.4 also outlined the guiding theoretical frameworks followed in these studies. This does imply a positive change in approach, when compared with attitude change research carried out before the turn of the century; it is no longer 'a-theoretical', as it had been in the past (Schigelone, 2003, p. 37). However, the improvements reported in each of these studies should be viewed tentatively. As already suggested, a lack of detail, and poor attempts to rule out the effect of other possible

explanatory mechanisms causing improvements in attitude make it difficult for researchers to adopt them, with confidence, in future work. In addition, all used an attitudinal measure which has been criticised for failing to take context into account.

## **2:8 Summary**

Part I of the review of the literature clarified that nursing students still report negative experiences caring for ill older people. It has also emphasised that nursing students appear to hold negative attitudes toward the care of ill older people, for a variety of reasons; existing structures, such as supernumerary status, and mechanisms, like the poor status of this field of nursing, seem to compound the negativity that students report (Kydd, 2012). Although unintentionally, key agents such as faculty and registered nurses also appear to contribute to the development and maintenance of negative attitudes.

In part II, the review identified a paucity of evidence in three key areas. First, there is a lack of methodologically sound research into the effect of educational programmes and interventions upon the attitudes of nursing students, which are so briefly reported on that it is difficult to build upon the successes of studies reporting positive outcomes. In addition, the review has also identified that the findings of research into the effects of pre-registration nurse education upon attitudes appears to be inconclusive; there was little evidence which outlined how the contexts in which nursing students learn affect their attitudes. Secondly, the review also identified that many of these studies used attitudinal measures which were ignorant of the context in which nurses work with ill older people. Acknowledgement of context is a central feature of critical realist research, and requires that an attitude measurement tool that takes context into account is used. Lastly, there was a lack of nursing research

which cited critical realism as its philosophical base; there are few examples of its use, from study design to study completion.

In summary, the review was suggestive of gaps in knowledge and in the evidence base about if and how education can influence the attitudes of nursing students toward this field of nursing. The review facilitated the development of the study's research hypothesis, and secondary questions (*cf.* section 1:6; pp. 34 - 37). Because critical realism promotes exploration beneath the surface of what has been observed, this study, which follows a critical realist approach, is intended to fill these gaps, in the following ways:

- Critical realism prompts the use of a methodologically sound approach to data collection, which attempts to account for alternative explanations for programme effects;
- Detailed information is given about the programme, to facilitate its use by others;
- Exploration below the surface of observed effects will be conducted, to find out about how context influences attitudes;
- A contextually-sensitive attitude measurement tool is used, and
- It will provide an example of a study which claims critical realism as its philosophical base, from design through to completion.

In reporting this study's findings, the intention is to contribute in an original way to the body of knowledge concerning the effects of education, and how it influences the attitudes of nursing students toward the care of ill older people.

Chapter three will discuss the design of the study in detail, expanding upon themes identified for further discussion within chapter one, outlining in detail how this study attempts to address the gaps identified within the review of the literature.

## **Chapter Three**

### **Research Methodology**

#### **3:0 Introduction**

The lead aim of this longitudinal study was to evaluate the overall effect of the mechanisms within an educational programme upon the attitudes of nursing students toward working with ill older people, working on the premise that better attitudes lead to a better quality of care for patients (de Guzman, et al., 2009). Study timelines can be seen at appendices four and five (pp. 242 – 243). The purpose of this chapter is to make clear the decisions and procedures which underpin the study design, in order to achieve this aim, and address specific objectives, as follows:

1. To explore the contextual conditions necessary for the programme's mechanisms to operate, and
2. To investigate how these contextual conditions may influence the success of the programme mechanisms in changing attitudes.

The chapter outlines the research approach, building upon the use of critical realism as the theoretical framework for the study. Hypothesis development is discussed, alongside a number of secondary questions, which contribute to meeting the study's objectives. Katz' (1960) functional approach to attitude change is explained in more depth, alongside the configurations of context, mechanism and outcome employed within the educational programme. Specific detail about the programme is given, as is the development of mechanisms for use within it.

The creation of the interrupted time-series is discussed, along with the utility of the collection of demographic data. The final sections of the chapter discuss access to the research environment and participants, detailed ethical considerations, with further discussion of the study populations and sampling. The approaches taken to analysing data are also examined. In addressing the study's objectives, and more

specifically, its hypothesis and secondary questions, the intention was to fill the gaps in knowledge and in the evidence base identified in the review of the literature.

### 3:1 Research Approach: Critical Realism as a Theoretical Framework

In chapter one, the stratified and differentiated nature of reality within critical realism was discussed, along with the centrality of structure and agency, context and mechanism within critical realist research. Educational programmes, as in this study, are necessarily deployed within higher strata, where many mechanisms may be operating, often in competition with one another, and in differing structures. An example of this could be a lack of confidence in the student (agency and mechanism), with a brusque mentor (agency and mechanism), on a new clinical placement (structure and context); all of these factors will impact the other (McEvoy and Richards, 2003).

Figure 3.1 depicts a critical realist conception of a stratified learning environment, developed by Brown (2009). He suggested that formal learning environments ‘must also posit a curricular level, because the meanings in the curriculum have a causal effect on the learning environment’ (Brown, 2009, p. 25). This applies appropriately to the CLE; they are formal and as Brown (2009, p. 25) suggests, ‘goal-driven’ in terms of the competencies that nursing students must achieve (NMC, 2010).

<b>Stratum I</b>	Curricular
<b>Stratum II</b>	Socio-cultural
<b>Stratum III</b>	Psychological
<b>Stratum IV</b>	Biological
<b>Stratum V</b>	Physical

Figure 3.1 A critical realist conception of the learning environment (*cf.* Brown, 2009).

He describes mechanisms that may be operating within the socio-cultural stratum as concerning the existing forces at work, within the learning environment. Established features of nursing students' education, such as supernumerary status, would exist within the socio-cultural stratum of a CLE. Brown categorised the remaining strata as follows:

learning is enabled and constrained by the lighting, heat, time of the day, time in the week and spatial layout of the classroom (mechanisms operating at the *physical* level), by whether the learners are hungry or sated, tired or alert, well or unwell (mechanisms operating at the *biological* level), and by the learner's motivation, aptitude and confidence (at the *psychological* level). (Brown, 2009, p. 24)

This quote is useful, in that it prompts consideration of possible explanatory mechanisms within these strata, as they relate to structure and agency, within nurse education. The environment in which this study was conducted, the CLE, exists as a place of learning within the curricular stratum. Within strata II to V, the environment is a place of work. Mechanisms related to both the structure and agency of the system of nurse education will undoubtedly influence phenomena within these strata. The tensions between the CLE being both a place of learning and a place of work were highlighted within the review of the literature (*cf.* Berntsen and Bjørk, 2010).

This study was conducted in this higher 'curricular' stratum, as nursing students access these environments to achieve both academic and practical goals. Figure 3.1 visually depicts the potentially complex contextual conditions within this study; many mechanisms may be operating and competing, alongside programme mechanisms, within each stratum of reality, demonstrating that learning environments are open systems (Danermark, et al., 2002; Brown, 2009).

It is the task of the critical realist researcher to attempt to account for these mechanisms, and their potential effects in a given context, in offering explanations

for the successes or failures of their programmes (Pawson and Tilley, 2004). So, consideration of the educational programme in terms of its mechanisms, and the context in which they were employed, containing its own mechanisms, were central to the approach taken here, and they relate directly to the research hypothesis and secondary questions. In line with this, exploration below the surface of what can be observed, to understand and explain programme effects, with reference to its mechanisms, were an essential feature of this study.

Figure 3.2 shows how the design of the [critical] realist experiment has been used to guide the design of this study, again showing context as a clear feature. There are apparent similarities between this and figure 1.3 (p. 35), which showed the generative view of causation (Pawson and Tilley, 1997; Danermark, et al., 2002); both show the centrality of context, mechanism and outcome. As Pawson and Tilley (1997, p. 60) noted, 'realist experiments are realist explanation incarnate'.

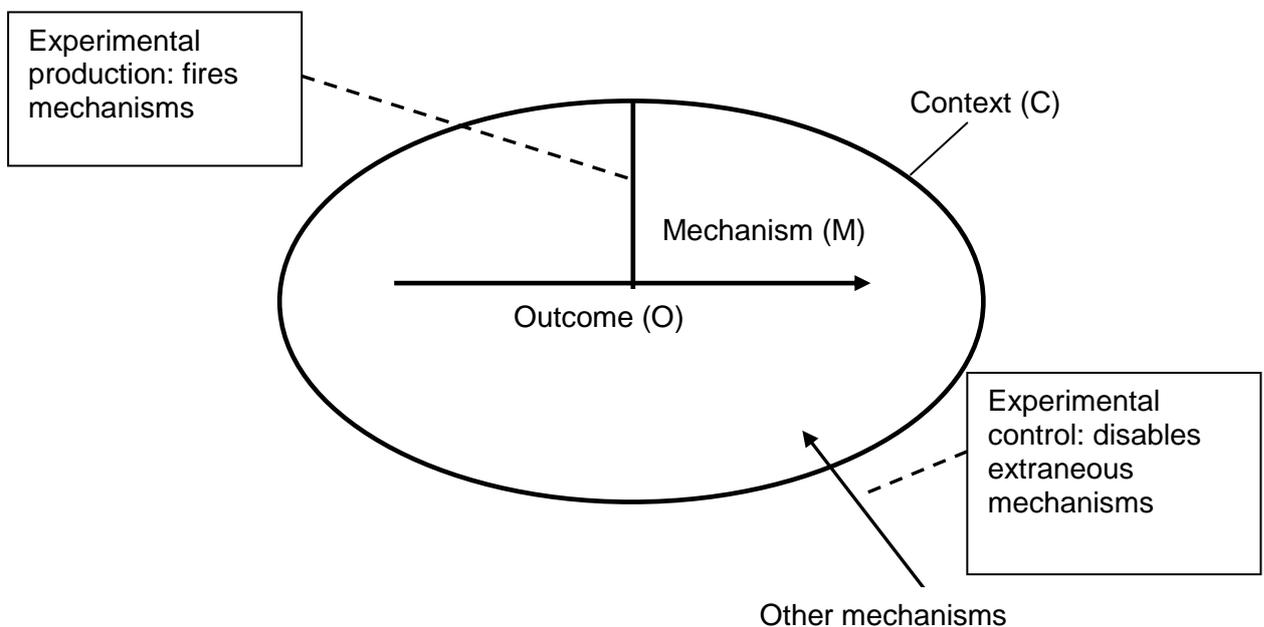


Figure 3.2 The realist experiment (adapted from Pawson and Tilley, 1997, p. 60).

The notion of context has long been recognised as an important feature in research. Mishler (1979) suggested that recognition of this context-dependency can aid the interpretation of data, in evaluative work. Hinds, et al., put this succinctly:

The purposeful use of context is a central feature of thorough research and clinical assessments, and it allows for meaning to be shared and phenomena understood. (Hinds, et al., 1992, p. 62)

Using critical realism as the philosophical base here was imperative, as it necessarily places 'context' in a prominent position, from study design through to analysis (Pawson and Tilley, 1997; 2004). When context is only referred to as the location in which a study takes place, and consequently not woven into the study's processes, it becomes detached from the interpretation and understanding of the data, and a threat to the accuracy of the analyses conducted (Hinds, et al., 1992).

Contextual approaches have been utilised before within evaluation research in the health sector (*cf.* Powell, et al., 2010). This model has been favoured within evaluative work because it acknowledges that 'outcomes are dependent on a highly context-specific and complex range of inter-related factors' (Powell, et al., 2010, p. 6). They suggest that recognition should be given to these contextual factors, when evaluating the outcomes of programmes aimed at effecting change, in order that a distinction can be made:

between generic factors of causality (i.e. outcomes that can be linked to reform mechanisms) and those that are more context-specific (i.e. outcomes where local contexts and processes have led to alternative outcomes). (Powell, et al., 2010, p. 6)

Ideally, the context for programme delivery would be chosen on the basis that it would give the best chance for the posited programme mechanisms to activate (Pawson and Tilley, 1997). The open nature of this 'structure', the CLE, is acknowledged, in that there will undoubtedly be mechanisms whose effects cannot be accounted for, although some of these are identified within this chapter. Katz

(1960, p. 187) discussed the 'conditions for arousal' of an attitude serving a particular function, which is similar to the critical realist conception of context, and its role in whether or not programme mechanisms are activated. However, it has been suggested that curricula are already overflowing in terms of content, meaning that content related to the care of older people generally is sometimes included as an 'add on', if and when time allows (Deschodt, et al., 2009; Bardach and Rowles, 2012).

Hence, the educational programme was delivered within the context of the CLE, as there was no 'space' within the curriculum for the inclusion of an extra element related to the care of ill older people. Using this context was seen as a positive, as Katz (1960, p. 176) suggested that 'attitude arousal is dependent upon the excitation of some need in the individual, or some relevant cue in the environment'. The context of the CLE was viewed to be an ideal medium for the arousal of attitudes serving any function, related to ill older people, particularly in view of the fact that most of the patients cared for in 'adult' settings are older (DH, 2001).

Were positivism or post-positivism used as the philosophical base within this study, it would tell the 'observer' 'what', if any, the effects of the educational programme were. However, holding this position would not make explicit the reasons 'why' it was successful or not, in relation to context and the generative mechanisms posited within the educational programme (Lawson, 1997). It would also force the assumption that if no effect were demonstrated, that the programme did not work. Critical realism prompts consideration of the contexts in which programmes and mechanisms were operating, which is central to the design of this study.

Two further points are worthy of mention, in justifying the use of critical realism as the theoretical framework in this study. As already discussed, critical realists believe

that the social world is systemically 'open', which could be seen as a problematic view, considering that experimental methods traditionally rely upon the 'closure' of the system being studied. Yeung (1997) in fact suggests that experimentation is impossible in critical realist research, because 'closure' of a social system is difficult.

With respect to 'closure' within social sciences research using a quasi-experimental design, its significance to the utility of this method could be questioned. Aronson (1992) conducted attitude change experiments, using 'cognitive dissonance theory' (Festinger, 1957). Central to Aronson's (1992, p. 304) approach was the idea of ensuring 'realism'; that 'real things were happening to real people', in order that any measured attitude changes were genuine. He called this 'experimental reality', where 'closure', to the same degree as in the natural sciences, is neither desired nor appropriate. This assumption is central to the research carried out here, and is fitting, in view of the fact that both groups of nursing students were experiencing the realities of the context of the CLE as part of their nurse education programmes.

Danermark, et al., (2002, p. 68) suggest that within higher strata, there are many examples of what they call 'pseudo-closed systems', citing an educational system as one such example. Danermark, et al., note that:

They are the result of a conscious striving to make society (and nature – nature's mechanisms are inevitably involved) more controllable in relation to people's different aims. (Danermark, et al., 2002, p. 68)

This suggests that people and their behaviours influence, and are influenced by existing mechanisms in their surroundings; the structure of the system provides the opportunity for regularity, or pseudo-closure, to occur.

In relation to the selection of the most appropriate methods to use within critical realist research, critics of critical realism suggest that there are few examples of its

use beyond the philosophical phases of research design. There is currently no guidance about how best to conduct a research study that has critical realism as its theoretical framework. As Yeung (1997, p. 51) notes, realism is 'a philosophy in search of a method'. In Bhaskarian critical realism in particular, the notion of 'method' has received even less attention (Sayer, 1992).

Hence, the respective merits of differing approaches to data collection are contested within critical realism (McEvoy and Richards, 2003). They go on to suggest that there is however:

a reasonable degree of consensus amongst scholars of critical realism, that it is the way methods are used which is important, rather than the methods themselves. (McEvoy and Richards, 2003, p. 414)

Lipscombe (2008) suggests that if the ontological basis of the study has been explained, experimental methods can be utilised within a critical realist approach, without accepting the restrictions of positivism; that the only things that can be known are those that can be observed.

### **3:2 Katz' (1960) Functional Approach to Attitude Change**

Within the functional approach to attitude change (Katz, 1960), Katz posited that in order to change a person's attitude, an awareness of the function of the attitude for the individual would be advantageous in attempts to persuade others to change their attitudes (Katz, 1960).

Katz (1960) identified four functions that attitudes fulfil for an individual, and they are 'grouped according to their motivational basis' (p. 170). These are:

1. The utilitarian function – 'People strive to maximise rewards in their external environment and to minimise the penalties' (p. 170);

2. The ego-defensive function – Relates to the defence mechanisms an individual uses to protect themselves from facing the ‘inner reality of the kind of person he is, or the outer reality of the dangers the world holds for him’ (p. 172);
3. The value-expressive function – Katz (1960, p. 173) suggests that ‘value-expressive attitudes not only give clarity to the self-image but also mold [*sic.*] that self-image closer to the heart’s desire’, and
4. The knowledge function – individuals ‘seek knowledge to give meaning to what would otherwise be an unorganized [*sic.*] chaotic universe’ (p. 175).

Crano and Prislin (2008) suggest that functional viewpoints to attitude change can be problematic, because two people may hold the same attitude, but for different reasons, complicating the process of developing programmes aimed at changing attitudes. Another criticism of this approach is that the concepts within the functions, and their meaning, are poorly defined (Oscamp and Schultz, 2005). This, they suggested, could make it difficult to apply them to certain groups, in this case, to healthcare professionals.

In an attempt to counter the first of these perceived shortcomings, the programme was designed with all of Katz’ (1960) attitude functions in mind, in order that the programme mechanisms might apply to all the nursing students in the PG, irrespective of the reason they had for holding a particular attitude, acknowledging that students’ negative attitudes toward ill older people could stem from any of the four functions. As Katz noted:

Because of the complexity of human functioning, it is probable that all the motivational determinants contribute to the development of every attitude. (Katz, 1960, p. 183)

To counter the second, Schigelone’s (2003) interpretation of how the functions might apply to healthcare professionals working with ill older people were used in identifying potential generative change mechanisms for use within the educational programme. The intent was to be able to make explicit what processes and

procedures were followed, in order to facilitate replication by others, should a programme effect be demonstrated, or programme refinement, if the programme mechanisms did not trigger in this context (Campbell, 1986; Cook and Shadish, 1994). Programme and mechanism development based on the combined ideas of Katz (1960) and Schigelone (2003) are discussed in section 3:5 (pp. 94 – 100).

### **3:3 Ruling Out Alternative Explanatory Mechanisms**

Critical realism requires that the researcher attempts, within their study design, to rule out the effect of other possible explanatory mechanisms which may have caused a demonstrated effect of a programme (Pawson and Tilley, 1997). A quasi-experiment, using an interrupted time-series design formed the basis of this study, to facilitate the measurement of attitudes, alongside a number of other mechanisms, over time, to assist in this process; a feature lacking in previous research into the effect of education on nursing students' attitudes.

In order to be able to infer that the programme was the cause of any measured change in attitude scores, the need to manage confounding mechanisms that might impact upon the attitudes of the students was an important consideration during the design phase of the quasi-experiment (Pawson and Tilley, 1997). Acknowledging the fallibility of the possibility of knowledge from a critical realist position, these design decisions were made with a view to being able to demonstrate as convincingly as possible, that observed changes in the students' attitudes were brought about primarily by the programme's mechanisms. Cook and Campbell (1979, p. 50) referred collectively to the potential hazards to a study's results, as threats to 'internal validity'. Accounting for these prevents the researcher 'drawing false positive conclusions about the research' (Cook and Campbell, 1979, p. 50).

However, Campbell (1986), who first wrote about the notion of internal validity in 1957, has since suggested that it was widely misunderstood, in that it has been taken to encompass elements of external validity; the extent to which findings can be extrapolated to other contexts and people. Campbell (1957) developed his ideas about internal validity as a means of countering what he saw as 'the low quality of causal inferences' resulting from social science experiments of the time (Cook and Shadish, 1994, p. 550). In order to give clarity and precision to its intended meaning, Campbell (1986) re-labelled internal validity as 'local molar causal validity' (LMCV).

'Local' narrows the application of internal validity to the specific sample and context being investigated in a particular study. In line with this idea, external validity is not the principal concern within this study, particularly in view of its base within critical realism; apparent mechanism effects on the students within the PG, within the context of the CLE were the focus, and not how applicable the results would be to other groups of nursing students in similar settings. It might be premature to suggest that a demonstrated effect in this specific context could immediately be applied elsewhere (Campbell, 1986). Within quasi-experimentation, there has been an epistemological shift that prompts social scientists to move away from applying the results of single experiments to similar settings, straight away. Rather, a review of the findings of several such endeavours, with diverse populations, contexts and programmes is advocated, with a view to distinguishing more of the mechanisms inferred within a critical realist ontology (Cook and Shadish, 1994); Pawson and Tilley (1997, p. 116) specifically call this 'cumulation'. It would be hoped that the results reported here 'would become part of a literature review' that contributed to the advancement of knowledge in the field, through an influence on the development and refinement of attitude change programme mechanisms (Cook and Shadish, 1994, p. 548).

'Molar' was intended to signify acknowledgement of the complexity of programmes and contexts being studied, meaning that any reported outcomes are context-dependant, and point-specific (Cook and Shadish, 1994). The 'causal validity' element was intended to focus thinking on whether or not the dependent variable, or mechanism (measured attitude score) under scrutiny would change, with or without a treatment or programme.

Although this is a much more precise definition of what Campbell (1957) meant by internal validity, it has not been widely accepted as an alternative within the social sciences (Cook and Shadish, 1994). It has been adopted here, as it justifies attempts to assure the quality of any reported outcomes; an element lacking in previous attitude change research, focussing on nursing students. In particular, it makes explicit within this study the notion that external validity is not necessarily the goal of critical realist research. Hence, from this point, Campbell's (1986) LMCV will be used, as opposed to internal validity, as the driver behind design decisions aimed at ruling out the emergent effects of alternate explanatory mechanisms, as causes for a programme effect, if applicable.

### **3:3:1 Demonstrating local molar causal validity**

LMCV is the extent to which the researcher can be sure that programme effects in this case, were caused by the programme mechanisms, all other potential explanatory mechanisms having been accounted for, as far as possible. As Cook and Shadish (1994, p. 561) suggest, it is better to rule out threats to LMCV 'by design'. There are epistemological difficulties in accounting for alternative interpretations for programme effects, particularly because the contexts in which critical realist social scientists study phenomena are so complexly ordered. In reality, there may be many further threats, or 'mechanisms', that either remain unidentified,

or are impossible to account for. Campbell (1957) suggested that the researcher need only be concerned with plausible threats, as they relate to the study population, context, and time.

Hence, careful consideration was given to LMCV in designing this quasi-experiment. As some of the previous research in this area demonstrates that these threats were often not considered, with reported effects that may just be due to chance, the strength of the design here took on a new significance. Cook and Campbell (1979) identified several major threats to internal validity, or LMCV, as applied here. However, the following six were identified as having a potential impact upon LMCV within this study:

1. *History*: When an observed effect could be explained by an unrelated event which takes place between the pre-test and the post-tests;
2. *Maturation*: An observed effect which could be explained by the respondents 'growing older, wiser, stronger and more experienced' (Cook and Campbell, 1979, p. 52) between the pre and post-tests;
3. *Testing*: Cook and Campbell (1979) asserted that respondents may become familiar with the testing instrument, in this case, McLafferty's Attitude Scoring Tool, enhancing their 'performance' in completing it, falsely making it appear as though their attitudes had improved either immediately following the programme, or over the course of the study;
4. *Selection*: Students in both the programme and CGs self-selected to be included in the study, which can bring with it a number of biases, which must be acknowledged, and
5. *Mortality*: Participants in a study withdraw from it, prior to completion. This can cause the composition of the groups to be altered, and no longer comparable.
6. *Compensatory Rivalry*: Participants in the CG try harder to achieve better scores than the PG, to compensate for not having access to the programme (Cook and Campbell, 1979).

After having decided upon the use of an interrupted time-series design, acknowledging its strength within social science experiments (Wagner, et al., 2002), the next significant design decision was to include the CG, from a different

University, whose participants did not know about the PG, or attend the educational programme. The inclusion of a group for the purposes of comparison helps to rule out 'history' and 'maturation' threats; observed movement in the time-series data between the pre and post-tests would probably be observed for both groups, were a change in attitudes down to an historic event, experienced by both groups. Inclusion of a CG also accounts for 'maturation'; again, considerable movement in the time-series data for either or both groups would be expected, were it due to the 'maturation' of participants (Cook and Campbell, 1979).

A number of issues need to be considered with regard to 'testing' threats to LMCV. It was a particular concern in this study, because the attitudes of both groups were measured over a long period of time, on repeated occasions. Repeated measures of attitude in the pre-programme phase were useful in building a picture of the students' attitudes over time, and in ruling out 'history' and 'maturation' threats to LMCV, as already discussed; again this was not accounted for in previous research. But this could have pre-sensitised students to the subject being measured, and made them familiar with the tool being used to measure it (Cook and Shadish, 1994). Although sampling issues are discussed in detail later on in this chapter, it is worthy of brief mention here, as the technique was also instrumental in controlling for 'testing' threats. Pragmatism dictated that the programme and CGs could not be randomly selected in the truest sense. The groups from which the samples were selected were 'naturally occurring' in that the students were arranged into groups upon commencing their chosen nurse education programme. Respondents in each sample self-selected for inclusion in the study. The attitudes of a sub-sample of these were measured at each data point ( $n = 10$ ), and were identified using a random number generator. So, although the study groups were not randomly selected, the sub-sample from these main groups at each data point was. This meant that individuals did not necessarily have to complete McLafferty's Attitude

Scoring Tool (MAST) at every data point, reducing their chances of becoming familiar with, and pre-sensitised to it.

With regard to 'mortality' and 'selection' threats, as already explained, the attitudes of a sub-sample from each group were measured at each data point. This technique had utility in that it ensured sufficient data were generated, without having to repeatedly test every potential participant at each data point (Jaeger, 1997). Hence, it was important in ensuring that no particular respondent was over-burdened by testing, whilst allowing a picture of the attitudes of both groups toward working with ill older people to be gained. Part of the success of this quasi-experiment lay in ensuring that whoever consented to participating in the study, stayed in the study. So, although sub-sampling reduced the potential sample size at each data point, it was considered to be a worthwhile design decision in ruling out 'mortality' as a threat to LMCV.

Bias related to the selection of the groups needs to be considered. As Parahoo (2006, p. 269) notes, students on a course are part of a 'captive population'. This is discussed more fully in section 3:8, on ethical considerations.

It is in these ways that this study attempted to overcome the perceived methodological weaknesses of previous research in this area, by design. Demographic information was also collected from each participant, at each data point, in order to inform subsequent analysis, by demonstrating the comparability of the PG and CG, throughout.

### **3:4 The Research Hypothesis and Secondary Questions**

As noted in chapter one, evaluation research is always based around three essential elements: context (C), mechanism (M) and outcome (O) (Pawson and Tilley, 1997). So, the following hypothesis was developed and tested within this study:

The mechanisms within an educational programme ( $M_1 - M_{16}$ ), delivered in the CLE (C) will improve the attitudes of nursing students toward caring for ill older people (O).

Because the programme was employed in the context of the CLE primarily for pragmatic reasons, it is necessary to outline how this context, programme mechanisms and outcome might come together, to make clear in what configuration they are being utilised in this study. This would also help other programme evaluators to use the report of this study to augment and enhance programme and theory refinement. As Pawson and Tilley (1997) note, it is not programmes that 'work', but rather, the mechanisms within these programmes. Table 3.1 shows the context, mechanism and outcome configurations employed within this study. Mechanisms that may be effective in changing attitudes were identified with reference to the four attitude functions identified by Katz' (1960), and the strategies that he suggested may be effective in changing attitudes serving each of these functions.

It is also necessary to re-state the secondary questions, as these will govern the type of detailed analyses undertaken, once initial findings are revealed. These questions were:

If an effect is demonstrated within the context of the clinical learning environment, what was it about the programme that worked, and who did it 'work' for?

What is the nature of the effect? Is it immediate and sustained, or delayed?

If no effect is demonstrated within the context of the clinical learning environment, what mechanisms within this context made it inhospitable to the operation of programme mechanisms?

Whether the stated hypothesis can be accepted or rejected based on the study's findings will govern which of these questions are applicable.

Table 3.1 The context-mechanism-outcome configurations employed within the programme.

<b>Context</b>	<b>Mechanism</b>	<b>Outcome</b>
The clinical learning environment	For attitudes serving the utilitarian function:	Change in attitude through:
	<p><b>M<sub>1</sub></b>: The 'expanded role' mechanism</p> <p><b>M<sub>2</sub></b>: The 'potential career trajectories' mechanism</p> <p><b>M<sub>3</sub></b>: The 'quality of care and attitudes link' mechanism</p> <p><b>M<sub>4</sub></b>: The 'attitude and patient experience link' mechanism</p> <p><b>M<sub>5</sub></b>: The 'positive role model' link</p>	<p><b>O<sub>1</sub> – O<sub>2</sub></b>: A change in individual level of aspiration</p> <p><b>O<sub>3</sub> – O<sub>4</sub></b>: Knowledge of the relevance and impact of attitudes</p> <p><b>O<sub>5</sub></b>: A desire to emulate the deliverer of the message (Katz, 1960)</p>
The clinical learning environment	For attitudes serving the ego-defensive function:	Change in attitude through:
	<p><b>M<sub>6</sub></b>: The 'focus on functional reserve' mechanism</p> <p><b>M<sub>7</sub></b>: The 'potential of rehabilitation' mechanism</p> <p><b>M<sub>8</sub></b>: The 'well older person' mechanism</p> <p><b>M<sub>9</sub></b>: The 'ill because they are ill, not because they are old' mechanism (HAS<sup>2000</sup>, 1998)</p>	<p><b>O<sub>6</sub> – O<sub>9</sub></b>: Removal of the 'threat' of caring for older people</p>
The clinical learning environment	For attitudes serving the value-expressive function:	Change in attitude through:
	<p><b>M<sub>10</sub></b>: The 'role similarity and settings' mechanism</p> <p><b>M<sub>11</sub></b>: The 'ageing population' mechanism</p> <p><b>M<sub>12</sub></b>: The 'care is the same, irrespective of the setting' mechanism</p> <p><b>M<sub>13</sub></b>: The 'care of ill older people is central to the role of the adult nurse' mechanism</p>	<p><b>O<sub>10</sub> – O<sub>13</sub></b>: Creation of dissatisfaction with the individual's self-concept</p> <p>Recognition of 'old attitudes as inappropriate to one's values' (Katz, 1960, p. 189)</p>

Table 3.1 The context-mechanism-outcome configurations employed within the programme (continued).

Context	Mechanism	Outcome
The clinical learning environment	For attitudes serving the knowledge function:	Change in attitude through:
	<p><b>M<sub>14</sub></b>: The ‘real versus imagined image of older people’ mechanism</p> <p><b>M<sub>15</sub></b>: The ‘capability of older people’ mechanism</p> <p><b>M<sub>16</sub></b>: The ‘person-centred approach’ mechanism</p>	<p><b>O<sub>14</sub> – O<sub>16</sub></b>: Recognition of the inadequacy of current attitudes for the purposes of dealing with new and changing situations</p> <p>The ‘old attitude’ conflicts with new information (Katz, 1960)</p>

### 3:5 Programme and Mechanism Development

As Cook and Shadish (1994) note, sufficient detail must be given about the programme, in order that it can usefully contribute to a body of knowledge. For this reason, it is necessary to discuss the specific definitions of each of Katz’ (1960) attitude functions, as they apply to the work of healthcare professionals, using Schigelone’s (2003) interpretations. These were used to identify and develop the programme mechanisms, and to make clear how Katz’ (1960) attitude functions were interpreted, to counter criticisms that these are ill-defined (Crano and Prislín, 2008).

#### 3:5:1 Programme activity

It is important to outline the content of the programme, referred to as programme activity (Astbury and Leeuw, 2010). This is often omitted within evaluation research, preventing others from refining programme theory, or employing the programme mechanisms in different contexts (Cook and Shadish, 1994). This lack of detail about programme activity was certainly noted in some of the studies which tested

the effects of educational interventions (*cf.* Rodgers and Gilmour, 2011; Baumbusch, et al., 2012), making it difficult to build upon the positive outcomes they reported.

The programme was delivered in two parts, over two separate days, one week apart (appendix 6; p. 243). It consisted of two separate two-hour sessions. The students in the PG were on the second clinical placement of their 'adult' field of practice programme, in a variety of specialisms within adult nursing.

Day one programme activity: This was planned in order activate mechanisms one to nine, which aimed to change attitudes serving both the utilitarian and ego-defensive functions (Katz, 1960; *cf.* table 3.1; pp. 93 - 94). In the first hour, the NSF for Older People (DH, 2001) and the report by HAS<sup>2000</sup> (1998) were used as the basis for guided discussion on the impact of attitudes on both the quality of care, and the patient experience. Discussion of the NSF (DH, 2001) was used to highlight the new roles that had emerged within the field, following its publication; leading 'rapid response' assessment teams, for example. The skills needed to function in such roles were also covered, in discussing the complexity of managing co-morbid and multi-morbid conditions (McGeorge, 2012).

In the second hour, the functional reserve of older people was discussed, along with the fact that most older people lead full and independent lives (Redfern and Ross, 2004). This gave the students the opportunity to 'debunk' for themselves, the notion that all older people are frail and incapacitated; most older people only need input from nurses when they are ill, it is 'not because they are old' (HAS<sup>2000</sup>, 1998, p. 3). My passion for the field of older person care was hopefully evident to all attendees.

Day two programme activity: This day was planned in order to activate mechanisms ten to 16, which targeted attitudes serving both the value-expressive and knowledge functions (Katz, 1960; *cf.* table 3.1; pp. 93 - 94). Data from the 2001 UK census (ONS, 2001) was used to show steady population growth in the over 65s. Nursing activity in a variety of specialisms was also discussed, along with similarities and differences, in order to highlight that what nurses do in any of these settings, is essentially the same. In the final hour, person-centred care was discussed, in terms of the opportunities to put this into place within the students' clinical placements (McCormack, 2004; McCormack and McCance, 2006). The identification of attitude change mechanisms will now be discussed, with reference to Katz' (1960) functional theory.

### **3:5:1:1 Identifying mechanisms to change attitudes serving the utilitarian function**

Katz (1960) identified four functions that attitudes fulfil for an individual, and they are 'grouped according to their motivational basis' (p. 170). The first is the utilitarian function, where 'People strive to maximise rewards in their external environment and to minimise the penalties' (p. 170). In relation to the work of healthcare professionals, Schigelone (2003, p. 37) interprets this as going 'beyond treatment' of older people to whether or not the healthcare professional views caring for older people to be of benefit or of detriment to their own interests. For example, there is little professional esteem associated with caring for ill older people (Kydd, 2012). Hence, this may lead some nurses to avoid the specialism. Others may perceive nursing older people as 'burdensome', in that caring for them takes time, and has been described as being 'heavy' in terms of both the physical and emotional demands it can bring (Nolan, et al., 2004). She goes on to say that because the natural progression of the ageing process cannot be halted or 'cured', caring for ill

older people is often seen as offering little chance of success of any nursing interventions, so invoking attitudes serving the utilitarian function.

Katz (1960, p. 177) suggests that attempts to change attitudes serving this function are more likely to succeed if the deliverer of the persuasive message is able to change the individual's 'level of aspiration', and show the relevance of more positive beliefs. There is potential to manipulate these conditions via the programme mechanisms, through seeing a positive role model, talking about the care of older people in a positive way (Shavitt and Nelson, 2002). Attitude change might occur more readily when individuals perceive that they will achieve their objectives more swiftly, through a revision of their existing attitudes (Katz, 1960). In other words, nursing students may be able to gain more from their clinical placements, particularly the ones that focus upon and provide care for ill older people, if they modify their attitude toward caring for them (*cf.* table 3.1; pp. 93 - 94).

### **3:5:1:2 Identifying mechanisms to change attitudes serving the ego-defensive function**

The ego-defensive function relates to the defence mechanisms an individual uses to protect themselves from facing the 'inner reality of the kind of person he is, or the outer reality of the dangers the world holds for him' (Katz, 1960, p. 172). Schigelone (2003) posits that healthcare professionals' attitudes toward older people may be due to their own feelings about ageing and death, as they apply to them. When this mental image of an older self is viewed with fear and negativity, it may mean that these individuals will also view older people in a negative way. It is not possible for nursing students studying the adult field of practice, in particular, to distance themselves from this in the people they may nurse, hence it may affect their treatment of older people, and their approach, leading to avoidance. That can

translate to nursing students not applying for jobs where older person care is the focus, or avoidance of older people who are already in their care (Shen and Xiao, 2011).

In order to attempt to change attitudes serving an ego-defensive function, Katz (1960, p. 182) suggests that attempts should be made to 'remove the threat' to the individual (*cf.* table 3.1; pp. 93 - 94). Catharsis, and opportunities for discussion or 'venting' of their feelings are also identified as being important, in attempts to change attitudes serving the ego-defensive function (Katz, 1960, p. 183). There was opportunity throughout the nurse education programme followed by the PG to do this, when attending their 'Theory-Practice Integration Group', which meets following each clinical placement. Because of this, further mechanisms specifically aimed at facilitating this catharsis were not identified for inclusion within the programme.

### **3:5:1:3 Identifying mechanisms to change attitudes serving the value-expressive function**

Katz (1960) suggested that attitudes serving the value-expressive function are very hard to change. Here, the individual holds attitudes in line with the person they perceive themselves to be; 'a good, kind nurse', 'a knowledgeable nurse' or 'someone who helps people' for example. So, as Katz (1960, p. 183) suggests, value-expressive attitudes 'give clarity to the self image' whilst shaping that image closer to their perception of themselves. Schigelone (2003) asserts that if the healthcare professional views him or herself as a healer, caring for older people may be avoided in order to maintain their self-image. It is because these attitudes are so central to a person's idea of themselves, that they have spent a lifetime creating, that they are so difficult to change.

However, Katz (1960) does give some suggestions about how this could be achieved. To change attitudes serving the value-expressive function, he suggests that two points are pertinent: that some degree of dissatisfaction with one's self concept must be created, and that dissatisfaction with 'old attitudes as inappropriate to one's values' (Katz, 1960, p. 189) is produced (*cf.* table 3.1; pp. 93 - 94).

### **3:5:1:4 Identifying mechanisms to change attitudes serving the knowledge function**

Attitudes serving the knowledge function help the individual to give order and meaning to their world, providing organisation of perceptions and beliefs, giving clarity and consistency (Katz, 1960). This allows individuals to 'categorise objects and predict how interactions with these objects might turn out' (Schigelone, 2003, p. 38). Katz (1960, p. 175) noted that attitudes already held may be about objects with which the individual may never have had any actual contact, being derived from the previous experience of others, and the media, for example. As Palmore (1998) notes, many commonly held negative beliefs about older people are not based upon reality. Schigelone goes on to suggest:

Attitudes that fulfil the knowledge function, then, not only provide those individuals who have had very little or no contact with the elderly with some way of evaluating them, but they also inform people who have only had a certain type of experience. (Schigelone, 2003, p. 40)

Katz (1960, p. 191) said that 'rumours abound when information is unavailable'. My experience as a lecturer in nursing supports his view; particular placement experiences are labelled in certain ways, depending upon the needs and age of the patients that are cared for there.

There may be much scope for the development of mechanisms, aimed at changing attitudes serving the knowledge function. Katz (1960, p. 190) suggests that efforts

should focus upon making the existing attitude 'inadequate for the purposes of dealing with new and changing situations', as it is recognised that the 'old attitude' conflicts with new information and experiences (*cf.* table 3.1; pp. 93 - 94).

### **3:6 McLafferty's Attitude Scoring Tool (MAST)**

The review of the literature highlighted that much of the prior research into the effect of educational interventions upon students' attitudes used measurement tools designed to measure societal attitudes, and as a result, took little account of the special context in which nurses work with ill older people (McLafferty, 2001). McLafferty's (2001) doctoral study explored the influence of professional socialisation on the attitudes and beliefs of nursing students. She suggested that in much of the prior research, outdated attitudinal measures were used, and so identified a need for an attitude measurement tool which acknowledged the significance of context, in relation to nurses' work with ill older people. Hence, the initial phase of her doctoral work was focussed upon the development and design of a new attitudinal measure, which took context into account (McLafferty, 2001). This new tool was intended to give the investigator a general picture of attitudes toward working with ill older people, to provide a baseline from which inferences about the effect of clinical placements upon the attitudes of students could be made. McLafferty (2001) gives extensive detail about the development of her attitudinal measure, which is a strength of her work. She conducted focus groups with nurses and nursing students, which were the basis for the development of items for inclusion in the questionnaire. Principal components analysis was used to reduce the item pool from 80 to a more manageable number.

The focus group work, and subsequent principal components analysis identified eight contextual themes, which formed the basis of MAST (table 3.2). Individual questionnaire items address these themes, each of which could act as a possible generative mechanism within this study, either in tandem, or in competition with programme mechanisms.

Table 3.2 Contextual themes identified from McLafferty's (2001) focus groups.

<b>Factor</b>	<b>Contextual theme</b>
1	Student learning opportunities
2	Interpersonal/communication skills
3	Skill and knowledge required for care of the elderly
4	Labelling older adults
5	Lecturers' influences
6	Looking after older adults
7	Interpersonal relationships
8	Categorising nurses

At the point in which it was used in this study, MAST was a 30 item questionnaire<sup>5</sup>, based around a five-point Likert Scale (appendix 7; pp. 244 - 247). McLafferty gave her permission for the use of this version within this study (appendix 8; p. 248). MAST is scored in the following manner by McLafferty (2001):

- The maximum possible attitude score, using MAST, is 150. For example, when a particular item on MAST indicates maximum positivity in relation to that item, and so older people, then a 'five' is awarded. If a student responded positively to every question then, their individual score would be 150; made up of 30 items on MAST, each scoring a 'five'.

<sup>5</sup> Following further refinement by McLafferty (2007), MAST is now a 20-item questionnaire.

- The minimum possible score is 30. When a particular item on MAST indicates maximum negativity in relation to that item, and so older people, then a score of 'one' is awarded. If a student responded negatively to every question, their score in these circumstances would be 30; made up of 30 items on MAST, each being scored a 'one'.

McLafferty (2001) purposefully included a middle category in each Likert item on MAST, in recognition of the idea that it can give information about the intensity of the attitude, in relation to that particular questionnaire item (Schuman and Presser, 1996). In a five-point Likert scale, scoring an item a 'three' suggests that the respondent does not feel strongly enough in either direction to declare a definite position in relation to it. In this situation, the middle category would be large, indicating a potential to influence attitudes in relation to that particular item. If the majority of respondents at a particular data point opt for either of the extreme scores in relation to an item (one or five), the number choosing the middle category would be smaller, indicating that the respondents feel more strongly about that particular item; intensely enough to take a stance (Schuman and Presser, 1996). Attitudes in relation to these items may be more difficult to change, and may not be desired, if the score in conjunction with its Likert scaling indicates positivity. It is interesting to note that although the middle category was purposefully included in the questionnaire by McLafferty (2001), further reference to it is not made in her analyses. The students' scores along with the size of the middle category are used within this study, to assist in the identification of mechanisms within the CLE, which might have an influence on students' attitudes, and the action of programme mechanisms.

Because McLafferty (2001) developed MAST as a tool to provide baseline data in her study, she makes no reference to the characterisation of attitudes; how high a

score would be considered high enough, in relation to attitudes toward ill older people. In line with McLafferty's (2001) use of the tool, MAST was used to provide information about the general trend of attitude scores over the course of this longitudinal study, in order to see whether scores got worse, better, or stayed about the same, following the programme. As MAST was developed with contextual factors in mind, and because it can give further detail about the intensity of attitudes of nursing students toward learning the theory and practice of caring for ill older people, it was viewed as an appropriate attitudinal measure within this work.

### **3:6:1 Collection of demographic data using MAST**

Demographic data were gathered for both groups of students. These data were collected for the full PG and CG at the start of the study, and for the sub-samples at each data point. The primary reason for collecting this data was strategic, in that it was intended to show that the groups were sufficiently similar at the start of and throughout the study, for comparisons between them to be made (Cook and Shadish, 1994). Perhaps more importantly, collection of this data further augments and strengthens the study design, because it is more difficult to attribute demonstrated effects to prior differences in the study groups. So, although not explicitly related to the study's aim and objectives, data concerning gender and age were collected.

Data were also collected about the morale of the students, over the course of the study; students were asked to rate their morale as being 'low', 'medium' or 'high'. If a programme effect were demonstrated, alongside improving morale scores, it could be suggested that the improvement in attitude scores was down to a general improvement in morale acting as a mechanism, and not the programme mechanisms.

Information about respondents' preferred speciality upon qualification, and the factors that influenced their choices was gathered. Collection of data about these was intended to give an idea about the scope for future attempts to change attitudes at particular points in their respective field of practice programmes, in relation to the nursing care of older people, and where such efforts ought to be directed. However, this was not possible across the groups, because of the different ways that each interpreted particular specialisms. Piloting the measurement tool with all study groups would be required in future work, in order to give clarity to these categories.

A question about whether or not any additional study days related to the care of older people had been attended was included in the questionnaire, again as a control for 'history' as a mechanism threatening LMCV. Changes in attitude scores following the educational programme may merely have been due to the fact that the students in either group attended a study day about the care of older people, unrelated to the programme, and not the programme itself. In this case, perhaps one of the main advantages of the interrupted time-series design is that it allows the assessment of a trend before, as well as after, an intervention or programme. Peaks in the time-series could be expected at certain data points, if such a study day had been attended by all respondents.

These demographic data were collected each time MAST was administered, and are presented in the next chapter for data points seven, eight and 15, again to be able to make a judgement about the comparability of the groups before, straight after and at the end of the study. Statistical analyses have not been conducted upon these demographic data, as they are not specifically related to the research hypothesis and secondary questions, and were collected as a means of ruling out threats posed by other explanatory mechanisms to LMCV.

### **3:6:2 Pilot study and pre-testing**

The original timelines proposed for the study included opportunity for piloting and pre-testing of MAST (appendices 4 and 5; pp. 241 - 242). Oppenheim (2000, p. 47) suggests that both of these are necessary, in order to ensure that the processes developed 'work as intended'. MAST had been re-designed slightly, with reference to what demographic data were collected. Additional categories related to other potential mechanisms whose effects may impact upon students' attitudes at each data point were added. Hence the inclusion of the demographic data categories of 'morale', 'preferred speciality' and 'preferred career choice upon qualification'.

A total of 25 students, not in the PG, but from the same nurse education programme, completed MAST, on one occasion, in class. This process revealed that the item asking about the specialism of their current placement was problematic for respondents; these were open to interpretation, meaning that students often categorised the same placement specialism in different ways, for example, 'male medical' was used, as well as 'cancer' for the same area. Based on the pilot work, the specialisms were rationalised and clarified. However, once the study had begun, it became apparent that the students in the CG also had their own interpretations of what particular placement specialisms were. Not piloting the tool with the CG was an oversight, because of the differences in interpretation, and not knowing for sure what students in the CG meant when identifying particular specialisms. This meant that no meaningful analyses concerning these could be done.

A formal process of pre-testing was used to determine the frequency that MAST would be distributed, allowing time for both completion of the questionnaire, and for follow-up of non-respondents (Bourque and Fielder, 2003). Because students in both study groups would be alternately out on placement during the study, in diverse locations, mail administration of MAST was the sensible option. A list was created of

all students in both study groups, in order that address labels could be quickly generated at each data point, to facilitate speedy administration. A pre-paid envelope was included for return of the questionnaire. A unique identifying code was added to MAST on every page, so that recipients at each data point could be tracked, and followed up if needed. Having the code on every page would prove useful, if the part of MAST containing responses became separated from the front introductory letter (appendix 9; p. 249) and sheet. Introductory letters are known to have a beneficial effect upon response rates in mail-administered questionnaires, justifying the use of one in this study (Bourque and Fielder, 2003). Pre-testing demonstrated that a five-week interval between data points was sufficient to send out and receive a questionnaire, giving respondents time to complete and send it back. This turn-around time also allowed for a reminder letter to be sent to non-respondents, if required, three weeks after initial administration at a particular data point (appendix 10; p. 250).

### **3:7 Creation of the Interrupted Time-Series**

An interrupted time-series is a number of repeated measures, of attitudes in this case, which are 'interrupted' by an intervention; an educational programme in this study. It was created by administering MAST 15 times, giving 15 data points in total. Seven were prior to the programme, and a further eight after, a key feature of interrupted time-series designs (England, 2005). A cumulative score for all respondents at each data point was calculated using the scoring rules for MAST outlined in section 3:6 (pp. 101 – 102). This cumulative score was then divided by the number of responses received at each particular data point, and the time-series was charted, with 'time' across the x axis, and 'mean of cumulative attitude score' upon the y axis. The rationale for using the mean [of the cumulative] as opposed to

the cumulative attitude score alone is discussed within chapter four, alongside the charted time-series', which shows when the educational programme ('interruption') occurred (*cf.* figures 4.2 and 4.3; pp. 135 and 136).

The time-series is made up of frequent measures of attitude over time. There were two main reasons for measuring and recording attitude scores so frequently. The first was to contribute to the management of identified threats to LMCV, and the second was due to the nature and changeability of attitudes (Oppenheim, 2000).

Numerous measures of attitude facilitate the discernment of other trends in the time-series, which may require further investigation (Cook and Shadish, 1994). Whilst there appears to be no consensus about the number of data points required within an interrupted time-series, it has been noted that a longer pre-intervention phase can be beneficial in increasing the strength of the research design to detect upward or downward trends that were occurring anyway, without the programme (Ramsay, et al., 2003). Hence, the interrupted time-series can directly contribute toward the establishment of LMCV, particularly by accounting for 'history' and 'maturation' threats, as discussed in section 3:3:1 (pp. 88 – 91).

In relation to this, *when* effects might occur must also be considered. For example, programme effects might not be instantaneous; they may be 'delayed in their initial manifestation' (Cook and Campbell, 1979, p. 209). A shorter time-series, with fewer data points (and so fewer questionnaires) pre and post-programme, might lead to incorrect conclusions, such as attributing an improvement in attitude to the programme mechanisms, when a marked improvement was naturally occurring anyway, or the programme having no effect, if it was not immediate (England, 2005). In other words, by collecting multiple measures, the researcher can 'observe how the different groups might be changing spontaneously over time', and hence, be

more certain about what exactly might have caused any fluctuations or changes in the time-series, allowing useful comparisons between both groups' attitude scores to be made (Cook and Shadish, 1994, p. 570).

As stated, the second reason for distributing MAST 15 times was related to the nature and changeability of 'attitudes' themselves. As Oppenheim said:

Some attitudes are more enduring than others. For instance, a man's political beliefs may be fairly stable throughout his lifetime, whereas his attitudes to tennis or gambling may undergo multiple changes. (Oppenheim, 2000, p. 176)

The stability of nursing students' attitudes in this field are not known for certain, hence, it seems reasonable to assume that the students' attitudes toward caring for ill older people may be subject to such changeability, particularly after exposure to clinical placement experiences (Engström and Fagerberg, 2011). The potential changeability of attitudes discussed by Oppenheim (2000) could be mapped by frequent distribution of MAST, over time. Less frequent distribution may not have captured such changes, again leading to spurious conclusions being drawn.

### **3:8 Ethical Considerations**

There were four main ethical issues considered when designing this study, as follows: the PG in particular could be seen as being a 'captive audience', recruiting a group for the purposes of comparison, informing both the PG and CG about each other, and the use of incentives. Each of these will be discussed in turn.

There was a danger that the nursing students from the PG in particular, might feel compelled to take part, because of my role as a lecturer. This convenience sample could be viewed as a 'captive audience' in that sense, although it would have been

of little value to focus on any other group (Parahoo, 2006). The CG were not necessarily 'captive' in the same way as the PG might have been; they did not know me, although my job role was made known. The information sheets (*cf.* appendices 14 and 15; pp. 256 - 263) were designed to reassure students about the voluntary nature of their participation. They further outlined how neither volunteering to be included or excluded would interfere with their progression on their respective programmes. The information sheets also reminded both groups of their right to withdraw from the study at any time, without having to give a reason. The time-series for the PG in particular might be expected to show higher attitude scores than the CG, if they participated out of desire to 'please'. High attitude scores for both groups might be expected, if both felt compelled to take part, rather than volunteer. Finally, the information sheets briefed potential respondents about what would happen in terms of storing, analysing and then reporting the data collected.

The recruitment of subjects for the purposes of comparison may also raise ethical concerns. In this case, denying them the programme could be considered unethical, because the perceived benefits of the programme, if realised, are not immediately available to them; they may feel that their 'rights to equal access' have been restricted (Trochim, 2006). Goodwin offers advice in relation to treatment or programme evaluations:

The comparison is seldom between the new treatment or no treatment; it is usually between the new treatment and the most favored [*sic.*] *current* treatment. So, for control group members, available services are not really being withheld; they are receiving the normal, well established services. (Goodwin, 2009, p. 270)

Because those in the CG would be in exactly the same position as they would if they had not taken part, a nursing student on a validated pre-registration programme, their inclusion was not judged as being unethical.

With regard to informing both the PG and CG about one another, the Research Ethics Committee at the University where the CG were studying were specifically asked for advice in relation to this point. Because of the threat of compensatory rivalry in particular to LMCV, this was an important feature of the study design (Trochim, 2006). They offered that the two groups did not need to be made aware of each other. As both groups were given the option to be sent a summary of the findings from this study, they did suggest giving consideration to questions from CG participants in the future, if and when they become aware that their scores were compared with those of another group who had had access to an educational programme that they had not.

With respect to the use of incentives, there is little consensus about their appropriateness within research studies. The main concern appears to be that this may encourage those who may be vulnerable to agree to participate, when it might not be in their best interests (Wright, et al., 2004). As suggested, this study was viewed to be low-risk for potential participants, and it was necessary to try to keep those who had consented 'on board'. With that in mind, three incentives (book tokens) were offered to both the PG and CG, in the form of prize draws at the start, middle and end of the study. Two participants were lost from the CG due to attrition, and one because their first mailing of the questionnaire at data point three was returned unopened. Eight were lost from the PG; one due to academic failure and seven due to an inability to attend the programme on both days. Other than that, the two groups remained intact. The use of incentives, then, may have justified the reason for their use.

Brief mention must be given to the type of incentive offered in this study. The offer of book tokens may not appeal to all, and hence, skew the samples. Only those who consider themselves to be academic and conscientious may have consented to take

part. This must be considered in the analyses, however, the percentages of those consenting to be included, 73% and 85% for the PG and CG respectively, suggest that it is unlikely that the groups are made up of only those who are the most academic.

By following a process of informed consent, and through reassurances about the voluntary nature of participation, the ethical concerns related to the points above were hopefully minimised; this study was viewed to be low in risk to potential participants. All nursing students in the samples were also informed that the repeated measures of attitude would allow a picture to be obtained of the attitudes of the PG, as a whole; individual confidentiality could then be maintained.

### **3:8:1 Access to the research environments and participants**

The programme was delivered in the CLE, for pragmatic reasons. There was no time or free space within the curriculum being studied by the PG to include something new whilst the students were in University. The practical solution to this was to deliver it whilst the students were on placement. This was advantageous in that nursing students are known to value the teaching that occurs in clinical practice, as it is easier to contextualise what they are learning (Skaalvik, et al, 2012). Access to clinical teachers is also deemed to be of value to students; which gave further direction to my role as a 'link lecturer'<sup>6</sup> within placements where older people are cared for (Newton, et al., 2012). Katz (1960, p. 187) also discusses the 'conditions for arousal' of an attitude serving a particular function, which is similar to the critical realist conception of context, and its role in whether or not programme mechanisms are activated. From this point of view, the CLE may provide ideal conditions for the

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<sup>6</sup> The link lecturer role was established within higher education, to provide support for both staff and students during clinical placement provision and experience.

arousal of attitudes serving each of Katz' (1960) functions, because over two-thirds of hospital beds are occupied by ill older people (DH, 2001).

Having decided that the CLE was possibly the only, and yet perhaps the ideal context for delivery of the educational programme, the next consideration was of access to this environment. The placement environment for the PG was a local NHS Trust, hence permission to deliver the educational programme in that environment was secured from the LREC (appendix 11; pp. 251 - 253), and the Research and Development Unit of the local Trust (appendix 12; p. 254). This approval also covered access to the students that would comprise the PG. Gaining ethics approval at this level is a requirement, if an NHS site will be accessed as part of research. It is a lengthy, but worthwhile process, in that it prompts the applicant to consider the appropriateness of their research approach. The Research Governance Committee at the University where the PG were studying advised that LREC approval would be sufficient, in terms of being able to access potential respondents, in order to avoid what it called 'having to please too many masters'.

Approval to approach and recruit a group for the purposes of comparison was granted from the Research Ethics Committee of a similar University, which provided a pre-registration nurse education programme (appendix 13; p. 255). Initial meetings with both groups of students were arranged, to fit around their programmes. The study was explained in detail, alongside what it would mean for individuals, if they agreed to participate. Time was allotted at the end of these meetings, for potential participants to ask questions.

Two information sheets were developed, for potential participants to keep and refer to; one for the potential PG participants (appendix 14; pp. 256 - 259), and one for potential CG participants (appendix 15; 260 - 263). The content of each is different

in that the information sheet designed for the CG does not mention the PG, or the educational programme that the PG would attend. This was in order to avoid any bias upon the attitude scores of individuals in the CG, caused by intergroup, compensatory rivalry or demoralisation (Cook and Campbell, 1979; Trochim, 2006).

After the 'question and answer' session, the students in each respective group were asked whether or not they were willing to participate in the study. Those who agreed to participate were asked to sign a consent form (appendix 16; p. 264). The consent form also asked the respondent to indicate whether they would like to be informed of the results of the research upon its completion.

### **3:8:2 Study populations and samples**

Important considerations in relation to the sampling technique have already been briefly discussed within this chapter, concerning its role in demonstrating LMCV. The process of identifying the samples will now be explained in detail.

As Parahoo (2006) notes, when designing research, a central task is to make a decision about who will be invited to participate, and in what numbers. The 'theoretical population', which is made up of 'all the units of a population', is the one from which a sample can be drawn for the purposes of research (Parahoo, 2006, p. 257). To some extent, this was governed by the size of the individual cohorts of students approached at each University. The theoretical populations had the following numbers in each:

PG – Potential pool of 57 students;  
CG – Potential pool of 41 students.

Hence, the actual size of the study populations for the PG and CG were slightly reduced, through the process of gaining informed consent, as follows:

PG – 42 consented;  
CG – 36 consented to be included.

So, both the PG and CG were of a similar size, at the start of the study.

Probability sampling is a technique whereby the 'chance of selection for each unit is known in advance' (Parahoo, 2006, p. 259). This approach was used to select ten students at each data point, to receive MAST, through a process of simple random sampling.

This selection process was explained within the information sheets for each group (*cf.* appendices 14 and 15; pp. 256 - 263). These sheets outlined what participation for an individual respondent might mean, in the best and worst case scenario; at worst, they may be approached to complete a questionnaire at all data points, though unlikely, or at best, they may not be approached at all. For the PG, at each data point the chances of selection were one in 42; for the CG, one in 36. Eleven students were lost from the study in total, for the reasons outlined on page 110 (figure 3.3; p. 115). They were removed from the potential pool of respondents, in either the pre or post-programme measurement period; whichever was applicable.

So, these probabilities did increase very slightly post-programme, to one in 34 for the PG, and one in 33 post-programme for the CG. As already explained, the sub-sampling technique was used at each data point, as another means of trying to keep potential respondents in their respective groups; losing respondents from either group may have constituted a 'mortality' threat to LMCV, in that the groups were no longer sufficiently similar to be comparable.

Simple random sampling has a particular bias that must be noted. When the sample is small, as in this study, 'representativeness' may be compromised (Cormack, 2000). At each data point, therefore, the demographic characteristics of those selected were collected, in order to be able to make a judgement about how

representative of the study population the sub-sample was. For example, each study population had a small number of males. This is so for both the PG and CG, and hence is not presumed to have distorted attitude scores at particular data points.

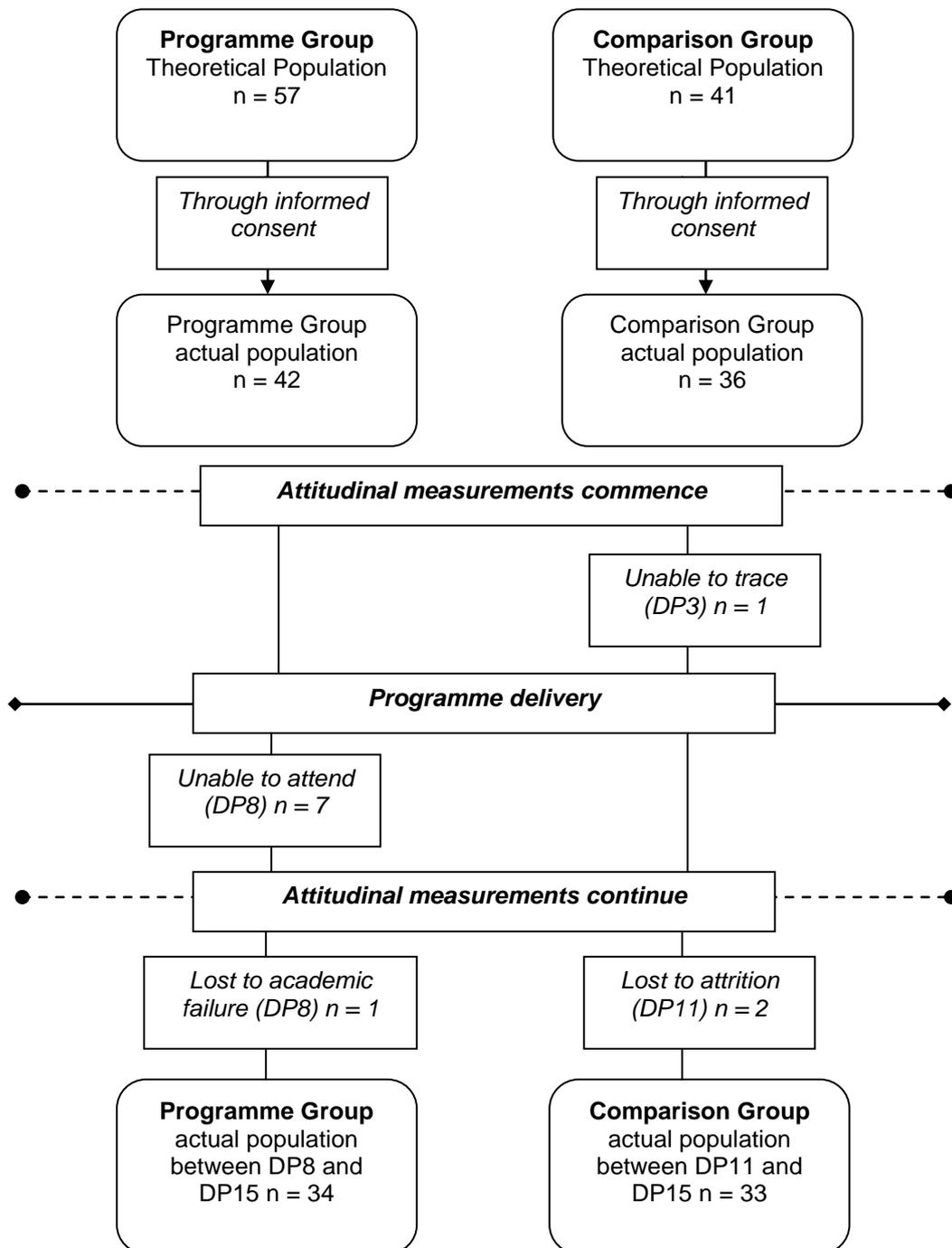


Figure 3.3 Diagram showing student numbers recruited and lost (DP – data points).

As suggested in section 3.3 (pp. 86 – 88), external validity and possible generalisation to other populations was not a priority, in line with critical realist

thinking (Danermark, et al., 2002). However, maintaining a balance between rigour in the study design, and having enough participants to collect data from was a principal concern, justifying the use of a randomly selected sub-sample from each group.

The choice of the sub-sample sizes was governed by practicality; what amount of data could be sensibly managed by a sole researcher, whilst still allowing a picture of attitudes to be obtained. The number of respondents sampled from each group at each data point ( $n = 10$ ), made the task of follow up of non-responses less onerous, in that respondents were easier to track in smaller numbers.

### **3:9 Analysis of Data**

Analysis of the data generated by MAST proceeded in two phases. Phase one involved visual inspection of the time-series, to look for obvious movements across all data points (DPs). Repeated measures of attitude were collected in this study, and data were analysed at DPs seven (immediately pre-programme), eight (immediately post-programme), and DP 15, to look for significant programme effects, however small. Sophisticated software is available to swiftly conduct such analyses; SPSS version 19.0 was used to analyse these data (Pallant, 2007). The mean of the cumulative attitude scores for the ten respondents sampled at these DPs were used in this phase, with a potential spread of scores between 30 (lowest possible score) and 150 (highest possible score).

In phase two analysis, the contextual themes identified as being of importance in McLafferty's (2001) development work on MAST were used, in order to answer the applicable secondary question (*cf.* table 3.2; p. 101). Individual questionnaire items on MAST were organised according to these contextual themes, for detailed

analysis, with reference to the mean scores, and the size of the middle category for each Likert item (Schuman and Presser, 1996). The focus was on highlighting the necessary contextual conditions for the programme's mechanisms to operate.

### 3:9:1 Phase one analysis: visual and statistical interpretation of time-series data

Phase one analysis concerns visual and statistical interpretation of time-series data. Hence, this phase will begin with a visual inspection of the charted time-series, to look for any obvious trends, and any 'movement' in the time-series for both groups, particularly in the pre-programme period (Glass, 1997). The initial focus, then, will be upon DPs one through to seven, prior to programme delivery.

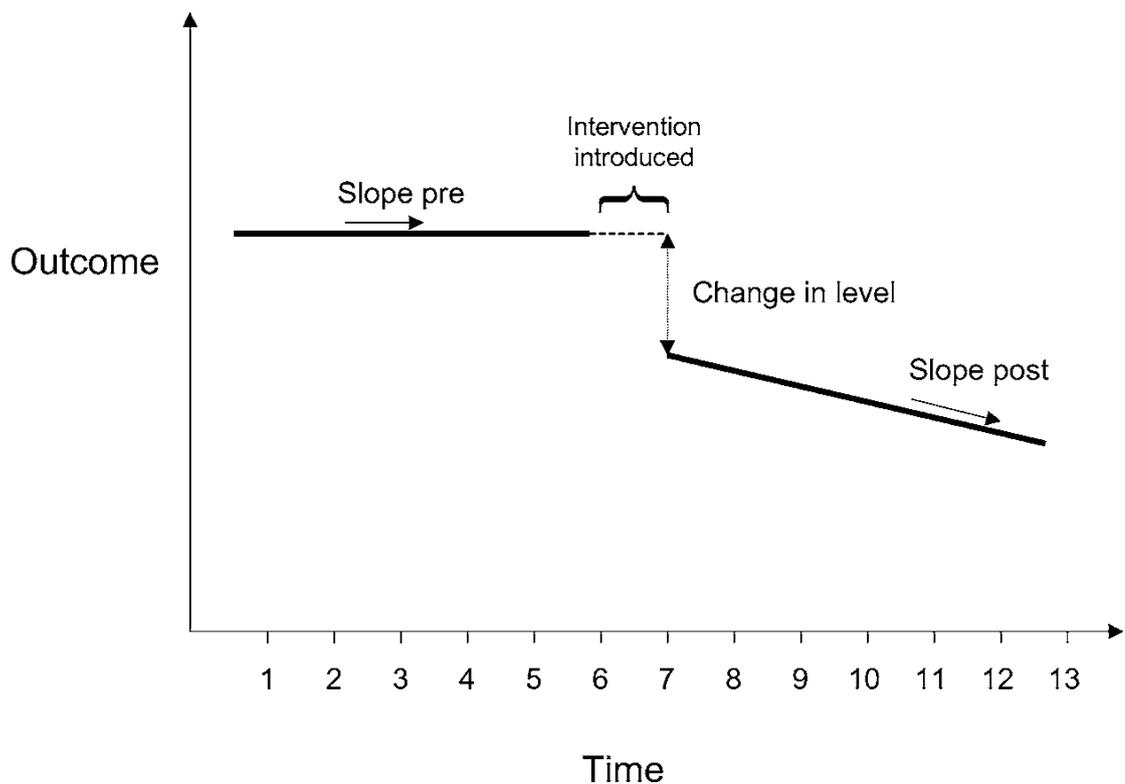


Figure 3.4 Possible outcomes in interrupted time-series designs (Ramsay, et al., 2003).

In figure 3.4, Ramsay, et al., (2003) depict the possible outcomes that can occur in interrupted time-series designs. Researchers look for these visual indicators of a programme effect, in the first instance. This highlights why it is beneficial to have a number of pre-programme measures.

Prior to the interruption point, for example, the researcher would be looking for 'stationarity' in the time-series, by making a judgement about its slope and level. Stationarity means that both the level and slope remain linear, without major fluctuations (Glass, 1997). This would indicate that unidentified mechanisms were not influencing the students' attitudes, prior to programme delivery, and that pre-test sensitisation to the measurement instrument was unlikely to have occurred.

If a shift in the time-series, pre-programme, is observed, an exploration of historical influences occurring around that time may be required, to look for reasons why the shift happened. As Glass (1997, p. 6) goes on to say, graphical representations of time-series data can 'change level and direction for many reasons', hence the particular attention paid within the study design to ruling out all other possible explanations for observed shifts in the time-series. The task here is to separate real programme effects from other observed trends in the time-series for each group.

Once this visual inspection is complete, the time-series data will be statistically analysed. The appropriateness and utility of statistical analyses within critical realism has been questioned (Bhaskar, 1998). However, as Lawson (1997) notes, its potential within critical realist research should not be discounted. It may be useful here in detecting even small programme effects, not discernible upon visual inspection of the time-series, so statistical analyses were conducted. Pratschke (2003, p. 21) proposed that critical realists object to statistical modelling because 'theories are typically expressed in linguistic form, [whilst] statistical models

necessarily take a mathematical form', suggesting that it may be difficult to reconcile the two positions.

Lawson (2001, p. 59), cited by Pratschke (2003) provides useful guidance here, positing that the use of statistical analysis should not be dismissed entirely within critical realist research, as it may be appropriate in certain circumstances. It was not possible to obtain a copy of Lawson's article within the UK, so further detail cannot be obtained about how he suggests the critical realist researcher ought to proceed. In terms of the research hypothesis here, however, it seems sensible to conduct suitable statistical analyses of the PG scores, in particular, to ascertain whether an effect had been demonstrated, and upon PG and CG scores, to ascertain whether there are differences between them. Brown (2009) also asserts that there is an expectation to see analyses of this kind, as it is viewed by stakeholders as giving credence and rigour to study findings that claim critical realism as their base. However, it has been noted that the more statistical analyses a researcher conducts, the more likely they are to find significance somewhere within their data (Glass, 1997). In order to avoid this kind of 'fishing', the intended analyses were decided at the design phase. But, in order to be able to carry these out, a judgement needed to be made about the level of the data generated by MAST. The importance of this is outlined in the next section.

### **3:9:1:1 Levels of measurement**

The level of data refers to the numerical measurement of the variables of interest in a research study. There are generally four levels of data, which describe the nature of the variables, as follows:

- Nominal Level: Describes categorical variables, such as gender, or artificial categories, as in this study, such as the PG and CG;

- Ordinal Level: Describes the order or ranks given to data. So, whilst it will be clear what the order is, the researcher can not discern or presume that the distance between two consecutive ranks is the same;
- Interval Level: Describes the order of data on a scale, but the interval between the points on the scale are presumed to be equal, and
- Ratio Level: Data at the ratio level may have a zero point, and can be expressed in ratio format. Age is a common example of ratio level data; six years of age is twice as old as three years, for example (Brown, 2011).

The relevance of these definitions become clearer when applied to MAST; a 30 item Likert Scale, with response categories between one and five. It is important to make clear at the outset how the data generated by MAST were treated, in terms of their level, as these decisions govern the choice of appropriate descriptive and inferential statistical tests; differing tests are applied, depending on whether the data are judged as being at the ordinal or interval level. If the wrong types of statistical tests are applied, it 'increases the chance of coming to the wrong conclusion about the significance (or otherwise)' of the study (Jamieson, 2004, p. 1212).

Making a decision on the level of the data generated by a Likert Scale is indeed a 'judgement'. Controversy exists about the assumptions underpinning such a decision (*cf.* Jamieson, 2004). Jamieson (2004, p.1217) noted that Likert Scales are common tools to measure attitudes, and that the data generated by them falls 'within the ordinal level of measurement', because numbers are used to characterise verbal categories. Rightly, this means that the order of the response categories is clear, but the distance between these categories cannot be presumed to be the same. Applying this to MAST, the distance between 'Strongly Agree' and 'Agree' may be very wide, or very narrow; the questionnaire cannot give this degree of detail.

It is a widely held assumption that non-parametric statistical tests should be used on data at the ordinal level, and parametric tests used for data at the interval or ratio

level (Pallant, 2007). In view of Jamieson's (2004) position with regard to the level of the data, the reasons for judging the data generated and collected by MAST to be at the interval level need to be justified, before proceeding with explanation of the statistical tests used within the study.

Brown (2011) makes an important distinction between 'Likert Items' and 'Likert Scales'. The former refers to individual items on the scale, or questionnaire, and the latter to a number of different items, or a number of responses to the same item, from which a total score, or a mean score in this study, from the answers to these numerous items can be calculated. He goes on to suggest that the sum or mean of total scores generated from answers to a number of Likert-type items can be treated as interval level data (Brown, 2011). Carifio and Perla (2007) suggest that this is in line with research in the field of attitude change; these data are commonly, and appropriately, treated as being at the interval level within the research community.

Applied here, at each DP, the attitude score is the sum of the variety of responses, from one to five, to the 30 individual items on MAST, accrued from ten randomly selected respondents. Each DP on the time-series depicts the mean of these cumulative attitude scores. A judgement can be made about where this mean score sits, in relation to scores at other DPs. For example, if the mean attitude score at DP five was '50', and at DP six, it was '100, 'attitudes' at DP six could be said to be twice as positive than they were at DP five. In line with Brown's (2011) assertion, these data then fit with the definition of being at the interval level.

These 'mean of cumulative' scores at each DP were used to chart the measured attitudes of both groups over the course of the study. The y axes on the figures showing the charted time-series in chapters four and five follow the assumption of data being at the interval level; the distance between the points on this axis are

presumed equal, allowing visual and parametric statistical interpretation and analyses.<sup>7</sup>

In order to address the research hypothesis, both the PG and CGs' scores were compared across DPs seven (pre-programme), eight (immediately post-programme) and 15 (the end of the study), using an independent-samples t-test, which compares the mean scores of two separate groups, with reference to a dependent variable, or attitude scores in this case, to look for significant differences between them, mindful that this would contribute to the study's LMCV (Campbell, 1986; Pallant, 2007).

Attitude scores for the PG were analysed using 'repeated measures' techniques. A one-way repeated measures ANOVA can be used to test for 'significant differences' among mean scores, where subjects have been 'measured on the same continuous scale on three or more occasions' (Pallant, 2007, pp. 251 - 252). This test was used to ascertain whether there was a significant change in attitude scores for the PG following the programme, and whether any observed change was sustained, or any effect was delayed, focusing again on these three DPs.

Before this could be carried out, a decision had to be made about how to deal with the large amount of data missing at DPs six and seven. SPSS can be set up to run analyses in a number of standard ways, to deal with missing data. These usually involve the exclusion of 'cases' from any analyses, if they do not have full data (Pallant, 2007). Because the sample size here is small, this would have further reduced the sample size for analysis, potentially biasing results (Wayman, 2003).

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<sup>7</sup> This also applies to the charts depicted in appendices 18 to 25 (*cf.* chapter 4; pp. 128 - 158), detailing mean scores for all respondents at each DP across the time-series, in relation to individual MAST items.

Hence, this approach was deemed inadequate for the purposes of this study. The approach taken to dealing with missing data is outlined in the next section.

### **3:9:1:2 Dealing with missing data**

The MAST element of each questionnaire was fully completed in general, so individual values important for statistical analyses were complete on each questionnaire returned. The sub-sampling strategy, which aimed not to over-burden individual participants may have been instrumental in ensuring the completeness of these data (Jaegar, 1997). Data were missing in relation to 'specialism of current placement', but this may be due to the fact that these were ill-defined, and open to different interpretations by both the PG and CG. This question had been included with a view to being able to conduct analyses upon whether there was a relationship between this and attitudes. However, because of this apparent lack of clarity, no meaningful statistical analysis could be undertaken upon these data.

Between DPs six and seven, response rates were affected by the 'disappearance' of postal responses (appendix 17; p. 265). This led to an incomplete data set for statistical analysis. To account for this, multiple imputation was performed on the incomplete dataset. Wayman provides a succinct description of the processes involved in multiple imputation, and its end result:

In multiple imputation, missing values for any variable are predicted using existing values from other variables. The predicted values, called "imputes", are substituted for the missing values, resulting in a full data set called an "imputed data set". This process is performed multiple times, producing multiple imputed data sets. (Wayman, 2003, p. 4)

SPSS automatically creates five imputed data sets, when the multiple imputation command is used. Then, when the researcher conducts analyses on a data set created through multiple imputation, SPSS carries this out for each imputed data

set. The results of these analyses are then 'pooled', to give one final set of results. It is the results for the pooled set of data that the researcher reports upon (Pallant, 2007).

Multiple imputation has been shown to provide robust results for statistical analysis, in that the normality distribution of the data are unaffected, and important features of the original data set are maintained, even when the sample size is small, as in this study (Rubin, 1986). Hence, the data generated within this study were multiply imputed, to create a complete dataset for statistical analyses to be conducted upon.

### **3:9:2 Phase two analysis: interpretation of responses to MAST items**

Phase two analysis concerns the use of the contextual themes acknowledged as being of importance in McLafferty's (2001) development work on MAST, identified through principal components analysis. This approach was used to answer the applicable secondary question.

Individual items have been grouped according to these themes (table 3.3) in order to answer the secondary questions. This will allow investigation of how the contextual conditions within the CLE influenced the operation of programme mechanisms (Schuman and Presser, 1996).

These groupings reflect elements of the context of the CLE, some of which were identified within the review of the literature; as Bhaskar (1978) notes, 'contexts' amount to much more than just where programmes are situated. The mean of the attitude scores from those sampled at each DP, for individual MAST items, was

used to characterise attitudes in this phase. Hence, the potential spread of scores seen is between one (lowest possible score) and five (highest possible score).

Table 3.3 Contextual themes and MAST item groupings (McLafferty, 2001).

<b>Factor</b>	<b>Contextual theme</b>	<b>MAST item groupings</b>
<b>1</b>	Student learning opportunities	2, 10, 20 and 28
<b>2</b>	Interpersonal/communication skills	15, 29 and 30
<b>3</b>	Skill and knowledge required for care of the elderly	5, 11 and 16
<b>4</b>	Labelling older adults	4, 12, 14, 17 and 25
<b>5</b>	Lecturers' influences	7, 13, 18 and 23
<b>6</b>	Looking after older adults	1, 3, 8, 19, 22 and 24
<b>7</b>	Interpersonal relationships	6, 9
<b>8</b>	Categorising nurses	21, 26 and 27

McLafferty (2001) purposefully included a middle category in the Likert scale which makes up MAST, in recognition of the idea that it can give information about the intensity of the attitude, in relation to individual questionnaire items (Schuman and Presser, 1996). Scoring an item a 'three' suggests that the respondent does not feel strongly enough in either direction to declare a definite position in relation to that item. In this situation, the middle category would be large. However, it should not be presumed that because the size of the middle category is larger at a particular DP that an item is of no consequence. A larger middle category can indicate that students are not sure about where they stand in relation to that item (Schuman and Presser, 1996). This may be of particular interest in the post-programme period, as PG students approach qualification.

If the majority of respondents at a particular DP opt for either of the extreme scores in relation to a particular item (one or five), the number choosing the middle category

would be smaller, indicating that the respondents feel more strongly about that particular item; intensely enough to take a stance. However, the role of social desirability response bias should not be ignored for these items, as it can confound the interpretation of mean score trends (Oppenheim, 2000). Respondents may opt for one of the extremes, because they believe that it casts them in a 'better light', rather than their response corresponding to their own beliefs. This will be borne in mind in this phase of the analysis.

Extremes of scores in this phase must also be considered in relation to the particular MAST item, and whether its Likert Scaling indicates a positive or negative bias; it should not be assumed that a mean score of 'one', a low score, suggests that students are either negative in relation to that item, or that it equates to 'strongly disagree' on the Likert Scale. For example, item two on MAST is as follows:

"Most nursing students have little idea what to expect in care of the older adult settings".

For this item, a mean score of 'one' would indicate that all students sampled 'strongly agree' with it; knowledge of the item's Likert Scaling allows student responses to be seen in the correct perspective.

The mean score, coupled with the size of the middle category was used to identify mechanisms which could have made the CLE inhospitable to the operation of programme mechanisms in this phase. Where the mean score in relation to an item indicates a positive bias, and is coupled with a small middle category, these are not viewed to make the CLE inhospitable<sup>8</sup>. Where the score in relation to an item indicates a negative bias, and is coupled with a small to medium-sized middle category, these may have made the CLE 'hostile'<sup>8</sup> to the working of the programme

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<sup>8</sup> The words 'hostile' and 'inhospitable' are used intentionally, in line with the work of realist evaluators, Pawson and Tilley (1997). These are the terms they use to describe contexts in which programmes have been ineffective.

mechanisms, because the milieu of the CLE failed to influence students, in a positive way, about particular items on MAST. Larger-sized middle categories in relation to mean scores that indicate a negative bias may also provide further detail about how students were influenced by aspects of the CLE, measured by MAST, particularly when compared with the pre-programme period. The students were approaching qualification toward the end of the time-series, and more definite responses, showing smaller sized middle categories, to items indicating a negative bias might have been expected in relation to these items, in particular.

There will inevitably be structural and agential mechanisms in relation to the particular context, 'which pre-exist and endure through programs' (Pawson and Tilley, 1997, p. 70), affecting how agents react to them. Phase two analysis may also reveal mechanisms within the context of the CLE, not measured directly by MAST, which contribute to the maintenance of negative attitudes toward the care of ill older people (Pawson and Tilley, 2004).

### **3:10 Summary**

This chapter set out to make the decisions and procedures which underpin the study design explicit. The phased approach to data analysis was also examined. Particular strategies aimed at demonstrating LMCV were discussed in detail, as these were central to the study design in countering criticisms of previous attitude change research in the field, and to be in a position to fill the gaps in knowledge and in the evidence base identified within the review of the literature.

Chapter four will present demographic data for both the PG and CG, followed by findings from both phases of analysis, in order to address the research hypothesis, and answer the applicable secondary questions.

## Chapter Four

### Findings from Phases One and Two Analyses

#### 4:0 Introduction

This chapter sets out the results and findings of the analyses outlined in chapter three. The interrupted time-series design was used as a means of collecting data about nursing students' attitudes toward the care of ill older people longitudinally, in order to test the following research hypothesis:

The mechanisms within an educational programme ( $M_1 - M_{16}$ ), delivered in the clinical learning environment (C) will improve the attitudes of nursing students toward caring for ill older people (O).

Secondary questions related to whether or not a programme effect of any type would be demonstrated, as follows:

If an effect is demonstrated within the context of the clinical learning environment, what was it about the programme that worked, and who did it 'work' for?

What is the nature of the effect? Is it immediate and sustained, or delayed?

If no effect is demonstrated within the context of the clinical learning environment, what mechanisms within this context made it inhospitable to the operation of programme mechanisms?

Alongside the measurement of attitudes, particular attempts were made to conduct a study that countered the criticisms of previous attitude change research in this field, which primarily relate to poor attention to local molar causal validity (LMCV) (Campbell, 1986). This concerns the identification and management of other plausible explanations for programme mechanism effects. Hence, the study was designed so that where such plausible alternative explanations could be identified, their effects were accounted for (Campbell, 1986). Because of this, reference is made throughout the chapter to the effect of these study design features on LMCV.

The chapter begins by presenting demographic data for both the PG and CG, in order to make a judgement about their similarity, prior to the study commencing, and at the data points used for repeated measures analysis. Data about students' morale across both groups are also presented, contributing to LMCV. Response rates at each data point are presented in section two, because these governed how the time-series data were charted, in order to prevent spurious conclusions being drawn about programme effects.

Detailed interpretation of the time-series is then discussed, in relation to the research hypothesis. Therefore, section three begins by presenting the findings of the phase one analysis. This commenced with visual inspection of the time-series, to look for predicted movements, which demonstrate whether the design features of the interrupted time-series aimed at demonstrating LMCV had been successful or not. As Campbell (1986) noted, if demonstrated, this strengthens the quality of any causal tendencies noted, an element lacking in previous research in this field.

The results of checks on the distribution of the data, to establish that the assumptions for the employment of parametric tests had not been violated, are made clear. The findings from the statistical analyses are then explained, looking for differences between the PG and CG scores. These analyses also tested for changes in the attitude scores of the PG following the programme, not discernible through visual inspection of the charted time-series.

The final part of this chapter reports the results of the phase two analysis, in order to answer the applicable secondary question, in light of the findings of phase one. This involved exploration of the responses to individual items on McLafferty's Attitude Scoring Tool (McLafferty, 2001), and addresses the study's objectives; investigating the contextual conditions necessary for the programme mechanisms to work and

how the contextual conditions within the CLE influenced the operation of programme mechanisms.

#### 4:1 Demographic Data for the Programme and Comparison Groups

Demographic data for both the PG and CG demonstrate the comparability of the groups at the start of the study. These data show that the samples reflected the proportion of males and females in both Universities. These data also reflect the wider nursing population as it was between April 2007 and March 2008; the most recent data available (NMC, n.d.). Table 4.1 shows that both groups were similar, in terms of gender and age. Both groups are predominantly female, and the age breakdown of the groups is also similar, with just over half of the students across both groups being in the 17 – 25 range.

Table 4.1 Gender and age of PG and CG at start of the study.

Demographic Characteristic	Programme Group (n = 42)	Comparison Group (n = 36)
<b>Gender</b>		
Male	4	7
Female	38	29
<b>Age</b>		
17 – 25	24	17
26 – 34	11	11
35 – 43	5	7
44 – 52	1	1
53+	1	0

As the statistical analyses of time-series data focuses on three important data points (DPs), immediately before and after the programme, and at the end of the study, the demographic characteristics of both the PG and CG, across DPs seven, eight and 15 are displayed in table 4.2. Again, the purpose of presenting this data is to demonstrate that the sub-samples at these vital DPs were still comparable to the samples from which they were drawn. Table 4.2 demonstrates that the sub-samples at these DPs remained representative of the main sample. Only one student, in the

PG, at DP 15, identified that they had attended a study day about the care of older people, which was not related to the programme. No obvious shift in the time-series for the PG could be seen here, hence this contributed to ruling out 'history' as a threat to LMCV.

Table 4.2 Demographic characteristics of PG and CG at data points 7, 8 and 15.

Demographic Characteristic	Programme Group (n = 10)			Comparison Group (n = 10)		
	DP 7	DP 8	DP 15	DP7	DP 8	DP 15
<b>Missing</b>	5	0	1	5	2	2
<b>Gender</b>						
Male	0	1	1	1	3	1
Female	5	9	8	4	5	7
<b>Age</b>						
17 – 25	4	6	4	2	3	4
26 – 34	1	1	5	0	3	2
35 – 43	0	2	0	2	2	2
44 – 52	0	1	0	1	0	0
53+	0	0	0	0	0	0
<b>Morale</b>						
Low	1	0	0	1	2	1
Medium	3	6	5	2	5	5
High	1	4	4	2	1	2
Cumulative Score	10	24	22	11	15	17
<b>Preferred Speciality Upon Qualification</b>						
Community	0	0	0	2	0	1
Accident and Emergency	0	0	1	0	2	0
Orthopaedics	0	0	0	0	0	0
Gynaecology	1	0	0	0	0	0
Alternative Therapies	0	0	0	0	0	0
Elderly	1	0	1	0	1	0
ITU/Critical Care	0	0	0	0	0	0
Surgery	0	1	0	0	0	1
Neonatal	0	0	0	0	0	0
Palliative Care	0	0	0	0	0	0
Cardiology	0	0	0	0	0	0
Male Medical	0	0	0	0	0	0
Unsure	3	9	7	3	5	6
<b>Factors Influencing Choice</b>						
Prior Experience	0	0	1	0	0	1
Placement Experience	0	5	7	4	6	6
TV/Media	1	0	0	0	1	0
Family	1	0	0	1	1	0
University Experience	0	0	1	0	0	0
Staff (University/Placement)	1	0	0	0	0	1
Other (Not identified)	0	0	0	0	0	0
None	2	0	0	0	0	0
<b>Attendance at Other OP Event</b>						
Yes	0	0	1	0	0	0
No	5	10	8	5	8	8

#### 4:1:1 Morale of respondents

In relation to the morale of both the PG and CG, the trend lines in figure 4.1 show the morale of both groups improving over the course of their respective adult field of practice programmes, with the scores between groups converging toward the end of the study. 'Morale' was characterised by asking students to rate their morale at each DP as follows:

- Low morale: 1
- Medium: 2
- High morale: 3

Statistical analyses have not been conducted upon these data, as they are not specifically related to the research hypothesis. Data about students' morale were collected as a means of contributing to LMCV, through ruling out this general improvement in morale as an explanatory mechanism, with the potential to masquerade as a programme effect. A more acute upward slope in attitude scores, alongside a similar acute upward slope in morale scores might have been expected, if one was influencing the other (Ramsay, et al., 2003).

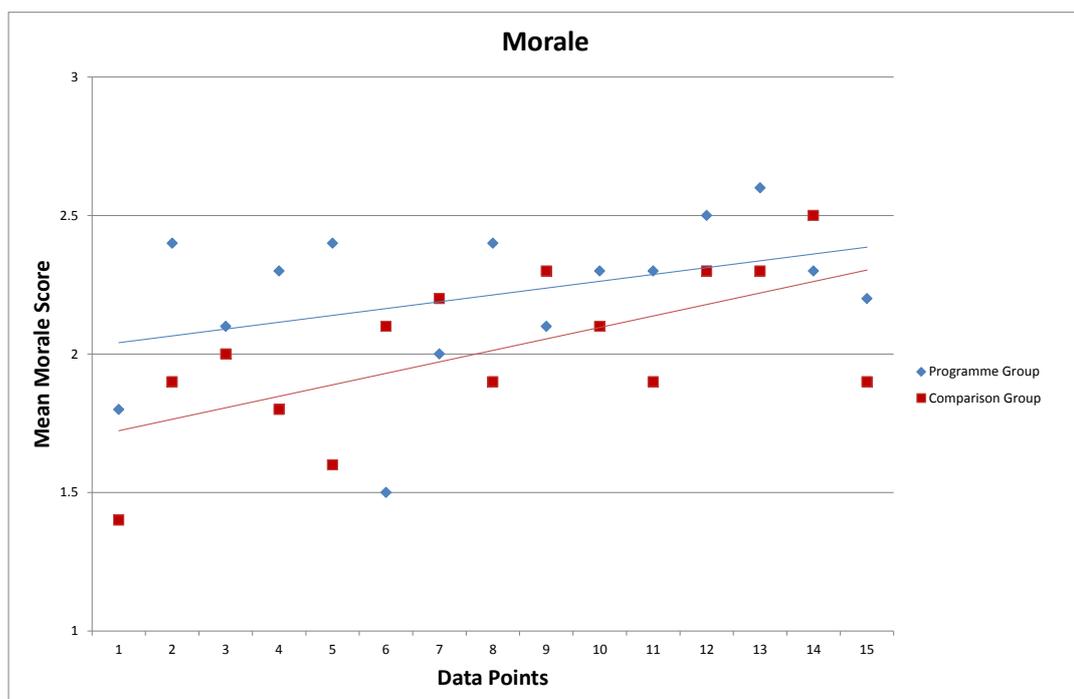


Figure 4.1 Morale scores of PG and CG.

Figure 4.1 is suggestive of morale scores clustering around the 'medium' category, so it is unlikely that the slight improvement in morale scores could be accepted as an explanation for improvements in attitude scores.

In conclusion, the data presented in the above tables and figures demonstrate that both the PG and CGs had similar demographic characteristics, at the start of the study, and at the three DPs used for statistical analysis; the study groups are sufficiently similar at these points for comparisons between them to be made.

#### **4:2 Response Rates**

It was important to consider the response rates in this study; if not acknowledged, they might impact upon LMCV. For example, 'mortality' was identified as a potential threat to a study's LMCV (Cook and Campbell, 1979). In this study, if respondents were lost from either group, each group's composition would be altered, and the groups no longer comparable.

Although ten students were approached to complete McLafferty's Attitude Scoring Tool (MAST) from each group, at each DP, not all did on every occasion. Response rates at each DP are shown in table 4.3. For the majority of the study, response rates of 75% or higher were achieved at each DP. The sub-sampling technique employed may have been successful in ruling out 'mortality' as a mechanism threatening LMCV, through preventing the over-burdening of individual participants (Jaegar, 1997). Higher response rates are normally associated with greater confidence in the extent to which findings can be applied to similar populations and settings (Parahoo, 2006). As generalisability was not the primary concern in this study, in line with its basis in critical realism, the response rates were deemed to be adequate.

Table 4.3 Response rates at each data point for the PG and CG.

	<b>Comparison Group (%)</b>	<b>Programme Group (%)</b>
Data Point 1	100	100
Data Point 2	100	100
Data Point 3	90	90
Data Point 4	90	100
Data Point 5	90	100
Data Point 6	70	40
Data Point 7	50	50
Data Point 8	80	100
Data Point 9	80	70
Data Point 10	80	70
Data Point 11	80	70
Data Point 12	80	90
Data Point 13	70	90
Data Point 14	90	90
Data Point 15	80	90

However, between DPs six and eight, response rates were affected by the ‘disappearance’ of postal responses (*cf.* appendix 17; p. 265). The disappearance of responses was investigated, but it is not clear why this might have happened. Figure 4.2 shows the charted time-series, using the cumulative attitude scores, calculated with missing scores.

Presenting the data in this way would have been suggestive of ‘something’ happening between DPs six and eight. Upon visual inspection, figure 4.2 seems to show a marked improvement in attitude scores immediately following the programme. However, a proportion of the drop in scores seen between DPs six and seven is partly due to missing MAST returns. At DP eight, when an 80% and 100% response rate was achieved for the CG and PG respectively, the cumulative attitude scores seem to show a sharp rise. This apparent ‘effect’ is misleading upon visual inspection of the time-series, and also suggests an overall downward trend in

attitude scores, the scores generally having been affected by the missing returns at DPs six and seven.

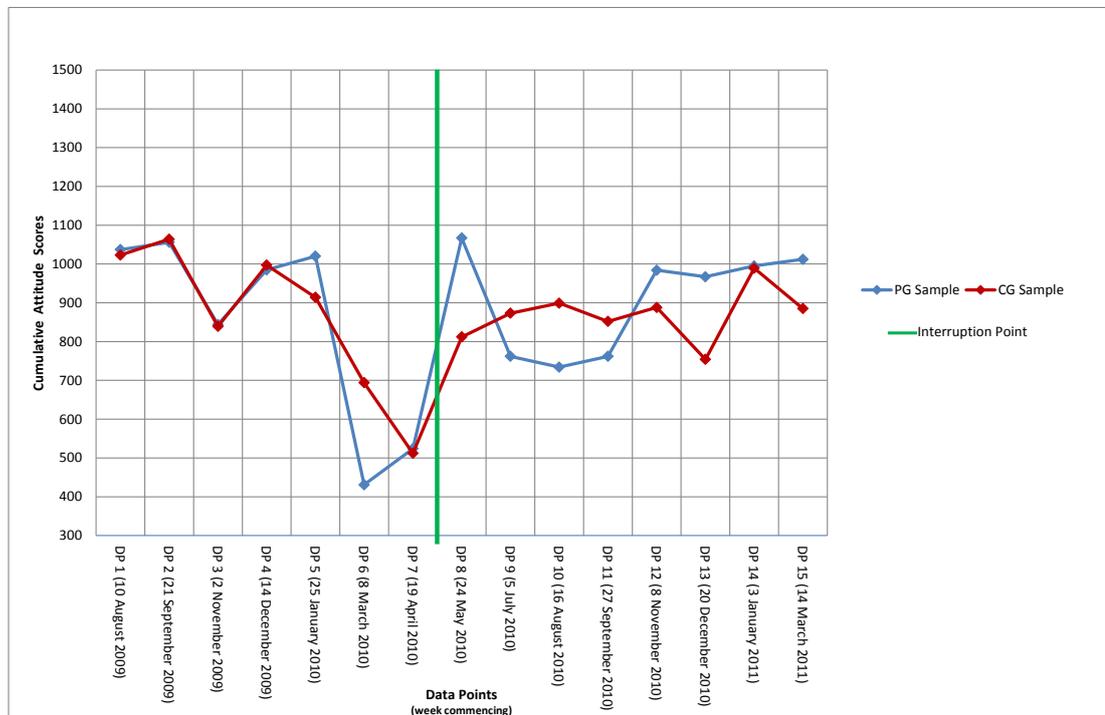


Figure 4.2 Cumulative attitude scores for the PG and CG.

To account for this, the mean of cumulative attitude scores was used to chart the time-series, as opposed to the simple cumulative score of those who responded. This technique prevented the skewing of the attitude scores seen in figure 4.2.

### 4:3 Phase One Analysis: Visual and Statistical Analyses of Time-Series Data

As the title suggests, there were two parts to this phase of the analysis, commencing with a visual inspection of the charted time-series, as recommended by Glass (1997).

### 4:3:1 Visual analysis of time-series data

Figure 4.3 shows the charted time-series, using the mean of the cumulative attitude scores for both the PG and CG, over the course of the study; the reasons for charting the time-series in this way were outlined in section 4:2. It also shows the point where the programme was delivered, marked as the 'interruption point':

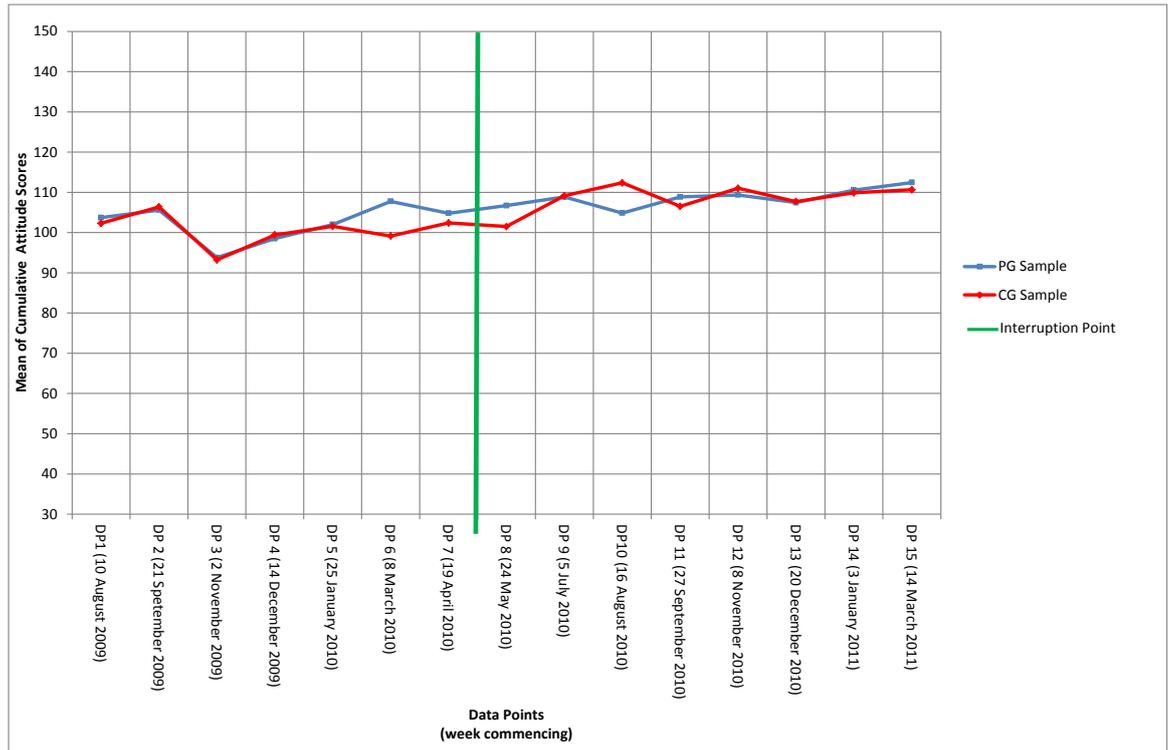


Figure 4.3 Mean of cumulative attitude scores for the PG and CG.

Initial visual inspection of the time-series shows the possible effect of particular strategies to ensure LMCV. Attempts were made in the study design to rule out the effect of the mechanisms of 'history', 'maturation' and 'testing' as alternative explanations for a programme effect. There are no marked changes in either level or slope, for either group (Ramsay, et al., 2003). The time-series' in the pre-programme period, for both the PG and CG are generally stationary, suggesting that LMCV was not compromised by either 'history' or 'maturation' (Cook and Campbell, 1979). Although there is a gradual increase in attitude scores for both groups over

the course of the time-series, both appear to have been improving at a similar, steady rate; the groups remained comparable in that sense, throughout. This suggests that LMCV was not jeopardised by 'testing' threats. The attitude scores may have shown a more marked rise for both groups, had the 'testing' mechanism been firing.

Further visual inspection appears to indicate no immediately apparent differences in mean of cumulative attitude scores at any pre-programme point (between DPs one and seven), for either group. This suggests that the sub-sampling technique was successful in preventing pre-sensitising respondents to MAST. A more marked rise in scores might have been seen, were that the case (Campbell, 1986). Ensuring that both the PG and CG were not aware of one another appears to have been successful in ensuring that there was no intergroup demoralisation, or compensatory rivalry; the time-series for both groups remain similar in slope and level (Trochim, 2006).

Crucially, additional examination of the trend shown in both lines in figure 4.3 suggest that there was no improvement in the mean of cumulative attitude scores of the PG following the educational programme, either immediately, or delayed. In fact, as already suggested, the attitude scores of both groups appear to improve slightly over time.

So, in relation to the research hypothesis, the programme mechanisms ( $M_1 - M_{16}$ ), delivered in the context of the CLE (C) had no effect upon the attitudes of nursing students toward the care of ill older people (O). However, as suggested in chapter three, it is insufficient to base analysis of time-series data on visual inspection alone; this is the particular reason why statistical analyses were useful in this study, even

though its use is contested within critical realism (Pratschke, 2003). The results of the statistical analyses are reported in the next section.

#### **4:3:2 Statistical analysis of time-series data**

Phase one analyses were continued, having undertaken a visual inspection of the time-series. As already stated, initial visual inspection of figure 4.3 appears to suggest that there was no immediate or delayed change in attitude scores following the programme. What cannot be discerned just 'by looking' is a change in attitude scores, with a small effect size (Glass, 1997). This is the primary reason why statistical analyses have utility within this study, despite its critical realist foundations. Parametric analyses were used to test for these effects.

In order to be able to carry out repeated measures analysis, three DPs were the focus: DP seven (prior to the programme), eight (immediately after), and 15 (at the end of the study, 10 months later). A number of assumptions about the data must be considered, when selecting which statistical tests to carry out. Most procedures assume that the data are normally distributed, so it was important to establish this, prior to any statistical analyses being carried out. The Kolmogorov-Smirnov test compares samples with a normal standard distribution to determine whether a study's data are normally distributed (Pallant, 2007). The results of the Kolmogorov-Smirnov statistic were as follows:

Table 4.4 Kolmogorov-Smirnov statistic for imputed data set (PG and CG).

Tests of Normality						
	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
DP7	.184	10	.200 <sup>*</sup>	.915	10	.316
DP8	.129	18	.200 <sup>*</sup>	.978	18	.927
DP15	.119	19	.200 <sup>*</sup>	.966	19	.698

a. Lilliefors Significance Correction

\*. This is a lower bound of the true significance.

SPSS pools data for both groups, in order to run this analysis. Table 4.4 shows that at DPs seven, eight and 15, the results are non-significant (Sig. .200), which indicates normality (Pallant, 2007). Following this assessment for normality, parametric testing of both the PG and CG scores over the course of the time-series was then carried out, in order to determine whether there were significant differences between each groups' attitude scores.

#### 4:3:3 Comparing programme and comparison group scores

The mean of cumulative attitude scores for both groups, at DPs seven, eight and 15 are presented in table 4.5:

Table 4.5 Mean of cumulative attitude scores for PG and CG at data points 7, 8 and 15.

Programme Group			Comparison Group		
DP7	DP 8	DP 15	DP 7	DP 8	DP 15
104.8	106.7	112.5	102.4	101.5	110.6

These reflect the steady, overall improvement in attitude toward working with ill older people seen across the time-series for both groups. There are small measured differences in the means displayed, between the PG and CG at each of these DPs. There is also a small rise in mean score for the PG, immediately following the educational programme. Because these observed differences are small, parametric analyses were conducted on data generated at the above DPs, to illuminate whether or not these differences were significant.

An independent samples t-test compares the mean scores of two separate groups, with reference to a dependent variable, or attitude scores in this case (Pallant, 2007). This test was conducted to compare the attitude scores for the PG and CG, across DPs seven, eight and 15.

*At DP seven:* There was no significant difference in scores for the PG ( $M = 105.38$ ) and CG ( $M = 102.80$ );  $t(19) = .414$  (two-tailed).

*At DP eight:* There was no significant difference in scores for the PG ( $M = 106.90$ ) and CG ( $M = 102.49$ );  $t(1937) = 1.213$  (two-tailed).

*At DP 15:* There was no significant difference in scores for the PG ( $M = 112.70$ ) and CG ( $M = 110.84$ );  $t(999) = .544$  (two-tailed).

These analyses confirm that there appear to be no statistically significant differences between the attitude scores of the groups. In addition, a point worthy of mention relates to the formats in which older person curricular content was delivered to both study groups. The review of the literature highlighted discrepancies in the effects of integrated content on the care of ill older people, and stand-alone modules upon attitudes (*cf.* Holroyd, et al., 2009; Troutman Flood and Clark, 2009). This study

demonstrated no significant differences between the groups, and content related to ill older people was delivered in different formats at the two Universities from which the PG and CG were drawn; content was integrated in the case of the PG, and the CG studied a module at the start of their 'adult' field of practice programme (*cf.* section 1:6, pp. 34 - 37). Hence, these findings support the discrepancies highlighted earlier; that neither integrated or stand-alone courses appear to have had an effect upon attitudes.

#### **4:3:4 Programme group scores before and after the programme**

Having established that there was no statistically significant difference between the mean scores for the PG and CG, statistical tests were then applied to the PG scores only, in order to evaluate the impact of the programme mechanisms.

A one-way repeated measures ANOVA can be used to test for 'significant differences' among mean scores, where subjects have been 'measured on the same continuous scale on three or more occasions' (Pallant, 2007, pp. 251 - 252). This test was used to compare the means of cumulative attitude scores of the PG, across DPs seven, eight and 15 (table 4.6). The means and standard deviations are presented in table 4.6. There was no significant effect for time; Wilks' Lambda = .69,  $F(2, 8) = 1.75, p = .234$ .

These statistical analyses reflect the results of visual inspection of the time series; the attitudes of nursing students toward working with ill older people were not shown to improve in response to programme mechanisms. In line with critical realist explanation, exploration below the surface of the curricular stratum of the CLE, where the programme mechanisms were employed, is required, in order to answer the applicable secondary question.

Table 4.6 Descriptive statistics for attitude scores for the PG at data points 7, 8 and 15.

<b>Time Period</b>	<b>N</b>	<b>Mean</b>	<b>Standard Deviation</b>
<b>Data Point 7</b> (pre-programme)	10	102.60	8.71
<b>Data Point 8</b> (post-programme)	10	106.90	8.65
<b>Data Point 15</b> (10 months post-programme)	10	111.90	6.47

At this stage, it would be premature to discount the use of Katz' (1960) functional approach to attitude change, on the basis of these results alone. This exploration to account for mechanisms within the context of the CLE may serve to enhance future attempts of the programme to change attitudes, in line with [critical] realist evaluation (Pawson and Tilley, 1997). Recognition of these mechanisms may indicate how to make the context more hospitable to the ones within the programme, hopefully increasing the chances of success in future attempts.

#### **4:4 Phase Two Analysis: Data Analysis of MAST Items**

Phase one analysis established that the posited programme mechanisms had no effect upon attitudes. A number of secondary questions were set, dependent upon the outcome of programme mechanisms, in the context of the CLE. Hence, phase two analysis sought to answer the following secondary question:

If no effect is demonstrated within the context of the clinical learning environment, what mechanisms within this context made it inhospitable to the operation of programme mechanisms?

The mean score, coupled with the size of the middle category in relation to individual MAST items was used to identify mechanisms which could have made the CLE inhospitable to the operation of programme mechanisms in this phase (Schuman and Presser, 1996; Pawson and Tilley, 1997). Where the mean score in relation to

an item indicates a positive bias, and is coupled with a small-sized middle category, these were not viewed to make the CLE inhospitable. Where the mean score in relation to an item indicates a negative bias, and is coupled with a small to medium-sized middle category, these may have made the CLE 'hostile' to the working of the programme mechanisms. Larger-sized middle categories in relation to mean scores that indicate a negative bias may also provide further detail about how students were influenced by aspects of the CLE, as measured by MAST. To illustrate this phase of the analysis, an example is given, in relation to item two on MAST (table 4.7):

Table 4.7 Example of how responses to MAST items have been interpreted, showing results for Item 2 'Most nursing students have little idea what to expect in care of the older adult settings'.

	Pre-programme period			Post-programme period		
	Likert result	Range of mean scores	Size of the middle category	Likert result	Range of mean scores	Size of the middle category
Item 2	A - D	1.9 - 3.8	S - M	U	2.7 - 3.3	M - L

Table 4.7 shows where responses fell on the Likert Scale in relation to this item, and whether or not this changed post-programme, as the students neared qualification. The tighter range of mean scores seen post-programme suggest that the students sampled moved from either agreement or disagreement pre-programme, to being unsure post-programme, in relation to item two. In addition, the size of the middle category becomes larger post-programme. This is suggestive of students becoming less sure in relation to this item as they become more experienced, which may have negative connotations for nurse educators, leading to questions about the adequacy

of the preparation students are given, prior to placements specialising in the care of ill older people.

The results of the phase two analysis are presented in tabular form, under McLafferty's (2001) theme headings outlined in chapter three (*cf.* table 3.3, p. 123).

In brief, five important elements are presented, when looking across the time-series, in order to examine responses to individual MAST items:

1. The Likert result - where the majority of responses fall for that particular Likert item (the degree to which respondents agree or disagree with the item);
2. The mean attitude score, in relation to the item;
3. The size of the middle category (SMC), and
4. The overall trend of the mean attitude score.
5. Whether the SMC and mean scores indicate the presence of a countervailing mechanism.

In order to facilitate interpretation of these scores over the course of the time-series, data in the tables should be read in the following order:

- Pre-programme period: The movement of scores are shown as they change from DPs one, to seven;  
followed by
- Post-programme period: Scores are shown as they change from DPs eight to 15.

Table 4.8 provides a key for interpreting tables in the phase two analysis.

Table 4.8 Key for interpreting tables in phase two analysis.

<b>Likert result</b>	<b>The spread of responses across these categories is shown using the following letters:</b>		
	<b>SA:</b> Strongly agree with the item		
	A: Agree with the item		
	<b>U:</b> Unsure about the item		
	D: Disagree with the item		
	<b>SD:</b> Strongly disagree with the item		
<b>Range of mean scores</b>	Between <b>1</b> and <b>5</b> :		
	These must be considered alongside the Likert result for the item, to discern whether students have a positive or negative bias toward it.		
<b>Size of the middle category</b>	<b>The spread of responses within this category is shown using the following letters and ranges:</b>		
	<b>S:</b> Small	*Indicates strong attitude in relation to that item (Schuman and Presser, 1996).	Between 1 and 4
	<b>M:</b> Medium		Between 5 and 7
	<b>L:</b> Large	*Indicates weaker attitude in relation to that item (Schuman and Presser, 1996).	Between 8 and 10
<b>Overall trend</b>	Upward		
	Flat		
	Downward		
<b>Item in bold text</b>	SMC coupled with mean score indicative of a possible mechanism making the CLE inhospitable to the operation of programme mechanisms.		

#### 4:4:1 Theme one - student learning opportunities

Four MAST items were grouped under this theme heading<sup>9</sup>:

- Item 2. Most nursing students have little idea what to expect in care of the older adult settings;
- Item 10. There is more to learn in the care of the older adult than basic nursing skills;
- Item 20. Most nursing students are pleasantly surprised at how many acutely ill patients there are in care of older adult settings, and
- Item 28. Nursing students are well prepared for working with older adults.

Table 4.9 Summary results for contextual theme one.

	Pre-programme period			Post-programme period		
	Likert result	Range of mean scores	SMC	Likert result	Range of mean scores	SMC
<b>Item 2</b>	<b>A - D</b>	<b>1.9 - 3.8</b>	<b>S - M</b>	<b>U</b>	<b>2.7 - 3.3</b>	<b>M - L</b>
Item 10	A - D	2.6 - 3.9	M - S	A - SA	4.1 - 4.9	S
Item 20	U	2.9 - 4	S	A	2.6 - 4.1	M - S
<b>Item 28</b>	<b>D - U</b>	<b>2.2 - 2.8</b>	<b>S</b>	<b>U</b>	<b>2.6 - 3.1</b>	<b>M</b>
Overall Trend	General upward trend for all items.					

Table 4.9 shows that for these MAST items, the range of scores is generally wide in the pre-programme period, with a tendency to converge post-programme; as the students approach qualification, they appear more definite in their responses to items ten and 20, in particular.

<sup>9</sup> The charted PG mean attitude scores at each DP, for items grouped under theme one can be seen at appendix 18 (pp. 266 – 268).

For item two, 'Most nursing students have little idea what to expect in care of the older adult settings', at all DPs, apart from DP three (mean score 1.9), scores in relation to this item fell between two and four; between agree and disagree. At DPs one through to seven, the mean scores are spread widely (range: 1.9 to 3.8). The scores do appear to converge around 'three', after the programme (range: 2.7 to 3.3), generally suggesting that the respondents were 'unsure', in relation to this item. The SMC is large for item two, particularly from DPs eight to 15.

With reference to item ten, 'There is more to learn in the care of the older adult than basic nursing skills', the mean scores appear to be spread more widely in the pre-programme period (2.6 – 3.9); between 'agree' and 'disagree', clustering between four and five, 'agree' to 'strongly agree' post-programme. The SMC in the post-programme period, is zero for six out of eight DPs, indicating that students feel very strongly in relation to item ten.

For item 20, 'Most nursing students are pleasantly surprised at how many acutely ill patients there are in care of older adult settings', the mean scores cluster around 'three' in the pre-programme period, apart from at six DP, where the mean score is 4.0 (2.9 – 4.0). Students in the pre-programme period are mostly declaring their position as 'unsure' in relation to this item. Post-programme, the scores are closer to four; above four at DP 13 (4.1), showing attitudes moving toward agreeance. Data point 10 shows a drop in score to 2.6. The range of mean scores between DPs eight and 15 is 2.6 and 4.1. The SMC is small, post-programme, with seven out of the eight DPs showing the middle category as being below three.

The scores in relation to item 28, 'Nursing students are well prepared for working with older adults', never rise above three in the pre-programme period, showing students rating themselves as being between disagreement with this statement, and

feeling 'unsure'. It improves only slightly post-programme, the range of scores being between 2.6 and 3.1. The SMC is generally small pre-programme; only twice does it rise above two, at DPs three and four, so the students were quite definite about their responses in the pre-programme period. Post-programme, the SMC is larger, in the final DPs particularly, indicating that students either 'disagree' with or feel 'unsure' in response to item 28. Overall, there is a general upward trend in mean attitude scores for the theme which relates to 'student learning opportunities'; the mean scores and SMCs for items two and 28 are suggestive of a mechanism which may have made the CLE inhospitable to programme mechanisms (Pawson and Tilley, 2004): a 'lack of placement preparation and orientation'.

#### **4:4:2 Theme two – interpersonal/communication skills**

Three MAST items were grouped under this theme heading<sup>10</sup>:

- Item 15. It is interesting to talk to older adults;
- Item 29. Most nurses who work in care of the older adult settings have excellent interpersonal skills, and
- Item 30. Most nurses who work with older adults are enthusiastic about their work.

Table 4.10 shows that for these MAST items, the range of scores is generally tighter across all DPs, than it was for the first theme. For item 15, 'It is interesting to talk to older adults' the mean scores show a movement in attitude scores from 3.1 at DP one, to generally four and above in the post-programme period. The SMC moves from being 'large' at DP one, to 'small', increasing to 'medium' at DPs 14 and 15.

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<sup>10</sup> The charted PG mean attitude scores at each DP, for items grouped under theme two can be seen at appendix 19 (pp. 269 – 270).

Table 4.10 Summary results for contextual theme two.

	Pre-programme period			Post-programme period		
	Likert result	Range of mean scores	SMC	Likert result	Range of mean scores	SMC
Item 15	U - A	3.1 - 4	L - S	A	3.8 - 4.5	S - M
<b>Item 29</b>	<b>D - U</b>	<b>1.7 - 3.2</b>	<b>S</b>	<b>U</b>	<b>2.7 - 3</b>	<b>M</b>
<b>Item 30</b>	<b>D - U</b>	<b>1.9 - 3.1</b>	<b>M - S</b>	<b>D</b>	<b>1.7 - 2.5</b>	<b>S - M</b>
Overall Trend	Upward trend (items 15 and 29) Downward trend (item 30)					

For item 29 'Most nurses who work in care of the older adult settings have excellent interpersonal skills', the mean scores become much tighter in the post-programme period, between 2.7 and three; students seem 'unsure' in this period. Across DPs eight to 15, the SMC becomes larger, indicating weaker attitudes to this item.

There is more variability in the scores for item 30, 'Most nurses who work with older adults are enthusiastic about their work', but again, the spread of mean scores becomes narrower post-programme (range: 1.7 to 2.5), showing a tendency to 'disagree'. The SMC for this item shows changeability, resting around 'medium' in the post-programme period. The mean attitude scores against items 15 and 29 show a slight upward trend; for item 30, the trend is downward. Hence, there are differences in attitudes in relation to the theme 'interpersonal/communication skills'; items 29 and 30 are suggestive of mechanisms which make the CLE inhospitable to programme mechanisms, in relation to this theme (Pawson and Tilley, 2004): 'poor interpersonal skills of registered nurses' and the 'perceived lack of enthusiasm toward working with ill older people' of registered nurses.

#### 4:4:3 Theme three – skill and knowledge required for care of the elderly

Three MAST items were grouped under this theme heading<sup>11</sup>:

- Item 5. Nurses who work with older adults need to know the ageing process;
- Item 11. Patience is important no matter where you work, and
- Item 16. Nurses who work with older adults do not need to be clever.

Table 4.11 shows a tight range of scores, particularly post-programme. Across these items, the mean score range is between 4.3 and 5, with students in strong agreeance with items five ‘Nurses who work with older adults need to know the ageing process’, and 11 ‘Patience is important no matter where you work’; strong disagreement is seen for item 16, ‘Nurses who work with older adults do not need to be clever’.

Table 4.11 Summary results for contextual theme three.

	Pre-programme period			Post-programme period		
	Likert result	Range of mean scores	SMC	Likert result	Range of mean scores	SMC
Item 5	A - SA	3.7 - 4.6	S	SA	4.5 - 4.6	S
Item 11	A	2.1 - 4.2	S	SA	4.5 - 5	S
Item 16	D - SD	3.8 - 4.8	S	D - SD	4.3 - 4.7	S
Overall Trend	Upward trend for all items; very steep for item 11					

The SMC for these items is ‘small’ across the majority of DPs, and continues in the post-programme period; this is not seen for any of the other themes. Again, an upward trend in mean scores is seen for each of these MAST items; the upward

<sup>11</sup> The charted PG mean attitude scores at each DP, for items grouped under theme three can be seen at appendix 20 (pp. 271 – 272).

slope is markedly acute for item 11, indicating positive attitudes toward the theme ‘skill and knowledge required for care of the elderly’; no mechanisms which appeared to negatively affect the CLE were identified in relation to this theme.

#### 4:4:4 Theme four – labelling older adults

Five MAST items were grouped under this theme heading<sup>12</sup>:

- Item 4. Most patients in care of the older adult settings are incontinent of urine;
- Item 12. All older adults are different from each other;
- Item 14. Most nursing students are surprised that older adults are “normal”;
- Item 17. Most older adults have lost their sense of humour, and
- Item 25. Most nursing students are surprised that older adults can hold a sensible conversation.

Table 4.12 Summary results for contextual theme four.

	Pre-programme period			Post-programme period		
	Likert result	Range of mean scores	SMC	Likert result	Range of mean scores	SMC
Item 4	U - D	2.8 - 4.5	M - S	U - D	3.3 - 4.6	S
Item 12	A	3.6 - 4.1	M - S	A - SA	4.2 - 4.9	S
Item 14	U - D	3.2 - 3.6	M - S	U	2.7 - 3.2	M - L
Item 17	D	3.3 - 4.3	S	D - SD	3.8 - 4.6	S
Item 25	D - A	2.3 - 3.8	S - L	U	3.2 - 3.6	M
Overall Trend	Upward trend for items 4, 12, 17 and 25 Slight downward trend for item 14					

<sup>12</sup> The charted PG mean attitude scores at each DP, for items grouped under theme four can be seen at appendix 21 (pp. 273 – 275).

Table 4.12 shows the range of scores for some of these MAST items to be quite large; item four 'Most patients in care of the older adult settings are incontinent of urine' (range: 2.8 to 4.6) in particular, with a small SMC in the post-programme period.

The mean scores for items 12 'All older adults are different from each other' and 17 'Most older adults have lost their sense of humour' in the post-programme period are high (range: 3.8 to 4.9 collectively), with small SMCs in each case. For item 14, 'Most nursing students are surprised that older adults are "normal"', the range of mean scores are more tightly clustered across all DPs, around the 'unsure' category (range: 2.7 to 3.6), with a large SMC in the post-programme period, and show a slight downward trend.

Item 25 'Most nursing students are surprised that older adults can hold a sensible conversation' has a wide ranging mean score in the pre-programme period (range: 2.3 to 3.8), which tightens around 'unsure' (range: 3.2 to 3.6) post-programme. The SMC is of a medium size, post-programme, suggesting that students feel less strongly about this item. Overall, the trend lines generally indicate positivity toward the theme 'labelling older adults'; again, no mechanisms could be identified, which appeared to negatively affect the CLE.

#### **4:4:5 Theme five – lecturers' influences**

Four MAST items were grouped under this theme heading<sup>13</sup>:

Item 7. Most lecturers think working with older adults is second rate;

Item 13. Most lecturers promote an interest in older adults;

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<sup>13</sup> The charted PG mean attitude scores at each DP, for items grouped under theme five can be seen at appendix 22 (pp. 276 – 277).

- Item 18. Most lecturers are out-of-date with advances in looking after older adults, and
- Item 23. Most lecturers will be fully supportive of nurses who want to work with older adults.

Table 4.13 shows that the range of scores for these items become tighter, particularly post-programme. The SMC for these items ranges between ‘small’ and ‘medium’, again in the post-programme period. Slight upward trends in mean scores for items seven ‘Most lecturers think working with older adults is second rate’, 13 ‘Most lecturers promote an interest in older adults’ and 18 ‘Most lecturers are out-of-date with advances in looking after older adults’ are seen across all DPs. The trend for item 23 ‘Most lecturers will be fully supportive of nurse who want to work with older adults’ is in a downward direction. Again, there are differences in the movement of mean attitude scores for items in relation to the theme concerning ‘lecturer’s influences’.

Table 4.13 Summary results for contextual theme five.

	Pre-programme period			Post-programme period		
	Likert result	Range of mean scores	SMC	Likert result	Range of mean scores	SMC
Item 7	U	2.9 - 4.2	M - S	U - D	2.9 - 3.8	S
<b>Item 13</b>	<b>D - A</b>	<b>2.2 - 3.6</b>	<b>M - S</b>	<b>U</b>	<b>2.9 - 3.5</b>	<b>S - M</b>
<b>Item 18</b>	<b>D - A</b>	<b>2.4 - 4.2</b>	<b>M - S</b>	<b>U</b>	<b>2.4 - 3.5</b>	<b>M - S</b>
<b>Item 23</b>	<b>U - A</b>	<b>2.5 - 4.2</b>	<b>S - M</b>	<b>U - D</b>	<b>2.4 - 3.2</b>	<b>S - M</b>
Overall Trend	Slight upward trend for items 7, 13 and 18 Marked downward trend for item 23					

These mean scores indicate a negative bias in each case, and are coupled with ‘small’ to ‘medium’ SMCs. Overall, three mechanisms were identified in relation to

this theme, which may impact upon the CLE's capacity to allow programme mechanisms to work, as follows: 'negativity of faculty toward working with ill older people', 'faculty who are out-of-date with advancements in the field' and 'failure of faculty to encourage students to seek employment in the care of ill older people'.

#### **4:4:6 Theme six – looking after older adults**

Six MAST items were grouped under this theme heading<sup>14</sup>:

- Item 1. Older people are treated as individuals in acute clinical areas;
- Item 3. Caring for older adults is repetitive and boring;
- Item 8. Older adults in care of the older adult setting are treated as individuals;
- Item 19. Nurses in older adult settings encourage patients to self-care;
- Item 22. Personality remains the same as we grow older, and
- Item 24. Most students think the care of the older adult setting is about basic nursing care.

The range of mean scores for items relating to this theme are especially wide, in the pre-programme period particularly (table 4.14).

Some convergence in mean scores is seen post programme, with students declaring a definite stance in relation to looking after ill older people. The SMC ranges between 'small' and 'medium' for most of these items, post-programme, suggesting that students feel quite strongly about them, particularly as they approach qualification. For items three 'Caring for older adults is repetitive and boring' and 22 'Personality remains the same as we grow older', upward trends, indicating positive biases, are observed.

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<sup>14</sup> The charted PG mean attitude scores at each DP, for items grouped under theme six can be seen at appendix 23 (pp. 278 – 280).

Table 4.14 Summary results for contextual theme six.

	Pre-programme period			Post-programme period		
	Likert result	Range of mean scores	SMC	Likert result	Range of mean scores	SMC
<b>Item 1</b>	<b>U - A</b>	<b>2.7 - 4.1</b>	<b>S</b>	<b>U - D</b>	<b>1.4 - 2.9</b>	<b>M - S</b>
Item 3	D	2.9 - 4.6	S	S - SD	4 - 4.6	S
<b>Item 8</b>	<b>A - SA</b>	<b>3.5 - 4.8</b>	<b>S</b>	<b>U - A</b>	<b>3 - 4</b>	<b>M</b>
<b>Item 19</b>	<b>A</b>	<b>3.5 - 4.5</b>	<b>S</b>	<b>U - A</b>	<b>2.6 - 3.8</b>	<b>S</b>
Item 22	U - A	3 - 4.2	S	A - SA	3.3 - 4.7	S
<b>Item 24</b>	<b>D - A</b>	<b>2.1 - 3.9</b>	<b>S</b>	<b>U - A</b>	<b>2 - 2.7</b>	<b>S - M</b>
Overall Trend	Upward trend for items 3 and 22 Downward trend for items 1, 8, 19 and 24					

For the first time, the majority of items within a theme ('looking after older adults') suggest general negativity toward it. There are very slight downward trends for all remaining items within this theme, which is a concern, as these items measure attitudes about the students' perceptions of older person care, which they have experienced whilst on placement:

- Item 1. Older people are treated as individuals in acute clinical areas;
- Item 8. Older adults in care of the older adult setting are treated as individuals;
- Item 19. Nurses in older adult settings encourage patients to self-care;
- Item 24. Most students think the care of the older adult setting is about basic nursing care.

Three mechanisms were identified, acting against the programme mechanisms, by making the CLE inhospitable to programme mechanisms, as follows: 'failure to promote individualised nursing care', 'failure to encourage patients to self-care' and 'poor profile of placements within the care of older people'.

#### 4:4:7 Theme seven – interpersonal relationships

Two MAST items were grouped under this theme heading<sup>15</sup>:

Item 6. Most older adults are cantankerous, and

Item 9. Most nurses will take time to chat to older patients.

Table 4.15 shows the range of mean scores for item six ‘Most older adults are cantankerous’ are fairly tight pre-programme, remaining tight post-programme, with a higher mean score; scores at most DPs, post-programme, are a whole point higher.

Table 4.15 Summary results for contextual theme seven.

	Pre-programme period			Post-programme period		
	Likert result	Range of mean scores	SMC	Likert result	Range of mean scores	SMC
Item 6	U - D	3.3 - 4	M - S	S - SD	4.1 - 4.7	S
Item 9	U	3.3 - 3.8	M - S	U - A	2.9 - 4.1	S
Overall Trend	Upward trend					

For item nine, ‘Most nurses will take time to chat to older patients students’, mean scores indicate attitudes between ‘unsure’ and ‘agree’. The SMC for both items moves to from ‘medium’, to being ‘small’ post-programme. There is an upward trend for both items. No countervailing mechanisms were identified, in relation to this theme.

<sup>15</sup> The charted PG mean attitude scores at each DP, for items grouped under theme seven can be seen at appendix 24 (p. 281).

#### 4:4:8 Theme eight – categorising nurses

Three MAST items were grouped under this theme heading<sup>16</sup>:

- Item 21. It is essential that trained nurses motivate nursing students to feel positively about older adults;
- Item 26. It is essential that trained nurses who work with older adults are good role models, and
- Item 27. Most nurses who work in care of the older adult settings want to be there.

Table 4.16 Summary results for contextual theme eight.

	Pre-programme period			Post-programme period		
	Likert result	Range of mean scores	SMC	Likert result	Range of mean scores	SMC
Item 21	A - SA	3.7 - 4.8	S	A - SA	4 - 4.7	S
Item 26	U - A	3.1 - 4	S	A - SA	4.3 - 5	S
<b>Item 27</b>	<b>D - U</b>	<b>2.3 - 3.1</b>	<b>M</b>	<b>D - U</b>	<b>2 - 2.9</b>	<b>S - M</b>
Overall Trend	Upward trend for items 21 and 26 Trendline is flat for item 27					

The range of scores for items 21 'It is essential that trained nurses motivate nursing students to feel positively about older adults' and 27 'Most nurses who work in care of the older adult settings want to be there' are close across all DPs (table 4.16). For item 26, 'It is essential that trained nurses who work with older adults are good role models', a wider range is seen across all DPs (range: 3.1 to 5), with an associated upward movement toward the 'strongly agree' Likert response category.

<sup>16</sup> The charted PG mean attitude scores at each DP, for items grouped under theme eight can be seen at appendix 25 (pp. 282 – 283).

The SMC for both items 21 and 26 is 'small', and 'medium' across all DPs for item 27. There is an upward trend for items 21 and 26. For the first time within the study, a flat trend line is seen for item 27; again, there is general positivity related to the theme 'categorising nurses'. Only one countervailing mechanism was identified in relation to this theme: 'perceived lack of enthusiasm [of registered nurses] toward working with ill older people'.

#### **4:5 Summary**

Phase one analysis showed that there were no differences in the mean of the cumulative attitude scores of the PG and CG. Repeated measures analysis demonstrated that there was no difference in the mean of the cumulative scores of the PG across the time-series, before and after the educational programme, and neither were programme mechanism effects delayed in their manifestation. Hence, the research hypothesis cannot be accepted in this case; the programme mechanisms had no effect upon students' attitudes, within the context of the CLE.

Phase two analysis involved exploring mean attitude scores and the size of the middle category in relation to MAST items, to answer the remaining applicable secondary question. This revealed contextual countervailing mechanisms that seem to make the context of the CLE inhospitable to the action of programme mechanisms (table 4.17).

With reference to the study's objectives, a clearer picture of the contextual conditions necessary for the programme mechanisms to work, and how the contextual conditions of the CLE influence the success of the programme mechanisms is seen.

Table 4.17 Mechanisms which make the CLE inhospitable to programme mechanisms.

<b>Theme</b>	<b>Mechanisms identified using MAST which may make the CLE inhospitable to programme mechanisms</b>	<b>Structure (S) or agency (A)</b>
Theme 1	Lack of placement preparation and orientation	S
Theme 2	Poor interpersonal skills of registered nurses	A
Themes 2 and 8	Perceived lack of enthusiasm of registered nurses toward working with ill older people	A
Theme 5	Negativity of faculty toward working with ill older people	A
Theme 5	Faculty who are out-of-date with advancements in the field	A
Theme 5	Failure of faculty to encourage students to seek employment in the care of ill older people	A
Theme 6	Failure to promote individualised nursing care	A
Theme 6	Failure to encourage patients to self-care	A
Theme 6	Poor profile of placements within the care of ill older people	S

Within all of McLafferty's (2001) contextual themes, there were areas where the configuration of mean scores and SMCs were suggestive of mechanisms related to both structure and agency, which may have made the CLE inhospitable to the activation of the posited programme mechanisms (Pawson and Tilley, 2004). These will now be discussed in chapter five.

## Chapter Five

### Discussion

#### 5:0 Introduction

The aim of this chapter is to discuss the findings from the analyses reported in chapter four. Phase one analysis addressed the following realist research hypothesis:

The mechanisms within an educational programme ( $M_1 - M_{16}$ ), delivered in the clinical learning environment (C) will improve the attitudes of nursing students toward caring for ill older people (O).

It showed that the programme mechanisms had no significant effect upon students' attitudes within the context of the CLE. It also showed that the attitudes of both groups in this study appeared to be leaning more toward positivity, in relation to their work with ill older people, but with scope for improvement. Hence, the need for attitude change programmes will be discussed in the first section.

The secondary question applicable, in view of phase one findings, was as follows:

If no effect is demonstrated within the context of the clinical learning environment, what mechanisms within this context made it inhospitable to the operation of programme mechanisms?

Hence, the focus then moves to a discussion of the possible reasons for the failure of programme mechanisms within the context of the CLE (Pawson and Tilley, 1997). The countervailing mechanisms that made the CLE inhospitable to the action of programme mechanisms, identified through phase two analysis, will be examined in detail. This chapter also makes links with contextual mechanisms identified within the review of the literature, considering the impact of each of these in turn.

## **5:1 The Need for Attitude Change Programmes Related to Ill Older People**

As discussed in chapter one, Eagly and Chaiken (1993, p. 1) suggest that 'attitudes' are a 'psychological tendency' conveyed through either positive or negative associations with a 'particular entity', in this case 'older people'. Attitude measurement is not an exact science, because tools designed to measure them generally only give an indication of the direction of these tendencies, for researchers to base inferences upon, about the success of their programmes (Palmore, 1998). This is characteristic of the most commonly used attitude measurement tool concerning older people, discussed within the review of the literature (*cf.* Kogan, 1961). Although Kogan (1961) gives specific scoring levels that, if achieved using his tool, would indicate a positive bias toward older people, it is unclear how he arrived at these figures. McLafferty's Attitude Scoring Tool (MAST) (2001) was developed as a tool to measure the effects of clinical placements upon attitudes, to look for upward or downward trends. However, she does not give an indication of the score at which a positive bias toward older people would be indicated, as discussed in chapter three.

In the absence of this characterisation of attitudes by McLafferty (2001), the time-series will be discussed to better understand the scores seen for both groups longitudinally. This will assist in evaluating the need for attitude change programmes, in relation to ill older people. Figure 5.1 shows the charted time-series, with the minimum, mid-point and maximum possible mean of the cumulative attitude scores for both groups, in line with the data being at the interval level (Brown, 2011, *cf.* section 3:9:1:1; pp. 119 - 123). It appears to show that the attitude scores of both groups suggest a positive disposition toward ill older people, with the attitude scores improving slightly over the course of the study. This prompts the question of whether the attitudes of these two groups were positive enough anyway, without the need for

an attitude change programme. The review of the literature suggested that attitudes need to improve toward caring for ill older people, particularly within nursing (*cf.* Berntsen and Bjørk, 2010). What is less clear, however, is how high a measured attitude score would be considered high enough, irrespective of the tool being used to measure it.

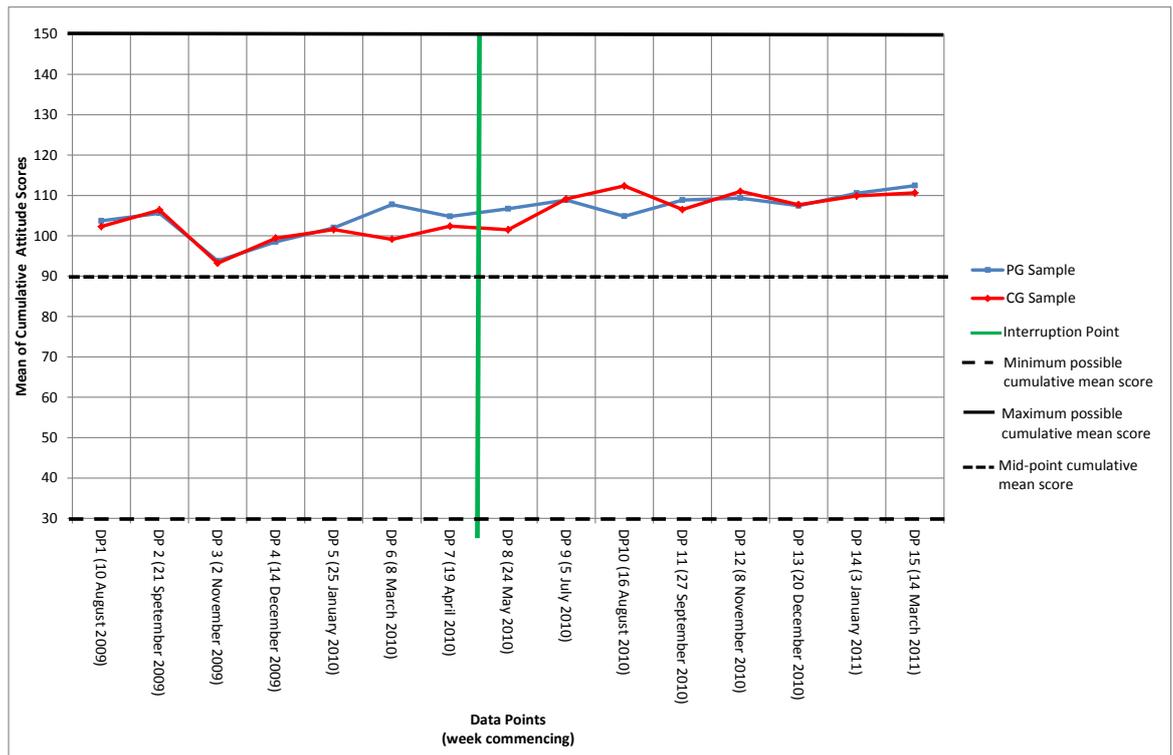


Figure 5.1 Charted time-series for the programme and comparison groups in relation to the minimum, mid-point and maximum possible mean cumulative scores using MAST.

From the perspectives of patients and their families, the message is obvious; patients and families want nurses to display professionalism, alongside a caring attitude (Griffiths, et al., 2012; The Patients Association, 2012; Francis, 2013). Based on witness testimonies, most recently, the Francis Report (2013) clearly articulated the degree and extent of negativity, amongst nurses in particular, as a contributory factor in the many failings at Mid Staffordshire NHS Foundation Trust. Many people died, in part, because of these failings, and the relatives still remember

the poor care and attitudes their relatives were apparently subjected to, at the hands of nurses; poor attitudes have far-reaching and long-lasting effects.

The review of the literature highlighted that both the motivation and attitudes of registered nurses has a direct impact upon the quality of care provided to ill older people (de Guzman, et al., 2009). In addition, the need to develop a revitalised culture of care has been re-emphasised (Cummings and Bennett, 2012; DH, 2013). As highlighted in this review, there was a suggestion that 'caring attitudes' should be a required professional competency within nursing, which should not be presumed because a person wants to become a nurse (Council of Deans, 2012; Francis, 2013).

In view of this, perhaps only attitude scores around the identified maximum levels, irrespective of the measurement tool being used, should be considered high enough. The attitudes of the two groups within this study, although leaning toward the positive, are only just above the mid-point. This may not be sufficient, if the development of a positive culture is to be realised within the NHS; there may be room for improvement in students' attitude scores (Cummings and Bennett, 2012; Francis, 2013). Education to promote positive attitudes toward ill older people amongst nurses, in whatever format or context, may be more important now than ever.

The general positive slant seen for both groups in figure 5.1 may also be explained by detailed exploration of MAST. The 30-item version has more positive than negative items, which may account for the generally positive scores seen for both groups, rather than it being due to maturation (Cook and Campbell, 1979). In spite of this obvious limitation, it was still used, because of its acknowledgement of contextual factors related to nurses' work with ill older people, and in consideration

of the centrality of context within critical realist research approaches. Alternative tools are available for the measurement of attitudes toward working with older people, and these should be considered for use in subsequent attempts to explore the effect of programme mechanisms based on the functional approach to attitude change (Katz, 1960) in different contexts. This is explored further in chapter six.

### **5:2 The Failure of Programme Mechanisms Within the Context of the Clinical Learning Environment**

In chapter four, the apparent failure of the programme mechanisms in changing attitudes was demonstrated; the programme mechanisms, delivered within the context of the CLE, had no marked effect upon the attitudes of nursing students toward the care of ill older people. Detailed analyses regarding the responses to items within MAST were also presented, highlighting those which may indicate the action of countervailing mechanisms within this context. The secondary question now applicable, in view of these findings, was as follows:

If no effect is demonstrated within the context of the clinical learning environment, what mechanisms within this context made it inhospitable to the operation of programme mechanisms?

In line with critical realist thinking, it should not be presumed that the posited programme mechanisms do not exist, and do not have the capacity to change attitudes (Bhaskar, 1978); just because an effect was not seen in this study, it does not mean that the programme mechanisms would not be successful in a different context, for example. It may be premature to discount the functional approach to attitude change (Katz, 1960), as this study only explored the effect of the programme mechanisms within one context. Giving this due consideration, it may be that the postulated mechanisms were not activated at all in this context, or that they were neutralised by other mechanisms at play within the context of the CLE

(Pawson and Tilley, 1997). In other words, the context may not have provided the right conditions for the programme mechanisms to be triggered (Clark, et al., 2008). Yeung, (1997, p. 63) notes that in order to ascertain why programme mechanisms fail to fire, the researcher should 'elevate themselves' from the data to get a wider awareness of the mechanisms at play. Those that may be countering programme mechanisms cannot be immediately identified from the data collected; it requires work on the part of the researcher to conduct further analyses, to seek an explanation for apparent programme failures (Collier, 1994). Discussion of the PG students' responses to items within McLafferty's (2001) contextual themes, particularly focusing on mean attitude scores, in conjunction with the size of the middle category (SMC) presented in chapter four is very revealing, in the identification of contextual countervailing mechanisms (Schuman and Presser, 1996). This discussion will now be presented, in order to highlight how the identified explanatory mechanisms within the context of the CLE may have interfered with the action of programme mechanisms, preventing them being activated, or causing them to be cancelled out before they were able to have an effect. As explained in chapter one, mechanisms can be generative, with causal powers, and explanatory, in that they can explain why certain effects are seen (Pawson and Tilley, 2004). Mechanisms can also be 'countervailing' in their nature; they can prevent expected effects, or cause different effects from those expected (Astbury and Leeuw, 2010, p. 369).

This discussion of identified mechanisms will be presented, in relation to the contextual themes (1, 2, 3, 5, 6 and 8) under which they were identified (McLafferty, 2001). The remaining two contextual themes (four and seven) will then be discussed, as important issues were raised in relation to these, although no existing or countervailing mechanisms could be clearly identified in relation to them.

### **5:2:1 Contextual countervailing mechanisms related to theme one: student learning opportunities**

The first of McLafferty's (2001) contextual themes related to 'student learning opportunities'. These MAST items concerned students' views about what can be learnt in older person care settings, the nature of the nursing care of older people, expectations prior to such placements and how well prepared students are, for working with ill older people, within their nurse education programme.

Students in the PG appeared to be convinced of the utility of placements in older person care, in that they can learn more than just 'the basics' there, and that care of ill older people can be acute in nature; the intensity of attitude in relation to these items was strong (Schuman and Presser, 1996). This appears to contradict the idea that nursing students shy away from the care of older people because there is little to learn there, and a lower level of skill may be required (Schrader, 2009). Of themselves, these items do not seem to have the effect of counter-mechanisms which made the CLE hostile to programme mechanisms. However, in view of Schrader's (2009) assertion that faculty avoid placing students in such settings because there is little to learn, perhaps faculty should be challenged, because of their covert influence upon students' attitudes (McGarry, et al., 2009). This may help in the aim of developing quality placements in settings where older people are cared for. How such challenges might be addressed are discussed in chapter six.

The remaining items within this theme related to students' attitudes prior to placements in care of older person settings. Respondents were unsure about whether or not students know what to expect in such placements, and disagree that they are well prepared for working with older people. The sizes of the middle categories are medium for the majority of the time-series for both of these items, particularly post-programme. However, it should not be presumed that because

these are larger, indicating less intense attitudes that attitudes to these items are of no consequence.

A larger SMC in relation to these seems to suggest that the students' minds were not changed, as they progressed through the adult field of practice programme. They perhaps felt even less sure about what they could and should expect upon these placements, and remained unconvinced of how well they are prepared to work with older adults. There appears to be scope to influence students in a positive direction as they approach qualification, aiming for a tighter SMC, and higher mean scores in future programme delivery.

In view of the emphasis placed upon the importance of placement preparation and orientation, 'a lack of placement preparation and orientation for placements in older person care' may constitute an explanatory countervailing mechanism, which made the CLE inhospitable to the programme mechanisms (Robinson, et al., 2009). More attention could be paid to both preparation and orientation, through the establishment of formal preparatory work for placements in older person care, so that students know what to expect there, and are prepared in terms of the skills required, such as effective communication with ill older people. This may prevent students being put off the care of ill older people because of feeling unprepared (Shen and Xiao, 2011), and effectively prime them for the type of organisation of nursing work that they will see, helping them to put into proper context their work alongside healthcare assistants in the delivery of fundamental nursing care. Allan and Smith (2009) suggested that this was one of the mechanisms that turns students away from this specialism. If students were briefed beforehand about this, they may better appreciate what can be learnt from working alongside healthcare assistants, and no longer see it as unrelated to the role of the nurse. In this way, the

status of the provision of fundamental nursing care may also be raised (McCann, et al., 2010).

There is an imperative to do this, in view of the DH's new proposals for nurse education, which will place nursing students back at the patient's bedside, providing fundamental care alongside healthcare assistants for a year prior to commencing their training (DH, 2013); this is where positive attitudes will be developed and influenced. If attention is not paid to helping students to understand how this fits with the role of the nurse as a co-ordinator of care (RCN, 2012a), it may be seen as a meaningless 'hoop that they must jump through' in order to progress to a nurse education programme, and do nothing to help them to develop a positive attitude and compassionate approach. It is also a concern that students will be learning these core values alongside those who have had very little training or education themselves (Cavendish, 2013).

The possible action of a lack of understanding of supernumerary status and the poor status of the nursing care of older people were identified within the review of the literature as possible countervailing mechanisms, however it would have been very difficult to account for their effects through quasi-experimental means. Supernumerary status has been established within nurse education since the 1980s, without the likelihood for change. In addition, the low status of the nursing care of older people appears to have changed very little over the last 15 years (Kydd, 2012; RCN, 2012a; Kydd, et al., 2013). The enduring nature of both of these contributes to the 'pseudo-closure' that Danermark, et al., (2002) discussed, in relation to critical realist research, conducted within higher strata of reality; it may be that the action of these mechanisms did not affect the activation of programme mechanisms, but that they do contribute to sustaining the original 'problem' of negative attitudes toward the care of ill older people.

### **5:2:2 Contextual countervailing mechanisms related to theme two: interpersonal and communication skills**

The second of McLafferty's (2001) contextual themes related to 'interpersonal and communication skills'. Students in the PG acknowledged that they found it interesting to talk to older people; the trend line for this item showed an acute upward slant, with the SMC moving from 'large' to 'small', resting around 'medium' at the end of the time-series. These, combined with the mean scores in relation to this item, which indicated a positive bias, suggest that it did not adversely influence students' attitudes, or make the CLE inhospitable to programme mechanisms.

The remaining items in this theme related to the interpersonal skills of registered nurses in older person care settings, and the enthusiasm that they show toward their work. The review of the literature highlighted that both of these items are important for students, with the capacity to influence their attitudes in a positive or negative direction (McGarry, et al., 2009). However, students disagreed with these statements; registered nurses do not demonstrate effective interpersonal skills, and are not enthusiastic about their work. This suggests that registered nurses on clinical placement are not role-modelling effective interpersonal skills, and appear to lack enthusiasm for their work. In relation to registered nurses' enthusiasm toward their work, some of the lowest mean scores were seen, across the whole time-series. Both role-modelling and work motivation were identified as being important for effective learning within the review of the literature (Duggan, et al., 2012). This finding is of particular concern, as a lack of motivation has been shown to negatively influence the quality of care (de Guzman, et al., 2009). It also influences students against the field, as it may impact upon the quality of students' placement experiences, and contribute to the care of older people being viewed as low in status (Holroyd, et al., 2009). Students seemed to become less sure about the positive influence of registered nurses, as they approached qualification.

Again, there is room for improvement in relation to these, with possibly more scope for these agents to influence students in a positive manner. 'Poor interpersonal skills of registered nurses' and a 'perceived lack of enthusiasm of registered nurses toward working with ill older people' may act as mechanisms which contribute to a hostile context. Registered nurses should be made aware of their influence upon nursing students' attitudes, to provide better conditions within the context of the CLE, for the programme mechanisms to trigger (Gould, et al., 2012). Staff in placements could be utilised as a much stronger positive force on the attitudes of nursing students in future programmes, through helping qualified staff to better understand their contribution to the care of ill older people, in order that they can articulate it to students (RCN, 2004); a much tighter range of mean scores between four and five, with associated small SMCs would be the aim in future work.

### **5:2:3 Contextual countervailing mechanisms related to theme three: skill and knowledge required for care of the elderly**

The third theme concerned the skill and knowledge required to care for the elderly (McLafferty, 2001), with MAST items about the need for knowledge of the ageing process, patience and intelligence. Students were very clear about their position, in relation to these items. The mean scores were high in the post-programme period, associated with small SMCs in most cases. Putting these two profiles together, it would seem to suggest that the students are convinced about the requirement for skills and knowledge, in order to care for ill older people, hence this theme does not appear to highlight any countervailing mechanisms that were working against the programme mechanisms.

Scores in relation to the requirement for knowledge and skill are noteworthy however, as students have been shown to demonstrate negativity when placed in

such settings, as they perceive it as being devoid of learning opportunities (Holroyd, et al., 2009). It may be that students are sometimes given the impression that the care of older people only involves attention to fundamental care needs, and that this is easy to do, requiring no real skill as they see it being primarily delivered by unqualified staff (Allan and Smith, 2009). As McGeorge (2012) suggests, faculty and mentors need to demonstrate the complexities of older person care, so that it is visible to students, otherwise the view that this work is easy, and low in status may be perpetuated.

In relation to the students' responses to these items, it is perhaps faculty that need to be convinced of the importance of ensuring that students have knowledge of the ageing process, through demonstrating the complexity of the care of ill older people. Based upon the findings of this study, the belief appears to be there in students; educators should harness this belief, by challenging students with complex case studies, giving more than cursory attention to the care of older people within adult field of practice programmes, in particular. As noted in the review of the literature, lack of related educational content can lead to students feeling unprepared to care for ill older people, ultimately leading to avoidance (Shen and Xiao, 2011), and push students to specialisms which they perceive as being more acute (Schrader, 2009). It is also a concern, in view of de Guzman, et al's., (2013) assertion that better knowledge improves attitudes toward caring for older people. When a lack of educational content, and failure to acknowledge the complexity of the care of ill older people are coupled with the lack of preparation perceived by the PG (identified in relation to theme one), these may have the effect of strong mechanisms, already present within the structure of nurse education, which maintain the status quo; negativity toward the care of ill older people.

#### **5:2:4 Contextual countervailing mechanisms related to theme five: lecturers' influences**

Faculty have the potential to exert both a direct and indirect influence on the context of the CLE, in their roles as link lecturer, and in delivering theoretical content in University (NMC, 2008; McGarry, et al., 2009). The review of the literature identified that that faculty have great potential to positively influence students toward the care of ill older people, but that their influence is not always perceived in such a positive manner by students (Evers, et al., 2011). The items within this theme asked students about their attitudes in relation to the status afforded by lecturers to the care of older people, whether or not they promote an interest in the field, how up-to-date lecturers are and students' perceived views of the support they would be given from lecturers, should they want to work with older people.

Students disagreed with the item 'most lecturers think working with older adults is second rate'. Hence, their perception is that faculty do not denigrate the care of older people. The SMC was small, suggesting strong attitudes, so this did not appear to act as a counter to programme mechanisms.

The influence of faculty, however, was viewed differently in relation to the remainder of the items within this theme. Students seemed 'unsure' in relation to whether most lecturers promote an interest in older people. In conjunction with a medium SMC, it may indicate that there is more scope for faculty to positively influence students, than they currently do. The review of the literature suggested that faculty can exert both a covert and overt influence on students (McGarry, et al., 2009). 'The negative influence of faculty' may act as a countervailing mechanism within the context of the CLE. This is of particular concern, because faculty may not appreciate the power of their covert and overt influences on students (McGarry, et al., 2009). Because of the nature of their work, faculty may also have the potential to influence attitudes within

the ULE, which must be borne in mind across the entirety of the nurse education programme, and prior to attempts to employ the programme mechanisms within that context.

Students appeared to be unsure about how up-to-date faculty are, in terms of the care of ill older people. This finding was also seen in the study by Deltsidou, et al., (2010). Coupled with a medium SMC, once again, there is scope to improve this perception. Perhaps a course ought to be developed and offered to faculty within the University attended by the PG, in order to update and expand their knowledge. The eventual aim would be to achieve higher mean scores and tighter SMCs, following future programme delivery in relation to items asking about how up to date faculty are perceived to be. However, faculty may first need to be convinced about the necessity for the inclusion of 'older person' content, within the 'adult' field of practice, with faculty taking collective responsibility for its inclusion, to ensure it is not omitted completely (Schrader, 2009).

It would appear that students do not feel encouraged to choose a career in older person care, and this appeared to worsen toward qualification. These findings were also seen in other work highlighted within the review of the literature (*cf.* Stevens, 2011). This is of concern, in view of the need to ensure sufficient numbers of qualified nurses to care for older people in the future (Baumbusch, et al., 2012). Low mean scores, with a medium SMC appear to suggest that there may be room for improvement here, also. Theme five has, therefore, highlighted several potential mechanisms, which make the CLE inhospitable to programme mechanisms. They are: 'the negative influence of faculty', 'failure of faculty to promote an interest in the care of ill older people', 'faculty out-of-date with advances in the care of older people' and 'failure of faculty to encourage students to seek employment in the care of ill older people'.

### **5:2:5 Contextual countervailing mechanisms related to theme six: looking after older adults**

This theme reflected the actual experience of students in caring for older people; responses were based upon these experiences. It is therefore disappointing that there was a downward trend for all but two of these items (appendix 23; pp. 279 - 281). Students were positive in their inclination toward the care of older people, finding it neither boring nor repetitive, and demonstrating knowledge about the personality in old age. High scores with small SMCs indicate that these were strongly held views.

The remaining items related primarily to students' views about the care of older people, as witnessed on placement within the context of the CLE. Across these, low mean scores were seen. Small to medium SMCs were indicative of quite strong attitudes to these items. The picture of students' experiences painted by these responses is that they do not see older people being treated as individuals in acute clinical areas; the scores are slightly better for individualised care in 'older adult' settings. The negative effect of this way of providing care, upon attitudes is evident, in that students may act in accordance with the prevailing culture on a particular placement (Berntsen and Bjørk, 2010). Students' views about whether or not nurses encourage patients to self-care worsened, as did their view that most nursing students think that placements in which older people are cared for primarily involve 'basic' nursing care. Again, the complexity of older person care does not seem to be communicated effectively within clinical placements. Interestingly, discussion of theme one identified that students were convinced of the learning potential within placements where older people are cared for. It may be that that this potential is not always fostered within the CLE, which may do nothing to raise the status of this work. Once again, it could be that supernumerary status has an influence here, in

that students may see much of the fundamental care being delivered by healthcare assistants (Allan and Smith, 2009).

A number of countervailing mechanisms appear to be at play, in relation to this theme, as follows: The 'lack of individualised nursing care' mechanism, the 'failure to encourage self-care' mechanism and the 'poor profile of placements where older people are cared for' mechanism. The effects of each of these is realised where the approach of registered nurses within that environment impacts upon students' experiences of it. These would need to be addressed, prior to future programme delivery, to ensure that the right conditions are created for the programme mechanisms to work (Astbury and Leeuw, 2010).

#### **5:2:6 Contextual countervailing mechanisms related to theme eight: categorising nurses**

This theme concerned students' views about the role of registered nurses in motivating nursing students to feel positive about older adults; that they should be good role models, and whether or not students perceive that the registered nurses working in the care of older people 'want to be there' (McLafferty, 2001). Toward the end of the time-series, students strongly agreed about the motivating role of registered nurses within the field of older person care, and that they should be good role models. In relation to being good role models, some of the highest mean scores were seen. The SMCs were small in the post-programme period; students appeared to be convinced of the importance of both the registered nurse's role as a motivator of students and role-modelling. However, findings in relation to theme two were already suggestive of registered nurses not role-modelling effective attitudes and behaviours (*cf.* section 5:2:2; pp. 169 - 170).

In relation to the last item within this theme, concerning registered nurses' perceived enthusiasm for their work, a flat trend-line was seen across the time-series; mean scores were low in the pre-programme period, and stayed low post-programme. The low mean score, with a medium SMC indicates that there may be an issue related to how students perceive registered nurses working in the field, and their positivity toward their work. Students have already shown that they strongly agree that registered nurses should be good role models, and motivate others toward the field; the importance of these were also highlighted within the review of the literature (de Guzman, et al., 2009; Skaalvik, et al., 2012). However, if those in mentoring roles come across as 'not wanting to be there', they may be unable to act as effective role models, and unable to stimulate others to choose to work in older person care (Gould, et al., 2012). The 'perceived lack of enthusiasm toward working with ill older people by registered nurses' mechanism, first identified within theme two, has been highlighted again here, as a possible contextual countervailing mechanism which makes the CLE inhospitable to the triggering of programme mechanisms.

#### **5:2:7 Discussion of themes four and seven: labelling older adults and interpersonal relationships**

Although no countervailing mechanisms which made the CLE inhospitable to the action of programme mechanisms were identified in relation to these two themes, a number of important issues were highlighted. Theme four concerned the labels that are often applied to ill older people (McLafferty, 2001), clearly indicating whether biases are positive or negative, in relation to each. The marked upward trends for most of these items were suggestive of a positive bias toward older people within the PG. The SMCs ranged from small to medium, indicating that this positive bias is strong. High mean scores in the post-programme period in particular for some of

these items, with very small SMCs, suggest that the students recognise that older people are not a homogenous group.

There was a slight downward trend concerning the item: 'Most nursing students are surprised that older adults are "normal"'. Mean scores cluster around 'unsure', across the time-series. This could, in part, be explained with reference to the SMC for this item. It mostly ranges between five and eight in the post-programme period, and is larger than it was pre-programme. Scores are clustered more tightly around unsure, post-programme. This is surprising, as the positive bias is so strong for all the other items in this theme. The word 'normal' is a nebulous term; the 'unsure' response may be in relation to this, rather than responses to this item being indicative of any real negative bias toward older people (Oppenheim, 2000). The effect of social desirability response bias may also explain the difference in mean scores for this item (Parahoo, 2006). Social desirability response bias is manifest when respondents in a survey choose the answer that they believe will cast them in a better light. The positivity demonstrated by the mean scores in relation to the some of these items may be exaggerated because of this bias, making mean scores for item 14 appear worse, and indicate negativity (Oppenheim, 2000).

Based on the mean scores and SMCs, no counter-mechanisms could be identified in relation to theme four. However, if delivering the programme in future, attitudes should be measured using McLafferty's (2007) updated version of MAST, following subsequent programme delivery; this item is not included within the 2007 version.

The items within theme seven attended to students' interpersonal relationships with the older people in their care, and how they perceived the ways that registered nurses built such relationships. High mean scores, with generally small SMCs were seen in the post-programme period, indicating a strong, positive bias about whether

or not it is interesting to talk to older adults, and whether or not registered nurses will take time to talk with older people. These mean scores and SMCs do not appear to indicate the presence of countervailing mechanisms, in relation to their items. However, social desirability response bias may also account for these scoring combinations (Parahoo, 2006).

This latter item, about registered nurses taking time to talk to older people, does seem to contradict findings in relation to theme eight, where some registered nurses were not perceived to be role-modelling positive behaviours. The positive bias for this item, within this theme, does not paint a picture of a nurse who appears to behave negatively toward their work. Again, this contradiction may be explained by social desirability response bias (Oppenheim, 2000), but should not be ignored in future approaches. Intense methods of data collection may be more useful in detailing how students view the registered nurses who they work alongside, and from whom they learn (Pawson, 1996).

### **5:2:8 Existing generative mechanisms**

In discussing the mean scores and SMCs in relation to each of McLafferty's (2001) contextual themes, a number of existing generative mechanisms were identified (table 5.1); these may contribute to sustaining negative attitudes toward the care of ill older people (Pawson and Tilley, 1997). Table 5.1 also shows the themes under which they were identified, and whether the identified mechanism relates to structure or agency. Although their inter-relatedness is acknowledged, this distinction may be useful in putting forward ideas to counter them.

These existing mechanisms appear to generate a negative CLE within the care of ill older people. Some of these, such as supernumerary status, and the poor status of

the nursing care of older people, were identified within the review of the literature, but as suggested earlier, it would have been difficult to account for their effects within this study. It was also acknowledged that because both of these have been established structures within nurse education for some time, they may have contributed to the 'pseudo-closure' of the CLE (Danermark, et al., 2002).

Table 5.1 Existing generative mechanisms within the context of the CLE which may sustain negative attitudes toward the care of ill older people.

<b>Theme</b>	<b>Existing mechanisms within the CLE</b>	<b>Structure (S) or agency (A)</b>
Themes 1 and 3	Negativity of faculty toward working with ill older people	A
Themes 1 and 6	A lack of understanding of supernumerary status	S
Themes 1 and 3	Poor status of the nursing care of ill older people	S
Theme 3	Lack of educational content within pre-registration programmes	S
Themes 3 and 6	Failure to acknowledge the complexity of the care of ill older people	S

In order to describe and understand the CLE and its constituent mechanisms within critical realist terms, all of the mechanisms identified will be applied to the strata of the CLE, whether they are existing generative ones, or countervailing in their nature (Brown, 2009). This may be useful in assisting stakeholders in deciding where to direct their initial efforts to make the CLE hospitable to attitude change programmes (Danermark, et al., 2002).

### **5:3 Strata, Domains and Mechanisms: The Clinical Learning Environment and Critical Realist Explanation**

This study showed that there are many mechanisms operating within the CLE, which made it inhospitable to the programme mechanisms, or which contributed to

the sustaining of negative attitudes toward the care of ill older people. In line with critical realist explanation, the lower strata of the reality of the CLE must be investigated, to discover the root causes of why the programme mechanisms failed to fire in this context (Danermark, et al., 2002). Applying the mechanisms found to Brown's (2009) notion of a stratified CLE provides direction about where stakeholders might usefully begin, in order to address them (table 5.2; p. 181). The mechanisms within each stratum evolve the work environment of registered nurses, which is also a place of professional care (Skaalvik, et al., 2012) into a CLE for nursing students, within the curricular stratum. The action of these mechanisms may make the CLE a challenging place for the introduction of attitude change programme mechanisms, and may also make it difficult for nursing students to respond in a positive way to their experiences caring for ill older people, within the actual domain.

The way in which Brown (2009) conceptualised the mechanisms within his stratified learning environment relates to learners, as agents. The influential agents here are registered nurses and faculty. For example, Brown (2009, p. 24) suggested that the 'learner's motivation, aptitude and confidence' are mechanisms at the psychological level. These apply just as readily to registered nurses, and faculty, although they are not learners within the CLE. Hence, 'lack of educational content' has been applied at this level, because the review of the literature identified that a lack of educational content within pre-registration curricula can negatively affect nursing students' confidence to effectively care for ill older people (Duggan, et al., 2012). The negativity of faculty, faculty being out-of-date with advancements in the field, and the perceived lack of enthusiasm of registered nurses have also been placed at the psychological level, because of Brown's (2009) assertion that motivation and aptitude have an impact within this stratum. The remaining mechanisms identified have been applied through the strata, with reference to Brown's (2009) work, and to the mechanisms identified within the review of the literature (table 5.2).

Table 5.2 The critical realist conception of the CLE implied in this study (cf. Brown, 2009).

<b>Stratum I – Curricular</b>	<b>Structure (S) or Agency (A)</b>
Lack of placement preparation and orientation	S
Poor interpersonal skills of mentors	A
Negativity of faculty toward working with ill older people	A
Failure of faculty to encourage students to seek employment in the care of ill older people	A
<b>Stratum II – Socio-cultural</b>	
Poor status of the nursing care of ill older people	S
A lack of understanding of supernumerary status	S
Poor profile of placements within the care of ill older people	S
Failure to acknowledge the complexity of care of ill older people	S
Failure to promote individualised nursing care	A
Failure to encourage patients to self-care	A
<b>Stratum III – Psychological</b>	
Lack of educational content within pre-registration programmes	S
Negativity of faculty toward working with ill older people	A
Faculty who are out-of date with advancements in the field	A
Perceived lack of enthusiasm of registered nurses toward working with ill older people	A
<b>Stratum IV – Biological</b>	
<b>Stratum V – Physical</b>	

The information provided in table 5.2 has been amalgamated to provide a visual aid to interpreting the critical realist conception of the CLE (figure 5.2).

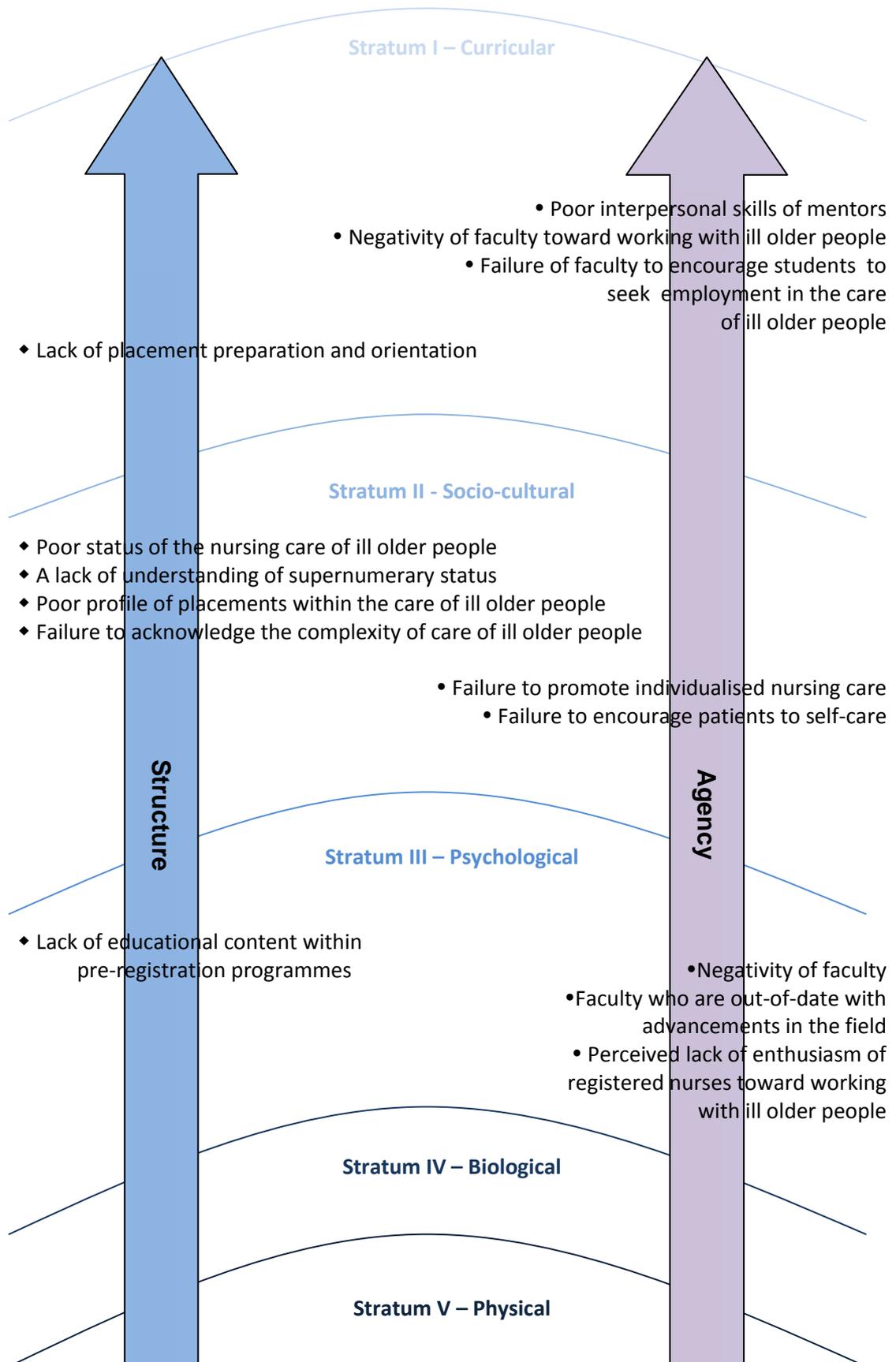


Figure 5.2 Pictorial representation of the critical realist conception of the clinical learning environment as implied in this study (cf. Brown, 2009).

Nursing students access clinical workplaces for the purposes of learning. The mechanisms identified within this study affect how this workplace operates as a place of learning within the curricular stratum; as Brown (2009) suggested, learning environments are open systems, and this study has demonstrated this openness. The open nature of the CLE is demonstrated in figure 5.2, which implies a complex matrix of both structural and agential mechanisms within the psychological, socio-cultural and curricular strata, which act together in an interdependent way, making the CLE inhospitable to the triggering of programme mechanisms, and contributing to sustaining negative attitudes toward the care of ill older people. In order to make the CLE as it exists within the curricular stratum more hospitable to attitude change programmes and their mechanisms, both countervailing and generative mechanisms within the psychological stratum may need to be addressed initially (Danermark, et al., 2002). Hence, this is where stakeholders should focus initial efforts to counter them. Addressing mechanisms at the lower psychological stratum may be advantageous, through transforming how they emerge within higher strata, where a more direct influence upon nursing students is seen. It may be beneficial, however, to simultaneously deal with mechanisms in the curricular and socio-cultural strata, to expedite improvements in the actual experiences of nursing students in placements where ill older people are cared for.

#### **5:4 Summary**

The aim of this thesis was to evaluate the effect of mechanisms within an educational programme upon the attitudes of nursing students toward working with ill older people. Phase one analysis showed that the programme mechanisms had no effect upon attitudes, within the context of the CLE. In view of the apparent failure of programme mechanisms within this context, the focus moved to an exploration of

the contextual conditions necessary for the programme mechanisms to work, and how these contextual conditions influenced the success of the programme mechanisms in changing attitudes. The applicable secondary question asked what mechanisms within this context made it inhospitable to the operation of programme mechanisms. In answering this, a complex matrix of both structural and agential mechanisms within the higher strata of the CLE was identified. These acted in combination, making the CLE unreceptive to the triggering of programme mechanisms. These mechanisms, within the real domain, may also make it difficult for nursing students to respond to attempts to positively influence their attitudes, and to respond positively to their experiences caring for ill older people, within the actual domain.

The stratified nature of the CLE was recognised, and it was suggested that stakeholders direct their initial efforts to deal with mechanisms within the psychological stratum. However, concurrent action in the socio-cultural and curricular strata was proposed, in order to improve students' experiences within the actual domain more quickly, in view of the impact of their mechanisms upon attitudes (Bhaskar, 1978).

## Chapter Six

### Methodological Considerations

#### 6:0 Introduction

This study had its philosophical base within critical realism, which is acknowledged to be underdeveloped, in terms of its methodology (Danermark, et al., 2002). However, a quasi-experimental approach using an interrupted time-series design were robust methods to explore programme effects in this case. There were specific reasons for using these methods, underpinned by critical realist thinking. Cook (1983) worked closely with Donald Campbell, to define the boundaries of quasi-experimentation, and they worked together to write a seminal text for those wishing to use this approach in their research (Cook and Campbell, 1979). Cook (1983) suggested that quasi-experiments are based upon ontologically realist assumptions; that an external world exists, irrespective of our knowledge of it, and that there are real mechanisms that can bring about change, but may also fail to have an effect.

Cook (1983) also asserted that their epistemology aligns with realism, in that they acknowledge a kind of objectivity; that something can be real, without appearing at all, and that observations are undoubtedly value-laden. Quasi-experiments also acknowledge the fallibility of knowledge, in terms of their epistemology; that claims are open to refutation when new information becomes available, and that the tools used to measure phenomena are also necessarily fallible (Cook, 1983). It is because of these assumptions that quasi-experiments 'pre-suppose a very high priority for' LMCV (Cook, 1983, p. 88). Hence the particular attention paid to managing threats to LMCV within this study. The interrupted time-series design can aid efforts to protect a study's LMCV, as does having a CG. For these reasons,

these approaches were chosen because of their 'fit' with critical realism, and in order that the study could counter some of the criticisms of previous research in this field.

In line with critical realism, the study was not planned with the intention to immediately generalise the findings to similar settings and populations (Cook and Shadish, 1994). Hence, the small sample size was not a principal concern when the study was originally planned; were external validity a primary goal, certainly the small sample sizes would have affected this (Parahoo, 2006). The study was conducted in line with Pawson and Tilley's (1997, p. 86) recommendations about conducting a strong study, in terms of its LMCV, that would contribute to 'cumulation', where the results of several similar studies are viewed collectively, to establish what has or has not worked, in terms of changing attitudes. In turn, this would contribute to generalisable knowledge in the future, about the effects of attitude change programmes upon attitudes (*cf.* section 3:3; p. 86).

However, it should not be presumed that external validity was ignored in this study. Whilst this was borne in mind, it was designed in acknowledgement that if a study has been conducted which pays close attention to protecting LMCV, the damage caused by generalising its findings would not be as great as trying to generalise from a study which makes low-quality causal claims (Cook, 1983). So, the study was planned with the 'best of critical realist intentions' in mind. However, adherence to a critical realist position may have given rise to a number of issues in this study's methodology, which must be considered.

The purpose of this chapter is, therefore, to provide a reflective narrative upon the challenges posed in adopting such a position. Based upon the experience of conducting this study, areas where its design could be enhanced in a future approach will also be considered.

## **6:1 The Programme**

The programme was delivered in two parts, over two separate days, one week apart (*cf.* appendix 6; p. 243). It consisted of two separate two-hour sessions. The students in the PG were on the second clinical placement of their 'adult' field of practice programme, in a variety of specialisms within adult nursing. Based on my knowledge of this clinical placement circuit, this meant that students would likely experience caring for ill older people, irrespective of their placement area. Where students in the PG were on placement outside of the hospital, in a nursing home for example, they too were encouraged to attend the programme. On reflection, more rigorous pilot work with both the PG and CG could have assisted more easily to discern what placements students sampled at each DP were on, to inform phase two analysis. This could be considered in any future approaches.

### **6:1:1 Programme length and duration**

Programme length and duration were decided for pragmatic reasons. As already stated, there was no scheduled curricular time to deliver it within university, and a balance was needed between delivering the programme in the CLE, whilst not detracting from students' clinical hours. When considering what content might be needed in relation to the care of ill older people, four hours' input may appear inadequate. However, despite the concept of caring for ill older people being an integrated theme throughout the pre-registration curriculum being followed by the PG, there was no actual content on this, so in comparison, the programme was deemed to 'fill a gap' and to provide further opportunity for raising awareness.

### **6:1:2 Programme design**

The programme was developed in line with Katz' (1960) functional approach to attitude change. Attitude change mechanisms were identified, based on Katz' (1960) suggestions about how attitudes serving each of the four functions, utilitarian, ego-defensive, value-expressive and knowledge, might be changed. For example, to change attitudes serving the utilitarian function, Katz (1960, p. 177) suggested that it would be necessary to change the individual's 'level of aspiration', so mechanisms were identified that might do this. This intention is demonstrated in the following examples: M<sub>1</sub> - the 'expanded role' mechanism and M<sub>2</sub> – the 'potential career trajectory' mechanism (*cf.* table 3.1; pp. 93 - 94). Both of these were intended to show that there is potential for expansion of the nurse's role and career within this field. Katz (1960) also suggested that seeing a positive role model talking about the attitude object, in this case the care of ill older people, can be helpful in this aim. It is acknowledged that my enthusiasm, as a mechanism on its own, would be insufficient to change attitudes, although within the review of the literature (*cf.* Gould, et al., 2012), such enthusiasm is recognised as an influential mechanism. It should not be assumed, however, that there was an expectation that these mechanisms would work in isolation; they were meant to be employed altogether in programme format, as outlined in table 3.1 (*cf.* pp. 93 - 94).

### **6:1:3 Position of integrated content**

If a subsequent argument is to be made about the visible inclusion of content related to ill older people within a nursing programme, a question remains about where such content might fit, and what might need to be removed in order to make room for it in an already overflowing curriculum (Deschodt, et al., 2009). Courses and modules are planned with close attention to theory hours, so that it adds up to those required

by the NMC over the course of a student's study (NMC, 2010). Rather than removing content in order to accommodate new subjects, module leaders would be encouraged to revisit their modules as part of the annual programme review process. All higher education institutions carry this out, and it provides an opportunity to evaluate all aspects of a programme, from the view of students, staff and external examiners. Following this, decisions about potential programme changes can be made. Staff could be encouraged to make a more candid assessment of the hours required for teaching in their modules; experience shows that there are occasions where module sessions repeatedly finish in advance of their allotted time. This time could be purposefully used to deliver content on the care of the ill older person. It is acknowledged that significant work may be required in order to do this, in making the necessary modifications to modules, and seeking approval via the appropriate Programme Board.

#### **6:1:4 Contexts for programme delivery**

The contexts in which programmes are delivered would ideally be chosen based upon which is viewed to provide the most suitable conditions for a programme's mechanisms to operate (Pawson and Tilley, 1997). The ULE was not a viable option within this study, as there was no scheduled space within the curriculum, hence the decision to deliver the programme within the context of the CLE. This was viewed to be a good context for delivery of the programme, as it seemed to logically provide the necessary 'conditions for arousal' of attitudes serving particular functions related to ill older people, which might enhance the impact of the content through exposure to relevant environmental cues during clinical placements (Katz, 1960, p. 187).

So, the programme was timed to occur when students were out on clinical placement. However, rather than the programme being delivered on a ward area, for

example, it was conducted in the professional training department, affiliated to the local NHS Trust; it may have been impractical to attempt to deliver it in a number of different clinical areas. However, running the programme at a time when the students were undertaking a clinical placement experience was deemed the best context for the arousal of attitudes serving any of Katz' four functions, in relation to ill older people (Katz, 1960; Schigelone, 2003), and is in line with the critical realist notion that 'context' is about more than just location (Pawson and Tilley, 2004). This decision was taken in order to give the programme mechanisms the right agential circumstances to exert their influence.

On reflection, questions could be raised regarding the presumption that the CLE may have provided the ideal conditions to arouse attitudes serving any of Katz' (1960) four functions; the data generated in this study do not give detail about whether or not particular attitudes were aroused. Future attempts to deliver an attitude change programme based on Katz' (1960) work must acknowledge this, and either attempt to demonstrate the arousal of attitudes serving each function, or try to measure the attitude functions in relation to ill older people, amongst students (Shavitt and Nelson, 2002); there are methods which can do this (Herek, 1987). If a dominant attitude function can be demonstrated, programme mechanisms could be modified and augmented, focussing on these in particular. In hindsight, this may be a more successful strategy in changing attitudes than the 'catch all' approach used here.

## **6:2 Recommendations for a Future Research Approach**

Since the inception of this study, a clearer picture is emerging in the evidence-base about how nursing students view the care of ill older people. King, et al., (2013) studied how nursing students' attitudes changed over the course of their pre-

registration programme. In line with the findings discussed within the review of the literature (*cf.* Bleijenberg, et al., 2012; Swanlund and Kujath, 2012 - chapter two; pp. 68 - 70), King, et al., (2013) found that nursing students held positive attitudes toward older people. They also suggested that attitudes became increasingly positive over the course of their programme, but that the students did not want to work with older people once qualified (King, et al., 2013).

So, it may be that nursing students feel positive about older people, generally, but far less positive about them when they are ill, requiring nursing home care, for example. The students in their study reported that work in a nursing home was the least preferred area in which to specialise, due to a feeling of being unprepared to work in this setting, in terms of the management skills required (King, et al., 2013). In view of this, and the sustained national rise in the numbers of the oldest old (*cf.* fig. 1.1; p. 17), who will likely require residential or nursing care, perhaps future attitudinal change attempts should still be delivered within the context of the CLE, but more specifically within the nursing home environment. The study could be broadened by including nursing students studying the mental health field; they too will access environments where ill older people are cared for. Similar evidence exists in relation to reported negativity toward this sphere of nursing amongst mental health nurses (Happell and Gaskin, 2013).

The importance of planned preparation, orientation and support for nursing students on placement in nursing homes was identified within the review of the literature as being influential in how students perceived this care environment (*cf.* Robinson, et al., 2009). Hence, were this study to be repeated, after having evaluated the experience of conducting it, a number of important changes would be suggested, in relation to influential agents, context and mechanisms, in particular. These are outlined in the following sections.

### **6:2:1 Use of context in a new approach**

In view of the findings of King, et al., (2013), attempts to change attitudes may be better directed toward encouraging students to have positive attitudes to caring for the oldest old, in a nursing home for example. A number of such environments are used within the clinical placement circuit accessed by PG students. The contexts of both the ULE and the CLE are closely linked, and both could be utilised, in order to deliver the programme, in a future approach.

As identified within the review of the literature, orientation for nursing students about to undertake such placements should be given renewed attention (Robinson, et al., 2009). Purposeful orientation should be driven by faculty, and should seek to prepare nursing students about to undertake placements in a nursing home to recognise and deal with the complexities they may face there (McGeorge, 2012). Once this orientation is complete, focused learning and reflective activity should be encouraged for the duration of the placement. Discussion would need to take place as to how this could be facilitated. Initially, link lecturers may need to provide the impetus for this, but through the involvement of mentors, they would be encouraged and empowered to take this forward, and to maintain and develop it (Cicolini, et al., 2013). A debrief after the placements should also be facilitated within the ULE (Robinson, et al., 2009). Through such an approach, the delivery of a longer attitude change programme, based upon orientation and support, could be facilitated, addressing the brevity of the programme employed here. The intention would be to improve attitudes toward caring for the oldest old, which may be where the real issues exist in relation to attitudes and ill older people.

### **6:3 Nursing and 'Ill Older People'**

Critical realism prompts the researcher to conduct structural analyses, which are crucial in demonstrating the relational character of objects in the social sciences (Collier, 1994). Structural analysis involves identifying 'substantial' relations between the objects of interest; recognising such a relation means there is a real connection between them. Danermark, et al., (2002. p. 45) give a useful example: the relationship between landlord and tenant; a substantial relation exists between these objects, 'in that both cause each other's existence, as a result of a relation existing between them'.

In this study, such a relation can be seen between nursing students and older people; the relation is the requirement for nursing care, most commonly seen as a result of illness or infirmity in older people. 'Illness' and 'infirmity' were therefore key in defining old age, for the purposes of this study. Hence, the term 'ill older people' is used, with reference to people aged 65 or over, with whom the nursing students would have contact, whilst on clinical placement. The age '65' was used, in line with the DH definition of old age (DH, 2001); MAST identified this on its covering page. In hindsight, future research approaches in this field could seek to define 'old age' from the point of view of respondents, to facilitate potential shared meaning of the concept. As Kydd, et al., (2013, p. 27) suggest, an understanding of 'what attributes they associate with the definition' could be illuminating in deciding where attitude change programmes may have the greatest opportunity to exert an influence.

### **6:4 McLafferty's Attitude Scoring Tool**

Limitations in relation to MAST need to be considered. MAST has more positively-worded than negatively-worded items (18 to 12) within it, so a more positive disposition toward the care of ill older people will probably always be seen, when

using the 30-item version (McLafferty, 2001); this was exemplified in this study. However, MAST was used in view of its acknowledgement of the importance of context when working with ill older people. In chapter five (*cf.* pp. 163 - 164), it was acknowledged other attitudinal measures have since been developed for measuring the attitudes of healthcare professionals toward working with older people; these alternatives could be considered for use in future approaches. One such example is the 'Multifactorial Attitudes Questionnaire' (Kydd, et al., 1999). This tool measures responses to five themes, as follows: ageism, learning environment, working environment, professional esteem and specialist status. The themes related to the learning and working environment in particular acknowledge the importance of context in relation to nurses' work with ill older people. On reflection, this tool may be more appropriate to measure attitudes toward ill older people, within a critical realist approach.

### **6:5 The Comparison Group**

The CG were recruited from a different university to the PG, which was necessary to account for possible compensatory rivalry masquerading as a programme effect (*cf.* chapter 3; p. 89). As discussed previously, each group had had differing input, in terms of content related to the care of ill older people; integrated content in the case of the PG, and a module in the case of the CG. On reflection, this could be acknowledged as a limitation, in that the groups were not comparable, in terms of educational input, throughout the study.

However, the time-series data could limit this effect to some extent. If the type of content each group received had had any influence on attitudes, a marked difference in the level of the time-series for either group might have been seen or expected (Glass, 1997). The levels for both the CG and PG are similar, so this prior

difference in educational input was accounted for, through having repeated measures of attitude for both groups. It could be advantageous, however, in future approaches to recruit groups from universities whose curricula were comparable, in terms of content related to the care of ill older people. This would further strengthen this aspect of the study design.

## **6:6 Sampling and Statistical Analyses**

In mail-administered surveys, such as this one, 'mortality' is a serious threat to LMCV (Campbell, 1986). The sub-sampling strategy used in this study has been recognised as a means of preventing such loss of participants (Glass, 1997). Although this strategy was adopted in order to protect the study's LMCV, this approach may raise questions. This sampling technique meant that the same people were not being tested over time. In addition, there is a concern that the reduced levels of data at DPs six (40% response) and seven (50% response) (*cf.* appendix 17; p. 265) may have threatened the robustness of the study. Advice was sought from a statistician in relation to these questions, which will now be addressed.

As discussed in section 3:9:1 (*cf.* pp. 117 - 119), the appropriateness of statistical analyses within critical realist approaches have been questioned (Bhaskar, 1998; Pratschke, 2003). It was carried out in this study, to aid analysis of the time-series, to explore programme effects not seen through visual inspection. The primary focus of the phase one analysis was to assess the effect of a programme implemented between DPs seven and eight. In order to assess attitudes pre- and post-programme, measurements were taken from participants at various time points. The aim was to take multiple readings from randomly sampled individuals pre- and post-programme, to allow attitudes to be quantified with greater precision than would be obtained from a single pre-measurement and a single post-measurement taken in

each participant. However, although data was obtained on a total of 15 separate occasions, in order to reduce the burden on participants it was not the intention to obtain readings from all participants on all occasions. In fact, the most number of readings taken from any individual was eight, with an average of just over three readings per participant.

As such, it is not relevant that less data was collected at specific DPs than at others; the number of DPs either side of the intervention was to some extent arbitrary. There is no reason why attitudes should change over an approximate nine month period either before or after the programme; this can be verified by examination of figure 4.3 (*cf.* p. 136) in which no significant trend can be seen in either the PG or CG, either side of it. The very small apparent trend observed over the entire time-series is an artefact of the data, most likely caused by the use of MAST. Hence the exact time at which either pre- or post-programme data for a particular individual was collected is not important. In fact, only five time points could have been offered, omitting DPs six and seven entirely, as potential pre-programme data collection points, without compromising the integrity of the analysis. What is important is that meaningful pre-programme and post-programme scores were collected from a sufficient number of participants. The reduction of data collected at two particular DPs has not compromised this in any way.

The only effect of the loss of about 11 responses from DPs six and seven collectively is that the uncertainty surrounding the estimate of the pre-programme score for about 11 of the 78 participants is slightly greater than it might otherwise have been. The precision of the pre-programme estimates of the remaining 67 participants is not affected at all; and the best estimates of the actual pre-programme scores (as opposed to the precision with which 'attitude' was measured) of all participants remains unaffected. The result of the independent samples t-test

conducted on the data will also not have been affected. The loss of approximately 25 responses from the PG across the whole study represents about 5% of the total data collected. The effect on estimates of a multiple imputation procedure based on such low levels of missing data is likely to be negligible.

## **6:7 Summary**

This chapter sought to demonstrate that although the rationale for the approaches and techniques used in the design and analysis of this study were firmly rooted in critical realism, a number of methodological issues arose as a result. These were related to the programme itself, the concept of 'older people', the actual CLE, the nature of the comparison group, and sampling and its effect on statistical analyses. Hence, the chapter also sought to consider these methodological issues, offering a new direction were the study to be repeated, based on reflection and experience. Consideration of these points was important, as they highlight that although these may be considered as limitations to some extent, the results of the study still are applicable and useful locally in providing direction about how to improve the contexts in which nursing students learn about caring for ill older people.

Chapter seven will discuss the implications of the mechanisms identified and discussed in chapter five, with reference to the notion of a stratified CLE (Brown, 2009). Strategies to counter these will be reinforced, along with recommendations for the key stakeholders in nurse education, in order that programmes aimed at improving attitudes, whoever they are initiated by, have the best chances of success.

## Chapter Seven

### Conclusions and Recommendations

#### 7:0 Introduction

This chapter will outline the implications of the mechanisms discussed within chapter five, through the higher strata of the CLE. In line with the acknowledgement of the context-specificity of this study (Cook and Shadish, 1994), recommendations will be made for the key stakeholders in nursing students' education locally: service partners and universities.

The review of the literature clarified that nursing students still experience difficulties in making sense of their learning experiences with ill older people, and that there are a number of influential mechanisms, with regard to the structures within nurse education, and key agents in both the ULE and the CLE. In particular, the review identified a paucity of evidence in three key areas. First, there is a lack of methodologically sound research into the effect of educational programmes upon the attitudes of nursing students, which are so briefly reported on that it is difficult to build upon the successes of studies reporting positive outcomes (*cf.* Baumbusch, et al., 2012). Secondly, the review also identified that many of these studies used attitudinal measures which were ignorant of the context in which nurses work with ill older people. Lastly, there was a lack of nursing research which cited critical realism as its philosophical base.

A critical realist approach was used in this study to address its overarching aim and objectives, using quasi-experimentation and an interrupted time-series design, which are robust research methods to find out about programme effects (Wagner, et al., 2002). Detailed description and discussion of the educational programme was given, to allow others to employ the programme in different contexts. McLafferty's

Attitude Scoring Tool (McLafferty, 2001) was used to measure attitudes, in view of its acknowledgement of the context in which nurses work with ill older people. In these ways, this study addressed the gaps identified within the review of the literature. Although its application is local, the original contribution that this study makes relates to the identification of the contextual conditions necessary for attitude change programmes to work, and the identification of countervailing mechanisms that appear to impact upon the development of positive attitudes toward this field. Knowledge of these may allow nurse educators to provide the best conditions for attitude change programmes to work. Brown's (2009) notion of a stratified CLE was valuable in highlighting that developmental work upon this context should begin in the psychological stratum, with concurrent action in the socio-cultural and curricular strata, in order to expedite improvements in students' experiences within the actual domain (Bhaskar, 1978). In dealing with the mechanisms identified within this study, nurse educators locally could create the best possible conditions for positive attitudes to develop.

Limitations of the study will also be discussed in this chapter, along with lessons learnt from conducting the study. Final conclusions will also be drawn, along with summarising the thesis.

### **7:1 Addressing Countervailing and Generative Mechanisms**

The countervailing and generative mechanisms identified concern both structure and agency, and impacted upon the conditions within the context of the CLE, making them inhospitable to the action of programme mechanisms, or sustaining the original problem of negative attitudes toward the care of ill older people. Prior to delivering the programme within a different context, these countervailing mechanisms need to be offset, to give the programme mechanisms freedom to exert

their influence (Danermark, et al., 2002), and to make the contexts most influential in nursing students' education more hospitable to attitude change programme mechanisms (Pawson and Tilley, 2004). As Astbury and Leeuw note:

mechanisms work through human agents who have the capacity to think and act/make things happen. Programmes only work if people choose to make them work and are placed in the right conditions to enable them to do so. (Astbury and Leeuw, 2010, p. 370)

Rather than developing a fragmentary way of countering individual mechanisms, strategies that can be employed throughout the strata may be more valuable, placing emphasis on the use of existing structures within both the ULE and CLE. For example, there is an established system of departmental, staff and team meetings within the ULE where the PG were studying. In addition, every CLE has a link lecturer allocated to it, who generally has an interest or experience in the field of care that the CLE offers. These could be used to raise awareness of the negative impact of the mechanisms identified. The CLE has a similar system of Directorate and team meetings, mandatory mentor updates, and tripartite meetings between the link lecturer, mentor and student, which could be used in the same way.

Ultimately, the vision would be to establish a group of interested faculty, the 'faculty group', who provide support and preparation to other faculty, to nursing students and to registered nurses who act as mentors. As suggested, existing structures could be used. Because faculty are already identified as link lecturers for placements within the care of older people, it may be that a group already exists, although they have not been brought together with such a clear purpose before. Such a team may also prevent faculty who teach about or promote the care of ill older people from feeling as though they are a minority voice within the ULE (Deschodt, et al., 2009; Schrader, 2009). However, in cases where these faculty members do not have a background in the care of ill older people, they must be prepared in order to demonstrate enthusiasm for the field, in view of students being

able to discern who is either positive or negative in their inclination toward caring for older people (Evers, et al., 2011), and how influential this can be upon students' attitudes (Deschodt, et al., 2009). As Runkawatt, et al. suggest:

An interest in and an understanding of the complexity and importance of this type of care is necessary in order to promote understanding among students as well as to facilitate learning and field questions accurately correctly. [sic.] (Runkawatt, et al., 2013, p. 100)

## 7:2 Implications of Mechanisms Within the Psychological Stratum

The mechanisms identified within the psychological stratum concerned both structure and agency (table 7.1). The first relates to the structure of nurse education, and the latter three concern the agency of both faculty and registered nurses. It may be that faculty are ideally placed to lead the way, in countering the effects of the mechanisms in table 7.1, because of their link lecturer role that places them in both the ULE and CLE (NMC, 2008).

Table 7.1 Countervailing and generative mechanisms within the psychological stratum of the CLE.

<b>Stratum III – Psychological</b>	<b>Structure (S) or Agency (A)</b>
Lack of educational content within pre-registration programmes	S
Negativity of faculty toward working with ill older people	A
Faculty who are out-of date with advancements in the field	A
Perceived lack of enthusiasm of registered nurses toward working with ill older people	A

The lack of educational content within pre-registration programmes may not be such an easy mechanism to address, for a number of reasons. It has been recognised that often, nurse education curricula focussing on the 'adult' field of practice are developed with an emphasis upon gaining acute care skills, primarily (Shen and Xiao, 2011). Such a focus may send out a message to students, that the care of

older people requires no formal education because it is unskilled and easy to do (Duggan, et al., 2012). This focus upon acute skills and knowledge acquisition, at the expense of content related to the care of ill older people can have extensive negative effects (Deschodt, et al., 2009). Lack of content leads to avoidance of the care of ill older people (Shen and Xiao, 2011), causes students to disregard the care of older people as a potential career path (Skaalvik, et al., 2012), and a lack of confidence in the students' own abilities to care for ill older people (Duggan, et al., 2012). The findings of this study appear to lend weight to these arguments. It seems sensible, then, that universities would ensure its inclusion within their curricula, but without defined competencies on the care of ill older people within the NMC's standards for pre-registration education (NMC, 2010), there may be no incentive to ensure that it is. A starting point would be to raise the issue for discussion, using the existing structures within the ULE, covering the detrimental effects of the lack of educational content. On a wider scale, there may be a need to lobby the NMC, in order that specific competencies related to the care of ill older people are developed, and included within the standards for pre-registration education, in a similar way to those defined in the USA (AACN, 2010 – *cf.* appendix 2; p. 238).

It may be more likely that there would be agreement that such content should be included at present, as the spotlight has been placed upon the role of nurse education in failures at Mid Staffordshire Hospitals NHS Trust, and in suggesting a pre-preparatory year for prospective nursing students (DH, 2013; Francis, 2013). The impetus to actually include such content must be maintained, to ensure that it does not get 'left by the wayside', because of the perception that 'somebody else' is taking care of it (Schrader, 2009). The consequence of not ensuring its inclusion is that students may continue to be uninspired to choose a career in this field, for the reasons identified earlier in this section. Without such content, its action as a countervailing mechanism may persist.

With regard to the negativity of faculty, the review of the literature identified that they exert a strong influence upon the attitudes of nursing students toward the care of ill older people (McGarry, et al., 2009). Sometimes, this influence was hidden, in cases where faculty avoid placing students in such settings, because of their own view that it lacks challenge (Schrader, 2009), and more overtly, where they openly discourage students from pursuing a career in older person care (McGarry, et al., 2009; Evers, et al., 2011). In view of this potential influence, work should be done to ensure that faculty are aware of how influential they are, in terms of either turning nursing students away from or toward this specialism, using existing structures within the ULE already identified (McGarry, et al., 2009). The negativity of faculty toward it may also contribute to its absence from pre-registration curricula (Schrader, 2009). Their negativity may be explained by the poor currency of their knowledge about caring for ill older people, lending weight to the need to prepare faculty, through making them aware of their influence on students' attitudes, and updating faculty in delivering this content (Clendon, 2011).

If such content is to be included, there may be a need to provide purposeful preparation of faculty to adequately support and teach students about such care (Holroyd, et al., 2009; Evers, et al., 2011). This would apply not only to those who already teach about the care of ill older people, but all nurse educators, in order that they are more aware of their often covert influence on students (McGarry, et al., 2009). This would also aim to ensure that faculty are up-to-date with current practice in the field.

Until this content is purposefully included, attitude change programmes might still be needed, as it seems that nurse education programmes internationally do not always positively influence students toward the field (*cf.* Shen and Xiao, 2011). Students should be able to identify with its purposeful inclusion; the notion of it being included

'as a theme' throughout a nursing student's education may be insufficient (Holroyd, et al., 2009), and is supported by this study's findings.

The mechanisms in the psychological stratum related to registered nurses could be addressed, but would require that agents within nurse education and within service partner organisations work together. Registered nurses working in areas where older people are cared for need to be empowered to show enthusiasm for their work (Engström and Fagerberg, 2011). In the review of the literature, the reasons that nurses may not always carry out nursing care according to their ideals were highlighted (Hall and Høy, 2011). These can impact upon registered nurses' use of interpersonal skills, for example, which emerged as a countervailing mechanism within the curricular stratum, where the registered nurse becomes a mentor to nursing students (NMC, 2008). Very often, the reasons identified concern structure within the CLE, such as poor staffing levels, and the need to follow policies aimed at preventing litigation (Francis, 2013). However, work could be done in individual CLEs, to counter this agential mechanism. Again, it gives direction to the role of the link lecturer; they can help staff to develop intricate scenarios that communicate to students the complexity of their work. Registered nurses in environments where older people are cared for should be helped to recognise their influence upon students, and the value of their own work, in order that they can articulate it to students, to begin to remove the stigma often associated with it (RCN, 2004; Bakewell, 2009; Kydd, 2012).

There may be difficulties in addressing staffing levels within the care of ill older people, as they concern the finance, at a time when budgets are being cut within the health service (Roberts, et al., 2012). A high workload, coupled with poor staffing levels does nothing to encourage recruitment to the field (de Guzman, et al., 2009). Mentoring students is often the last thing that 'pressured' nurses want to do,

although a requirement of their role (NMC, 2008). It may be that the link lecturer needs to adopt the role of the clinical teacher; a role prominent in prior models of nurse education (Newton, et al., 2012). The link lecturer is 'out there', working alongside staff and students, talking issues through with students, sharing the responsibility for teaching them. Service partners need to recognise and acknowledge the effect of poor staffing levels, for example, upon morale and the quality of care (Francis, 2013). Until such investment is felt at team level, there is a danger that the damaging effects of these countervailing mechanisms will continue to contribute to poor recruitment and retention of staff, and to poor attitudes in nursing students toward caring for ill older people; attitude change initiatives may have little chance of success.

### **7:3 Implications of Mechanisms Within the Socio-Cultural Stratum**

Again, both generative and countervailing mechanisms were identified in relation to the socio-cultural stratum, concerning both structure and agency (table 7.2). It is important that the status of the nursing care of older people is raised, as a means of improving interest in, and recruitment to the field, particularly as this has persisted within nursing over time (Kydd, 2012). The poor status of the nursing care of ill older people may be addressed through careful placement preparation sessions for students and mentors, in order that students know what to expect, and mentors have a clearer idea of how to effectively facilitate learning in this field (Robinson, et al., 2009). There may be facets of the role of mentor in the care of ill older people care, which could be enhanced through additional support and preparation.

The mechanisms in table 7.2 could be addressed by the newly established faculty group. The mechanisms identified give very clear direction as to what the faculty group might do to better support staff in such areas, such as the provision of

directed learning materials for students, which highlight the complexity of caring for older people.

Table 7.2 Countervailing and generative mechanisms within the socio-cultural stratum of the CLE.

<b>Stratum II – Socio-cultural</b>	<b>Structure (S) or Agency (A)</b>
Poor status of the nursing care of ill older people	S
A lack of understanding of supernumerary status	S
Poor profile of placements within the care of ill older people	S
Failure to acknowledge the complexity of care of ill older people	S
Failure to promote individualised nursing care	A
Failure to encourage patients to self-care	A

Exploration of particular CLEs, in order to highlight what learning opportunities exist, and how such areas can be used as CLEs for more senior students should also be a focus (Clendon, 2011).

There are wider issues to be addressed, however, in improving the status of the nursing care of older people. Formal certification may help in this aim, and has been successfully introduced in the USA (Kancelbaum, 2010). The commissioning of education for the health professions has undergone a significant change within the UK, and is now governed by Health Education England, which has the responsibility to ensure that ‘the right numbers of staff with the right skills are available at the right time’ (DH, 2012, p. 9). Local Education and Training Boards (LETBs) will commission programmes from universities, based upon local needs (DH, 2012). A report published in March 2013 by the House of Lords Select Committee suggests that the UK may be unprepared to face the challenges ahead, in terms of its ageing population. This report places a focus on the need to provide education that will

facilitate the provision of high quality care for older people. Locally, the LETB has both University and service partner representation; the LETB and service partners should be urged to provide formal educational opportunities, as part of a recognised career structure within the care of ill older people, so that it becomes more attractive to new recruits, and may help in the retention of existing staff (de Guzman, et al., 2009; Duggan, et al., 2012). It may also lead to those who work in the field being better respected by other health professionals, so raising the status of this work (Kydd, et al., 2013). However, how realistic this would be is debateable, because the focus of service partners may not always be upon factors that might raise the profile and status of this field, with a view to improving recruitment, retention and attitudes (de Guzman, et al., 2009). Budgetary restraint is always required within the health service, and directly influences recruitment, but may also indirectly influence staff retention (de Guzman, et al., 2009). Registered nurses may continue to be unable to articulate their skills to nursing students, unless there is investment in them and their sphere of work.

Supernumerary status has been an established structure within nurse education since the late 1980s (UKCC, 1986). Students need to be prepared for this, in order that they get the most from their placements in caring for older people. Prior to introducing supernumerary status, the UKCC (1986, p. 55) identified that it would need 'a considerable amount of planning', and that there may be 'upheavals' as a result. It has been suggested that it was introduced in a hurried fashion, without proper preparatory work for staff and students, leading to a lack of understanding (McGowan, 2006). It is a concern that the drivers behind supernumerary status are perhaps not understood by students. Some have a simplistic interpretation of it; that they 'should not be used as a pair of hands', when a CLE is busy (McGowan, 2006). What seems to have been missing is an understanding of the re-organisation of nursing care introduced alongside it (UKCC, 1986). Students need preparation to

help them to understand the organisation of care since the introduction of Project 2000 (UKCC, 1986), and the importance of working alongside healthcare assistants, in learning how to provide fundamental aspects of care. Supernumerary status has been an established part of placements within the CLE for over 25 years. Perhaps by ensuring that students have a clearer understanding of it, they will more fully appreciate what they will learn, when working alongside healthcare assistants, and why they are learning it alongside them, primarily in some CLEs, and not registered nurses (Allan and Smith, 2009). For this to have the desired effect upon students, a proper system of educating healthcare assistants is also of paramount importance (Cavendish, 2013).

When preparing students for supernumerary status, a forum for open discussion about everyone's role in the healthcare team could also be created. In line with Lord Willis' recommendations (RCN, 2012a), registered nurses will likely continue to direct the work of healthcare assistants, in the provision of fundamental care. But how well students do this once qualified may be impaired if they have not undertaken such care themselves. It is the job of the mentor and link lecturer to make explicit to students the skill involved in this, and the difficulties often faced by registered nurses in providing for an older person's hygiene needs, for example; something which sounds simple can be intricate (McGeorge, 2012).

The poor profile of placements within the care of ill older people must be addressed. In this study, students appeared to appreciate the value of placements in the care of older people, but their experiences did not always seem to live up to their expectations about the learning potential of this environment. This may also contribute to its continued poor status. Poor placement experiences have been shown to contribute to poor attitudes toward this specialism, so work must be done collectively, by both faculty and registered nurses to raise their profile (McGarry, et

al., 2009; Berntsen and Bjørk, 2010). It would be beneficial to have mentors on the faculty group, which may also serve to improve their confidence in and enthusiasm for the facilitation of learning (Clendon, 2011); this may occur as a consequence of feeling valued in this way, as an integral facilitator of students' learning.

As identified in the review of the literature, registered nurses are not always able to articulate the skills required in caring for older people and the complexity of their work to students, because they do not value their own contribution to care (RCN, 2004; McGeorge, 2012). In order to raise the profile of placements in the care of ill older people, developmental work needs to be done with registered nurses who facilitate learning, in order that they can do this more effectively, for the benefit of patients, students and the specialism. This could be done as part of the annual mentor update, which all staff in a mentoring role are required to access (NMC, 2010). Considering the impact that faculty have, and that 'negativity of faculty' is identified as a mechanism within this study, mentor updates within CLEs where older people are cared for should be delivered by faculty who are knowledgeable and enthusiastic about the field (Kydd, 2012).

The effects of the final two countervailing mechanisms may be more difficult to address, as they relate to the values each individual nurse may hold, and the reasons they have for holding them. Low staffing levels, and high staff turnover were identified as having the potential to compromise job satisfaction and care standards (de Guzman, et al., 2009). When registered nurses are busy, it can often be difficult to be as individualised in their approach as they would wish to be (Skaalvik, et al., 2012). The review of the literature also identified that registered nurses were seen to focus on getting the work done, leaving little time for them to encourage patients to self-care (Skaalvik, et al., 2010). The problem is compounded when a negative culture of care ensues (Francis, 2013). Hall and Høy (2011) reported that staff in

CLEs sometimes feel a pressure to conform to the prevailing culture of care, and if it is a negative workplace, the use of effective interpersonal skills, and the provision of individualised nursing care, for example, could be further compromised.

It would appear that there is much work to be done within the socio-cultural stratum, in terms of making it more hospitable to attitude change programme mechanisms. There is a strong need to develop the faculty group, in order that the action of these mechanisms can be offset as soon as possible.

#### **7:4 Implications of Mechanisms Within the Curricular Stratum**

The countervailing mechanisms present in the curricular stratum again concern both structure and agency (table 7.3).

Table 7.3 Countervailing mechanisms within the curricular stratum of the CLE.

<b>Stratum I – Curricular</b>	<b>Structure (S) or Agency (A)</b>
Lack of placement preparation and orientation	S
Poor interpersonal skills of mentors	A
Negativity of faculty toward working with ill older people	A
Failure of faculty to encourage students to seek employment in the care of ill older people	A

Robinson, et al., (2009) stress the importance of providing proper orientation to placements in the care of older people, and the impact of not doing so; students resorting to ritualistic practices, feeling unsupported or avoiding older people and older person care, for example (Berntsen and Bjørk, 2010; Shen and Xiao, 2011).

Effective placement preparation and orientation for students should not be too difficult to achieve. Prior to placements, short group lectures to brief students on the

organisation of nursing care that they will see in settings where ill older people are cared for could be included. The complexity of the management of ill older people, who often have complex co-morbidities and multi-morbidities could also be discussed (McGeorge, 2012). Mentors from the CLE could also be involved in delivering these preparatory sessions, which may also help in improving their own ability to articulate the complexity of caring for ill older people to students. Concern has been expressed that curricula are already overcrowded, with little time for any other content (Deschodt, et al., 2009). However, to do this effectively may not require a vast amount of time. In view of the importance of the care of ill older people, and the preparation of students who want to pursue the care of older people as a career, it may be unwise not to try to put this in place, because of a perceived lack of time.

Preparation for placements may also be useful for registered nurses in mentoring roles<sup>17</sup>. Staff release time for such initiatives is always difficult, but could be done, again by those in link lecturer roles, using existing structures, such as the annual mentor update. Helping mentors to see the skill in their work may help them to better convey what their role involves, to students. Such preparation might also help to increase their confidence, and help them to recognise the complexity of caring for ill older people, that they manage, often independently, on a daily basis (McGeorge, 2012). Cicolini, et al., (2013, p. 12) suggest that this 'psychological empowerment' of registered nurses might also improve the work environment, so creating a more positive culture and atmosphere in the CLE. In turn, this may assist in improving students' experiences in such placements, within the actual domain. Because staff have a new appreciation of their work, they may be more positive, when talking to students about potential careers within older person care.

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<sup>17</sup> Recognition must be given to the notion that 'registered nurses' become 'mentors' within the curricular stratum.

More purposeful orientation whilst on placement should also be given, particularly as environments where ill older people are cared for are often used as the first placement, where students are sent to learn 'the basics' (Clendon, 2011). As discussed within the review of the literature, hasty attention is often given to this, leaving students in a precarious position, particularly if it is their first experience in a CLE. A poor start at this point can taint the rest of their experience, and their view of caring for ill older people, if not addressed (Robinson, et al., 2009). Again, link lecturers are in a good position to lead registered nurses in doing this more effectively. Whether such orientation is in place is measured within the educational audit of the CLE (NMC, 2008). Clearly, work could be done to develop this process. Orientation should be developed for individual CLEs, in order that it is applicable to particular areas. There may well be areas that are common across these orientations, which could be combined, to form a 'skeleton' orientation package for other areas coming on line, as a CLE for nursing students. As discussed in relation to the socio-cultural stratum, the development of CLEs in areas specialising in the care of older people was recommended to offset the mechanism 'poor status of the nursing care of ill older people'. The idea was that this development of CLEs could expand the use of such placements, so that they are no longer used exclusively for first years. Clinical placement circuits locally commonly experience pressure to facilitate increasing numbers of nursing students. By expanding the capacity of CLEs in these areas, some of this pressure may be removed.

It may be that the sequencing of placements should also be altered, because whilst ever they are used as either 'first placement' or 'first year' experiences, students may continue to perceive that they are going there, because it is not 'too challenging' (McGeorge, 2012). Changing the placement sequence, to include placements in the care of older people in the third year, for example, may also have a positive impact upon improving the status of this work. If mentors are briefed about

how best to facilitate students' learning in this field, putting into context their work alongside healthcare assistants, for example, the perceived status of their work may also be improved as a consequence of their involvement in preparing students for placements in their areas. This should not be put in place until mentors in these CLEs are aware of their influence, and are helped to recognise and articulate the skill involved in their work (RCN, 2004). The faculty group should work with mentors in these settings to define what learning opportunities are available for students in years one, two and three of their nurse education programme, so that the progression of knowledge and skills in these environments is understood by nursing students and their mentors alike (Clendon, 2011).

The agential mechanisms of 'poor interpersonal skills of mentors' and the 'negativity of faculty toward the care of ill older people' have been addressed in this and the psychological stratum. This leaves a final mechanism to be addressed: 'Failure of faculty to encourage students to seek employment in the care of ill older people'. Once the faculty group is established and known, it is hoped that their influence would be felt across the pre-registration curriculum. All students should be encouraged to consider a career caring in this field, and they should be directed toward the faculty group, should they wish to discuss a career in the care of older people, in order that this can be properly and effectively facilitated.

### **7:5 Consideration of Contexts for Future Programme Delivery**

Once these mechanisms have been addressed, the realist evaluator's next logical step would be to try out the programme mechanisms within a different context; the ULE in this case. Both the CLE and ULE are highly influential upon each other, and do not exist in isolation. The ULE was not originally chosen as a context for programme delivery, for pragmatic reasons, but it would seem logical to assume that

the mechanisms identified as having an impact upon the CLE may have just as much potential to block the programme mechanisms, or maintain negative attitudes within this new context; the ULE may be just as 'hostile' as the CLE was to programme mechanisms (Pawson and Tilley, 2004). To ensure the best chance of success in future programme delivery, each of these countervailing and generative mechanisms, identified in regard to the CLE, ought to be addressed prior to carrying out the programme in the ULE.

## **7:6 Conclusions**

It may be folly for nurse educators and service partners to ignore the effects of the mechanisms identified; their effects may be farther-reaching than evaluation studies, such as this one. Until these mechanisms are addressed, new initiatives aimed at improving the care of ill older people through changing attitudes may be unsuccessful. Although well-intentioned, there is little to suggest that new initiatives such as the one suggested by the DH (2013) in response to the Mid Staffordshire Inquiry (Francis, 2013) will be any more of a success in creating positive attitudes and a positive care culture than those that have been tried before (*cf.* DH, 2001). Rather than trying to rush such initiatives, with the idea of providing a 'quick fix' to the perceived ills of the nursing profession as it relates to the care of ill older people, care should be taken to properly plan their implementation, and prepare the key agents involved, such as faculty, registered nurses/mentors and the nursing students themselves. If the environments in which nursing students learn are not prepared, in terms of structure and agency, and the students themselves are not adequately prepared, these mechanisms may continue to make these influential contexts inhospitable to any new initiatives aimed at improving attitudes.

Widespread acknowledgement has been given to the need to develop a suitably prepared nursing workforce, with the right attitudinal disposition to care for the increasing older population (Koh, 2011). Over time, attempts have been made to improve the attitudes of nurses toward the field of older person care, but despite these, and investment from the government, the review of the literature established that these appear to have been ineffective. In cases where improvements in attitude were reported, the studies were methodologically weak. There was still no definitive answer about how nurse education could influence attitudes, and how it might do that. This study suggests the existence of both structural and agential mechanisms which impact upon the primary context in which nursing students' practical learning takes place; the CLE.

Although the posited attitude change programme mechanisms failed to fire in this context, it did achieve its aims in terms of identifying both the contextual conditions necessary for the programme mechanisms to work, and how the contextual conditions within the CLE influenced the success of the programme mechanisms; they made the CLE inhospitable to attitude change mechanisms. It should also be considered that the mechanisms identified, if addressed, may improve the clinical placement experiences of students toward working with ill older people, to such an extent as to negate the need for attitude change programmes.

### **7:7 Recommendations**

If the countervailing and generative mechanisms identified within this study are addressed within each stratum of the CLE simultaneously, not only will CLEs be more receptive to the mechanisms within attitude change programmes, but students' experiences on placement in CLEs where older people are cared for may be improved. This might also improve the status of such work.

### **7:7:1 Recommendations for nurse education**

It is recommended that a faculty group is established as soon as possible, comprising the link lecturers for CLEs in the care of ill older people, and mentors from environments where older people are cared for. Establishment of this group should be considered a joint responsibility between nurse educators and agents within service partner organisations. This group will use existing structures within both the CLE and ULE, to raise awareness of the effects of the countervailing and existing generative mechanisms identified. It will also maintain the impetus of any initiatives developed.

There are a number of recommendations for the faculty group, as follows:

1. Raise the issue of the impact of the current lack of educational content. Awareness of this needs to be raised in both the ULE and the CLE, using established structures;
2. A system of formal preparation of all faculty should be developed and agreed, in order to make them aware of the extent of their influence, and to ensure that their knowledge is up-to-date;
3. Develop and introduce a system of placement preparation sessions, for nursing students undertaking placements in CLEs where ill older people are cared for, in order that they are equipped with the fundamental skills they will need, and so that they understand the organisation of nursing care within that environment, and their role within it;
4. Develop and introduce a system of mentor preparation for registered nurses who act as mentors in these same environments, in order to help them to recognise and articulate the value and complexity of their work, and make them aware of their potential influence upon nursing students. These sessions would not replace existing mentor preparation courses, but work in tandem with them;
5. Lobby for changes to the way that placements are sequenced, if and when appropriate;
6. Link lecturers in these environments should act as clinical teachers, and
7. Lobby the NMC to include defined competencies on the care of ill older people within the standards for pre-registration nurse education.

### **7:7:2 Recommendations for service partners**

Although the recommendations for service partners might usefully be led by the faculty group in delivering on these, what is really important is that they are given recognition, along with the impact of the countervailing mechanisms identified. The existing structure of Link Nurses for Education in CLEs where older people are cared for could be mobilised in a similar way to the faculty group, with a number of key recommendations:

1. An organised system of orientation for staff new to environments where older people are cared for should be developed. It should not be presumed that staff coming to work in these areas, from acute environments particularly, have all the required skills;
2. A system of orientation for students in these CLEs should be developed, and identify learning opportunities appropriate for students in years one, two and three. The likelihood is that there will be commonalities across such CLEs;
3. Service partners should develop a recognised career-path for registered nurses working in the care of ill older people. There may be a need to lobby the Local Education and Training Board for the provision of courses leading to formal certification in the care of ill older people, which may positively impact upon the status of this work;
4. Poor staffing and high staff turnover negatively affect the work environment in the care of ill older people (de Guzman, et al., 2009). This area needs recognition and investment, in order to counter the effects of agential mechanisms ('poor interpersonal skills of mentors', 'failure to promote individualised nursing care' and 'perceived lack of enthusiasm of registered nurses'), and
5. Address the poor profile of such placements, alongside the faculty group. It is envisaged that the profile would be raised as a consequence of all the recommendations made for both stakeholders.

Putting these recommendations into place may seem like huge undertakings for both the faculty group, and the Link Nurses for Education; there is no escaping the fact that they probably are, particularly when staff are busy. The use of the existing structures identified may help in making the launch of any new strategies initiated by these two groups much simpler. The groups should work together to form a new, joint structure within the University and across service partner organisations, that

constantly works to address the countervailing and existing generative mechanisms identified in this study.

### **7:8 Lessons Learnt from the Conduct of the Study**

There are a number of lessons that can only be learnt from actually conducting a study at doctoral level; experiences within the actual domain may help in preparing and supporting others embarking on a doctoral research project.

Because this study was to be carried out within the CLE, LREC approval had to be obtained. As stated in chapter three, this is a lengthy and involved process, very much geared toward protecting individuals from harm within clinical research trials. Hence, a level of detail was required that was less applicable to this study, being carried out by a student, as opposed to a clinical researcher exploring the effects of a new medicinal product, for example. The process was completely enveloping, and although it is a helpful and rigorous one, it should be pursued alongside finding a philosophical base for doctoral level work. Although this study was borne out of a passion for the care of ill older people, and a budding interest in critical realism, the real learning in relation to critical realism began when it was used to make sense of the data gathered.

With regard to keeping track of outputs using SPSS during the phase one analyses, Pallant (2007) recommends using dates in the file names, to keep a chronological record of these. The researcher should not be tempted to skip this step, as it can be difficult to find the most recent analyses conducted, necessitating repeated analyses; a lesson learned at personal cost.

Finally, there were issues with the interpretation of items on MAST, for the CG, in particular. It would have been useful to pilot MAST with the CG, as well as the PG, in order to clarify any ambiguities in interpretation of the items. Having such clarity for both groups may have meant that more meaningful analysis could have been done upon the apparent effects of certain demographic characteristics, such as preferred speciality upon qualification, and specialism of current placement.

### **7:8:1 Faculty attitudes**

This study focused only upon changing the attitudes of nursing students, because it is they who will be the carers of the increasing older population in the future (Koh, 2011). The negativity of faculty toward including and using content related to the care of ill older people within pre-registration education, was highlighted in the review of the literature; this can impact in a damaging manner upon the attitudes of nursing students. Hence, in a new approach, it may be useful to have an additional focus upon establishing faculty attitudes to long term care, and the care of ill older people, rather than just making faculty aware of their potential negative influence.

### **7:8:2 The functional approach to attitude change**

The findings reported here cannot make any comment about why the programme mechanisms failed, from the nursing students' points of view. Only approaches employing methodological pluralism (Danermark, et al., 2002) may give this detail. Differing methods of data collection would be used, to look at the same phenomena, but from differing viewpoints. An approach called theory-driven interviewing (Pawson, 1996) has been usefully used in prior realist evaluation research. Inclusion of this would augment the design used here, in future attempts to influence the

attitudes of nursing students using the programme mechanisms based on Katz' (1960) functional approach to attitude change. This approach is outlined in the next section.

This study demonstrated that the mechanisms identified with reference to Katz' (1960) functional approach did not work in the actual domain; the context of the CLE. Mechanisms which made this context hostile to the working of the programme mechanisms were identified (Bhaskar, 1978). But the data do not shed light on why they were unsuccessful from the point of view of the students in the PG. It may be that some mechanisms worked, and others did not, and for different individuals within the PG, for different reasons.

In conjunction with future programme delivery, it is recommended that an intensive data generation phase be included, with a view to identifying which programme mechanisms trigger any reaction from people in the PG, or not (Pawson, 1996). Methodological pluralism has been advocated within critical realism, where data are generated and analysed using diverse methods, giving a view of a particular phenomenon from differing viewpoints (Pawson, 1996; Danermark, et al., 2002). Data would be collected using the theory-driven interview, to facilitate the identification of the reasons for the failure of the programme's mechanisms (Pawson, 1989; 1996). The addition of an intensive data generation phase (*cf.* Pawson, 1996) acknowledges the depth of reality alluded to in chapter one, and would allow insights to be gained about the 'real' domain; what worked, or did not work, and why, for these students.

Theory-driven interviewing uses a type of interview schedule, which would be developed around the mechanism and outcome configurations within the

programme. Hence, it would collect data specifically about the mechanisms related to Katz' (1960) functional approach. This schedule should not be mistaken for the kind of schedule used in a structured interview, where participants are prompted to talk about a range of topics. This schedule would be very specific to the programme mechanisms, developed around each of Katz' (1960) attitude functions (appendix 26; p. 284).

Prior to conducting the interviews, participants rate themselves as being either in agreement or non-agreement with a particular statement on the schedule. Then, responses would be ordered, to show which outcomes were consistent with their views about the programme mechanisms, through to those which they consider to be inapplicable to them (Pawson, 1996). Participants would then be encouraged to talk about why they gave a particular rating for a particular item. As Pawson (1996, p. 313) suggests, it is this that 'allows the respondent to make an informed and critical account of' their responses. Facilitating purposeful discussion in this way will allow access to the respondents' views about what works or does not work, in terms of stimulating a change in their attitudes, as the mechanisms for change within the educational programme were designed with these possible outcomes in mind. Pawson (1996) has used this technique to generate sufficiently rich data, from as few as seven participants.

In chapter six, the development of a new direction for the educational programme was suggested, which would focus on orientation and support prior to and during placements in nursing homes (sections 6:2 and 6:2:1; pp. 190 – 192). However, it may be premature to discount Katz' functional approach to attitude change based on the findings reported here. New mechanisms could be developed, concentrating on each of Katz' attitude functions (Katz, 1960), appropriate to this novel approach.

Data would then be available to either support Katz' (1960) functional theory in this context, or indicate that other approaches to changing attitudes may be necessary.

### **7:9 Summary**

Nurse educators and service partners need to work together in dealing with the countervailing and existing generative mechanisms identified, in order to give the best chance of success to new initiatives aimed at improving attitudes. These should be addressed, prior to trying attitude change programmes in either the CLE or the ULE, or both. Unless they are addressed, there may continue to be a necessity for such programmes, which have the ultimate aim of improving attitudes toward the care of ill older people, along with improving recruitment to the field of those with the right attitudinal disposition.

The implications of the mechanisms identified for key stakeholders were discussed, as they apply to the stratified nature of the CLE (Brown, 2009). A number of recommendations were made, for both nurse education and service partners. Much of the onus for dealing with the mechanisms identified was laid at the feet of link lecturers, because of the unique nature of their role, which crosses between the contexts of the CLE and ULE (NMC, 2008). However, the care of ill older people should be seen as the responsibility of everyone who teaches within pre-registration nurse education; faculty within university and mentors within the CLE.

Attempts to offset the effects of the mechanisms identified are of paramount importance, in view of their potential impact upon attitudes and the quality of care (de Guzman, et al., 2009), and in view of the reality that the quality of care appears to have remained poor over time (HAS<sup>2000</sup>, 1998; Francis, 2013) despite investment and recognition from the government and professional nursing bodies (DH, 2001;

NMC, 2009). It is also vital, if the culture of care within the NHS is to be improved (Cummings and Bennett, 2012; DH, 2013).

The critical realist conception of a stratified CLE was developed in this study, informed by the work of Brown (2009). Structural and agential mechanisms were identified within each stratum, which if addressed, may be pivotal in improving the contexts in which nursing students learn about the nursing care of ill older people, giving the mechanisms within attitude change programmes freedom to exert their influence, and providing nursing students with the best possible conditions for positive attitudes toward this field of care to be fostered and developed. This action may negate the need for attitude change programmes.

The original contribution that this study makes relates to the identification of a complex matrix of both structural and agential mechanisms within a stratified CLE, which appear to make the contexts in which nursing students learn inhospitable to attempts to change their attitudes, and contribute to sustaining negative ones. In line with this study's findings, local developmental work to address these should begin within the psychological stratum, with concurrent action in both the socio-cultural and curricular strata, in order to provide more immediate improvements in students' experiences within the actual domain; the world of their practical experiences within the CLE (Bhaskar, 1978). A number of recommendations were made that would begin this developmental process, and may ultimately result in negating the need for attitude change programmes. Putting them in place will require that nurse educators and service partners work together in close collaboration. As Darbyshire and McKenna suggest:

If our current system of nursing education cannot lead the movement for change, in lockstep with our clinical colleagues, then another system, perhaps unimagined, surely will. (Darbyshire and McKenna, 2013, p. 3)

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**Data Reduction Form.**

Year of Publication:
Author/s:
Aims/hypotheses:
Methodology:
Philosophical base made clear? Y/N –
Contexts (if appropriate):
Mechanisms (if appropriate):
Outcomes/results:

**Gerontological nursing competency statements (AACN, 2010).**

1. Incorporate professional attitudes, values and expectations about physical and mental aging [*sic.*] in the provision of patient-centred care for older adults and their families.
2. Assess barriers for older adults in receiving, understanding, and giving of information.
3. Use valid and reliable assessment tools to guide nursing practice for older adults.
4. Assess the living environment as it relates to functional, physical, cognitive, psychological, and social needs of older adults.
5. Intervene to assist older adults and their support network to achieve personal goals, based on the analysis of the living environment and availability of community resources.
6. Identify actual or potential mistreatment (physical, mental or financial abuse, and/or self-neglect) in older adults and refer appropriately.
7. Implement strategies and use online guidelines to prevent and/or identify and manage geriatric syndromes.
8. Recognise and respect the variations of care, the increased complexity, and the increased use of healthcare resources inherent in caring for older adults.
9. Recognize [*sic.*] the complex interaction of acute and chronic co-morbid physical and mental conditions and associated treatments common to older adults.
10. Compare models of care that promote safe, quality physical and mental health care for older adults.
11. Facilitate ethical, non-coercive decision making by older adults and/or families/caregivers for maintaining everyday living, receiving treatment, initiating advance directives, and implementing end-of-life care.
12. Promote adherence to the evidence-based practice of providing restraint-free care (both physical and chemical restraints).
13. Integrate leadership and communication techniques that foster discussion and reflection on the extent to which diversity has the potential to impact older adults.
14. Facilitate safe and effective transitions across levels of care, including acute, community-based, and long-term care for older adults and their families.
15. Plan patient-centred care with consideration for mental and physical health and well being of informal and formal caregivers of older adults.
16. Advocate for timely and appropriate palliative and hospice care for older adults with physical and cognitive impairments.
17. Implement and monitor strategies to prevent risk and promote quality and safety (e.g. falls, medication mismanagement, pressure ulcers) in the nursing care of older adults with physical and cognitive needs.
18. Utilize [*sic.*] resources/programs to promote functional, physical, and mental wellness in older adults.
19. Integrate relevant theories and concepts included in a liberal education into the delivery of patient-centred care for older adults.

## Kogan's Attitude to Old People Scale (Kogan, 1961).

		Item
1.	N	It would probably be better if most old people lived in residential units with people of their own age.
1.	P	It would probably be better if most old people lived in residential units that also housed younger people.
2.	N	There is something different about most old people: it's hard to figure out what makes them tick.
2.	P	Most old people are really no different from anybody else: they're as easy to understand as younger people.
3.	N	Most old people are set in their ways and unable to change.
3.	P	Most old people are capable of new adjustments when the situation demands it.
4.	N	Most old people would prefer to quit work as soon as pensions or their children can support them.
4.	P	Most old people would prefer to continue working just as long as they possibly can rather than be dependent on anybody.
5.	N	Most old people tend to let their homes become shabby and unattractive.
5.	P	Most old people can generally be counted on to maintain a clean, attractive home.
6.	N	It is foolish to claim that wisdom comes with old age.
6.	P	People grow wiser with the coming of old age.
7.	N	Old people have too much power in business and politics.
7.	P	Old people should have more power in business and politics.
8.	N	Most old people make one feel ill at ease.
8.	P	Most old people are very relaxing to be with.
9.	N	Most old people bore others by their insistence on talking about the "good old days."
9.	P	One of the most interesting and entertaining qualities of most old people is their accounts of their past experiences.
10.	N	Most old people spend too much time prying into the affairs of others and giving unsought advice.
10.	P	Most old people tend to keep to themselves and give advice only when asked.
11.	N	If old people expect to be liked, their first step is to try to get rid of their irritating faults.
11.	P	When you think about it, old people have the same faults as anybody else.
12.	N	In order to maintain a nice residential neighborhood [ <i>sic.</i> ], it would be best if too many old people did not live in it.
12.	P	You can count on finding a nice residential neighborhood [ <i>sic.</i> ] when there is a sizeable number of old people living in it.

13.	N	There are a few exceptions, but in general most old people are pretty much alike.
13.	P	It is evident that most old people are very different from one another.
14.	N	Most old people should be more concerned with their personal appearance; they're too untidy.
14.	P	Most old people seem to be quite clean and neat in their personal appearance.
15.	N	Most old people are irritable, grouchy and unpleasant.
15.	P	Most old people are cheerful, agreeable, and good humored [ <i>sic.</i> ].
16.	N	Most old people are constantly complaining about the behavior [ <i>sic.</i> ] of the younger generation.
16.	P	One seldom hears old people complaining about the behavior [ <i>sic.</i> ] of the younger generation.
17.	N	Most old people make excessive demands for love and reassurance.
17.	P	Most old people need no more love and reassurance than anyone else.
		<b>Total negative scale (OP-)</b>
		<b>Total positive scale (OP+)</b>

### Programme Group Study Timeline

Date (w/c)	Activity	Week/s of programme
<b>May to July 2009</b>	Information giving & consent sessions Pilot work Pre-testing	60 – 66
<b>10.08.09</b>	Distribution 1 (pre-measures)	72
<b>21.09.09</b>	Distribution 2	78
<b>02.11.09</b>	Distribution 3	84
<b>07.12.09</b>	<b>PRIZE DRAW 1</b>	89
<b>14.12.09</b>	Distribution 4	90
<b>25.01.10</b>	Distribution 5	96
<b>08.03.10</b>	Distribution 6	102
<b>19.04.10</b>	Distribution 7	108
<b>26.04.10</b>	<b><i>Programme: session 1</i></b>	109
<b>03.05.10</b>	<b><i>Programme: sessions 1 or 2</i></b>	110
<b>10.05.10</b>	<b><i>Programme: session 2</i></b>	111
<b>24.05.10</b>	Distribution 8 (post-measures)	113
<b>05.07.10</b>	Distribution 9	119
<b>16.08.10</b>	Distribution 10	125
<b>30.08.10</b>	<b>PRIZE DRAW 2</b>	127
<b>27.09.10</b>	Distribution 11	131
<b>08.11.10</b>	Distribution 12	137
<b>20.12.10</b>	Distribution 13	143
<b>03.01.11</b>	Distribution 14	149
<b>14.03.11</b>	Distribution 15	155
<b>28.03.11</b>	<b>PRIZE DRAW 3 – Coincides with qualifying</b>	156

## Comparison Group Study Timeline

Date (w/c)	Activity	Week/s of programme
<b>May to July 2009</b>	Information giving & consent sessions Pilot work Pre-testing	60 - 66
<b>10.08.09</b>	Distribution 1 (pre-measures)	72
<b>21.09.09</b>	Distribution 2	78
<b>02.11.09</b>	Distribution 3	84
<b>07.12.09</b>	<b>PRIZE DRAW 1</b>	89
<b>14.12.09</b>	Distribution 4	90
<b>25.01.10</b>	Distribution 5	96
<b>08.03.10</b>	Distribution 6	102
<b>19.04.10</b>	Distribution 7	108
<b>24.05.10</b>	Distribution 8 (post-measures)	113
<b>05.07.10</b>	Distribution 9	119
<b>16.08.10</b>	Distribution 10	125
<b>30.08.10</b>	<b>PRIZE DRAW 2</b>	127
<b>27.09.10</b>	Distribution 11	131
<b>08.11.10</b>	Distribution 12	137
<b>20.12.10</b>	Distribution 13	143
<b>03.01.11</b>	Distribution 14	149
<b>14.03.11</b>	Distribution 15	155
<b>28.03.11</b>	<b>PRIZE DRAW 3 – Coincides with qualifying</b>	156

## Programme Timetable

Day One		
Employing mechanisms serving the <i>utilitarian</i> and <i>ego-defensive</i> functions (Katz, 1960).		
First hour	<p><i>Guided discussion using:</i></p> <p>NSF for Older People (DH, 2001)            'Not because they are old' (HAS<sup>2000</sup>, 1998).</p>	<p><i>Highlight:</i></p> <p>Impact of attitudes on quality of care and on the patient experience.</p> <p>New roles in caring for older people/skills required/career trajectories.</p> <p>Complexity of care.</p>
Second hour	<p><i>Taught content:</i></p> <p>Functional reserve, alongside the differing realities of old age.</p>	<p><i>Highlight:</i></p> <p>The well older person and the potential of rehabilitation.</p>
Day Two		
Employing mechanisms serving the <i>value-expressive</i> and <i>knowledge</i> functions (Katz, 1960).		
First hour	<p><i>Guided discussion using:</i></p> <p>UK census data (ONS, 2001).</p>	<p><i>Highlight:</i></p> <p>'Nursing', and what it constitutes in a variety of specialisms.</p>
Second hour	<p><i>Taught content:</i></p> <p>The potential of person-centred care.</p>	<p><i>Highlight:</i></p> <p>Possibilities/realities of this in the real world of work.</p>

## QUESTIONNAIRE

### STUDENT NURSES' ATTITUDES TOWARDS OLDER ADULTS

**Instructions:**

**The questionnaire is in 2 sections. Please complete both sections.**

**Section One**

There follows a number of statements related to your attitudes towards older adults in the hospital setting.

The term 'Care of the Older Adult Setting' is used to describe any placement where patients are predominantly 65 or over (e.g. nursing homes, 'Elderly' Wards, Community Rehabilitation Hospitals).

Please tick (✓) the box for each statement that is closest to your opinions and try to be as honest as possible.

*Please complete & return it as soon as you can.....*

Once you have completed the questionnaire, please return it in the addressed envelope provided, to Steph MILLNS SIZER.

***Thank you very much for your co-operation and help.***

**Date you completed this questionnaire:\_\_\_\_\_**

## ATTITUDES TO OLDER ADULTS QUESTIONNAIRE

		Strongly Agree	Agree	Not sure	Disagree	Strongly Disagree	Office use only
1	Older people are treated as individuals in the acute clinical areas						
2	Most nursing students have little idea what to expect in the 'care of older adult' settings						
3	Caring for older adults is repetitive and boring						
4	Most patients in 'care of the older adult' settings are incontinent of urine						
5	Nurses who work with older adults need to know about the ageing process						
6	Most older adults are cantankerous						
7	Most lecturers think working with older people is second rate						
8	Older adults in 'care of older adult' settings are treated as individuals						
9	Most nurses will take time to chat to older patients						
10	There is more to learn in 'care of older adult' settings than basic nursing skills						
11	Patience is important, no matter where you nurse						
12	All older adults are different from each other						
13	Most lecturers promote an interest in older adults						
14	Most nursing students are surprised that older adults are "normal"						
15	It is interesting to talk to older adults						
16	Nurses who work with older adults do not need to be clever						
17	Most older adults have lost their sense of humour						
18	Most lecturers are out-of-date with the advances in looking after older adults						

		Strongly Agree	Agree	Not sure	Disagree	Strongly Disagree	Office use only
19	Nurses in older adults' settings encourage patients to self-care						
20	Most nursing students are pleasantly surprised at how many acutely ill patients there are in the care of older adults setting						
21	It is essential that trained nurses motivate nursing students to feel positive about older adults						
22	Personality remains the same as we grow older						
23	Most lecturers will be fully supportive of nurses who want to work with older adults						
24	Most nursing students think the 'care of older adults' setting is about basic nursing care						
25	Most nursing students are surprised that older adults can hold a sensible conversation						
26	It is essential that trained nurses who work with older adults are good role models						
27	Most nurses who work in 'care of older adult' settings want to be there						
28	Nursing students are well prepared for working with older adults						
29	Most nurses who work in 'care of older adult' settings have excellent interpersonal skills						
30	Most nurses who work with older adults are enthusiastic about their work						

## Section Two

Thanks for completing the first part of the questionnaire. Now please complete this section, which tells me a bit about you. It will help in the analysis of the data as a whole. Any information that you give will be confidential. Groups of less than 10 will not be reported on – only broad groupings will be compared, for example, ‘males’ with ‘females’.

<b>Questions about you.....</b> (Please tick the categories which apply to you)				
<b>Gender</b>	<b>Male 1</b>	<b>Female 2</b>		
<b>Age</b>	<b>17 – 25 1</b>		<b>26 – 34 2</b>	
	<b>35 – 43 3</b>		<b>44 – 52 4</b>	
	<b>53 + 5</b>			
<b>How would you describe your own morale, in relation to your chosen career, at the moment? (Please circle)</b>		<b>Low 1</b>	<b>Medium 2</b>	<b>High 3</b>
<b>Do you have some idea of the specialism in which you would like to work once you qualify? (Please circle)</b>		<b>Yes 1</b>	<b>No 2</b>	<b>Unsure 3</b>
<b>If yes, please specify it here:</b>				
<b>What influenced your current choice?</b> (Please tick any that apply)	<b>Experience prior to course</b>	<b>1</b>	<b>University experience</b>	<b>5</b>
	<b>Placement experience</b>	<b>2</b>	<b>Staff (Uni or placement)</b>	<b>6</b>
	<b>TV/other media</b>	<b>3</b>	<b>Other: (please specify)</b>	<b>7</b>
	<b>Family</b>	<b>4</b>		

<b>Questions about your placement.....</b> (Please tick as appropriate)			
<b>Specialism of current placement</b> (e.g. orthopaedics/male medical)			
<b>I have attended study events on placement, that focused on older adults. (Please tick)</b>		<b>Yes 1</b>	<b>No 2</b>

<b>Questions about your course.....</b> (Please tick as appropriate)			
<b>Which module are you currently studying in University?</b>			
<b>What assessment/s, if any, are you currently working on?</b>			

*Thank you for taking the time to complete this questionnaire.*

<<<14/11/2007 12:55.>>>

From: [i.h.r.mclafferty@dundee.ac.uk](mailto:i.h.r.mclafferty@dundee.ac.uk)

To: [s\\_millns\\_sizer@hotmail.com](mailto:s_millns_sizer@hotmail.com)

Dear Steph

I would be very happy for you to use the questionnaire, I have refined it from the PCA so it is ready for piloting, I have attached and I would be very pleased to know how the pilot goes.

Regards

Ella

Dr Ella McLafferty

Senior Lecturer in Nursing

School of Nursing and Midwifery

University of Dundee

Ninewells

DUNDEE DD1 9SY

Tel: 01382 496708

Ext: 36708

Fax: 01382 641738

**UNIVERSITY LOGO**

**DEPARTMENT OF  
HEALTH SCIENCES**

29 July 2008

address

Postal Address

Direct line (\*\*\*\*\*) \*\*\*\*\*

Fax (\*\*\*\*\*) \*\*\*\*\*

Email: \*\*\*\*\*@\*\*\*\*\*.ac.uk

Dear \_\_\_\_\_

**Re: Research on 'Students' attitudes towards working with older people: the role of nurse education' (REC Reference Number: 08/H1311/102).**

Recently, you consented to be involved in the above research. You have been selected to receive a questionnaire, on this occasion. Please complete it as soon as you can; it should only take a few minutes. It can be returned in the enclosed postage-paid envelope, or to the address above. It would be really helpful if you returned your completed questionnaire by \_\_\_\_\_.

As discussed at the information session related to this study, you may receive questionnaires on subsequent occasions. Please do complete any that you receive, as it is intended that your attitudes are measured several times over the course of the research.

If you need further information or clarification, please call me on the number at the head of this letter.

Thanks in advance for your help.

Yours sincerely

Steph Millns Sizer  
Lecturer – Health Sciences

Encs. Questionnaire & return envelope

**UNIVERSITY LOGO**

**DEPARTMENT OF  
HEALTH SCIENCES**

29 July 2008

address

Postal Address.

Direct line (\*\*\*\*) \*\*\*\*\*

Fax (\*\*\*\*) \*\*\*\*\*

Email: sgmmms1@\*\*\*\*.ac.uk

Dear \_\_\_\_\_

**Re: Research on 'Students' attitudes towards working with older people: the role of nurse education' (REC Reference Number: 08/H1311/102).**

In the past week or so, you received a questionnaire from me, in relation to the above research. As yet, I have not received your completed questionnaire. It is really important that I am able to include your attitudes in the study.

If you have already completed and returned the questionnaire, thanks for your help, and please disregard this letter. If you have not yet completed and returned it, please take a few minutes to do so now.

If you need further information or clarification, please call me on the number at the head of this letter.

Thanks in advance for your help.

Yours sincerely

Steph Millns Sizer  
Lecturer – Health Sciences

Encs. Questionnaire & return envelope



**National Research Ethics Service**

**Research Ethics Committee**

Learning and Research Centre  
Hospital

8HE

Telephone: 01904 725125

Facsimile: 01904 731297

23 September 2008

Mrs Stephanie G M Millns Sizer  
Lecturer in Health Sciences  
The University

Dear Mrs Millns Sizer

**Full title of study:** Nursing education and the formation of attitudes towards working with older people.  
**REC reference number:** 08/H1311/102

Thank you for your letter of 16 September 2008, responding to the Committee's request for further information on the above research and submitting revised documentation.

The further information has been considered on behalf of the Committee by the Chair.

**Confirmation of ethical opinion**

On behalf of the Committee, I am pleased to confirm a favourable ethical opinion for the above research on the basis described in the application form, protocol and supporting documentation as revised, subject to the conditions specified below.

**Ethical review of research sites**

The Committee has designated this study as exempt from site-specific assessment (SSA). The favourable opinion for the study applies to all sites involved in the research. There is no requirement for other Local Research Ethics Committees to be informed or SSA to be carried out at each site.

**Conditions of the favourable opinion**

The favourable opinion is subject to the following conditions being met prior to the start of the study.

Management permission or approval must be obtained from each host organisation prior to the start of the study at the site concerned.

Management permission at NHS sites ("R&D approval") should be obtained from the relevant care organisation(s) in accordance with NHS research governance arrangements. Guidance on applying for NHS permission is available in the Integrated Research Application System or at <http://www.rdforum.nhs.uk>.

This Research Ethics Committee is an advisory committee to Yorkshire and The Humber Strategic Health Authority

*The National Research Ethics Service (NRES) represents the NRES Directorate within The National Patient Safety Agency and Research Ethics Committees in England*

### Approved documents

The final list of documents reviewed and approved by the Committee is as follows:

<i>Document</i>	<i>Version</i>	<i>Date</i>
Application		13 August 2008
Investigator CV		31 July 2008
Protocol	7	31 July 2008
Covering Letter		31 July 2008
Summary/Synopsis	11	31 July 2008
Compensation Arrangements		29 July 2008
Questionnaire: University of Leeds students post-intervention	16	31 July 2008
Questionnaire: University of [redacted] students pre-intervention	14	29 July 2008
Questionnaire: University of York students post-intervention	16	31 July 2008
Questionnaire: University of [redacted] students pre-intervention	14	29 July 2008
Letter of invitation to participant	8	29 July 2008
Participant Information Sheet: Leeds Students	12	16 September 2008
Participant Information Sheet: [redacted] students	13	16 September 2008
Participant Consent Form: Leeds Students	8	16 September 2008
Participant Consent Form: [redacted] Students	10	16 September 2008
Participant Consent Form: York Students	9	16 September 2008
Response to Request for F [redacted] Information		16 September 2008
Follow up letter for non-responders	7	29 July 2008
Approval letter from University of Leeds School of Healthcare REC		23 July 2008
Supervisors CV - Burton [redacted]		11 July 2008

### Statement of compliance

The Committee is constituted in accordance with the Governance Arrangements for Research Ethics Committees (July 2001) and complies fully with the Standard Operating Procedures for Research Ethics Committees in the UK.

### After ethical review

Now that you have completed the application process please visit the National Research Ethics Website > After Review

You are invited to give your view of the service that you have received from the National Research Ethics Service and the application procedure. If you wish to make your views known please use the feedback form available on the website.

The attached document "After ethical review – guidance for researchers" gives detailed guidance on reporting requirements for studies with a favourable opinion, including:

- Notifying substantial amendments
- Progress and safety reports
- Notifying the end of the study

The NRES website also provides guidance on these topics, which is updated in the light of changes in reporting requirements or procedures.

We would also like to inform you that we consult regularly with stakeholders to improve our service. If you would like to join our Reference Group please email [referencegroup@nres.npsa.nhs.uk](mailto:referencegroup@nres.npsa.nhs.uk).

08/H1311/102

Please quote this number on all correspondence

With the Committee's best wishes for the success of this project.

Yours sincerely

  
PP Mr Andrew Coatesworth  
Chair

Email: [Joanne.Holmes@York.NHS.UK](mailto:Joanne.Holmes@York.NHS.UK)

Enclosures: "After ethical review – guidance for researchers"

Copy to: Ms Sue [redacted] Intellectual Property Manager, Research Support  
Office, University of [redacted] 5DD  
North Yorkshire Alliance R&D Unit



North Yorkshire Alliance R&D Unit

Main Office: Learning and Research Centre  
Hospitals NHS Foundation Trust

Tel: (01904) 726996  
Fax: (01904) 731297

www.northyorksresearch.nhs.uk

Project reference: YOR-A01284  
Ethics ref: 08/H1311/102

Mrs Stephanie Millns Sizer  
Alcuin C Building  
York University  
Heslington  
York YO10 5DD

18/09/2008

Dear Mrs Millns Sizer

**Research Governance Approval**

**Project: Nursing education and the formation of attitudes towards working with older people.**

Thank you for submitting details of this project for Research Governance Approval by Hospitals NHS Foundation Trust.

On behalf of the Trust I confirm that the project can go ahead subject to assessment by the appropriate Ethics Committee. If you have not already done so, please supply me with a copy of the Ethics Committee's letter, either confirming its favourable ethical opinion or that full ethical review is not required.

Please note that as Site Principal Investigator you will be responsible for ensuring that the projects is conducted in accordance with the Protocol, any Ethics Committee requirements, the Department of Health's *Research Governance Framework for Health and Social Care* ([www.dh.gov.uk/assetRoot/04/10/89/65/04108965.pdf](http://www.dh.gov.uk/assetRoot/04/10/89/65/04108965.pdf)), the NHS Confidentiality Code of Practice ([www.dh.gov.uk/assetRoot/04/06/92/54/04069254.pdf](http://www.dh.gov.uk/assetRoot/04/06/92/54/04069254.pdf)) and any applicable legislation.

Please check that you are aware of the project sponsor's Standard Operating Procedures that are applicable to this project. If the sponsor does not have such procedures or there are gaps in them relating to local circumstances, please refer to the Standard Operating Procedures published on the Unit's website, where you will also find other useful information on research governance and related matters. The website address is [www.northyorksresearch.nhs.uk](http://www.northyorksresearch.nhs.uk)

I would be grateful if you could send details of any publications and conference presentations that arise from this research for inclusion in our audit of research activity in due course.

Yours sincerely

Caroline  
Head of Research and Development  
On behalf of Hospitals NHS Foundation Trust

cc: Sharon

The R&D Service for: Hospitals NHS Foundation Trust and District NHS Foundation Trust  
Yorks. Health Care Trust Primary Care Trust

School of Healthcare

Prof. Andrew [REDACTED]  
[REDACTED]  
[REDACTED]



UNIVERSITY OF [REDACTED]

23<sup>rd</sup> July 2008

Mrs Stephanie Millns Sizer  
11 Meadow Way  
Alwoodley  
LEEDS  
West Yorkshire  
LS17 7QY

Dear Mrs. Millns Sizer,

**Research Projects for Ethical Approval (SHREC/RP/129)**

Following your amendments, the Committee is pleased to grant you ethical approval to undertake your study. Your offer to provide study days for a subsequent group of students, led by yourself, was noted. We would be pleased to accept this if you wished to take it forward.

Ethical approval does not infer you have the right of access to any member of staff or student or documents and the premises of the University of Leeds. Nor does it imply any right of access to the premises of any other organisation, including clinical areas. The SHREC takes no responsibility for you gaining access to staff, students and/or premises prior to, during or following your research activities.

It is our policy to remind everyone that it is your responsibility to comply with Health and Safety, Data Protection and any other legal and/or professional guidelines there may be.

The committee wishes you every success with your project.

Yours sincerely



Prof. Andrew Long  
Deputy Chair [REDACTED]  
School of Healthcare Research Ethics Committee

Professor Dawn Freshwater  
Head of School [REDACTED]



## Participant Information Sheet

### Students' attitudes towards working with older people: the role of nurse education

I would like to invite you to take part in a research project that I am undertaking as part of my Doctoral studies. Before you decide, please read the following information, which explains what the research is about, and sets out what it would involve for you.

#### *What is the purpose of the study?*

I am trying to find out whether teaching sessions delivered whilst you are on placement can influence your attitudes towards working with older people. This subject is of interest because the UK is an ageing society, with the majority of hospital beds being occupied by people over the age of 65, so it is of relevance to nurses' work.

#### *About the research study in detail:*

Between July 2009 and March 2011, you would be asked to complete and return a short questionnaire a number of times, which ask you about your attitudes towards working with older people. The questionnaire takes approximately 5 minutes to complete.

Each time the questionnaire is distributed, a random sample of 10 students will be selected to receive it. This means that you would, as a maximum, potentially be asked to complete a questionnaire once every six weeks in this time period. Chance also dictates that you might not be selected at all, even if you consent to being included in the study.

A series of 2, two-hour long, teaching sessions will take place in the Spring of 2010. That is, one teaching session a week, for 2 weeks, during your placement that occurs at the same time. Steps have been taken to make it as easy as possible for you to attend.

*For the study to yield useful results, I need as many of you as possible to both complete the questionnaires and attend the teaching sessions.*

***Do I have to take part?***

It is up to you to decide. I will describe the study, and go through this information sheet, which you can keep. If you do agree to take part, I will ask you to sign a consent form which shows you have agreed to do so. You are still free to withdraw at any time, without giving a reason. This would not affect your progression on your programme in any way. If you do withdraw at any point, questionnaires completed up to that point will be kept, but you will not receive any further questionnaires.

***Why would I have to complete so many questionnaires?***

A person's 'attitudes' can change over time, and can be influenced by many things. In order to capture those differences, it is necessary to measure your attitudes frequently over the course of the research.

*It is really important that you complete and return questionnaires as soon as you can, ideally, within a couple of days of having received them.*

***How long does the research go on for?***

The data collection phase goes on for 20 months. A detailed outline of the study can be seen at the back of this information sheet, as it relates to your course. This will tell you when you might expect to receive a questionnaire, and when the teaching sessions will take place in relation to the rest of your programme.

***What about confidentiality and anonymity?***

The study is concerned with getting a 'feel' for your attitudes as a whole group, and because of that, individual attitude scores will not be used in any written reports. The questionnaire does ask you to provide data about yourself, such as your gender and your age, where you are on placement at the time of completing the questionnaire, and questions about what stage you are at in your course. Again, it is the results for the group as a whole that will be used, to look for patterns and trends in gender and age, for example, as opposed to individual data. You will not be identified or identifiable in any report or publication.

You will notice that the questionnaires have a code on the bottom. This code will be linked to your name, and its purpose is to allow me to identify individuals who might not have returned a questionnaire, in order that I can send them a reminder. It will not be used to 'find out who said what' in relation to any of the items on the questionnaire.

***How & where will the data you collect be stored?***

Completed questionnaires will be kept in a locked filing cabinet, in a locked office at the University to which only I have access. They will be destroyed in May 2012, when I have completed the final results report.

The data will be analysed using a computer, so your anonymous responses will be entered onto a database, which is password protected. No-one other than me will have access to them.

***What's in it for me?***

The information I get from this study will be used to try and improve the way we educate nurses about the care of older people. You will learn about concepts that you can usefully apply to your nursing practice on placement. In addition, three prize draws (each for a £25 book token) will take place at different points during the research. Anyone who consents to be included will be automatically entered into the first prize draw. Any students who remain in the study when subsequent draws take place will also be included in those draws.

***Thank you for your time.***

Should you need or wish to speak to me further about this research, my contact details are outlined below. Alternatively, you can speak to my academic supervisor, whose details are also listed.

*My contact details:*

Stephanie Millns Sizer  
The University of York  
Alcuin College – C Block Room 011  
Heslington, YORK YO10 5DD

Tel: 01904 321631

Email: [sgmms1@york.ac.uk](mailto:sgmms1@york.ac.uk)

*My supervisor's details:*

Dr. R. L. Burton  
Senior Lecturer  
The University of Huddersfield  
Harold Wilson Building – Room HW 2/13  
Queensgate, HUDDERSFIELD HD1 3DH

Tel: 01484 473366

Email: [r.l.burton@york.ac.uk](mailto:r.l.burton@york.ac.uk)

## Participant Information Sheet

### Students' attitudes towards working with older people: the role of nurse education

My name is Stephanie Millns Sizer, and I work as a lecturer on the nursing programmes at the University of York. I would like to invite you to take part in a research project that I am undertaking as part of my Doctoral studies at the University of Huddersfield. Before you decide whether or not to take part, please read the following information, which explains what the research is about, and sets out what it would involve for you.

#### *What is the purpose of the study?*

I am trying to find out how nursing students' attitudes towards working with older people changes over the course of their education. This subject is of interest because the UK is an ageing society, with the majority of hospital beds being occupied by people over the age of 65, so this topic is of relevance to nurses' work.

#### *About the research study in detail:*

Between July 2009 and March 2011, you would be asked to complete and return a short questionnaire a number of times, which ask you about your attitudes towards working with older people. The questionnaire takes approximately 5 minutes to complete.

Each time the questionnaire is distributed, a random sample of 10 students will be selected to receive it. This means that you would, as a maximum, potentially be asked to complete a questionnaire once every six weeks in this time period. Chance also dictates that you might not be selected at all, even if you consent to being included in the study.

#### *Do I have to take part?*

It is up to you to decide. I will describe the study, and go through this information sheet, which you can keep. If you do agree to take part, I will ask you to sign a consent form which shows you have agreed to do so. You are still free to withdraw at

any time, without giving a reason. This would not affect your progression on your programme in any way. If you do withdraw at any point, questionnaires completed up to that point will be kept, but you will not receive any further questionnaires.

***Why would I potentially have to complete so many questionnaires?***

A person's 'attitudes' can change over time, and can be influenced by many things. In order to capture those differences, it is necessary to measure your attitudes frequently over the course of the research.

*It is really important that you complete and return questionnaires as soon as you can, ideally, within a couple of days of having received them.*

***How long does the research go on for?***

The data collection phase goes on for 20 months. A detailed outline of the study can be seen at the back of this information sheet, as it relates to your course. This will tell you when you might expect to receive a questionnaire in relation to the rest of your programme.

***What about confidentiality and anonymity?***

The study is concerned with getting a 'feel' for your attitudes as a whole group, and because of that, individual attitude scores will not be used in any written reports. The questionnaire does ask you to provide data about yourself, such as your gender and your age, where you are on placement at the time of completing the questionnaire, and questions about which stage you are at in your course. Again, it is the results for the group as a whole that will be used, to look for patterns and trends in age and gender for example, as opposed to individual data. You will not be identified or identifiable in any report or publication.

You will notice that the questionnaires have a code on the bottom. This code will be linked to your name, and its purpose is to allow me to identify individuals who might not have returned a questionnaire, in order that I can send them a reminder. It will not be used to 'find out who said what' in relation to any of the items on the questionnaire.

***How & where will the data you collect be stored?***

Completed questionnaires will be kept in a locked filing cabinet, in a locked office at the University to which only I have access. They will be destroyed in May 2012, when I have completed the final results report.

The data will be analysed using a computer, so your anonymous responses will be entered onto a database, which is password protected. No-one other than me will have access to them.

***What's in it for me?***

The information I get from this study will be used to try and improve the way we educate nurses about the care of older people. Three prize draws (each for a £25 book token) will take place at different points during the research. Anyone who consents to be included will be automatically entered into the first prize draw. Any students who remain in the study when subsequent draws take place will also be included in those draws.

***Thank you for your time.***

Should you need or wish to speak to me further about this research, my contact details are outlined below. Alternatively, you can speak to my academic supervisor, whose details are also listed.

*My contact details:*

Stephanie Millns Sizer  
Lecturer in Health Sciences (Nursing)  
Postal Address

Tel: \*\*\*\*\*

Email: sgmms1@\*\*\*\*\*.ac.uk

*My supervisor's details:*

Dr. R. L. Burton  
Senior Lecturer  
The University of Huddersfield  
Harold Wilson Building – Room HW 2/13  
Queensgate  
HUDDERSFIELD HD1 3DH

Tel: 01484 473366

Email: r.l.burton@york.ac.uk

**UNIVERSITY LOGO**

**DEPARTMENT OF  
HEALTH SCIENCES**

9 June 2009

Postal Address

REC Reference Number: 08/H1311/102

Direct line (\*\*\*\*\*) \*\*\*\*\*  
 Fax (\*\*\*\*\*) \*\*\*\*\*  
 Email: sgms1@\*\*\*\*\*.ac.uk

**CONSENT FORM**

**Title of Project:** Students' attitudes towards working with older people: the role of nurse education.  
**Name of Researcher:** Stephanie Millns Sizer

**Please  
initial box**

- 1. I confirm that I have read and understood the information sheet dated 2.6.09 (version 13) for the above study. I have had the opportunity to consider the information given, ask questions & have had these answered satisfactorily.
- 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 progress on the course being affected in any way.
- 3. I agree to take part in the above study.

Please PRINT the address to which your questionnaires should be sent below:

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Post Code: \_\_\_\_\_

\_\_\_\_\_  
 Please PRINT your name

\_\_\_\_\_  
 Date

\_\_\_\_\_  
 Signature

\_\_\_\_\_  
 Name of person taking consent

\_\_\_\_\_  
 Date

\_\_\_\_\_  
 Signature

THE UNIVERSITY [REDACTED]

DEPARTMENT OF  
HEALTH SCIENCES

Area 2  
Seebohm Rowntree Building

Direct line [REDACTED] 399

Email: [REDACTED].ac.uk

8 June 2011

To whom it may concern

**RE: STEPHANIE MILLNS-SIZER**

Stephanie Millns-Sizer works as a nursing lecturer in the Department of Health Sciences. I can confirm that between March 2010 and May 2010 there was a problem with post being delivered to Stephanie at her work address. Despite good response rates for her research in previous and subsequent rounds of data collection, during this period very few responses arrived at the work address. The situation became extremely concerning when, on two occasions, letters related to Stephanie's Doctoral studies were witnessed as being in the staff post room, but when she went to collect them, they were no longer there.

The situation was explored by the usual means initially, assuming that the post had been picked up by mistake or that some letters may have been delivered to the wrong building. No answers were apparent as to the whereabouts of the missing post. The situation was reported to the University security team and was investigated. Unfortunately the information was not sufficient to enable a report to the police and the advice received was to report any further problems as soon as possible. Unsurprisingly Steph chose instead to have further post delivered directly to her home address rather than risk further loss of data for her studies.

As a consequence of this situation, the post remained unaccounted for and has not been recovered since. This may have had a negative impact upon the response rates for this period of Stephanie's Doctoral study.

I hope this information is useful.

Best wishes



Sue [REDACTED]

Deputy Head of Department (Professional Education and Training)

### **Explanatory notes for appendices 18 to 25:**

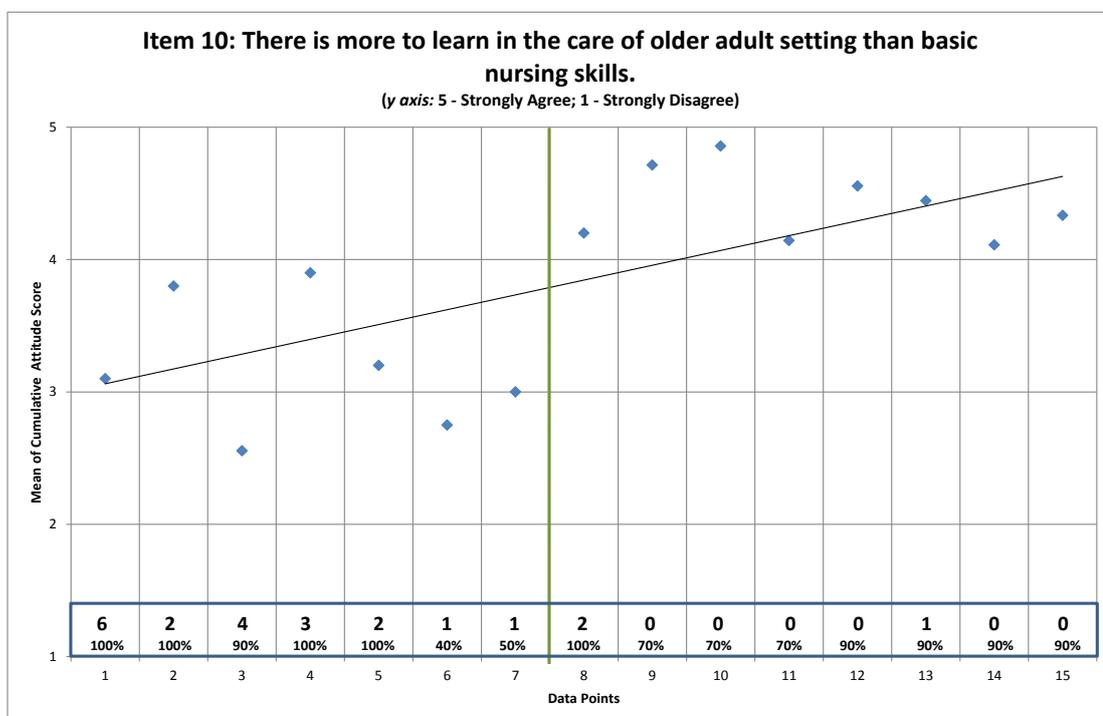
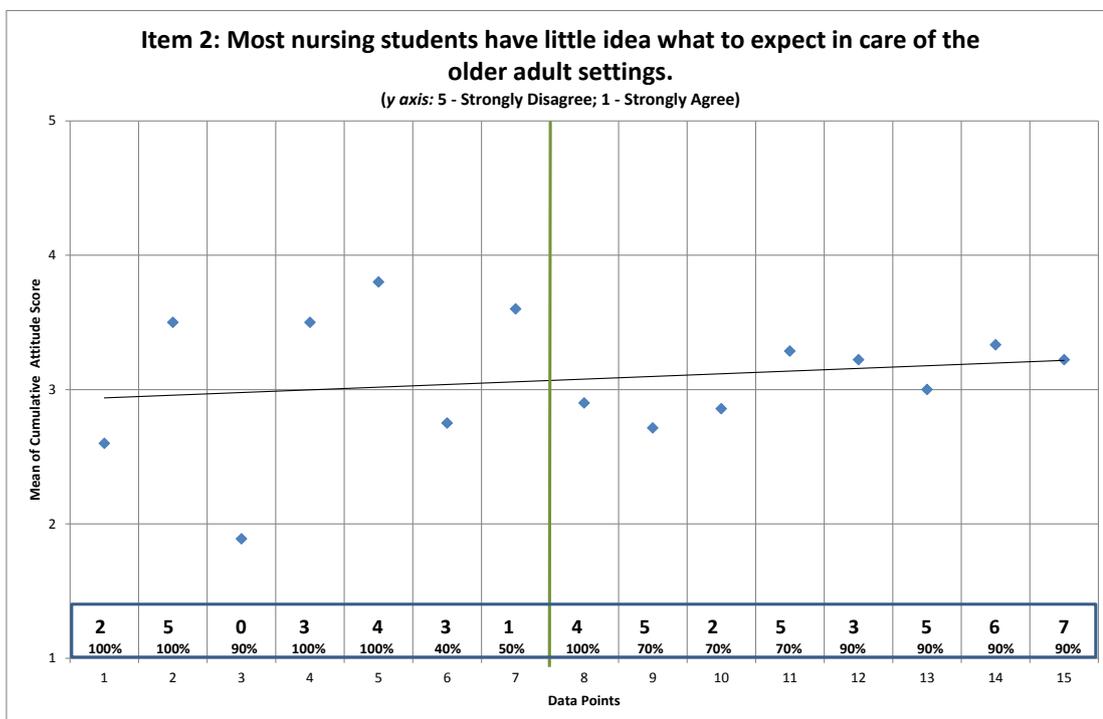
The mean attitude scores for individual items on McLafferty's Attitude Scoring Tool (MAST) were used to characterise attitudes in phase two analysis. Hence the following elements are important in interpreting these appendices, alongside the mean scores:

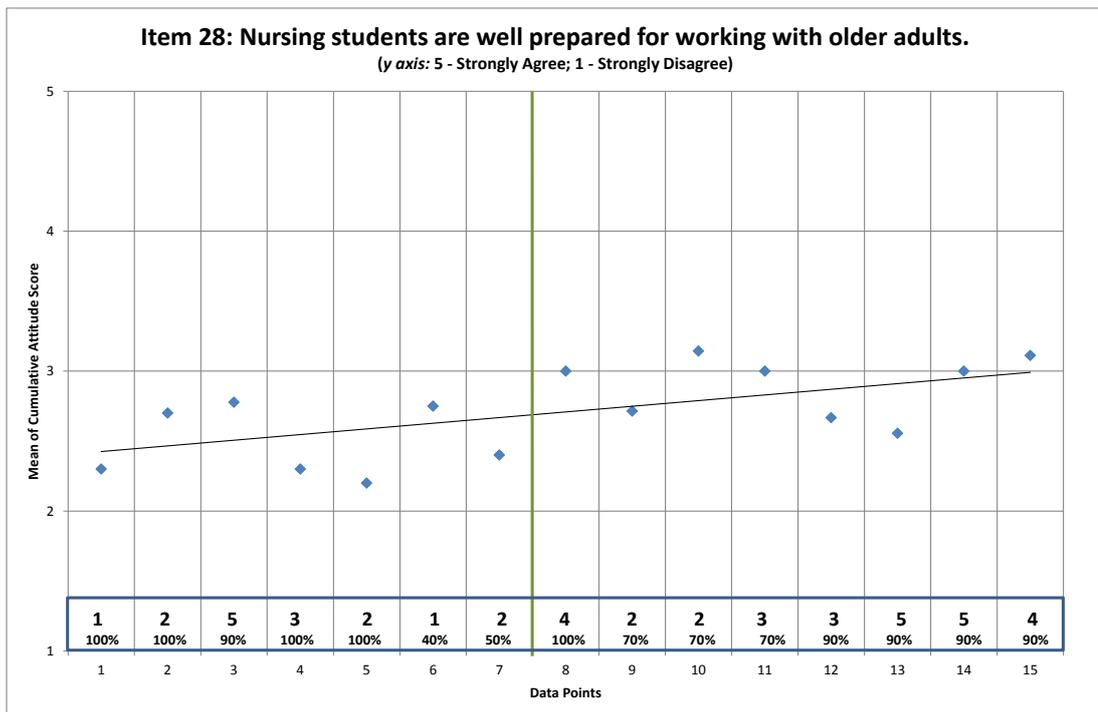
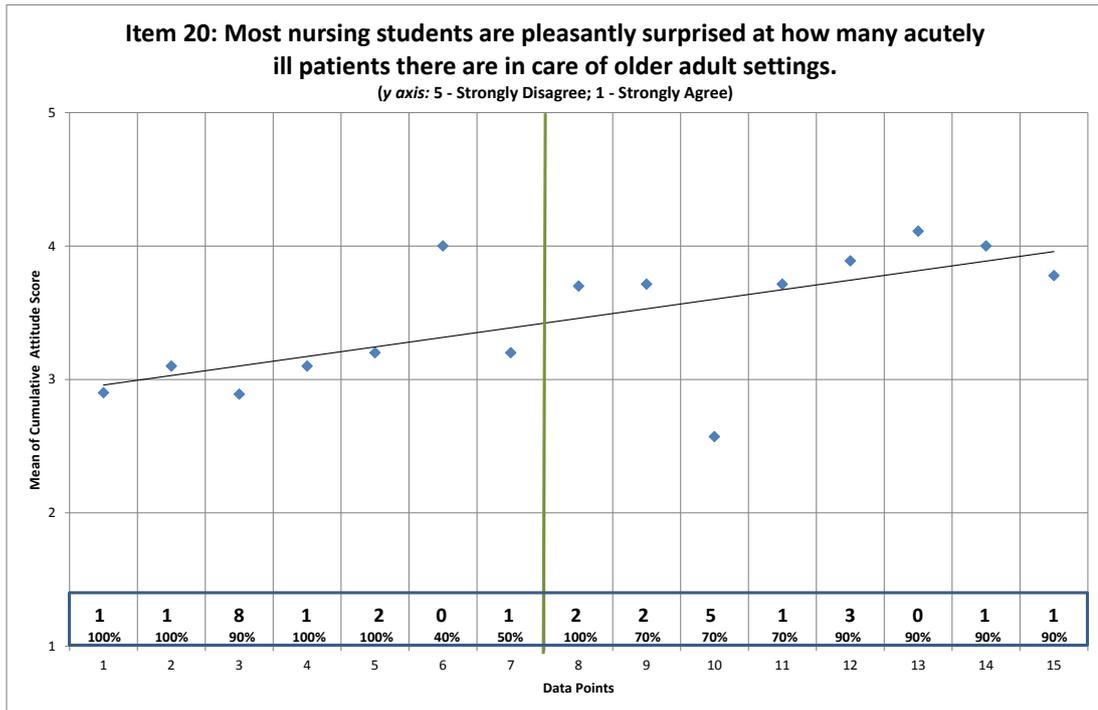
1. the size of the middle category, and the
2. response rate (%) at particular data points.

These are given in the row above the *x* axis (NB: the response rates shown will be the same for each item, across all data points, because each data point refers to a single administration of MAST). Reference to these two elements gives an indication of the bias (either positive or negative), and the strength of opinion of those responding at each data point, to individual MAST items.

Charted Mean Scores for MAST Items:

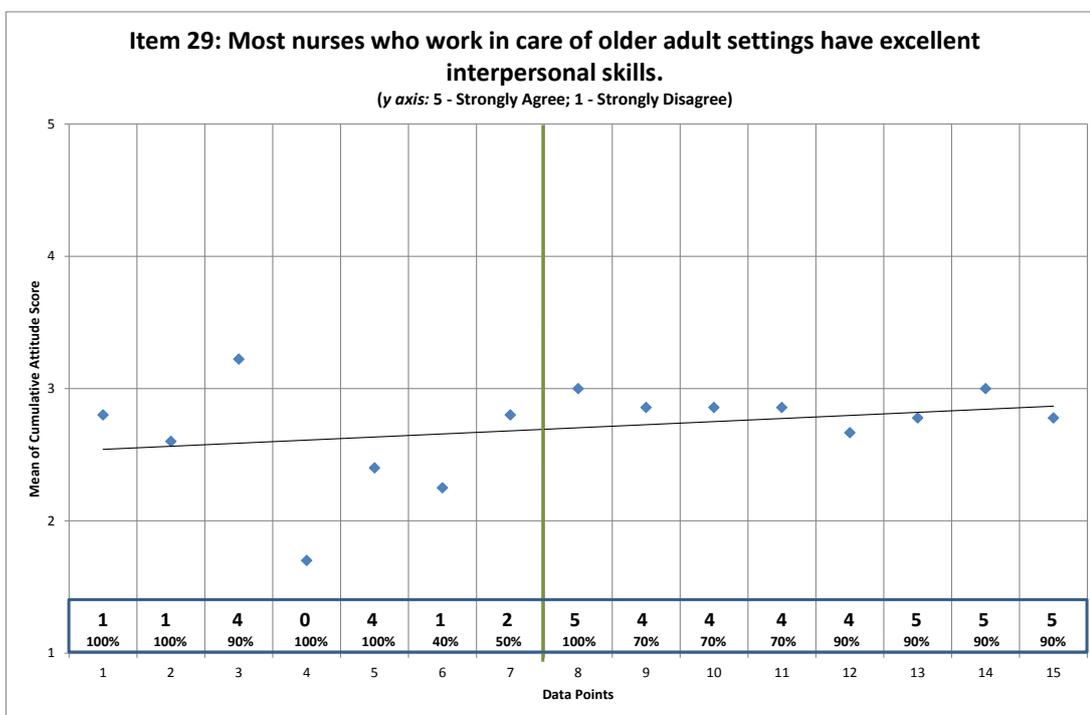
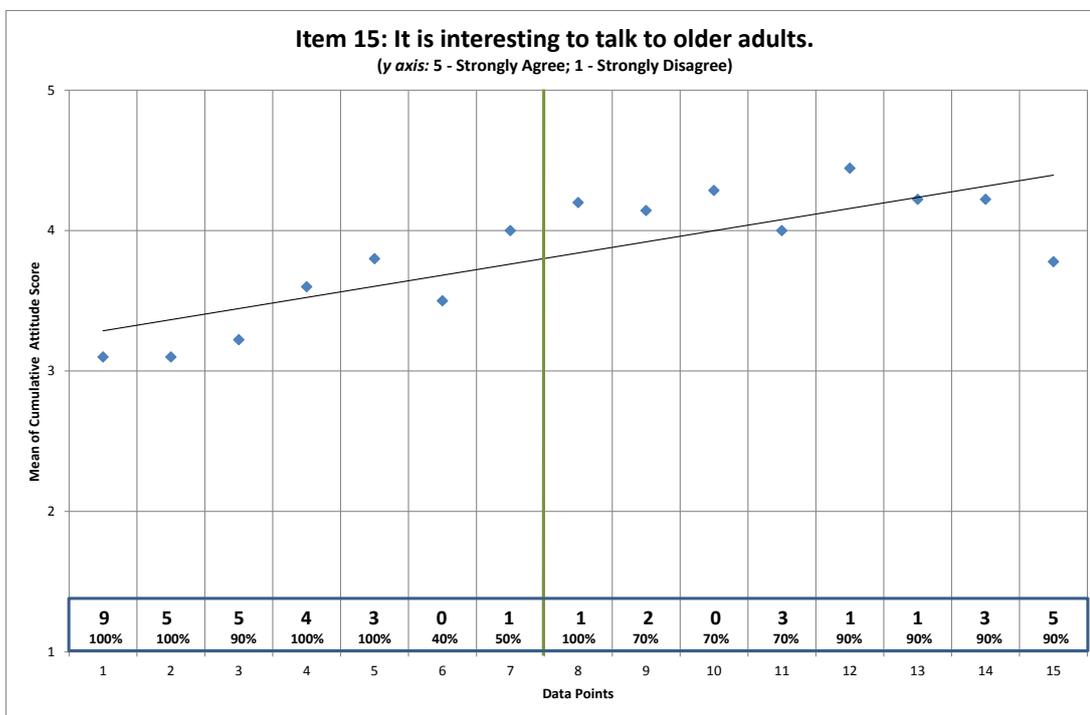
Theme One – Student Learning Opportunities

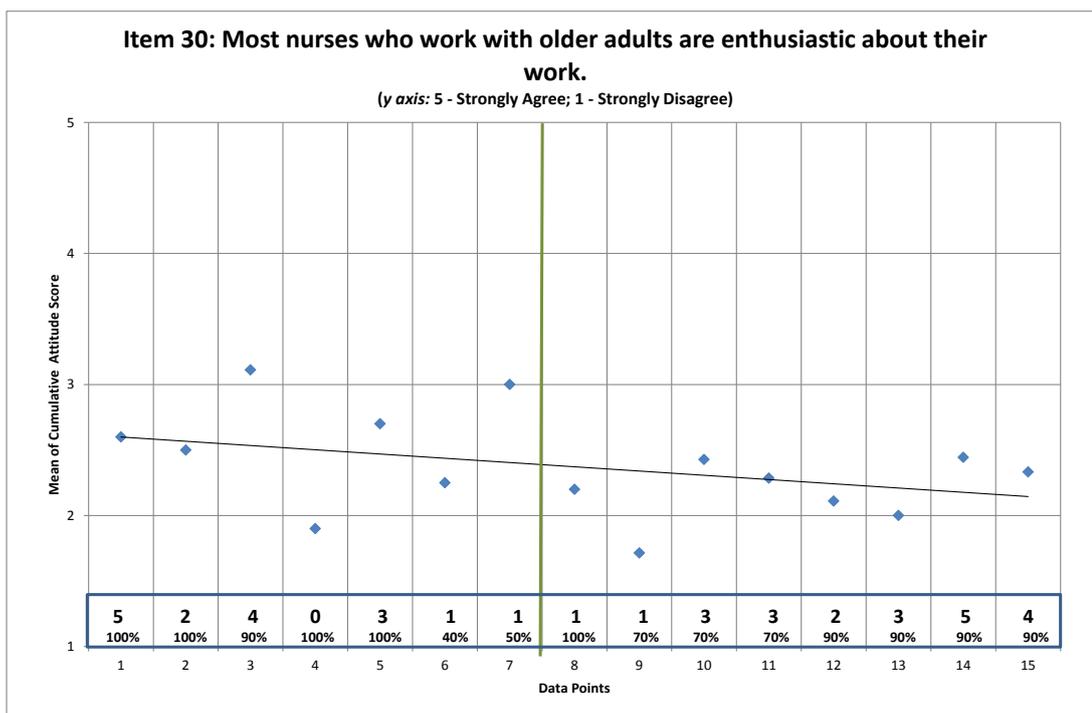




Charted Mean Scores for MAST Items:

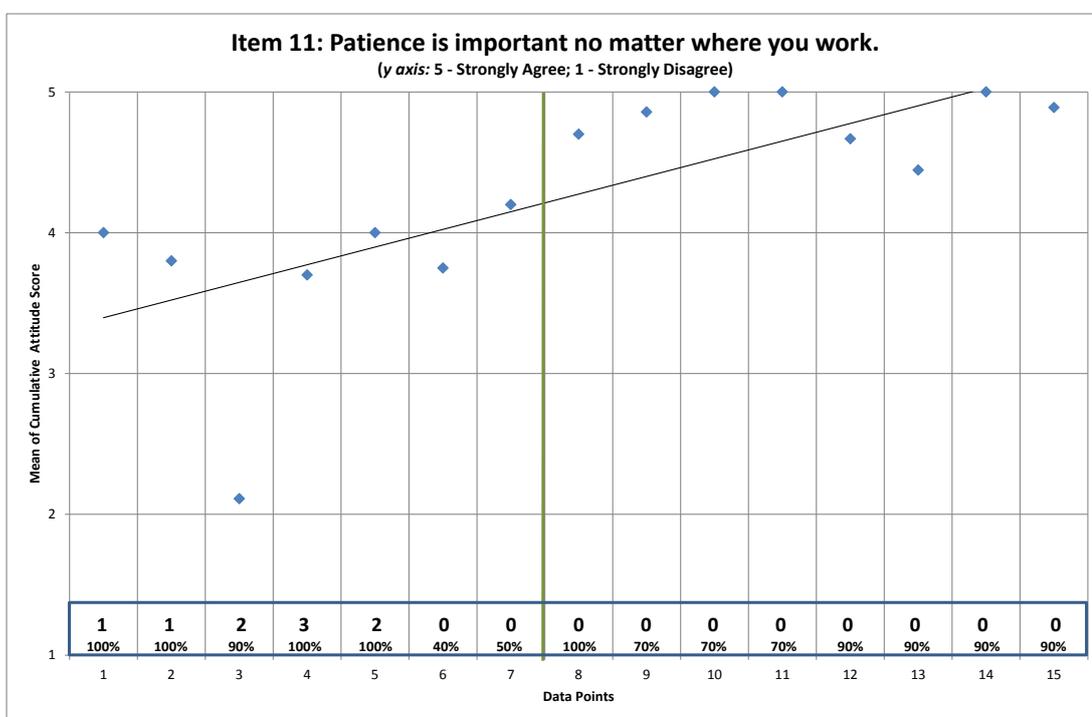
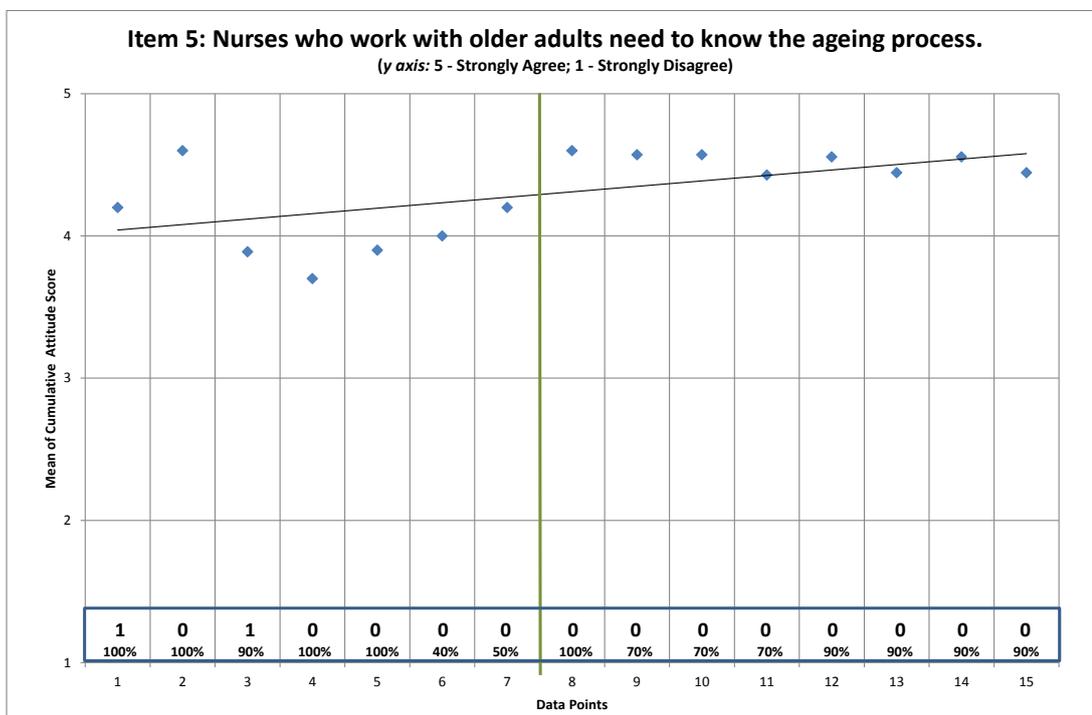
Theme Two – Interpersonal/Communication Skills

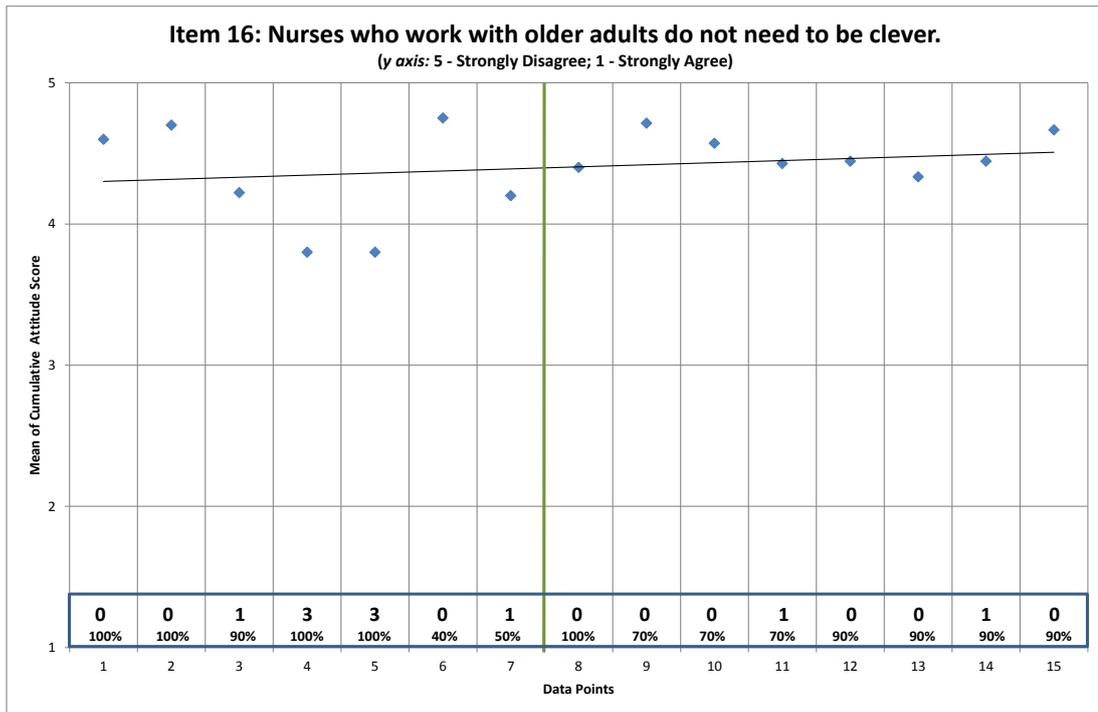




Charted Mean Scores for MAST Items:

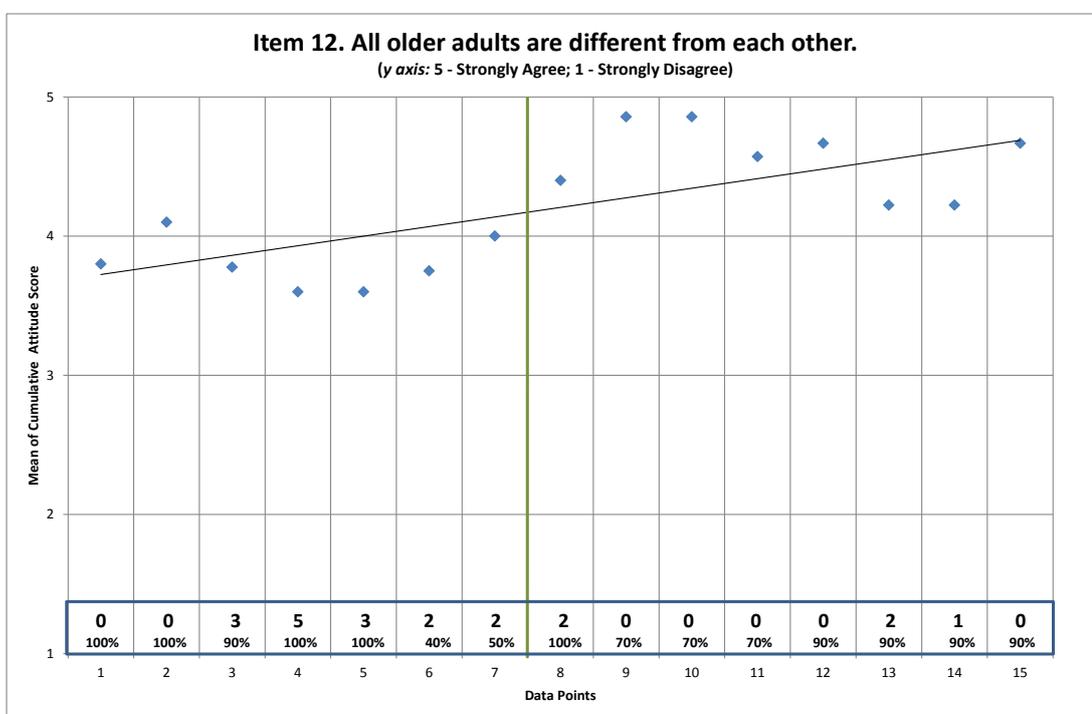
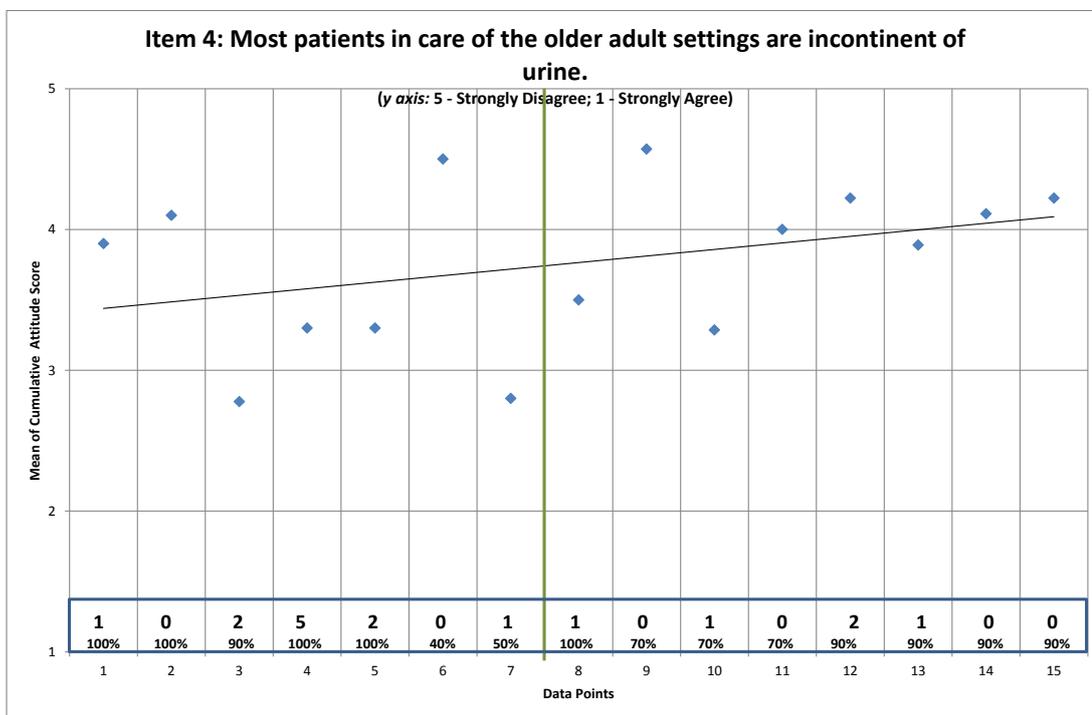
Theme Three – Knowledge & Skill Required for Care of the Elderly.

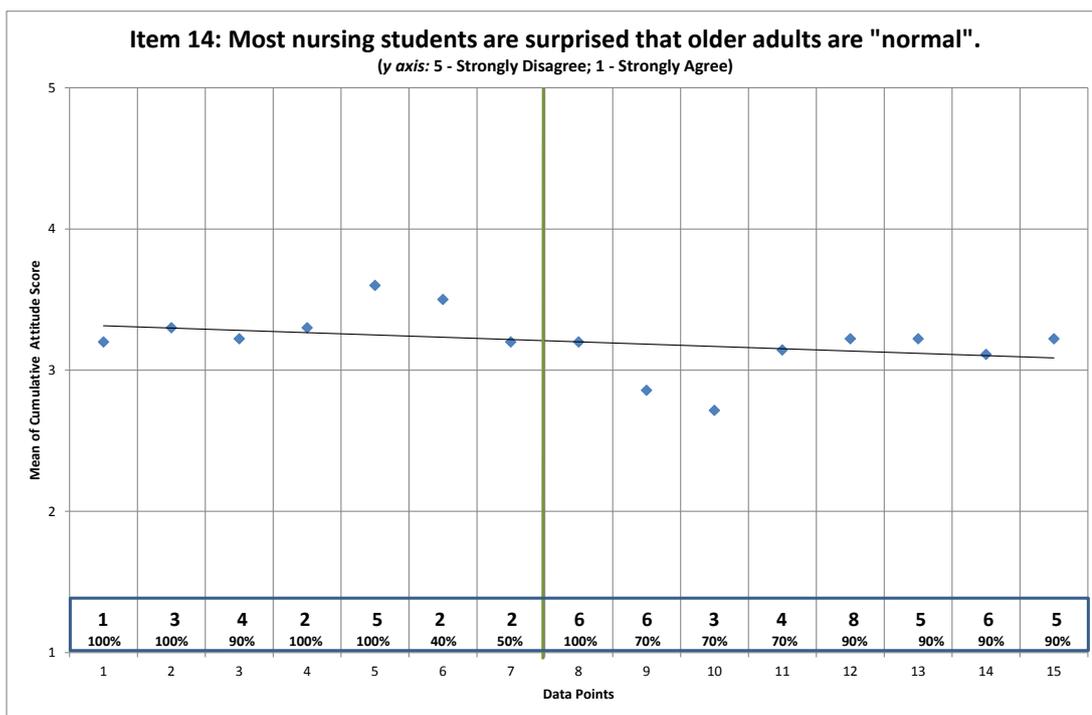


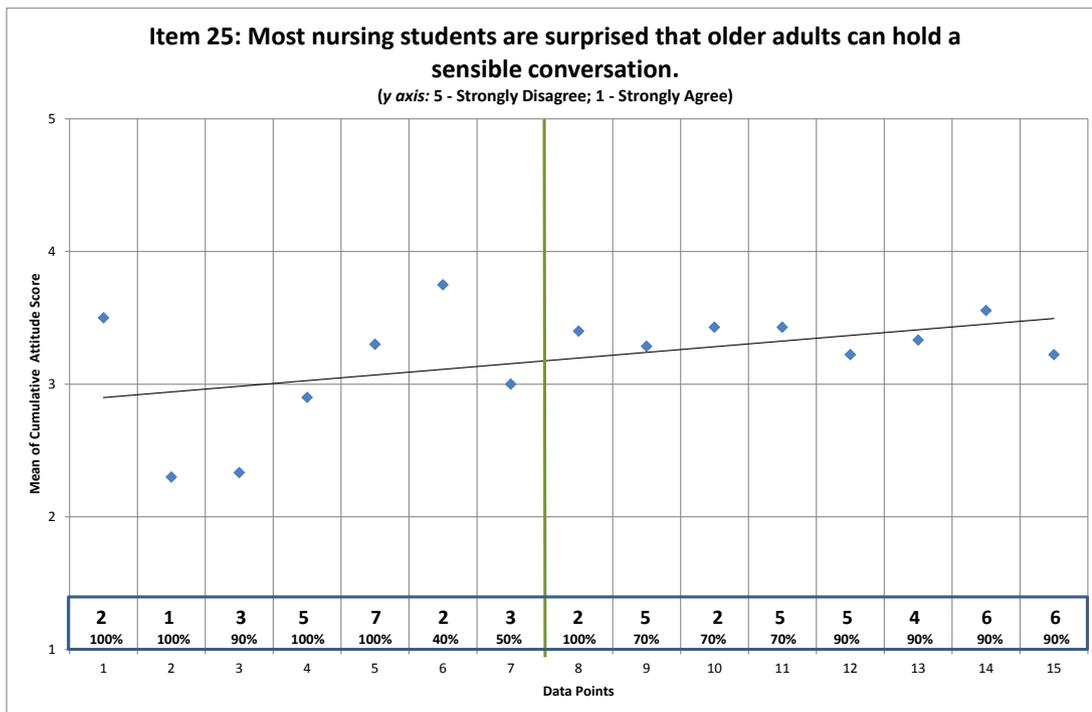


Charted Mean Scores for MAST Items:

Theme Four – Labelling Older Adults.

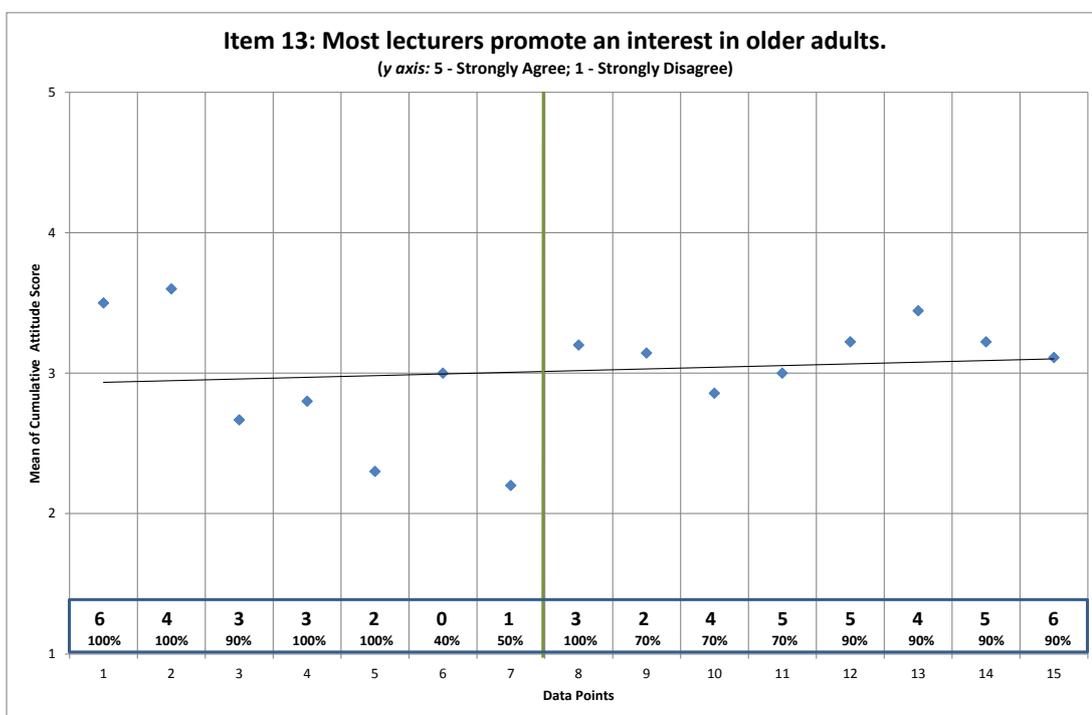
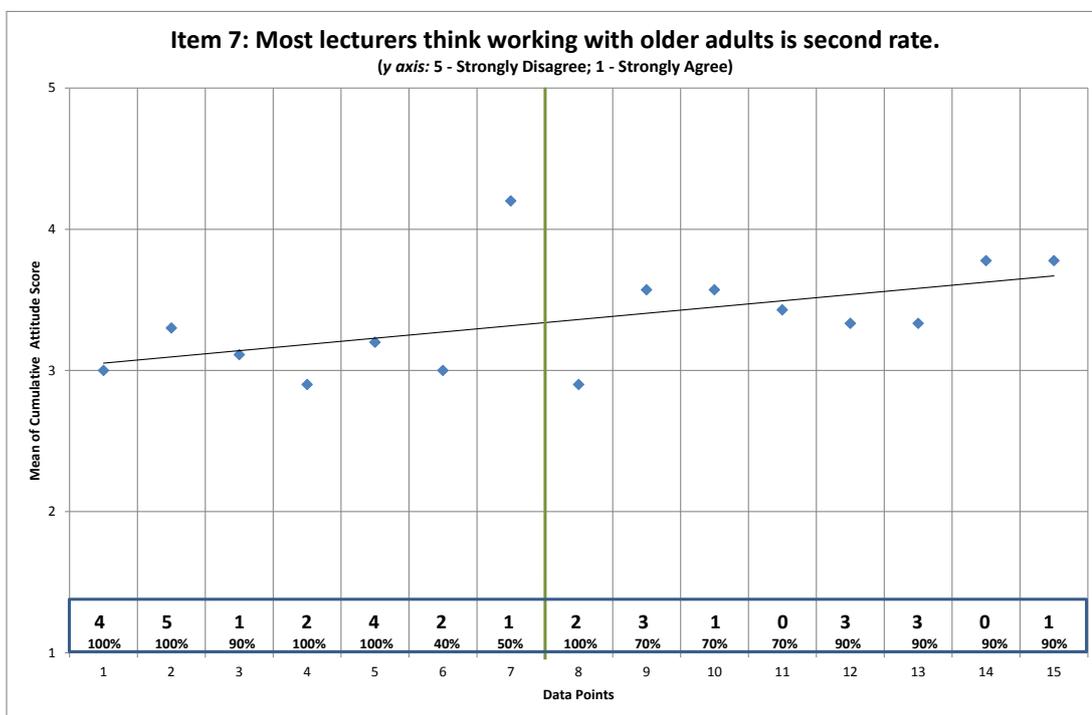


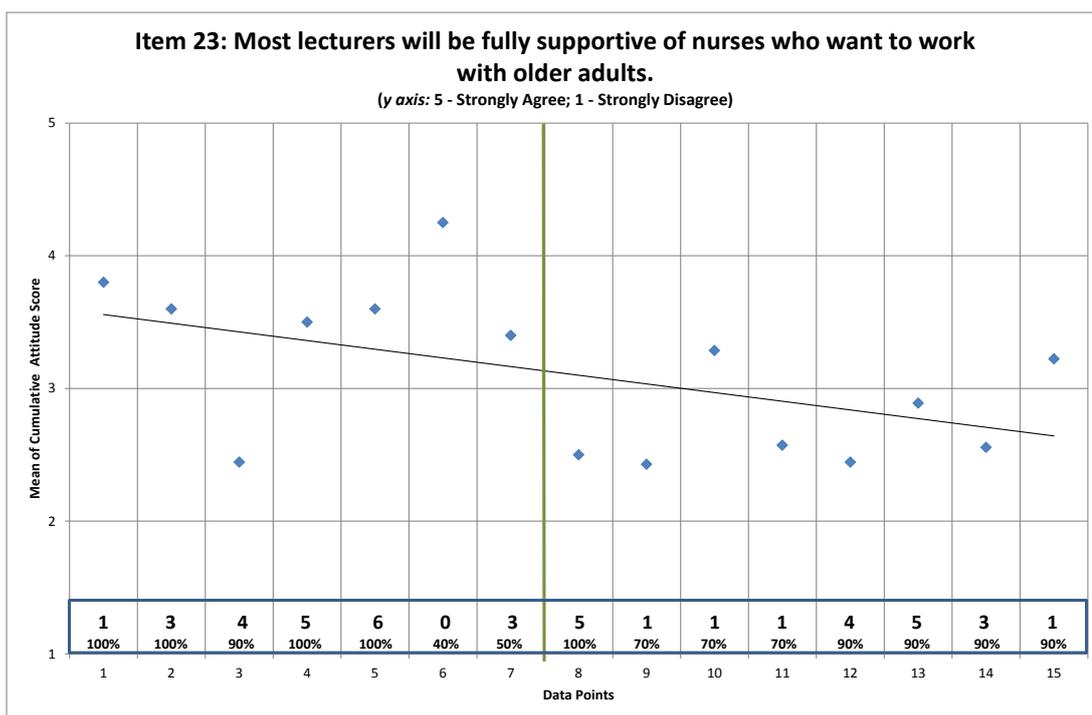
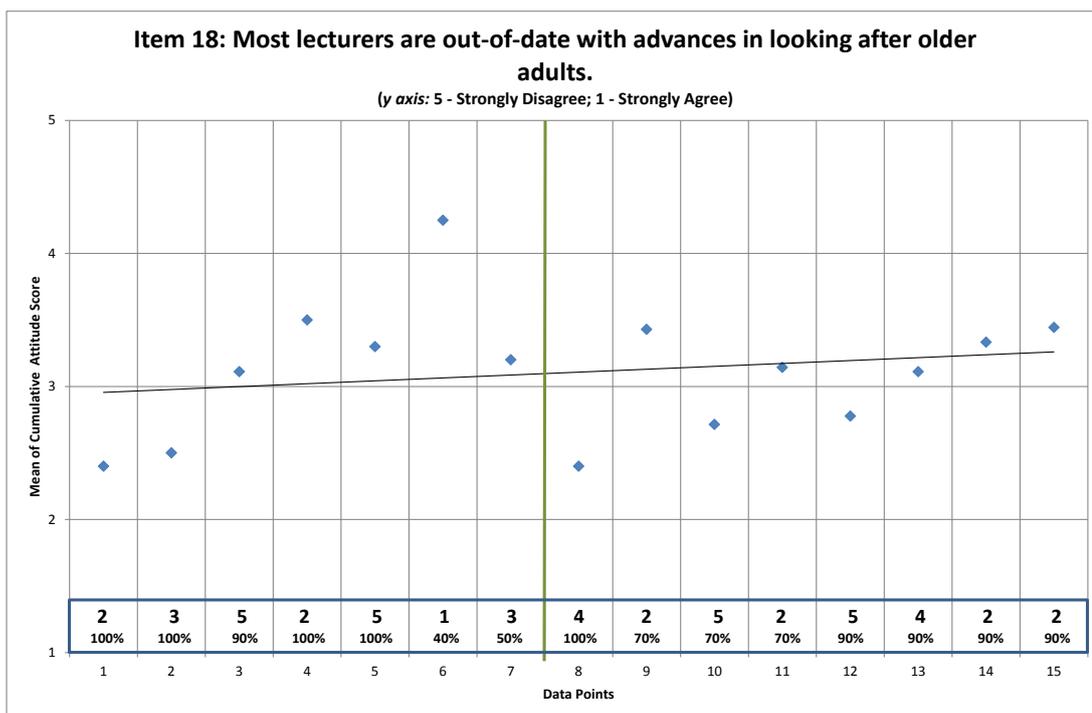




Charted Mean Scores for MAST Items:

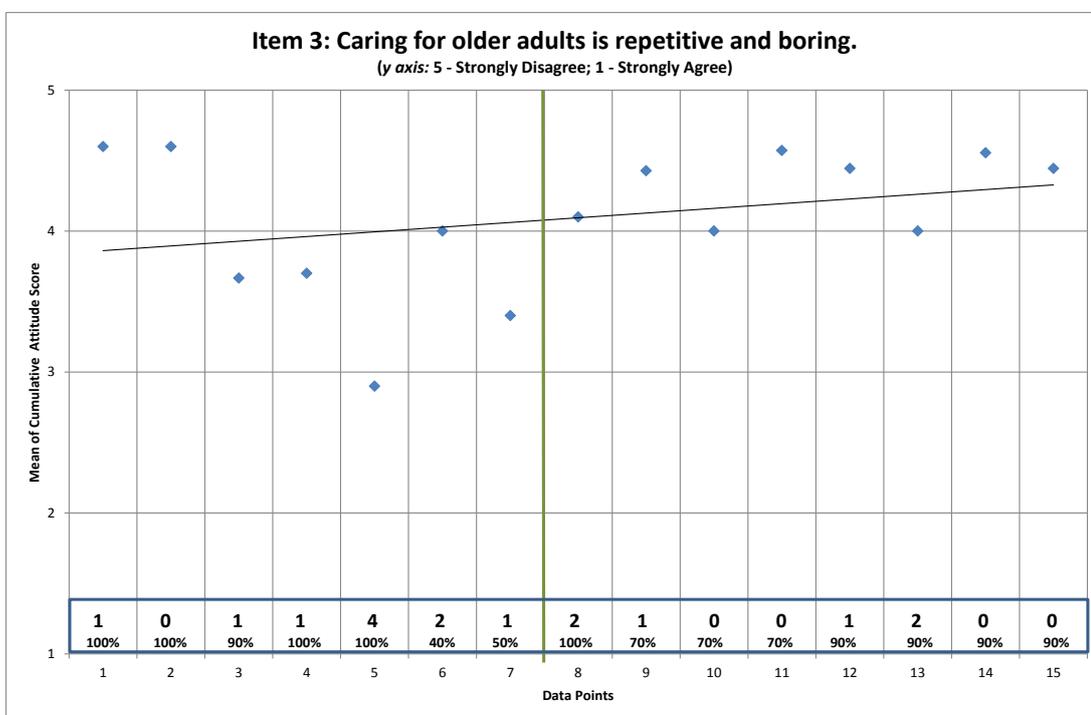
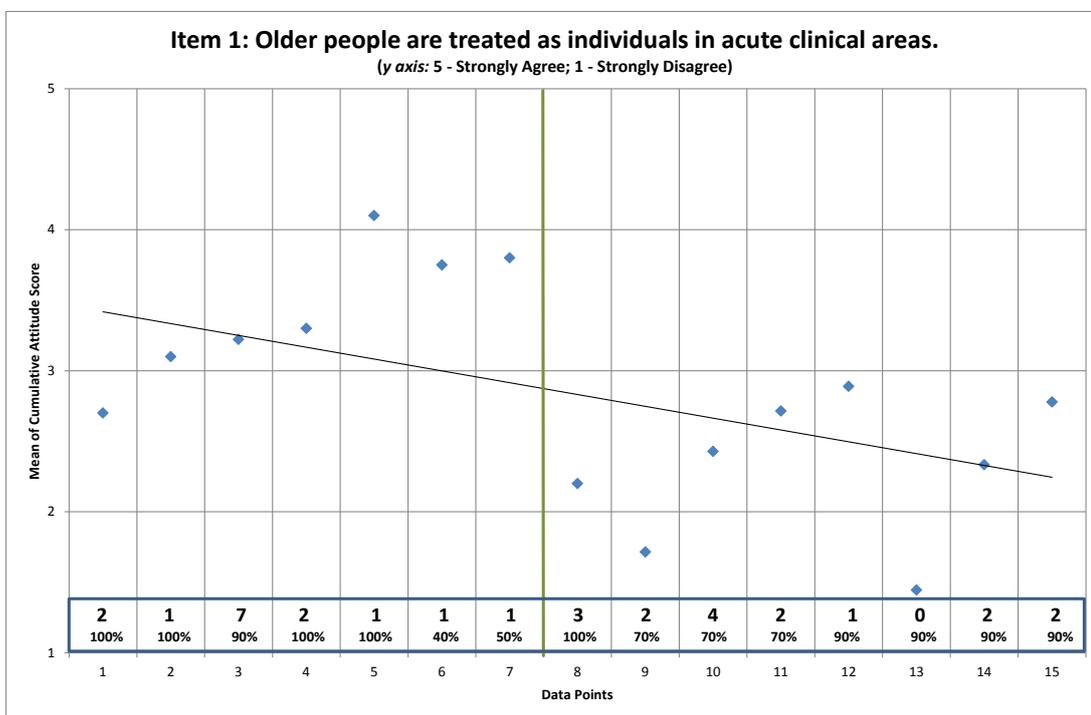
Theme Five – Lecturers’ Influences.

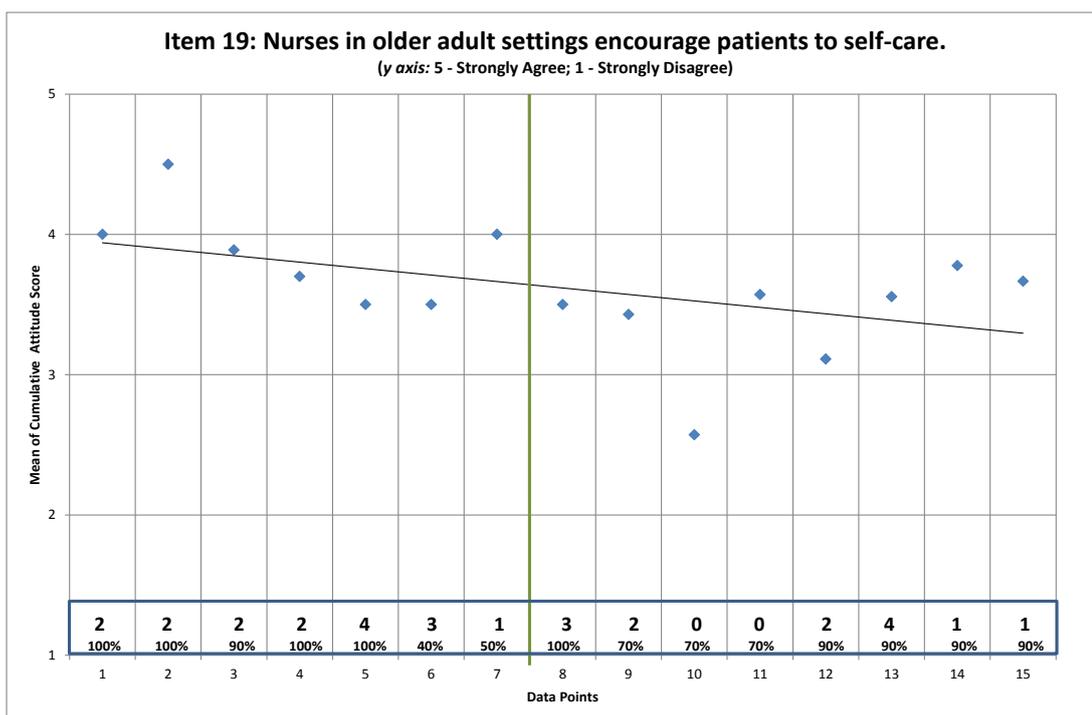
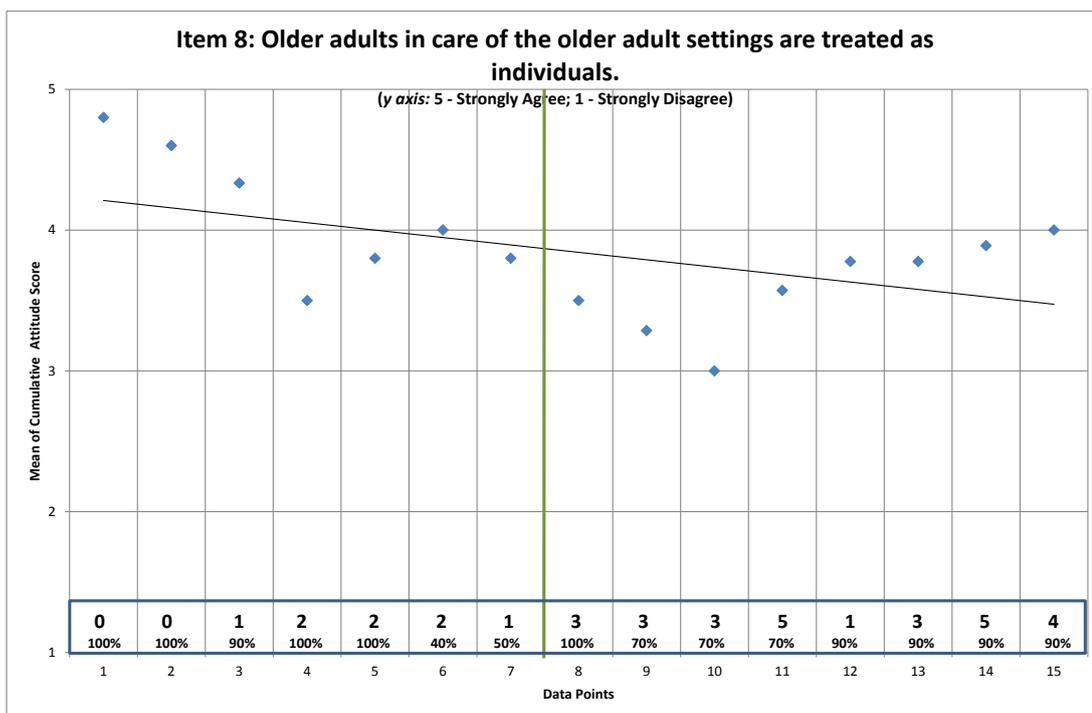


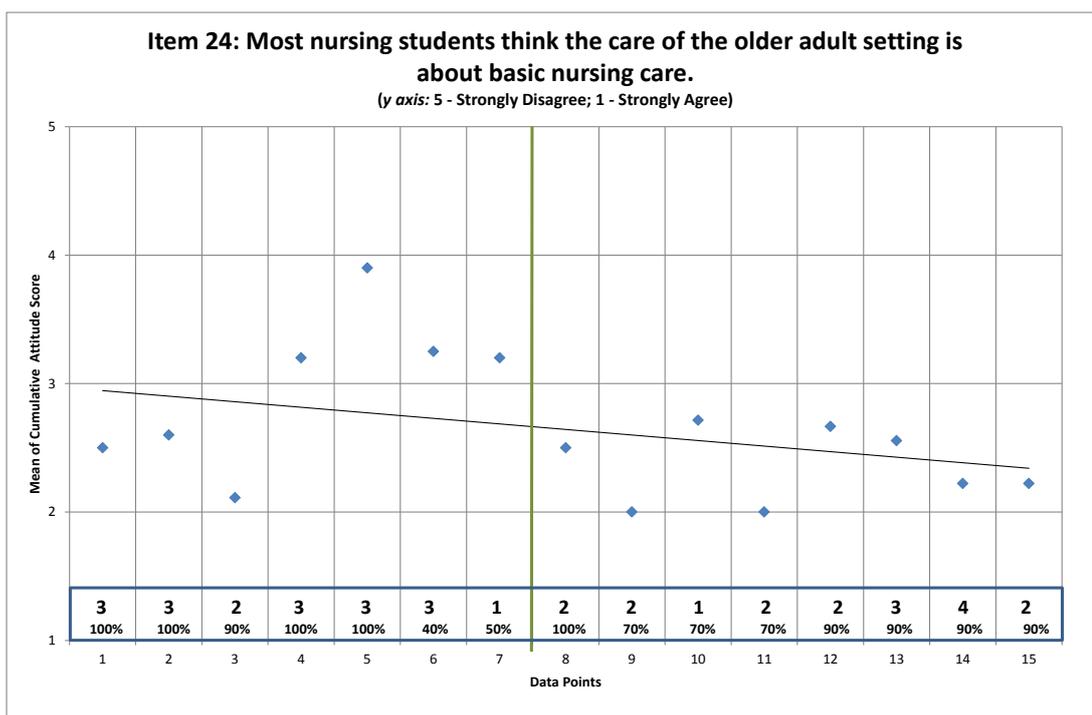
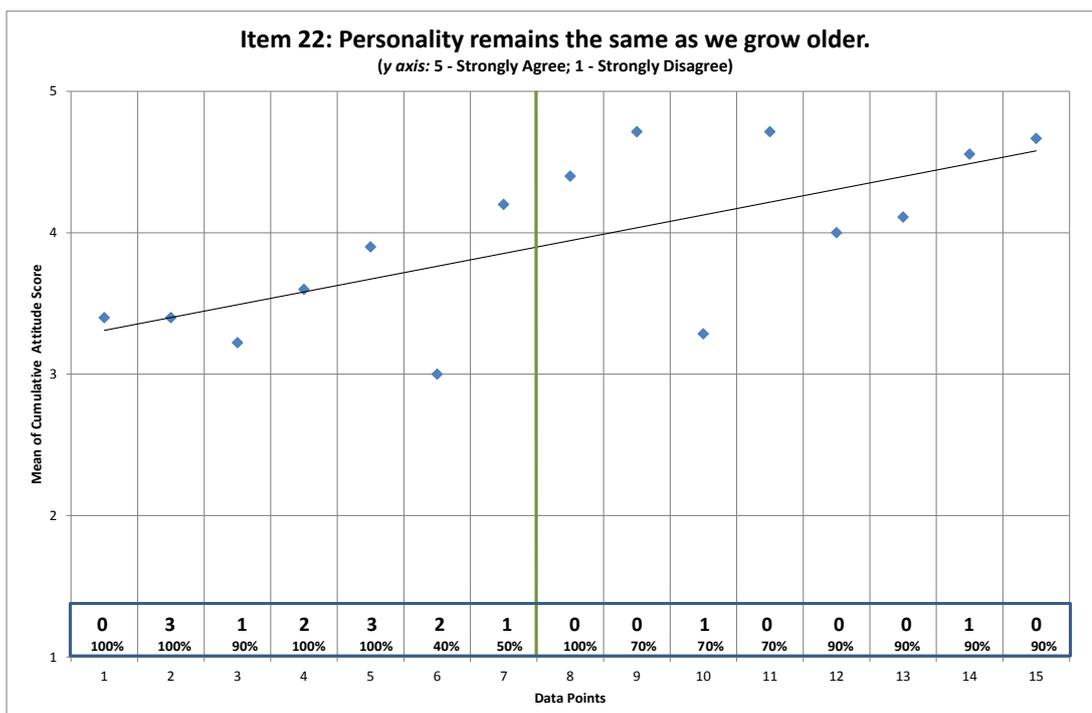


Charted Mean Scores for MAST Items:

Theme Six – Looking After Older Adults.

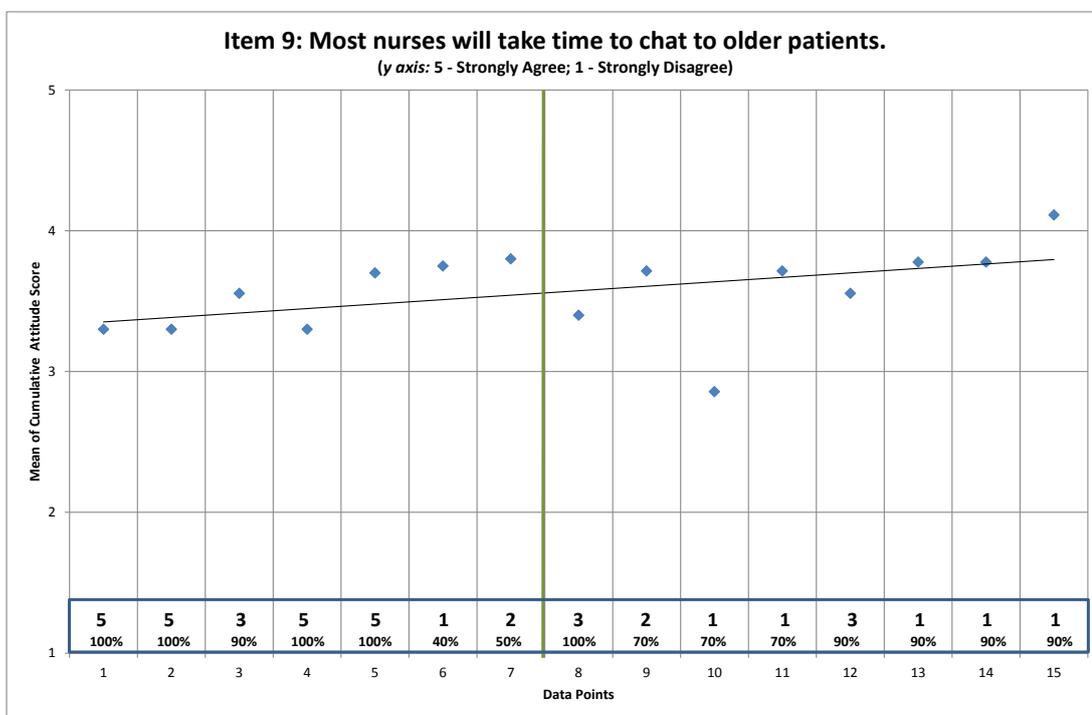
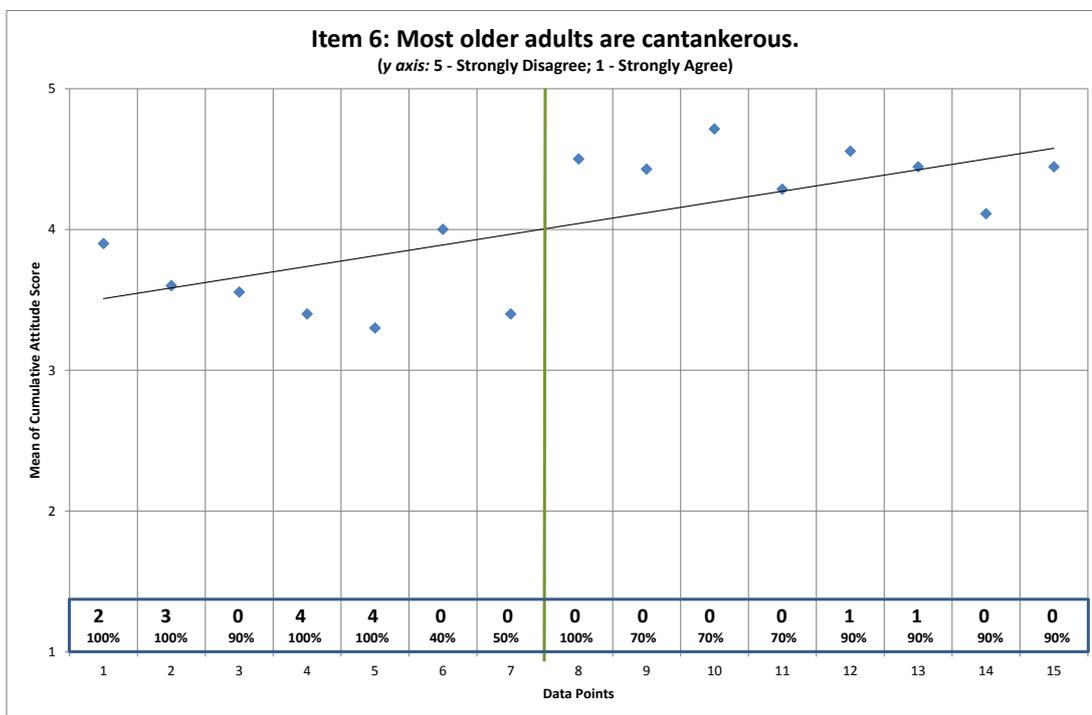






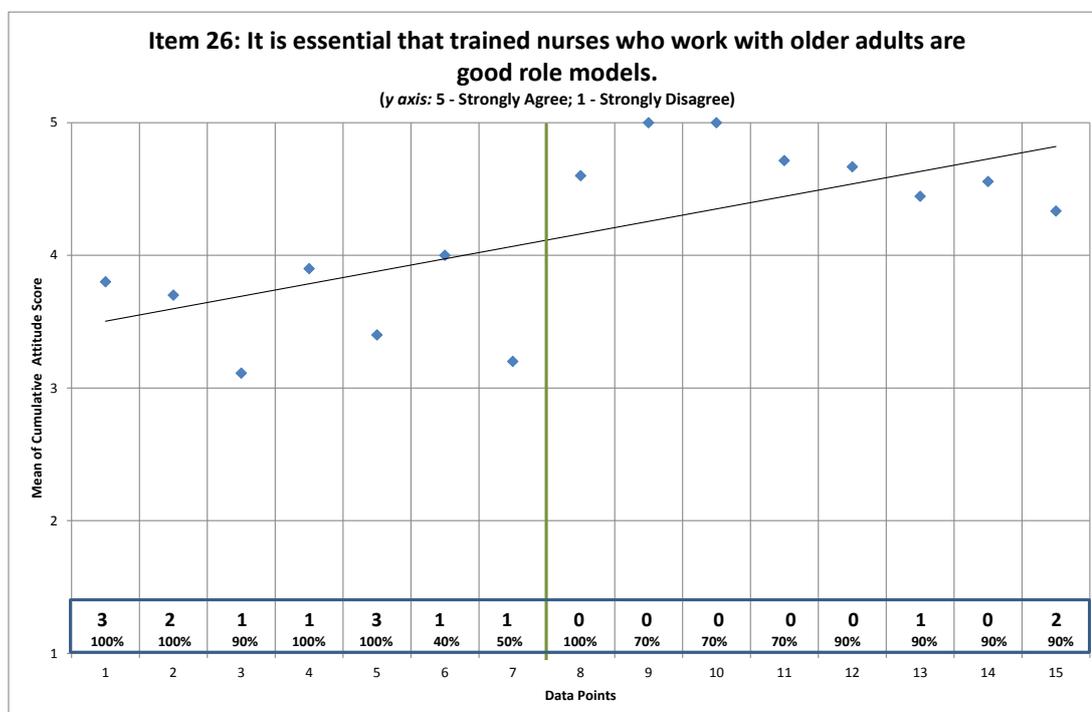
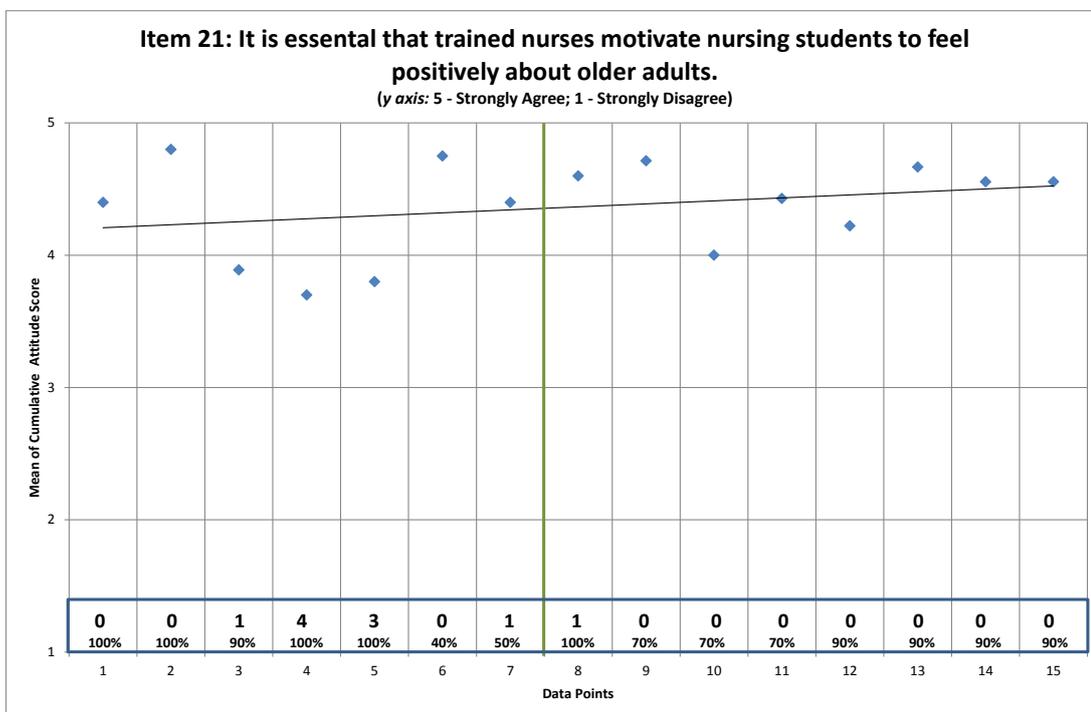
Charted Mean Scores for MAST Items:

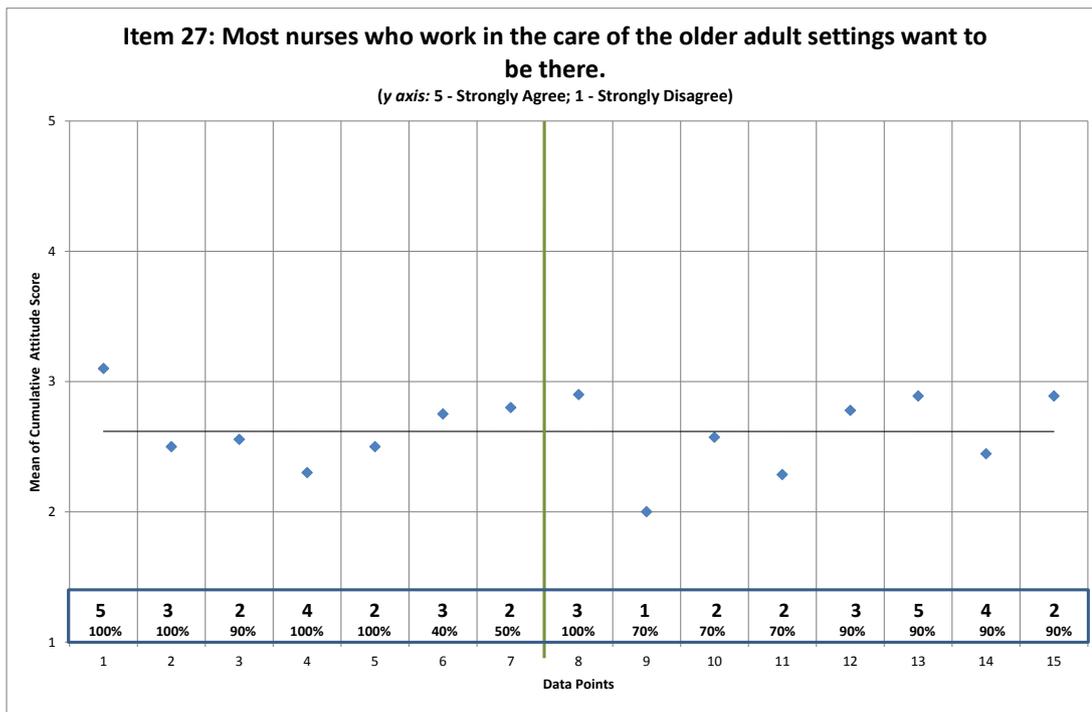
Theme Seven – Interpersonal Relationships.



Charted Mean Scores for MAST Items:

Theme Eight – Categorising Nurses.





(REC Reference Number: 08/H1311/102).

## Interview Schedule

There follows a list of statements. Please use the scale below, to record your responses to each item on the interview schedule.

This applies to me.....

to a considerable extent	1
to a moderate extent	2
to a slight extent	3
not at all	4

Following the programme:

- |    |   |                          |
|----|---|--------------------------|
| a) | my career aspirations moved toward the care of ill older people   | <input type="checkbox"/> |
| b) | knowing about the relevance and impact of positive attitudes on care and the patients' experiences made me question my own practice | <input type="checkbox"/> |
| c) | I believe that a positive lecturer makes a difference to how I perceive the care of ill older people                                | <input type="checkbox"/> |
| d) | I found it useful to consider that older people only need nursing care when they become ill   | <input type="checkbox"/> |
| e) | I recognise that many ill older people have successful recoveries   | <input type="checkbox"/> |
| f) | I have changed my approach to the care of ill older people  | <input type="checkbox"/> |
| g) | I recognise that caring for ill older people is central to my role as a nurse, wherever I choose to work                            | <input type="checkbox"/> |
| h) | I have become more confident in handling situations/clinical scenarios involving ill older people                                   | <input type="checkbox"/> |
| i) | I recognise that not all ill older people will experience ill health in the same way/s  | <input type="checkbox"/> |
| j) | I have adopted a more person-centred approach to caring   | <input type="checkbox"/> |

**Thankyou.**