

EMBODYING KNOWLEDGE OF TEACHING PUBLIC HEALTH

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Abstract

Abstract

Recent UK health policies have identified nurses as key contributors to public health strategies to reduce health inequalities, on the assumption that all nurses understand and wish to contribute to the public health agenda. Following the policy shift, public health content within pre-registration nursing curricula increased. Public health nurse educators come from varying backgrounds, and some had limited formal public health training or involvement in or understanding of policy required to contribute effectively to it. However, their knowledge of this subject, their understanding and interpretation of how it could be taught, was not fully understood.

This research aimed to understand how public health nurse educators' (PHNEs) professional knowledge could be conceptualised and to develop a substantive theory of their knowledge of teaching public health, using a qualitative data analysis approach. Semi-structured interviews (n=26) were conducted with higher education institution-based PHNEs.

The research concluded that PHNEs are embodying knowledge in teaching through critical pedagogy, which involves them engaging in transformative, interpretive and integrative processes to refashion public health concepts; this requires PHNEs who possess a vision of what to teach, know how to teach, and are able to learn from experience. Their vision of public health is influenced by social justice principles in that health inequalities, socioeconomic determinants of health, epidemiology, and policy and politics are seen as essential areas of the public health curriculum. They have developed appropriate critical pedagogical practices to make these concepts intelligible to students, and teaching strategies which put greater emphasis on students' engagement with them, allowing students to recognise the connectedness of public health with their lives. They believe in forms of teaching that achieve social transformation at individual, behavioural and societal levels, while also enabling learners to recognise their capacity to effect change and to reflect upon their own and others' experiences in their teaching practice.

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Author's Declaration

I declare that the research contained in this thesis, unless otherwise formally indicated within the text, is the original work of the author. The thesis has not been previously submitted to this or any other university for a degree, and does not incorporate any material submitted for a degree.

Signed

A handwritten signature in black ink, appearing to read 'A. Webb', written in a cursive style.

Dated **23.07.2012**

List of Abbreviations

BMA	British Medical Association
CCK	Curriculum content knowledge
CK	Content knowledge
DCLG	Department for Communities and Local Government
DH	Department of Health
DHSS	Department of Health and Social Security
DN	District Nurse
FPH	Faculty of Public Health
GT	Grounded theory
HV	Health Visitor
LDN	Learning Disability Nurse
MHN	Mental Health Nurse
NMC	Nursing and Midwifery Council
PCK	Pedagogical content knowledge
PK	Pedagogical knowledge
PH	Public health
PHNE	Public health nurse educator
QDA	Qualitative data analysis
RCN	Royal College of Nursing
RGN	Registered General Nurse
RSPH	Royal Society of Public Health
SEDH	Socioeconomic determinants of health
WHO	World Health Organization
UKCC	United Kingdom Council for Nurses, Midwifery and Health Visiting
UKPHA	United Kingdom Public Health Association

Definitions of Concepts used in this Thesis

Concepts	Definitions
Axial coding	The process of relating categories to their subcategories linking categories at the level of properties and dimensions.
Critical pedagogy	It is a pedagogy based on critical theory, a movement which seeks to analyse oppressive practices that lead to social inequalities experienced by members of society, especially those who are marginalised
Deduction analysis	The process of establishing logical conclusions by proceeding from general and abstract statements to specific and concrete phenomena (the opposite of induction).
Downstream interventions	Interventions which have a narrower range of benefits – for instance nicotine replacement therapy on prescription, or making available better facilities for taking physical exercise.
Embodying knowledge	The process of reflecting and learning from various experiences in which people engage to make sense of the received information and interpretation of it according to their personal and professional relationship with the subject; the integration of the subject into everyday life and taking ownership of it.
Epistemology	A study of knowledge and justified belief. It is about the creation and dissemination of knowledge in a particular area of enquiry.

Concepts

Definitions

Induction analysis

A way of building explanations in qualitative analysis by constructing and testing a set of causal links between events, actions etc. in one case and the iterative extension of this to further cases; a logical move from a number of specific statements, events or observations to a general theory or explanation of the situation or phenomenon.

Inequalities in health

Uneven distribution of health benefits and disease burdens that is unjust, unfair and avoidable.

Market justice

Refers to systems that emphasise individual responsibility, minimal collective action and freedom from collective obligation except to respect another person's fundamental right.

Ontology

It is an explicit specification of a conceptualization. It is a conceptualization of the objects, concepts, and other entities that are assumed to exist in some area of interest and the relationships that hold among them.

Public health

Public health is ultimately and essentially an ethical enterprise committed to the notion that all persons are entitled to protection against the hazards of this world, and to the minimisation of death and disability in society; the science and art of promoting and protecting health and well-being, preventing ill-health and prolonging life through the organised efforts of society.

Primary social goods

Socioeconomic determinants that are known to reduce inequalities in health.

Concepts

Definitions

Social justice

Refers to the idea of creating a society or institution that is based on the principles of equality and solidarity, that understands and values human rights, and that recognises the dignity of every human being.

Socioeconomic
determinants of health

Social determinants of health are the conditions in which people are born, grow up, live, work and age. These conditions influence people's opportunity to be healthy, risk of illness and life expectancy.

Theoretical sufficiency

Means that categories have been developed to a sufficient extent that it is possible to explore their relationships and draw some conclusions.

Ubuntu

Spirit of humanity and love and respect for other humankind or humanity towards others.

Upstream policies

Policies which are likely to have a wide range of consequences, including benefits to health – income distribution, education, public safety, housing, work environment, employment, social networks, transport and pollution.

Introduction to the Thesis

My interest in innovative methods of teaching public health links to my professional role. When I enrolled to do a doctorate I was leading the curriculum development team for an MSc in Public Health programme. This programme was being developed to meet the regional Strategic Health Authority's agenda to use public health as a strategy to reduce inequalities in health. The Strategic Health Authority placed on top of their funding specification the importance of integrating problem-based learning into the curriculum. This presented an opportunity to use the formal research as a mechanism to support the introduction of an innovation to practice. I was aware that a number of questions relating to public health teaching are largely unexplored: what does public health mean to different nurse educators who come from the wide range of nursing disciplines? How do they acquire public health knowledge? How do they make public health knowledge relevant and intelligible to learners? What are students expected to learn from the public health course? How is the public health course envisaged to contribute to the public health agenda?

Therefore, the specific focus of this research – 'public health nurse educators' knowledge of teaching public health' – arose from the realisation that the major educational research question was as much about which teaching method nurse educators should adopt, as characterising the different understandings, values, principles and meanings that most nurse educators ascribed to knowing and teaching public health.

Three years into my doctorate the faculty undertook a re-validation of its pre-registration nursing curriculum resulting in an increased emphasis on public health

as a theme throughout the curriculum. This was in line with the nursing regulatory body (Nursing and Midwifery Council) and successive UK governments' health policy, which put emphasis on public health as a strategy to tackle the inequalities in health, and recognised nurses, health visitors and midwives as key contributors in tackling inequalities in health (DH, 1999a, 2001a, 2001b, 2004a, 2006; HM Treasury, 2004). This presented another opportunity to use the research mechanism to explore understandings, values, principles and meanings that nurse educators who teach public health ascribe to their practice.

My own philosophy in relation to both public health and professional education has been influenced by Paulo Freire's (1972) theories of critical pedagogy and pedagogy of the oppressed which seek to analyse oppressive practices that lead to social inequalities experienced by members of society, especially those who are marginalised (Zimmerman, McQueen, & Guy, 2007). This keeps at its centre the need to expose and challenge both the overt and covert exercise of domination-subordination in social structures and processes, as part of exploring points of difference and commonality among various social groups (Nagda, Gurin, & Lopez, 2003).

An overview of the structure of the thesis follows in the form of a synopsis for each chapter:

Chapter 1 provides an introduction to the study. It explores the context within which this research emerged, and outlines the aims and objectives of the study. It provides detailed reflection on how the researcher's experience, beliefs, values and sociocultural and political background influenced his understanding of public health, approach to teaching and the paradigm position of the research process.

Chapter 2 critically reviews the literature in relation to the knowledge of teaching public health. The literature review is framed around three themes that form the theory of embodying knowledge of teaching public health – curriculum content knowledge; pedagogical content knowledge; and professional knowledge.

Chapter 3 explains the methodological decisions taken in relation to data collection and analysis in order to address the research question. The choice of methodological approach is justified; it is explained why the position adopted drew on various schools of second generation grounded theory. The decision making process is articulated; it concluded that qualitative data analysis (QDA) is appropriate to explore the phenomenon of embodying knowledge in practice.

Chapter 4 outlines the data collection methods and the approach to QDA. This chapter reflects on the status of a researcher in relation to those researched. The ethical issues of anonymity and confidentiality are considered in relation to insider research status. This chapter explains the procedures and process used to recruit participants and conduct interviews, thus enabling judgements to be made around the credibility and trustworthiness of the study.

Chapter 5 presents the data analysis. The analysis primarily follows QDA procedures which involved the inductive and deductive approach into theory building. It also draws on the influences of Charmaz (2000, 2006), Glaser and Strauss (1967), and Strauss and Corbin (1998) in that it employs the principles of constant comparative analysis and the iterative process of data collection and data analysis.

Chapter 6 presents the framework for substantive theory of PHNEs' knowledge of teaching public health, of which embodying public health knowledge in practice is the central category. The data are organised to illustrate that the process of

embodying knowledge is complex, requiring nurse educators who are: ready and possess a vision of what to teach; able and know how to teach; and reflective and able to learn from experience. Selected excerpts from the participants' interviews are used to support the emerging theory.

Chapter 7 presents a theoretical model of embodying knowledge. This model is compared with the formal theories of professional knowledge (Shulman, 1986; Shulman & Shulman, 2004) to provide abstraction, theoretical rendering and achieve maximum conceptual clarity. It concludes that nurse educators' vision of public health is influenced by the principles of social justice. Their knowing and teaching of public health constitute embodying knowledge in practice.

It provides a critical account of the researcher's influence on this study and highlights the contribution of the study to the profession's body of knowledge. The quality of this study is tested in relation to transferability and authenticity. The implications of the study findings for policy and public health education practice are then identified.

Chapter 1: Introduction

The health policies of successive UK governments put emphasis on public health as a strategy to tackle inequalities in health (DH, 1998a, 1999a, 2001, 2003, 2010), and nurses, health visitors and midwives were identified as key contributors in tackling them (DH, 1999b, 2001a, 2001b, 2004a, 2006; HM Treasury, 2004). However, several public health nurse researchers argue that for nurses to contribute to tackling the inequalities in health, they must first be educated on how social inequalities are created and sustained (Bountain, 2005; Levin, Cary, Kulbok, Leffers, Molle, & Polivka, 2008).

In response to this challenge, there has been increase in public health content within pre-registration nursing education programmes (Alpha Research, 2008; Latter, Speller, Westwood, & Lactchem, 2003; UKCC, 1999, 2001). Nurse educators from highly contrasting backgrounds are developing and teaching public health content within pre-registration curricula. Although most nurse educators have formal schooling in nursing and teaching, most have had no formal schooling in the principles and practice of public health; nevertheless many become public health nurse educators [PHNEs]. It has been argued that higher education teaching requires synergy of knowledge of subject concepts and content, and knowledge of how to make that content intelligible to learners (Fisher, Higgins, & Loveless, 2006; McLeod, Steinert, Chalk, R. Cruess, S. Cruess, Meterissian, et al., 2009; P. J. McLeod, Brwawer, Chalk, & A. McLeod, 2008; Shulman, 1986; Shulman & Shulman, 2004).

However, whilst there have been numerous initiatives to develop public health knowledge and skills for public health specialists and public health practitioners, not

much is published about PHNEs' understandings and interpretations of public health, or of public health interventions to reduce inequalities in health. Despite evidence from a number of reports that showed that public health professionals come from a wide variety of backgrounds and possess varying levels of knowledge and skills (DH, 2001a; Faculty of Public Health, 2001; Public Health Resource Unit [PHRU] and Skills for Health, 2008), no research has considered the implications of these differences in the practice of public health teaching. Furthermore, not much is published about the different understandings, values, beliefs and pedagogical approaches they bring to the public health field.

Most of the published public health reports lack specificity about the conceptual meaning of possessing knowledge and skills in public health. They focus narrowly on factual evidence about the type of formal educational qualification ('knows what') and experience in public health ('knows how') (DH, 2001a; Public Health Resource Unit and Skills for Health, 2008). This is based on the assumption that individuals presenting this factual evidence have the necessary public health principles, values and beliefs. There is little consideration of the variation in people's embodied knowledge of public health. Such variation raises significant questions: What are public health nurses supposed to know in order to contribute meaningfully to strategies to reduce inequalities in health? What does knowing public health mean?

The purpose of this research was to provide conceptual explanation of how PHNEs' professional knowledge could be conceptualised and to develop a substantive theory of their knowledge of teaching public health, using a qualitative data analysis approach. A qualitative survey (n=26) was conducted with University-based PHNEs.

1.1 My intellectual biography

This study proposes that PHNEs' experiences, values and beliefs have a major influence on their knowing and teaching of public health. Therefore, it is important to reflect on how my sociocultural and political ideologies, values and beliefs as a South African Xhosa tribal man, and my experiences as a public health specialist and public health nurse educator, influenced my understanding of researching the subject. The two insights described by W. Carr (1995) as 'embeddedness' and 'continuity and change' provided a helpful framework to explain how my sociocultural values and beliefs shape my knowing and teaching of public health.

The concept of embeddedness refers here to the way my understanding of public health principles of social justice are embedded in the context of my sociocultural beliefs and the values and experiences that shaped them; the only way one could fully comprehend my commitment to social justice principles, with specific reference to public health as a strategy to tackle inequalities in health, is by reflecting on how these issues are embedded in my life. In other words, self-understanding of these issues is situated within the context of the sociocultural beliefs, political ideologies, values and beliefs that shaped them (W. Carr, 1995).

The second of W. Carr's (1995) insights as used in this study provides an explanation of how our understanding of concepts is embedded in our sociocultural roots. Carr conceptualises this as the relationship between 'continuity and change'; that is, the realisation that, with the passage of time, both the meaning of our concepts and our understanding of ourselves may change, and become something other than they once were (W. Carr, 1995). Carr contends that in neither of these cases is the process of change so complete as to allow either our understanding of concepts or our sense of

who we are to become totally detached from their historical roots. In this case, Carr (1995) would argue that although the intellectual and cultural transformations that occurred during the course of my search for a new identity as a public health specialist and researcher make it virtually impossible to perceive any connection between the tribal Xhosa boy and UK academic, it nevertheless remains the case that he and I are nothing other than two episodes in the continuous and unbroken historical narrative that constitutes a single and unified human life.

Through these insights, I realised that my position as a researcher is set within a paradigmatic context and that the more clearly this is articulated, and the more grounded I can be as a researcher, the more rigorous the project. These insights also served to strengthen the belief that our understanding and interpretation of public health principles of social justice is moulded by the sociocultural context that shaped our understanding of ourselves. It is this continuous and unbroken historical narrative that the remainder of this section aims to portray. For the rest of this chapter I will stop and consider my own underpinning beliefs about public health in relation to social justice, politics, policy and nursing education.

The past twelve years have been characterised by a resurgence of interest in public health by policymakers, the media, and private and public organisations. This provided twelve years of fertile ground for me to nurture and develop my identity as a public health specialist. During that time, I earned a postgraduate public health degree, developed specialist knowledge in epidemiology, and contributed to the public health body of knowledge and debate through research and writing. I held several senior public health positions, and was elected as a Fellow of the Royal Society of Public Health and a Member of the Faculty of Public Health.

The decision to become a healthcare professional was influenced by the combination of my family values of 'ubuntu' (spirit of humanity and love and respect for other humankind or humanity towards others), political values, and Christian principles based on the God-given promise that all are equal, all are free, and all deserve a chance to pursue their full measure of happiness. As in most black South African middle class families, there were four modules in my family's curriculum: politics, education, national identity and Christianity. Understanding of politics was regarded as essential for an eldest son of one of the Xhosa tribal chiefs. As part of the politicisation process I joined the student political movement at the age of 15, had a political mentor at 16, became president of the student representative council and a member of the South African Student Congress at 17, and was elected as Bosmont-New Claire (Johannesburg) branch chairperson of the African National Congress at the age of 20. From the experience of working in Johannesburg underprivileged coloured townships of Westbury, Coronationville and Riverlea, I developed a stronger belief in health as a foundation for achievement, and in the connection between health and social justice.

The belief in this connection was confirmed by my observations as a new member of the health profession: it was evident that there were differences in the occurrence, pattern and distribution of disease in the population of South Africa, with lower socioeconomic groups suffering nutrition, infection and poverty-related conditions such as kwashiorkor, tuberculosis and higher infant mortality. The higher socioeconomic groups presented with diseases of affluence such as heart disease, gout, and diabetes mellitus. During the Apartheid era, this divide was mainly along racial lines, with black people shouldering a heavier burden of disease than their white counterparts. Guided by political principles and Christian values, these

inequalities appeared unjust, unfair and inconsistent with the World Health Organization's Alma Ata Declaration (World Health Organization [WHO], 1978). This reaffirms health as a state of complete physical, mental and social well-being, and not merely the absence of disease or infirmity. It goes on to promote health as a fundamental human right, and recognises that the attainment of the highest possible level of health is the most important worldwide social goal, whose realisation requires the action of many other social and economic sectors in addition to the health sector (WHO, 1978). This view appears to recognise the interface between health and social justice. Frustratingly, it appeared to me that I had joined a health profession that tended to focus on the physical absence of disease, and neglected socioeconomic well-being, and the environmental and sociopolitical contexts within which these diseases occurred.

My views on population health were influenced by my family's intimate interest in and understanding of community affairs, but reading Rudolf Virchow (1848) also helped me make sense of the experiences I had encountered in Johannesburg's coloured townships. Virchow (1848) explained that when people find themselves in similar, disadvantageous circumstances, many will fall ill, and diseases will be endemic or epidemic. As a student in Cape Town, reading Chadwick's *Report on the sanitary condition of the labouring population of Great Britain* (Chadwick, 1842), Virchow (1848), and *Inequalities in health: Report of a research working group* (Black Report) (Department of Health and Social Security, 1980) left me convinced that social inequalities were a root cause of most ill-health. Virchow (1848) went further to argue that because of their intimate knowledge of the problems of society, health professionals are well placed to influence policymakers to pass legislation that promotes population health. This view has been dominant amongst social

epidemiologists including Geoffrey Rose (1992), and has influenced public health activities. The Politics of Health Group's (UK Health Watch, 2005) position on this is that 'bad policy means bad society means bad health': health is as good or bad as the society we create, and the most sensitive indicator of the success or otherwise of that society is the impact it has on the health of its population. Dahlgren and Whitehead (1991) developed the Socioeconomic Determinants of Health model, which provides a structural approach to explaining the influence of political systems, economic distribution, living and working conditions, social networks and the physical environment on the quality of the population's health.

Furthermore, my growing concerns about admitting patients with socioeconomic and environment-determined conditions and discharging them back into that environment, and about the inadequate attention being paid by health professionals to fundamental causes of disease, were best conceptualised in the UK Health Watch (2005) report titled *The experience of health in an unequal society*. In this, the Politics of Health Group use the concept 'focusing upstream': this refers to the idea that the practice of health professionals is equivalent to people who are constantly finding more efficient ways of pulling drowning people from a river. They are so engaged with improving their methods and technologies for this, that they have no time to look upstream to see what is pushing people into the river in the first place (in other words, the social, economic and political forces causing ill-health).

Despite the apparent commitment by health policymakers to primary healthcare principles, very little attention was given to upstream public health approaches; concepts that were frequently cited were health promotion and health education. Health promotion practice was informed by the WHO (1986) Ottawa Charter's

principles of advocacy, enablement and mediation. These views of promoting health appeared to be driven by dominant ideologies, primarily biomedical and behavioural approaches, among health professionals. This left the promotion of population health to health professionals – which occurred when policymakers showed little commitment to promoting equity in health outcomes (UK Health Watch, 2005). Consequently, this encouraged viewing health as if it was a body part that can be strengthened or damaged, mostly by the actions of individuals themselves (UK Health Watch, 2005). UK Health Watch (2005) regard this ‘commodification’ as false – they argue that health is about political, social and economic power, which is so often denied to people.

Admittedly, as a member of a caring profession faced with people’s sufferings, one finds it hard to resist the temptation to treat a health problem as a body that can be mended using health promotion and health education. A fine example comes from my experience as a community nurse in one of the deprived parts of Cape Town. I went for a health promotion and educational visit to a child suffering from kwashiorkor. Armed with health promotion research, I knew that kwashiorkor was a nutritional problem, and launched straight into nutritional advice, ranging from food storage and preparation to examples of what constituted a balanced diet. What I completely neglected was food availability, affordability and income, as those were outside my jurisdiction. This example serves to strengthen the UK Health Watch (2005) argument that if we allow the perspectives of the professional health communities (i.e. medics, nurses, nutritionists, health promoters, etc.) to dominate, reinforced by the beliefs and paradigmatic views of the average health researcher and service worker, then attention to broader determinants of health will always take a back seat.

The critical juncture in my public health career occurred in 1997. I was addressing the tribal meeting on tuberculosis (TB) and malnutrition which was rife at the time. My suggestion was that the priority for the government should be to build a community clinic and employ community nurses to deliver health promotion and education. My younger brother stood up and asked:

'Ndabezitha [Your Lordship], do you want to tell this tribe that the reason why our people die of TB and malnutrition is because they couldn't cook properly, neglect personal hygiene, do not know what food is good for their bodies? It is not due to the fact that people have no money to buy food, and those who have got jobs their money could not stretch far enough to afford commodities that are supportive to their health. With respect, Sir, you appear to have spent too much time in boarding school and at the University in Cape Town, you telling us that people must purify drinking water by chlorine or boil; you appear to have forgotten the reality that our people have no water, no money for chlorine and no money for fuel to boil water.'

The outburst by my little brother reinforced the assertion by Krieger and Birn (1998) that social justice is the foundation of public health. Krieger and Birn go on to argue that public health is a public matter: those societal patterns of disease and death, of health and well-being, of bodily integrity and disintegration, intimately reflect the workings of the body politic for good and for ill (Krieger & Birn, 1998). I realised that I had fallen into the rut of believing that, as a health professional, I had all the answers to health problems. To declare social justice the foundation for public health eliminates the laissez-faire attitude among policymakers of shifting responsibility for

the health of the population to health professionals; it also minimises the hubristic belief that, as health professionals, we have all the answers or can by ourselves improve public health without efforts to ensure social and economic justice.

The outburst also exemplified the view by Gostin and Powers (2006) that an integral part of bringing good health to all is the task of identifying and ameliorating patterns of systematic disadvantage that undermine the well-being of people whose prospects for good health are so limited that their life choices are not even remotely like those of others. My recommendation to build a community clinic was based on my narrow interpretation of the WHO (1978) policy advocating universal access to healthcare provision. Following this incident, I began to deeply question my position, knowledge and ability to improve the health of my people. I had been a community nurse for some time, and was already concerned that poor people often delayed seeking healthcare intervention due to cost. I realised that it was difficult to think about public health without considering the fundamental determinants of health inequalities. It was at this point that I decided to dedicate my life to the public health cause. The absence of public health educational programmes (at that time) in South Africa meant that to advance my public health knowledge I had to move to the United Kingdom (UK) in February 1999.

As a student, I had already learned of and been inspired by the UK's universal access to healthcare provision. Like most of my colleagues working in countries without this, I believed that inequalities in health would not be a major concern in the UK. Surprisingly, I learned from reading a report from the Department of Health and Social Security [DHSS] (1980) known as the Black Report that the remedy for much of the health inequality does not lie in healthcare provision alone, but in a complex

matrix of social, economic, environmental and genetic determinants. In the UK, the ideological commitment to health equality provided a fertile soil in which one could develop a knowledge base and empirical research concerning broader determinants of health. In 1999, public health enthusiasts were still upbeat with the publication of Sir Donald Acheson's independent inquiry report (DH, 1998a), which once again demonstrated evidence of the existence of, and need to tackle, inequalities in health. It influenced the current UK Faculty of Public Health definition of public health as 'the science and art of promoting and protecting health and well-being, preventing ill-health and prolonging life through the organised efforts of society' (UK Faculty of Public Health, 2010, p. 1). This stands in contrast with the definition coined by HM Treasury which defines public health as 'the science and art of preventing disease, prolonging life and promoting health through the organised efforts and informed choices of society, organisations, public and private, communities and individuals' (HM Treasury, 2004, p. 23).

My current role as a senior lecturer in public health is underpinned by my intellectual biography and the definition of public health used by the Faculty of Public Health. Although I teach predominantly master's students from a wide range of socio-cultural and academic backgrounds, I also contribute to the curriculum development of both pre-registration and master's programmes. It was in these curriculum development engagements that I realised that my interpretation of public health was at odds with those of my colleagues: while we broadly agreed on concepts that should be taught within pre-registration nursing and postgraduate public health curricula, we differed in our ideological interpretations of these concepts. These differences relate to the emphasis placed on the degree of choice people have over their health outcomes. For example, while we agree that inequalities in health are

major public health challenges, there are differences in terms of where the priority in tackling them lies. For some, more effort should be given to helping people change their behaviour and adopt healthier lifestyles; for others, including myself, changing people's behaviour is not enough – there is a need for a change in social policies that create and sustain inequalities in health. For a long time I have been struggling to explain these differences. Even though I have studied public health at master's degree level, I began to realise the need to take a systematic approach to critically reviewing literature in order to investigate the meanings of the concepts used in public health.

The next chapter presents themes that emerged from the literature review that frames the focus and research question.

Chapter 2: Curriculum Content, Pedagogy and Professional Knowledge

2.1 Introduction

The literature review was conducted to sensitise researchers and reader to the theoretically important issues that underpin teaching public health. The review of literature in the substantive area of professional teaching knowledge revealed three overarching themes that underpin professional teaching knowledge:

- 1 Curriculum content knowledge.
- 2 Pedagogical knowledge.
- 3 Professional knowledge.

However, it was unclear how these themes applied in the public health teaching context, and therefore it was considered timely to investigate how these broad themes relate to teaching public health.

2.2 Curriculum content knowledge

The review of literature illuminated that since publication of *The new NHS: Modern and dependable* (DH, 1997); *Fitness for practice* (UKCC, 1999) and *Making a difference* (DH, 1999b), the content of nursing curricula has given greater emphasis to social justice principles with public health as a strategy to reduce inequalities in health. Therefore, the review began by exploring social justice principles, theories, philosophies and interventions associated with health inequalities. Three main themes emerged from this review and shaped the debate about what could be considered as essential components of a public health curriculum:

- 1 Inequalities in health as a fundamental public health challenge.

- 2 Socioeconomic determinants of health as a theoretical model to explain the connection between inequalities in health and poor health.
- 3 Policy and politics: the effectiveness of UK policy makers' strategies for reducing inequalities in health.

However, I was interested in examining how PHNEs know and teach these themes and how their understanding compares with the existing knowledge. I therefore, began by exploring the existing knowledge of the concepts of inequalities in health and social justice.

2.2.1 Inequalities in health and social justice

Inequalities in health are defined as uneven distribution of health benefits and disease burdens that are unjust, unfair and avoidable (Dahlgren & Whitehead, 1991; Mackenbach & Bakker, 2003; Whitehead, 1990). It is believed that tackling inequalities in health is a matter of social justice (Krieger, 2001, 2007; Krieger & Birn, 1998). Social justice generally refers to the idea of creating a society or social institutions that are based on the principles of equality and solidarity, that understand and value human rights, and that recognise the dignity of every human being (Powers & Faden, 2006, p. 15). Therefore, some writers believe that the discussion about social justice and inequalities in health is rooted in the common belief that inequalities in the distribution of 'primary social goods' are the fundamental cause of the uneven distribution of health and disease in our society (Beauchamp, 1975, 2003; Bountain, 2005, 2008; Powers & Faden, 2006). The primary social goods are those socioeconomic determinants that are known to influence inequalities in health (Beauchamp, 1975, 2003; Powers & Faden, 2006). In the UK these are conceptualised as domains of indices of multiple deprivation, namely income;

employment; health and disability; education, skills and training; barriers to housing and other services; crime; and living environment (Department for Communities and Local Government [DCLG], 2011). Of the seven domains, income, employment and education are universally recognised as factors that have the most impact on health inequalities (Blass & Kurup, 2010; Beckett, 2011; DCLG, 2011; Drevdahl, 2002; Drevdahl, Kneipp, Canales, & Dorcy, 2001; Powers & Faden, 2006; Wilkinson & Marmot, 2003). Having looked at different definitions of inequalities in health and social justice, I began to think of the way in which they can be conceptualised.

Viewing public health as the science and art of promoting health, preventing ill-health and prolonging life; seeing inequalities in health as a matter of social justice; and acknowledging social justice to be based on the principles of equality and solidarity, which understand and value human rights, and recognise the dignity of every human being – all these together sensitised me to thinking of inequalities in health in terms of three dimensions:

- 1 Science dimension – this enables us to establish evidence of the association between disease and social environment, and explain the pattern and distribution of disease and health. It is through this knowledge that we can demonstrate that the distributions of disease follows a social class gradient; and argue that socially produced diseases are avoidable.
- 2 Ethical and moral dimension – the view that socially produced diseases are unfair and unjust and that tackling them is the right thing to do.
- 3 Human rights dimension – based on the Alma-Ata declaration of health as a human right (WHO, 1978), this is the affirmation of health as a human right aimed at bringing concern for improving the health of the disadvantaged from the voluntary realm of charity to the realms of law and entitlement.

In Britain, the scientific evidence which supported the argument that uneven distributions in primary social goods are major causes of inequalities in health benefits and disease burdens was established by a working group of scientists led by Sir Douglas Black (DHSS, 1980). *The Black Report* used scientific evidence to make moral and ethical recommendations for a comprehensive anti-poverty programme. It proposed two elements in tackling inequalities in health: a fair distribution of resources, and provision of the necessary educational and employment opportunities for active participation (DHSS, 1980; Smith, Morris, & Shaw, 1998). These have since been shown to be aimed at tackling fundamental determinants of health and ameliorating social injustices (DH, 1998a, 1999a; Mackenbach, 2011; Marmot, 2010). Unfortunately, the political ideology at the publication of the report was underpinned by ‘market justice’. The concept of market justice is defined by Beauchamp as the systems that ‘emphasise individual responsibility, minimal collective action and freedom from collective obligation except to respect other person’s fundamental right’ (Beauchamp, 1975, pp. 102-103). This system stands in contrast to the social justice principles advocated by the Black Report. When the UK Labour government came into power in 1997 they introduced the Black Report’s recommendations into the policy agenda in the form of an *Independent inquiry into inequalities in health report* led by Sir Donald Acheson (DH, 1998a).

Since its publication, evidence from the Black Report has been tested by burgeoning volumes of research which built on Black’s evidence rather than challenged it. For example, research studies that made significant contributions to the theory of socially produced disease include that of Wilkinson (1997) which suggested that differences in mortality in developed countries were affected more by relative than absolute living standards. It explained this by three pieces of evidence. First, mortality was

related more closely to relative income within countries than to differences in absolute income between them. Second, national mortality rates tended to be lowest in countries that have smaller income differences and thus have lower levels of relative deprivation. Third, most of the long term rise in life expectancy seemed unrelated to long term economic growth rates, but linked to the way the economy was distributed within society.

The conclusion drawn from this evidence is that inequalities in mortality were reduced in more egalitarian societies because the burden of relative deprivation was reduced (Wilkinson, 1997). Wilkinson's findings identifying income differences as one of the most important factors responsible for uneven distribution of health and disease within and between countries are supported by several other studies (Kennedy, Kawachi, Glass, & Prothrow-Stith, 1998; Mackenbach, 2009; Mackenbach et al., 2003; Marmot, 2005). For example, Kennedy et al. (1998) examined income inequalities to predict individual morbidity, as measured by self-rated health status. They found that the effects of income inequalities were most pronounced among low income groups: those in this category had about a 30% increase in the risk of fair or poor health in the US states with the greatest inequalities in income.

Amongst the largest studies which examined the effect of income inequalities within and between countries was one commissioned by WHO (2005). This found that low income countries experienced a heavier burden of infant mortality and low life expectancy than high income ones: for example, men in the high mortality countries of Europe had a more than 40% probability of death between age 15 and 60 years, compared to a 25% probability in Southeast Asia (Marmot, 2005, 2009). Between

countries, the differences were even more dramatic. The probability of a man dying between ages 15 and 60 years is 8.3% in Sweden, 82.1% in Zimbabwe, and 90.2% in Lesotho (Marmot, 2005, 2009). The findings from this study could be erroneously interpreted as suggesting that being in a poor country means you will die earlier, and being in a rich country means you will live longer. However, this would have been true only if one disregarded Wilkinson's theory that it is relative rather than absolute living standards that have the most effect.

Furthermore, the study by Johan Mackenbach and colleagues appears to confirm Wilkinson's conclusion (Mackenbach et al., 2003). This investigated socioeconomic inequalities in mortality in six Western European countries, and demonstrated that within the high income countries the health benefits of economic prosperity were not equally shared across the high and low socioeconomic groups, and that was reflected in the distribution of diseases (Mackenbach et al., 2003). They came up with a new theory to explain the widening gap between the low and high socioeconomic groups, proposing that the widening was mostly due to faster proportional mortality declines in higher socioeconomic groups (Mackenbach et al., 2003): although absolute mortality decline was usually fast in lower socioeconomic groups, relative mortality decline was usually faster in the upper socioeconomic groups. Marmot (2010) provided a theoretical explanation that took account of the differences in health, disease, mortality and life expectancy in both the developing and developed world, explaining that health follows a social gradient – the higher the position in the social hierarchy, the lower the risk of ill health – and suggested that this was irrespective of country. With so much evidence establishing the association between inequalities in health and inequalities in income, the question for health professionals is no longer whether there is a link between income differences and health; it is whether they

accept as their moral, professional and humanitarian duty the need to address inequalities in health.

The key ethical argument for tackling inequalities in health is based on three points: people valuing health; fairness; and protection of human life. The notion of people valuing having health was clearly articulated by Sir Michael Marmot in his address to the WHO, when he stated that the reason for taking action on health inequalities is a matter of social justice: the reason for doing it is because it is the right thing to do. This was based on evidence that people value having good health, not because it gets them a better job or lets them live in better neighbourhoods, but simply because they value health (Bolam, 2004; Marmot, 2009). That means where, in our judgement, these differences in health, these systematic inequalities in health, are avoidable and are not avoided, then they are unfair; putting them right is a matter of social justice (Marmot, 2009). Arguably, judging tackling inequalities in health as being ‘the right thing to do’, ‘avoidable’ and ‘unfair’ implies the acceptance of moral, ethical and humanitarian responsibilities to tackle them.

The argument for tackling inequalities in health as a matter of justice and fairness has been supported by several prominent writers in the field of social justice and public health (Beauchamp, 1975, 2003; Gostin & Powers, 2006; Hofrichter, 2003; Krieger, 2001, 2007; Krieger & Bassett, 1993; Krieger & Birn, 1998; Powers & Faden, 2006), all of whom draw from Rawls’s (1971) theory of justice and fairness. Krieger and Birn (1998) contend that fairness and equality are two key attributes of social justice. It has been argued that ethical and moral judgement is based upon recognition that all social groups are not treated equally in society (Gostin & Powers, 2006; Powers & Faden, 2006), thus the moral and ethical responsibility of social

justice is to promote an equitable distribution of primary social goods, institutional resources and life opportunities (Hofrichter, 2003). This was reaffirmed by Gostin and Powers (2006) who explained that the moral account of social justice stresses the fair disbursement of common advantages and the sharing of common burdens.

Reaffirming the argument about health professionals' moral and ethical responsibility to tackle inequalities in health, Gostin and Powers (2006) assert that the social justice view of public health is logically and ethically justified if one accepts the vision of public health as being the protection of all human life. Concurring, Beauchamp (1975, 2003) proposes that our moral responsibility to address inequalities is based on understanding that public health is ultimately and essentially an ethical enterprise committed to the notion that all persons are entitled to protection against the hazards of this world, and to the minimisation of death and disability in society (Beauchamp, 2003; Hofrichter, 2003; Powers & Faden, 2006). The notion of 'entitlement' implies that access to good health is not only ethically and morally right, but it is also a human right.

The promotion of health as a human right occurred at a 1946 WHO conference in London, where for the first time WHO declared that the discrimination leading to differences in access to the resources and opportunities for health between groups was unfair (WHO, 1946). WHO (1946) asserted that health is a human right, that is, everyone has a right to enjoy the highest attainable standards of health in their society. This declaration was repeated in 1978 in the Alma-Ata declaration (WHO, 1978), where countries were asked to commit to incorporating this in their national policy directives. Since then, several public health writers have made significant contributions to advancing this argument (Bayer, Beauchamp, Gostin, & Jennings,

2007; Beauchamp, 2003; Gostin & Powers, 2006; Levy & Sidel, 2006; Powers & Faden, 2006). The unifying view is that under social justice, all persons are equally entitled to the key outcomes of health protection or minimum standards of income (Bayer et al., 2007; Beauchamp, 1975, 2003; Hofrichter, 2003). That means it is a human right for all to have access to equal opportunities to be healthy, and that public health institutions have human rights obligations to remove barriers to individuals and groups which prevent them realising their rights to health (Levy & Sidel, 2006).

Arguably the fact that inequalities in health are still prominent in some societies, despite countries' commitment to the Alma-Ata Declaration, indicates that human rights standards and legal obligations relevant to social justice are not being fulfilled in many, perhaps most, places (Levy & Sidel, 2006). However, it has been argued that human rights instruments provide a powerful contribution towards efforts to tackle public health issues of social justice, by removing concerns for improving the health of disadvantaged groups from the realm of voluntary charity to the realms of law and entitlement (Beauchamp, 1975, 2003; Levy & Sidel, 2006). For example, we now have international human rights instruments relevant to public health that are binding: they include the UN's Universal Declaration of Human Rights; the International Covenant on Economic, Social and Cultural Rights; the Convention against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment; the Convention on Elimination of all forms of Discrimination Against Women; and the Convention on the Rights of the Child (Donaldson & Banatvala, 2007).

The specific example that applies directly to health professionals is the UN Commission on Human Rights (United Nations [UN], 2002); this created a Special

Rapporteur covering the extent to which the UN signatory states observe the right of everyone to the enjoyment of the highest attainable standard of physical and mental health, which reports yearly. Considering that physical and mental health and well-being is inextricably linked to socioeconomic factors means that health professionals have to make major contributions to addressing social justice and human rights concerns, by strengthening and extending crucial public health functions beyond the healthcare services. They need to collaborate with other sectors to develop strategic plans to address fundamental determinants of health such as education, housing and employment, and permit full economic, social and political participation (Levy & Sidel, 2006; Powers & Faden, 2006). This involves changing society so that claims for freedom, equality, and democracy receive adequate expression, and so that the politics by which people pursue these goals gain acceptance as being normal, rather than exceptional and suspect (Powers & Faden, 2006).

Furthermore, achieving a balance between respecting the rights of the individual and the population is crucial. This involves challenging the market justice norms which claim that poor people have poorer health because they engage in health-damaging behaviours such as smoking and eating less nutritious foods, implying that these behaviours are entirely freely chosen rather than being shaped by the conditions in which disadvantaged groups live because of their social position (Levy & Sidel, 2006).

The discussion about social justice and inequalities in health in terms of three dimensions illuminated that inequalities in the distribution of primary social goods are fundamental causes of the uneven distribution of health and disease in our society. It also revealed that the argument about inequalities in health requires

understanding of scientific evidence; possession of appropriate attitudes, values and beliefs about social justice and health inequalities; and respect for the human rights of others. However, while the scientific evidence on which Wilkinson's theory of relative rather than absolute inequality, Mackenbach's theory of proportionality and Marmot's theory of social gradients were grounded was clear, it was unclear what were the philosophical arguments underpinning social justice and inequalities in health.

The next subsection therefore outlines three very different but highly influential philosophical approaches to social justice and distributive policy: libertarianism, utilitarianism and egalitarianism.

2.2.1.1 Philosophical perspectives of inequalities in health and social justice

As we have learned about the importance of values, beliefs and attitudes in people's understanding of public health, I decided to examine the literature that would sensitise me into the philosophies that PHNEs draw upon in their analysis of inequalities in health and the thinking behind policy development. The review revealed that the primary bases of comparison are what each philosophy considers to be a just distribution of privileges.

Core to the libertarian philosophy on distributive policy is the premise that individuals have 'full ownership', meaning that they have full immunity or protection against the 'non-consensual' loss of their rights to self-ownership, except where the individual violates the rights of others (Almgren, 2007). In the dominant libertarian vision of civil society, collective well-being is best achieved through the exercise of individual free will and self-responsibility in the context of a laissez-faire market economy (Almgren, 2007).

The evidence suggests that libertarians are concerned primarily with limiting the adverse effect of governmental interference with individuals' ability to exercise control over their own life (Almgren, 2007; Powers & Faden, 2006). This implies that in the libertarian's view, because illness, unemployment and even old age are risks intrinsic to human social existence, it is the role and responsibility of individuals in a free and civil society to self-protect through mechanisms of insurance and savings (Almgren, 2007). In libertarian systems the role of public health is to empower individuals to take responsibility for their own health: the underpinning principles are a) informed choice, b) personal responsibility, and c) working together. The evidence of such thinking can be seen in the last UK Labour government's White Paper *Choosing health: Making healthy choice easier* (DH, 2004a), and in the UK Coalition government public health White Paper *Equity and excellence: Liberating the NHS* (DH, 2010a) in which the word 'responsibility' was mentioned thirty two times; it is also a key principle of *The Coalition: Our programme for government* (HM Government, 2010).

The idea of placing responsibility for health and well-being on individuals raises fundamental questions in relation to health inequalities: that is, whether the poor fare poorly because of (a) their own innate deficiencies, whether moral, intellectual, or biological; (b) a causal arrow that runs principally from poor health to economic poverty, with illness interfering with earning (and learning) capacity; or (c) social injustice, requiring redistributive justice (Krieger, 2007).

Arguably, in preparing nurses for the role of tackling health inequalities these questions should be a fundamental part of PHNEs' analysis of the interventions to reduce them, as they form the basis for division between those who advocate health

promotion – that is, who propose to reduce inequalities in health by promoting personal responsibility and individual behavioural change – and those who place the responsibility for health improvement on changes in policy so that everyone has a genuine chance for good health (Beauchamp, 1975, 2003; Krieger, 2001, 2007; Krieger & Bassett, 1993; Krieger & Birn, 1998).

The same questions apply in policy making, as has been evident in the recent UK governments' health policy reforms: on one side are proponents of the unbridled free market who propose introducing more competition in healthcare delivery and a greater stake for private industry (DH, 2010a, 2010b, 2011); on the other are those who seek more state intervention and reducing inequalities in health through a more egalitarian economy (British Medical Association, 2010, 2011; RCN, 2011).

One of the progenitors of the utilitarian perspective on social justice was Aristotle's notion of distributive justice, which views the just distribution of goods and benefits in society as a legitimate function of the state (Almgren, 2007). In simple form, the utilitarian principle states that utility should be distributed in accordance with whichever scheme yields the maximum good to the maximum number of people (Almgren, 2007; Powers & Faden, 2006). Taken at face value, this suggests that society should be organised in highly rationalistic terms to achieve the maximum primary social goods for the most persons (Powers & Faden, 2006). Taken to the extreme, utilitarianism would be relatively unconcerned with problems of extreme deprivation or extreme abundance, as long as the maximum good to the maximum number of outcomes is served (Daniels, Kennedy, & Kawachi, 2004, 2007). This view has been less evident in health policy making in the UK.

The perspective proposed by many public health proponents who believe in social justice principles and public health interventions to reduce health inequalities stands in stark contrast to both utilitarian and libertarian approaches: they promote the egalitarian perspective as most compatible with a distributive policy (Beauchamp, 1975; Rawls, 1971; UK Health Watch, 2005; UKPHA, 2005). Ruger (2004) found that in general egalitarian theories propose that people be provided with an equal distribution of certain goods such as health. Furthermore, Ruger (2004) found that most egalitarian theories of justice are cautiously formulated to avoid making equal sharing of all possible social benefits a requirement of justice.

Proponents of egalitarian public health policies promote interventions that deal with fundamental determinants of health inequalities – that is, interventions that focus on the ‘right to equal health’ rather than healthcare – so the focus is on improving the socioeconomic and environmental conditions in which people live (UK Health Watch, 2005; UKPHA, 2005). They take the view that justice requires that all persons should be given opportunities to reach the conditions necessary for them to be healthy (Powers & Faden, 2006; Rawls, 1971; Sudhir, Peter, Sen, & Sen, 2004).

The egalitarian’s views on tackling inequalities in health are based on long established evidence that social status, as determined by income, educational attainment, position in society and level of control in occupation, is a major determinant on the patterns and distribution of disease and mortality (Daniels et al., 2004; Kawachi, Kennedy, Lochner, & Prothrow-Stith, 1997; Mackenbach & Bakker, 2003; Mackenbach et al., 2003; Marmot, 2005). Related to this is evidence established over 150 years that an individual’s chances of life and death are patterned according to social class: the more affluent and educated people are, the

longer and healthier their lives (Bayer et al., 2007; Kawachi et al., 1997; Mackenbach & Bakker, 2003). This view is well articulated by John Rawls in his theory of justice and fairness, where he suggested that the social class into which somebody is born has a profound impact on what she or he can achieve and aspire to achieve (Rawls, 1971). Rawls (1971) and several writers point out that a major cause of these differences can be attributed to some of the institutions of society favouring certain starting places over others (Beauchamp, 1975, 2003; Hofrichter, 2003; Peter, 2004). As Rawls (1971) points out, in a fair society the door of the office that is responsible for the distribution of primary social goods such as education, health and good employment must be opened to the less privileged as well as the privileged.

In support of this view Geoffrey Rose explains an epidemiological association between socioeconomic determinants and poor health (Rose, 1992). He points out that socio-economic deprivation includes a whole constellation of closely interrelated factors, such as lack of money, overcrowded and substandard housing, living in a poor locality, poor education, unsatisfying work or actual unemployment, which reduce social approval and self-esteem (Rose, 1992). In turn, this constellation of deprivations leads to a wide range of unhealthy behaviours, including smoking, alcohol excess, poor diet, lack of exercise, and a generally lower regard for future health (Rose, 1992).

Rose (1992) therefore argues that political effort should be focused on three broad components of deprivation, each of which profoundly influences health and where some progress would be possible even in the face of economic inequalities: these are education, housing, and unemployment. Arguably, these are areas where the

government could make a real difference without necessarily interfering with the liberty of free economic enterprise.

This subsection outlined the importance of attitudes, values and beliefs to people's views about public health, explaining how the libertarian, utilitarian, and egalitarian philosophies influence them. It recognised that some measures to reduce inequalities in health may seem to interfere with the liberty of free market capitalism, and appreciated the reluctance of liberal governments to do this; but it identified housing, education and employment as three areas where governments could make inroads without interfering with the free market economy.

It recognised that while these factors have detrimental effects on health, they sit outside public health and health professionals' domains, and therefore policy to address them is likely to be developed with little or no consideration of their health effects. This creates a challenge for public health practitioners to influence broader social policy, and not just health. The extent to which PHNEs manage this was a critical component for exploration.

The next subsection contrasts these philosophical underpinnings with epidemiological evidence.

2.2.1.2 Epidemiology and health inequalities

It has been reported that the success of strategies to tackle inequalities in health depends on health professionals' commitments to investigating and demonstrating the cause and effect associations between health inequalities and poor health (Krieger, 2001, 2007; Mackenbach & Bakker, 2003; Mackenbach, 2009; Saracci, 2007). Epidemiology is considered as the essential science of public health (Webb,

2005; Webb & Bain, 2011). Krieger (2007) reported that one of the core public health functions of epidemiology is to produce sound population-based data on social inequalities and health.

This subsection explains the contribution of epidemiology to illuminating the connection between inequalities in health and poor health. The review of literature revealed two different but complementary epidemiological perspectives. The first pertains to the scientific function of epidemiology in investigating and establishing the aetiology of social production of disease/political economy of health (Krieger, 2001, 2007; Saracci, 2007). The second perspective pertains to the philosophical function of epidemiology as a scientific instrument with moral and ethical purposes (Venkatapuram & Marmot, 2009). Fundamentally, both perspectives contribute to the proposition that social justice principles are the foundation for public health.

The argument about the importance of epidemiology in tackling health inequalities is as relevant today as it was 164 years ago when Virchow (1848) conducted the first epidemiological analysis of the cause and effect association between poverty and typhus epidemics. Virchow investigated the effects of famine in Upper Silesia and found that these were concentrated among the poor, who were predominantly Polish peasants (Virchow, 1848). In his analysis their poverty, which was closely associated with their lack of schooling, originated from political oppression by the reigning bureaucracy, and from economic oppression by the local aristocracy. Therefore, Virchow argued, elimination of social inequality was the only way to prevent typhus epidemics in the future (Mackenbach, 2009). In the UK it was the same commitment to revealing the association between poverty and disease by sanitarians such as

Chadwick and Duncan that led to the publication of the first UK public health act of 1848 (Fraser, 1950).

Since then several epidemiologists have reported on the contribution of epidemiology to policymaking aimed at reducing health inequalities (Krieger, 2001, 2007; Krieger & Bassett, 1993; Mackenbach, 2009). It has therefore been suggested that all health care professionals with the responsibility of tackling inequalities in health require some understanding of epidemiology (Krieger, 2007; Saracci, 2007). However, it has been recognised that health professionals may make contributions at different levels, as outlined by Mackenbach (2009) who asserts that in their decision making process about their role health professionals may want to think of an imaginary 'ladder of political activism' with four rungs. The first or lowest rung is political passivism – that is, information on health risks and opportunities for health improvement are exchanged within the health sector only, and politicians are only informed if they ask for it. On the second rung, public health professionals actively disseminate relevant information among politicians, for example by addressing their reports to the government, by drawing the attention of the media, and by participating in advisory committees. On the third rung public health professionals may try to directly influence the political process, for example by lobbying and by actively engaging politicians of specific political parties. On the highest or fourth rung, public health professionals become politicians themselves, trying to obtain positions in government or parliament to reach their objectives.

Krieger (2007) and other writers suggest that most health professionals are most comfortable contributing on the first and second of Mackenbach's rungs (Krieger, 2007). If that is the case it would be appropriate to explore nurses' understanding of

epidemiology, since they are the largest health professional body and are said to be key contributors in tackling social inequalities in health (DH, 2001a, 2001b; HM Treasury, 2004). As key players, it is essential that they are clear about the factors affecting population patterns of health, disease, and well-being, as manifested in present, past and changing social inequalities in health (Krieger, 2001, 2007).

Krieger (2007) proposes that epidemiologists and health professionals irrespective of their field of interest have a responsibility to keep the evidence of the association between inequalities in health and poor health before the public's eye so that the suffering can be made actionable, rather than be ignored or accepted as inevitable. Instead of looking at organic causes of ill health, they need to work under the hypothesis that social, economic and political institutions, and decisions that create, reinforce and perpetuate economic and social privilege and inequality, are fundamental causes of social inequalities in health. They need to act as advocate for action in favour of healthy public policies, especially redistributive policies to ensure the equal distribution of health benefits and disease burdens (Bambra, Fox, & Scott-Samuel, 2005). It has been reported that epidemiological knowledge will enable health professionals to act directly, and as conveners who mobilise and co-ordinate government agencies, health care institutions, businesses, the media, academia and the community (Gostin & Powers, 2006; Krieger, 2007).

The key argument in this second perspective is that epidemiology is a science discipline driven by moral and ethical concerns about the injustice of health inequalities. This argument is rooted in the philosophy of epidemiological theory and practice which includes concerns such as the epistemology of causation and the ontology of causal determinants, as well as the influence of values in

epidemiological research (Venkatapuram, 2009; Venkatapuram & Marmot, 2009). To illustrate this dichotomy between the values and scientific practice of epidemiological research, Venkatapuram and Marmot (2009) explain that if one assumes that the ill health of individuals is an important moral concern, then it stands to reason that following through on that concern is what drives the pursuit of scientific knowledge of the causes, distribution patterns, and consequences of ill health. They go on to assert that such concern also motivates identifying and implementing appropriate social interventions to address socially determined ill health (Venkatapuram, 2009; Venkatapuram & Marmot, 2009).

From this perspective, therefore, epidemiology can be seen as having a moral function or purpose because it springs from moral concern about the ill health of individuals. Arguably, the link between moral concern for the health of individuals and realising such concern through epidemiological theory and practice is what establishes epidemiology as being an instrumental science with a moral purpose, and not simply a descriptive science that is outside the domain of values. Furthermore, when moral concern for the health of individuals is a constituent part of a broader conception of social justice, then the instrumental goal of health science is to achieve social justice (Venkatapuram, 2009; Venkatapuram & Marmot, 2009).

This subsection explained the contribution of epidemiology to illuminating the connection between inequalities in health and poor health. It identified epidemiology as a scientific instrument with moral and ethical purposes (Venkatapuram & Marmot, 2009). The identification of epidemiology as a science with a moral purpose sensitised me to believe that PHNEs require more than just knowledge and skills in interpreting epidemiological evidence of a cause and effect association between

health inequalities and poor health; but also appropriate attitudes, beliefs and values. This raises the need to investigate the processes by which PHNEs integrate theoretical public health knowledge and skills with attitudes, values and beliefs in their teaching of public health.

Therefore, the next section examines theoretical models that conceptualise this evidence of association.

2.2.2 Socioeconomic determinants of health inequalities

Socioeconomic determinants of health (SEDH) refers to the conditions in which people are born, grow up, live, work and age that are known to influence their opportunity to be healthy, risk of illness and life expectancy (WHO, 2012). Several studies reported that social, economic and political institutions and the decisions that they take create, reinforce and perpetuate differences in economic and social status which fundamentally cause inequalities in health (DHSS, 1980; Dahlgren & Whitehead, 1991; DH, 1998a; Marmot, 2010; WHO, 2005). Therefore, exploration of PHNEs' ability to articulate the complexity of the interacting factors that determine inequalities in health was considered to be important for this thesis.

Several public health theorists have developed models to explain the complexity of the interacting factors that determine inequalities in health; these models are all termed 'socioeconomic determinants of health models'. The most prominent models include Dahlgren and Whitehead's (1991) model; van de Mheen, Stronks and Mackenbach's (1998) selection and causation model; Wilkinson and Marmot's (2003) model; the WHO (2005) Equity Team social determinants framework; and Rawls' (1971) justice as fairness model.

Although differing in degree of complexity and detail, these are all based on a common view that low socioeconomic status leads to ill health (Dahlgren & Whitehead, 1991; Mackenbach & Bakker, 2003; Wilkinson & Marmot, 2003; WHO, 2005). Of all models examined, the one that has been most extensively used in policymaking, particularly in the UK (DH, 1999a) and WHO Europe (WHO, 2005, 2008), is the SEDH model by Dahlgren and Whitehead (1991). This model proposes five layers of influence that act as either risks or protection against disease depending on one's socioeconomic status. These include a) biological variation including genetic makeup and sex; b) individual lifestyle factors, c) social and community influence, d) living and working conditions, and e) general socioeconomic, cultural and environmental conditions (Dahlgren & Whitehead, 1991).

The general view amongst the SEDH theorists is that those health differences in the first layer, which arise as a result of biological variations such as sex (some disease is more prevalent in one gender than the other), age (elderly people are sicker than younger) and genetic factors (some groups have genetic predispositions to certain disease) can be considered as fair and unavoidable (Dahlgren & Whitehead, 1991; Mackenbach & Bakker, 2003; Whitehead, 1990), and therefore very little could be done to modify them. A large proportion of the global burden of disease can be attributed to the second layer, which results from health-damaging individual lifestyle-related factors such as obesity, coronary heart disease and diabetes relating to physical inactivity; cancer and chronic obstructive pulmonary disease to smoking; liver cirrhosis and pancreatic cancer to excessive alcohol consumption; and mental illness to drug misuse. While it may appear that lifestyle alteration may lead to reduction of health differences, the evidence shows that such behaviours are

concentrated in groups in adverse social conditions (Cubbin, Sundquist, Ahlen, Johansson, Winkleby, & Sundquist, 2006; Kawakami, Li, & Sundquist, 2011; Krieger, 2007; Mackenbach et al., 2003).

The evidence suggests that individuals in disadvantaged circumstances including deprived neighbourhoods with low availability of health-promoting goods (third layer) face greater financial barriers to opting for a healthier lifestyle (Kawakami, Li, & Sundquist, 2011; Macintyre, 2007; Macintyre, Macdonald, & Ellaway, 2008; Pearce, Witten, Hiscock, & Blakely, 2007). That means it is an individual's social position that determines exposure to health-damaging behaviours and poor health over time, not personal choice (Macintyre, 2007; Macintyre, Macdonald, & Ellaway, 2008; Mackenbach et al., 2003). Changing factors in the fourth and fifth layers – that is, structures of society that generate and distribute power, wealth and risk, such as the education system, labour policies, cultural norms and political institutions – therefore addresses the root causes of inequalities in health (Mackenbach et al., 2003).

It is generally accepted that to reduce inequalities in health one needs greater understanding of SEDH, to make explicit the linkages among different types of determinant and to locate strategic entry points for policy action (WHO, 2005). Arguably all interventions to reduce health inequalities are linked to each layer of the SEDH model, and are broadly categorised as downstream (interventions that focus on biological and behavioural risk factors), midstream (interventions that focus on reducing the exposure to specific material working and living conditions such as pollution) and upstream (interventions that focus on societal intervention) (McKinlay, 1974; UK Health Watch, 2005). There is widespread agreement that

interventions that address the root causes of inequalities in health are those that focus on upstream solutions (Mackenbach & Bakker, 2003; Marmot, 2010; Stronks & Mackenbach, 2005; UK Health Watch, 2005). However, the evidence has shown that too much effort and emphasis is being placed on downstream approaches (Mackenbach, 2011; Raphael, 2003; Waters et al., 2007). This propensity towards downstream approaches has been attributed to lack of research design to measure the effectiveness of the upstream approaches. As downstream projects are more amenable to experimental research design, it steers the research effort towards the more obvious lifestyle projects (Mackenbach, 2011; Raphael, 2003; Stronks & Mackenbach, 2005; Waters et al., 2007).

This subsection used Dahlgren and Whitehead's (1991) model to illuminate the mechanisms by which social, economic and political institutions and the decisions that create, reinforce and perpetuate differences in economic and social status fundamentally cause ill health. It made explicit the linkages among different types of health determinant, and indicated strategic entry points for policy action (WHO, 2005). It suggested that, despite the fact that all public health experts propose that interventions that address the root causes of inequalities in health are those that focus on upstream solutions, more emphasis is put into downstream approaches; and that one of the reasons for this is lack of evidence of the effectiveness of upstream approaches. What has not been fully explored, however, is PHNEs' understanding of the SEDH, or the extent to which policy directs teaching and research funding toward downstream rather than upstream interventions.

The next section will examine the role of policy in reducing inequalities in health.

2.2.3 Policy and politics

Successive recent UK governments have expressed commitments to tackling inequalities in health; however, this review took place during a Labour government, hence the focus of analysis. The need for it emanated from the literature review which revealed that public health practice in the UK is shaped by health and social policy, and therefore understanding of policy and politics was considered important for those with the responsibility to act as advocates for tackling inequalities in health (D. Evans, 2003, 2009; Hewison, 2003, 2007; Toofany, 2005). Until recent change of government in the UK policy was underpinned by the principles of social justice, with strong commitments to tackling inequalities in health (DH, 1997, 1999a); this section therefore begins with a brief outline of the UK Labour government's commitment to social justice principles, and then provides an overview of the public health strategy to reduce inequalities in health.

New Labour's social justice principles were outlined in their first White Paper on health, *The new NHS: Modern and dependable* (DH, 1997), which was part of their ambition to reform the NHS and identified as the ideological basis of these reforms. This White Paper set out a ten year modernisation programme which offered a number of important proposals, including providing a fairer health service, tackling inequalities in health, and developing a new model of primary care delivery. It promised an NHS that does not just treat people when they are ill, but works with others to improve health and reduce inequalities. It identified the internal NHS market as inconsistent with the NHS founding principles of free and fair healthcare for all, and therefore set out how the market justice principle of 'internal markets' would be replaced by social justice principles in the form of a system they called

'integrated care', based on partnership and driven by performance. Policy directives led to the replacement of the terms 'competition' and 'internal market' by 'co-operation' and 'collaboration' (Ham, 2004; Hennessy, 2000). New Labour's social justice principles were first articulated in their election manifesto (Labour Party, 1997), which expressed a strong commitment to create a fairer and more efficient NHS in which high quality became the driving force for decision making at every level of the service (Bradshaw, 2003; G. Carr, 2007; Hennessy, 2000; Hewison, 2003). Figure 1 illustrates the three policy drivers that shaped the UK strategy to reduce inequalities in health.

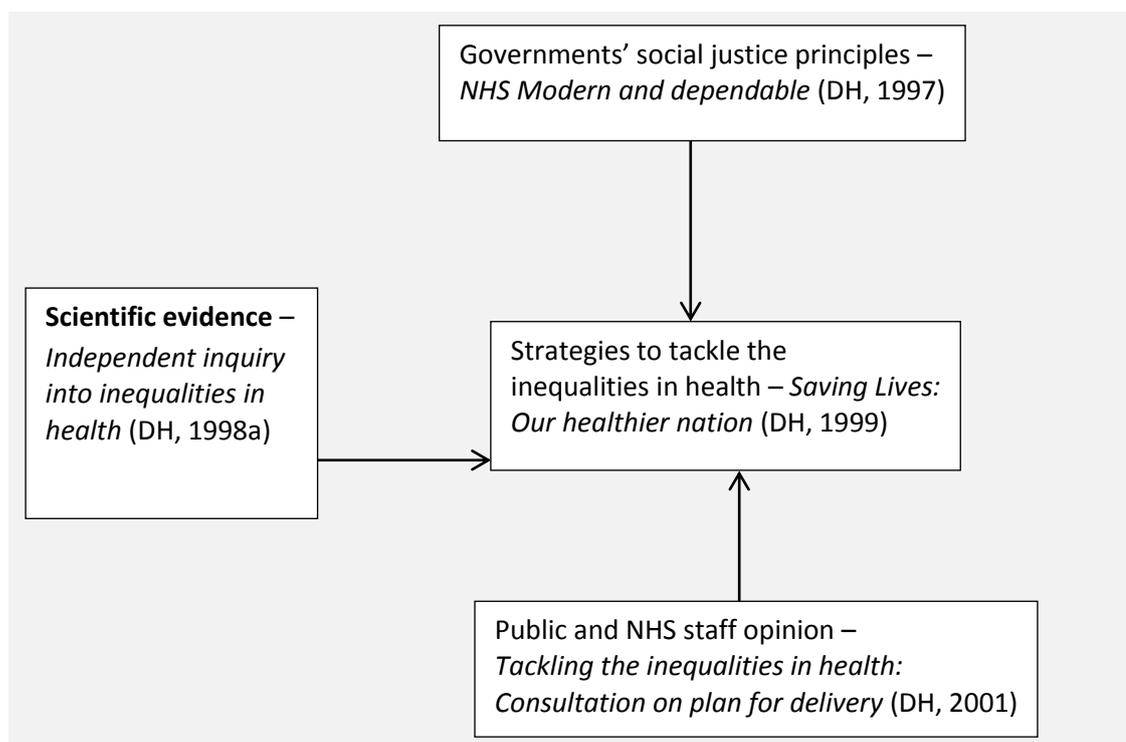


Figure 1: UK strategies to tackle inequalities in health

The first policy driver was *The new NHS: Modern and dependable* (DH, 1997) which set out New Labour's social justice principles. The second was *An independent inquiry into inequalities in health* (DH, 1998a), established by the UK Department of Health, which provided a weight of scientific evidence in support of a

the connection between SEDH and health inequalities. The third one was *Tackling health inequalities: Consultation on a plan for delivery* (DH, 2001c), which provided the government with insight into the opinions of NHS staff and the public on inequalities in health. The consultation led to publication of the Green Paper *Our healthier nation* (DH, 1998b). Based on these investigations, the Department of Health published the first public health White Paper *Saving lives: Our healthier nation* (DH, 1999a) which adopted most of the *Independent inquiry* (DH, 1998a) recommendations. The White Paper proposed that three areas were crucial:

- 1 All policies likely to have an impact on health should be evaluated in terms of their impact on health inequalities.
- 2 High priority should be given to the health of families with children.
- 3 Further steps should be taken to reduce income inequalities and improve the living standards of poor households.

Several public health writers acclaimed the proposals in *Saving lives: Our healthier nation* as a demonstration of the government's commitment to social justice principles and upstream public health interventions (Evans, 2003, 2009; Hunter & Sengupta, 2003; UK Health Watch, 2005). The government proposed giving more people better education; creating employment so that people can achieve greater prosperity; building social capital by increasing social cohesion; reducing social stress by regenerating neighbourhoods and communities; and tackling aspects of the workplace which are damaging to health (DH, 1999a). These proposals were considered as tackling fundamental determinants of health inequalities (Mackenbach & Bakker, 2003; Marmot, 2010; UK Health Watch, 2005; WHO, 2005, 2008).

The UK Labour government had made a promise that in their first two years in office they would keep to the public spending set out by the previous Conservative government. That meant that the delivery of their social justice strategy had to be delayed until their next term. During the 2001 election campaign, Labour announced a reform of the NHS, with social justice back on the agenda. This was signified by the number of policy documents published that year that had a clear focus on public health: for example *Tackling health inequalities: Consultation on a plan for delivery* (DH, 2001c); *Annual report of the Chief Medical Officer 2001* (DH, 2001a); and *Shifting the balance of power within the NHS: Securing delivery* [SBoP] (DH, 2001b). SBoP provided a clear infrastructural framework for the delivery of public health and the modernisation agenda. It articulated details of the new relationship between the Department of Health and the NHS (DH, 2001b), and was intended to move power and control over budgets to front line staff and patients. At the heart of the changes was the decision to establish primary care trusts (PCTs) throughout the NHS, shifting the focus of healthcare delivery to public health, and reducing the number of health authorities. The aim was to give PCTs 75% of the budget to strengthen the public health function (DH, 2001a; McDonald & Harrison, 2004). Each PCT was to have a director of public health (DPH) and team who were to be ‘the engines of public health delivery’. The *Annual Report of the Chief Medical Officer* (DH, 2001a) provided a framework for the public health workforce to deliver the health agenda, and identified three major categories in the public health workforce: specialist, practitioner and wider workforce.

All these reports identified nurses as key contributors to the strategy to tackle inequalities in health. However, it remains unclear from the reviewed literature whether the knowledge and ability of nurses to undertake this role was considered. It

is therefore timely to investigate the understanding of and position of nurses within this policy change – a critical component of exploration for this study.

Tackling health inequalities: Consultation on a plan for delivery (DH, 2001c) revealed that while the government were looking for upstream solutions to inequalities in health, the public and NHS staff including nurses were looking for quantifiable solutions to immediate problems. The public wanted more doctors, more nurses, more therapists and scientists, reduced waiting times for care, patient-centred care, better local services and ending the postcode lottery (DH, 2000). NHS staff wanted more staff and fair pay, training, less bureaucracy, prevention and joined-up working (DH, 2000). In response to these pressures the UK government published *Tackling health inequalities: A programme for action* (DH, 2003), a strategy based on four themes that focus on downstream, midstream and upstream solutions to inequalities in health (DH, 2003). These were a) supporting families, mothers and children; b) engaging communities and individuals; c) preventing illness and providing effective treatment and care; and d) addressing the underlying determinants of health (DH, 2003).

From these four themes they developed a basket of indicators of inequalities in health (DH, 2003), including access to primary care, road accidents, child poverty, diet (e.g. ‘5 A Day’), education, homelessness, housing, influenza vaccinations, increasing physical activity (PE) and school sport, reducing smoking prevalence, reducing teenage pregnancy, and reducing mortality from major killer diseases (DH, 2001c). These became targets that NHS organisations were measured against, and were to be followed by regular reviews to determine progress. In term of Dahlgren and Whitehead’s (1991) models of SEDH, the recommendations in *Tackling health*

inequalities: A programme for action (DH, 2003) were targeted at tackling layers from one (biological) to four (working and living conditions).

The government's strategy to reduce inequalities in health was attracting the notice of the Treasury department: as the Department of Health was restructuring the tiers of the NHS, the Treasury was taking increasing interest in the financing and performance of the reformed health service. In March 2001 the Chancellor of the Exchequer commissioned a review of the long term trends affecting the health service and of the resources required over the next two decades to deliver the public health agenda (Evans, 2003). In 2002, the first of the two, Sir Derek Wanless's report *Securing our future health: Taking a long-term view*, was published (HM Treasury, 2002), and it concluded that a) although the UK health system does many things very well, standards of healthcare have fallen behind people's expectations; and b) UK healthcare systems are not keeping up with the quality of service provided routinely in many other countries. It attributed these shortfalls to the combination of cumulative under-investment over at least 30 years, and organisational and delivery arrangements which are not designed to meet the challenges of providing healthcare in the 21st century.

To address these shortfalls, the report presented three scenarios – slow uptake, solid progress and fully engaged – to model spending patterns in the next ten years (HM Treasury, 2002). The most desired scenario was 'fully engaged', which would result in high levels of public engagement with public health messages; increased life expectancy; dramatic improvement in health status; increased confidence in the health system; and increased demand for high quality care. The health service would be responsive with high rates of technology uptake, particularly in relation to disease

prevention. This report (HM Treasury, 2002) essentially supported the direction of government policy on social justice principles and the NHS, with a strong emphasis on public health action and recommendations for long term sustained investment in public health delivery. The cross-governmental interest in social justice was formalised when the Treasury and DH jointly published the *Cross-cutting review on tackling inequalities in health* (DH & HM Treasury, 2002).

In April 2003, the Prime Minister, the Chancellor, and the Secretary of State for Health asked Wanless to provide an update of the challenges in implementing the fully engaged scenario set out in his report on long term health trends. This review asked the profound question ‘Who is responsible for tackling inequalities in health and what support is needed?’ The report from the second review concluded that ultimately individuals were responsible for their own and their children’s health, and it was the aggregate actions of individuals which would ultimately be responsible for whether the optimistic ‘fully engaged’ scenario unfolds (HM Treasury, 2004). It went on to assert that people needed to be supported more actively to make better decisions about their own health and welfare, because there were widespread, systematic failures that influenced the decisions individuals made. Failures identified included a lack of full information, the difficulty individuals had in considering fully the wider social costs of particular behaviours, engrained social attitudes not conducive to individuals pursuing healthy lifestyles, addictions, and inequalities related to individuals’ poor lifestyles; these tended to be related to socio-economic and sometimes ethnic differences. The greatest emphasis in this document was on supporting individuals to change behaviour and make healthier choices, and it identified three areas where health-related policy intervention might be needed – minimum income, work and stress, and environment.

This policy document marked the turning point of policy direction in the UK. After the publication of *Securing good health for the whole population* (HM Treasury, 2004), there was a shift downstream to supporting individuals to change behaviour rather than focusing on upstream determinants of health. For example, the principles that underpinned the three White Papers on public health – *The NHS improvement plan: Putting people at the heart of public services* (DH, 2004b); *Choosing health: Making healthy choice easier* (DH, 2004a); and *Our health, our care, our say: A new direction for community services* (DH, 2006) – were personal responsibility, working together and informed choice (DH, 2004a). They all proposed that those principles be delivered through a process of contestability, commissioning and choice (DH, 2004b, 2005).

Several health professional bodies including the British Medical Association (BMA), Royal College of Nurses (RCN), and United Kingdom Public Health Association (UKPHA) expressed major concerns about the *Choosing health: Making healthy choice easier* (DH, 2004a) emphasis on downstream behavioural interventions (Raine, Walt, & Basnett, 2004; UKPHA, 2005). For example Raine, Walt and Basnett (2004) argued that changing behaviour would require the implementation of comprehensive structural, environmental and economic interventions. UKPHA, (2005) asserted that choice was an irrelevant concept in public health, and that health education would make a negligible, and possibly harmful, difference to health status and inequalities. UK Health Watch (2005) and UKPHA (2005) reminded us that many individuals could not choose whether they had sufficient income to live in warm and safe housing and eat healthy food.

This section has examined inequalities in health which were identified as a major public health problem. The analysis of SEDH models demonstrated that sustainable interventions to tackle inequalities in health are those that address the causes of the causes. However, the literature showed the propensity of health professionals and policy makers to place greater emphasis on downstream approaches. This created a need to investigate the reasons for this propensity. Finally, this section critically examined a selection of publications that shaped the strategies to tackle inequalities in health, and revealed market justice forces that influenced them.

The next section examines pedagogies used to teach public health.

2.3 Pedagogical context knowledge

2.3.1 Public health nursing pedagogies

This study is about PHNEs' knowledge of teaching public health, and therefore it was considered worthwhile to explore the literature relating to the pedagogies used generally in nursing education, and to teach public health in particular. The exploration of literature revealed two broad pedagogic approaches that underpin nursing education: conventional and interpretive pedagogies. This section presents three examples of interpretive pedagogies – narrative, critical and transformative – that were found to be commonly used in public health nursing.

Diekelmann (2001) and Ironside (2006) describe the underpinning pedagogies used in nursing education practice as qualitative, action-oriented, and focused on knowledge generation. Diekelmann (2001) asserted that such pedagogies are rooted in a philosophy of teaching and learning where learning is seen as active, reflective and socially constructed. Diekelmann (2001) further classified them as: a)

conventional pedagogies that include outcomes – competency-based, problem-based and critical thinking frameworks; and b) *interpretive pedagogies* that include narrative, critical, transformative, feminist and phenomenological pedagogies. However, the extent to which these discriminations are theoretical rather than practical are the subject of enquiry in this research. Furthermore, the extent to which different interpretive pedagogies can coexist, despite their profoundly different commitments to theory, knowledge, knowing, experience, language, and political and social discourses (Diekelmann, 2001), needs exploration. How these then influence what is taught, and enable students to engage with concepts and subject in ways that are relevant, realistic and connected to their personal and professional lives, similarly needs to be explored.

Several writers attempted to point out the subtle differences between conventional and interpretive pedagogical approaches, and three features were identified that distinguished them (Diekelmann, 2001, 2005; Diekelmann & Mendias, 2005; Ironside, 2001, 2003, 2006). The literature revealed that the proponents of conventional pedagogies often worked hard to use learning strategies (e.g. active learning approaches) to make their course interesting for students (Diekelmann, 2001, 2005; Diekelmann & Mendias, 2005; Ironside, 2001, 2003, 2006). It has been argued that these pedagogical approaches save time and resources and are easy to evaluate (Ironside, 2001, 2003, 2006). They assume that learning is a rational, orderly and sequential process that leads to gaining of specific skills (Diekelmann, 2001; Ironside, 2006). Several nursing education researchers argued that conventional pedagogical approaches are inadequate in addressing the challenges facing the nursing profession (Allan & Smith, 2009; Brown, Kirkpatrick, Mangum, & Avery, 2008; Diekelmann, 2001; Ironside, 2006). They argued that the main

concern in social justice was not just acquisition of cognitive knowledge – it was a complete empirical, ethical and humanitarian commitment to addressing the social justice issues of health inequalities (McAllister et al., 2006; Vickers, 2008).

Several researchers believed that interpretive pedagogies, particularly narrative, critical and transformative pedagogies, contained features that are consistent with the requirement for social justice learning (Nagda et al., 2003; McAllister et al., 2006; Vickers, 2008). They all suggested that students and teachers participating in courses in which interpretive pedagogies were used tended to shift their attention from focusing on strategies aimed at covering content, to engendering a community of learning whereby teachers and students worked collaboratively to transform practice (Brown et al., 2008; Diekelmann, 2001; Ironside, 2001). It was suggested that they tended to make interpretation of the context for learning a central focus. Ironside (2001, 2003, 2006) posited that interpretive pedagogies proponents' concerns are how teachers and students 'read' or interpret what was taught and learned, and with the nature of knowledge and thinking in the context of education. Diekelmann (2001) explained that interpretative pedagogy considered presenting multiple epistemologies (knowledge) and interpretations as central to understanding the nature of experiences. She asserted that within interpretive pedagogies, the focus was on critiquing, examining, exploring, and deconstructing the experiences of students for their meanings and learning.

2.3.2 Narrative pedagogy

This subsection presents the contribution of narrative pedagogies to the development of nurse educators' professional knowledge. It briefly outlines the strategies that have been used to infuse narrative pedagogies into the nursing curriculum.

Narrative pedagogy was described as a research-based interpretive phenomenological pedagogy that gathers teachers and students into a converging conversation wherein new possibilities for practice and education can be envisioned (Diekelmann, 2001, p. 55). It emanated from Diekelmann's (2001) research using interpretive phenomenology to hermeneutically analyse the lived experiences of students, teachers, and clinicians in nursing education. Diekelmann (2001) found that narrative pedagogy provided context and processes for the students, teachers, and clinicians to explore, critique, and deconstruct issues that were pertinent to students' lives. For example, rather than focusing on delivery of content, they considered how the content connected to the personal lives of students. The focus was on addressing the challenges facing contemporary nursing education arising from increasing diversity amongst teachers and students (Allan & Smith, 2009; Ironside, 2001, 2003, 2006): for example, it allowed time for discussing students' personal issues such as students who were living in poverty (Diekelmann, 2001). Major studies found that these issues were a central focus of interpretive pedagogies such as narrative pedagogy, and that they pointed toward the efficacy of creating communities of fairness and respect with limits and boundaries (Diekelmann, 2001; Ironside, 2001; Kirkpatrick & Brown, 2004).

Since Diekelmann's (2001) study was published, narrative pedagogy has been used by several researchers as an adjunct to course content, focusing on processes such as teaching, interpreting, critical thinking and analysing concepts, ideas and situations (Brown et al., 2008; Ironside, 2001, 2003, 2006; Kirkpatrick & Brown, 2004). A major contributor has been Pamela Ironside, who published a paper detailing the findings of an extensive literature review on pedagogies in nursing education (Ironside, 2001). The paper reported a lack of research into interpretive pedagogies,

and found that the majority of pedagogical research originated in schools of education and remained more academic than practical. It also found that an unintended consequence was that practising nurse teachers were rarely compelled to reflect on the pedagogic commitments and assumptions embedded in their approach to teaching. In response to this knowledge gap, Ironside conducted a Heideggerian hermeneutic study to explore nursing teachers' and nursing students' experiences of enacting a narrative pedagogy (Ironside, 2003).

Ironside (2003) investigated the extent of narrative pedagogy in classrooms and clinical courses, and found this reflected a shift from thinking as problem solving or an activity to produce a certain product, to thinking as a practice geared toward an engaged understanding of both the context of care and clients' experience of health and illness. Ironside's (2003) work revealed that because narrative pedagogy attended to students' and teachers' sharing and interpreting their lived experiences of learning and practising nursing, it reflected current practice as it was experienced. Ironside (2003) observed that where narrative pedagogies were used, the emphasis shifted from students' acquiring an expert's perspective (e.g. the teacher's or preceptor's), to the teachers, clinicians, and students collectively exploring the perspective.

The latest Ironside (2006) study examined the students' experiences in courses in which teachers used narrative pedagogy. Ironside's (2006) research found that narrative pedagogies allowed students and teachers to collectively engage in dialogue, interpreting the meaning and significance of their experiences in ways that cultivated interpretive thinking (Ironside, 2006). The participants in Ironside's (2006) project explained that, through sharing their collective interpretations,

teachers and students co-created, negotiated and transformed knowledge, all the while challenging the assumptions underlying nursing pedagogical practices (Ironside, 2006).

A variety of modalities for infusing narrative pedagogy into nursing curricula as a humanistic educational approach have been used. Brown et al. (2008) reviewed the effect of using art, film, music, storytelling, and journaling as narrative pedagogical approaches to expand the pedagogical literacy of nurse educators. This review found that the use of film helps improved learning and problem solving effectively, as well as serving as a socialisation tool, helping to establish trust and promoting bonding and foster personal growth (Brown et al., 2008; Kirkpatrick & Brown, 2004). It was also reported that storytelling as a narrative pedagogical approach created the capacity for developing ethical knowledge in nursing, as well as an understanding of caring and culture (Brown et al., 2008). These findings were resonant with several other studies: for example, Evans and Bendel (2004) conducted an experimental study examining the effect of narrative pedagogy in nursing education on students' ability to move towards cognitive and ethical maturity. Their findings demonstrated that students taught using narrative pedagogy showed slightly more improvement in both cognitive and ethical maturity, compared to those taught using conventional pedagogies (Evans & Bendel, 2004). Narrative pedagogy's ability to move students towards cognitive and ethical maturity made it suited to teaching public health issues of social justice.

2.3.3 Critical pedagogy

It emerged from the review of nursing education pedagogies that the values that guide critical pedagogy are suitable for teaching social justice, and therefore I

decided that critical pedagogy was worthy of consideration here. This section begins by exploring the definition of critical pedagogy, and the values and theoretical perspectives that underpin it. Most importantly, it explores how critical pedagogy helps students to connect with the issues of inequalities in health and social justice.

Critical pedagogy is defined as pedagogy based on critical theory, a movement which seeks to analyse oppressive practices that lead to social inequalities experienced by members of society, especially those who are marginalised (Zimmerman et al., 2007). It keeps at its centre the need to expose and challenge both the overt and covert exercise of domination-subordination in social structures and processes, as part of exploring points of differences and commonality among various social groups (Nagda et al., 2003). The focus of critical pedagogy is to analyse social life through a lens of diversity and social justice, and to prepare students to be transformative democratic agents (Lynam, 2009; Lynam, Looock, Scott & Khan, 2008). A premise of critical theoretical perspectives is that power operates across and through all social relationships and organisations (Lynam et al., 2008, p. 141); the emphasis is therefore on the importance of recognising and taking into account the broader societal context and its impact on local problems as strategies for education and social change are articulated (Lynam, 2009).

Critical pedagogy is one of the interpretive pedagogies that are beginning to make their way into nursing curricula (Harden, 1996; Hartrick, 1998; Lynam, 2009). It is particularly popular with nurse educators who are interested in increasing social justice through formal education (Harden, 1996; Jackson, 2008). The increased interest in critical pedagogy is believed to be born out of the long history of nurses' – and other clinicians positioned at the front line of health service delivery –

commitment to actively engage in addressing inequalities in health (McAllister et al., 2009). It is believed that critical pedagogy possesses useful strategies for introducing alternative viewpoints on the causes and consequences of health inequalities (Harden, 1996; Hartrick, 1998; Lynam, 2009).

Furthermore, it has been argued that nurses' interest in critical pedagogy reflects the increase in nurses' involvement in the social justice agenda (Lynam, 2009; Lynam et al., 2008). For example, critical pedagogy proposes the need to convey the understanding that the prevalence and incidence of health and social problems are features of societal processes and practices, rather than solely products of biology and personal choice (Lynam, 2009). Such understanding requires health professionals to move beyond downstream patient/client education and behaviour change, to upstream interventions that seek to address the social processes and practices that contribute to poorer health profiles (Darbyshire & Fleming, 2008; Lynam, 2009). It also requires nurse educators to assist students to develop the capacity to raise their voices for change, by helping them to ask questions about the assumptions that underpin practice, with a view to engaging with others in processes of reflection on practice (Darbyshire & Fleming, 2008). Critical pedagogy was found to encompass a number of strategies that sought to achieve social transformation at individual and social organisational levels, while also enabling learners to recognise their capacity to effect change (Lynam, 2009; Lynam et al., 2008; Nagda et al., 2003).

It emerged in this review that the proponents of critical pedagogy believed in the use of dialogue to gain access to different points of view. This draws on Freire's dialogical pedagogy, which proponents regard as a key avenue to emancipatory

education and creation of a just society (Harden, 1996; Jackson, 2008). Freire (1972) attached enormous weight to the possibilities of education for transforming unjust social relations. Consistent with Freire (1972), nurse educators whose strategies are informed by critical pedagogy seek to instil the belief in students that they are social actors who have the ability, the desire and the opportunity to participate in social and political life. In his own words, Freire stated:

Men are not built in silence, but in word, in work, in action-reflection.

But while saying the true word – which is work, which is praxis – is to transform the world, saying that word is not the privilege of some few men, but the right of every man. Consequently no one can say a true word alone – nor can he say it for another, in the prescriptive act which robs others of their words. (Freire, 1972, p. 61)

His dialogical pedagogy honoured the knowledge, perspectives, and experiences of students and teachers as central to the education process (Nagda et al., 2003). Freirean dialogical pedagogy is directed toward the empowerment of the silenced and marginalised voices, and examining why these voices have been suppressed (Freire, 1972). Freire's (1972) pedagogy promotes multiple voices, but these are not unquestioned; stories and perspectives are brought into the educational arena to serve as entries for critical social interrogation. Through problem posing, students and teachers examine their experiences and perspectives in light of those of other people, and in relation to larger public issues and processes of domination and liberation (Lynam, 2009). It is believed that such a multiplicity of perspectives under meaningful inquiry can illuminate students' understanding of why privileges and disadvantages are not evenly distributed throughout society, and identify the social

orders responsible for social inequalities (Lynam, 2009; Nagda et al., 2003). In this democratic and emancipatory process, students and teachers engaged in dialogical pedagogy can become active citizens, challenging injustices both within and among themselves, and in the social world around them (Nagda et al., 2003).

Nagda et al. (2003) indicated that conscientisation is foundational to being able to promote a critical perspective. Conscientisation is a strategy that contributes to transformation at the individual level, which they contended is evidenced in an enhanced awareness of the self in relation to others (Nagda et al., 2003, p. 168). It has been proposed that conscientisation creates opportunities for individuals to develop understanding of the experiences of persons in a range of social, usually disadvantaged, positions, in order to foster awareness of the consequences of privilege (Nagda et al., 2003). According to Freire, reflection – self and social – coupled with dialogue can foster a critical consciousness by which students and teachers see their experiences situated in historical, cultural, and social contexts, and recognise possibilities for changing oppressive structures (Freire, 1972). It has been argued that critical consciousness is not the result of intellectual effort alone; it results through praxis, or the authentic union of action and reflection (Freire, 1972). In Freire's words, 'to speak a true word is to transform the world' (Freire, 1972, p. 60). In *Pedagogy of the oppressed*, he recommends that students explore interdisciplinary themes of personal and social significance before engaging, ideally, in collaborative, student-led projects to better their lives (Freire, 1972). Viewing society as socially constructed by those with more power, at times against the will of those with less, it seems clear that widening the circle of political deliberation is crucial for constructing a fairer and more just society (Jackson, 2008).

The use of questioning has been recognised as a key strategy for nurse educators who employ critical pedagogy (Freire, 1972; Harden, 1996; Hartrick, 1998; Lynam, 2009). In the context of public health nurse education, the questioning relates to ways in which it may extend learners' understandings of inequities in health (McAllister et al, 2006). Questioning is used to prompt them to reflect on assumptions they may hold about persons who are disadvantaged, and to draw attention to both intended and unintended ways such assumptions shape their approaches to the provision of care (Harden, 1996; Lynam, 2009). It has been argued that when using questioning to foster reflective dialogue, nurse educators can draw attention to conditions that underpin interpersonal struggle or confrontation, and begin to make visible learners' points of view and the assumptions that inform them (Lynam, 2009). Arguably, such questioning may also assist learners to become aware of the discourses operating, and to recognise ways particular viewpoints are masked or countered by the dominant discourses and related practices (Lynam, 2009).

2.3.4 Transformative pedagogy

Similar to critical pedagogy, the popularity of transformative pedagogy amongst public health nurse educators relates to increasing acknowledgement that the fundamental causes of inequalities in health are patriarchal and hegemonic society (Scott-Samuel, 2009; Scott-Samuel, & Springett, 2007; Stanistreet, Bamba, & Scott-Samuel, 2005; UK Health Watch, 2005). It is believed that transformative pedagogy in the context of public health is primarily concerned with sensitising students to injustice, oppression, inequality and domination, issues relevant to all health contexts (McAllister et al., 2006). It helps to transform the scientific evidence

that society remains unequal and divided along many lines, to make students more open, reflective, and emotionally able to change (McAllister et al., 2006; Mezirow, 2003).

Many studies have shown that for people who are vulnerable by virtue of poverty, social circumstance, ethnicity, gender, or illness, it is not just extreme events that oppress them (Krieger & Bassett, 1993; Krieger & Birn, 1998; McAllister et al., 2006). Arguably, for them, inequality is experienced in everyday activities, experiences that are seemingly so mundane that they have become taken for granted and overlooked (Krieger & Bassett, 1993; Krieger & Birn, 1998; McAllister et al., 2006). A transformative pedagogical approach to public health teaching is a commitment to transformation of these taken for granted frames of reference, such as political power, orientation, racism, cultural bias, ideology etc., towards a more just, free and equal society (Fenwick, 2003; Mezirow, 2003). Transformative pedagogy uses the same strategies as critical pedagogy – that is, dialogue and conscientisation – to enable learners to recognise their capacity to effect change (McAllister et al., 2006; Mezirow, 2003; Nagda et al., 2003).

Though transformative pedagogy draws on Freire's (1972) concept of conscientisation, McAllister et al. (2006) contend that transformative pedagogy does not simply transmit values, beliefs, and solutions to students; it seeks to build critical consciousness, collective identity, and strategies for change (McAllister et al., 2006; Vickers, 2008). It is believed that in order for student nurses to develop critical consciousness of the socially determined inequalities in health, they need to develop knowledge of what Scott-Samuel and Springett (2007) call hegemony; that is, knowledge of how nursing is shaped, constrained, or silenced by dominating models

of traditional science, medicine, big business, the media, and even organisations within nursing itself (McAllister et al., 2006). The goal is for students to develop thinking and communication skills to challenge the tendency of some health professionals to dominate, exclude, or disempower clients (McAllister et al., 2006; Vickers, 2008).

This view of conscientisation is supported by other researchers. For example, Vickers (2008) asserts that transformative pedagogy seeks to alter the discourses responsible for repressive and oppressive institutions, by empowering the individual through the process of conscientisation. Belknap (2008) contends that only when students understand and accept responsibility for either maintaining social institutions or causing them to change can there be any hope for social transformation. Furthermore, there is growing evidence that transformative pedagogy creates a learning environment that challenges students and teachers to recognise, engage, and transform existing health inequities, and the systems that produce and sustain the oppression that leads to them (Belknap, 2008; Bountain, 2005, 2008; Fahrenwald, 2003; Fahrenwald, Taylor, Kneipp, & Canale, 2007; Falk-Rafael, 2006). This pedagogical approach is said to respond to the current challenge facing nursing education particularly in the developed world, where nurses practice within a policy context that emphasises individual responsibility as a basis for the distribution of burdens and benefits, and minimises collective obligations (Belknap, 2008; Bountain, 2005, 2008; DH, 2004). Nagda et al. (2003) assert that transformative approaches engage students as critical thinkers, participatory and active learners, and envisioners of alternative possibilities.

Freirean dialogical education in the context of transformative pedagogy is believed to facilitate reflection-action dynamics (Fahrenwald, 2003; Fahrenwald et al., 2007; Nagda et al., 2003). Fahrenwald et al. (2007) describe a set of ground rules for a transformative dialogue classroom as (a) a commitment to a shared common good that binds the group; (b) a desire to learn, to receive actively knowledge that enhances intellectual ability and the capacity to live more fully in the world; (c) a recognition of the value of each individual's voice; and (d) the classroom is treated as a community where faculty members and students build mutual participation.

Evidence for the effectiveness of transformative pedagogy in facilitating social justice education has been demonstrated in several studies (Bountain, 2005, 2008; Fahrenwald et al., 2007; Falk-Rafael, 2006; Muntaner, 1999; Reutter & Duncan, 2002). For example, Nagda et al. examined the impact of transformative pedagogy on raising students' participation in social justice activities, and found that it increased students' structural attributions for racial/ethnic inequality and socio-historical causation. The course also increased students' action orientation away from individual blaming, to individual action toward institutional targets and societal change (Nagda et al., 2003). Several researchers (Belknap, 2008; Bountain, 2008; Fahrenwald et al., 2007; Vickers, 2008) applied transformative pedagogy to undergraduate nursing programmes, and found that it allowed students to connect with the determinants and consequences of particular disparities, such as differences in chronic disease prevalence that parallel race and ethnic differences, and that it took the student beyond the reflective learning stage to the stage of scientific understanding. They found that principles of transformative pedagogy in the classroom establish a dialogue-based and mutually respectful learning environment that allows free exchange of ideas (Fahrenwald et al., 2007). Unfortunately, there is

also evidence that a large majority of future nurses are exposed to neither social justice education nor transformative pedagogy (Vickers, 2008).

This section outlined the existing knowledge about the pedagogies used by PHNEs to teach public health issues of social justice and health inequalities. It presented evidence that suggests that transformative, critical and narrative pedagogical approaches offer suitable avenues for engendering social justice principles which embrace personal, human, and emotional connections, thus helping students initiate and sustain the compassionate response necessary to address complex social injustices.

2.4 Professional knowledge

This study is about nurse educators' knowledge of teaching public health, and therefore it was considered necessary to review existing conceptual frameworks for examining nurse educators' knowledge of teaching the subject. No framework was found that specifically examined public health professional knowledge. Although the focus of Shulman's (1986), and Shulman and Shulman's (2004) frameworks were based on schools education settings, these were examined in order to increase my theoretical sensitivity to professional knowledge development.

Shulman (1986) distinguished three categories of content knowledge: content knowledge (CK), pedagogical knowledge (PK), and curriculum content knowledge (CCK). He proposed that teaching is not just about the knowledge of what to teach (content) or how to teach (pedagogy), but a combination of both what to teach and how to teach it. Shulman later discovered that these three domains address only cognitive aspects of knowledge, and reclassified them into content, pedagogical and pedagogical content knowledge (Shulman, 1987). Pedagogical content knowledge

(PCK) was hailed by many as a significant category of professional teaching knowledge (Deng, 2007; Fisher et al., 2006; Rollnick, Bennett, Rhemtula, Dharsey, & Ndlovu, 2008).

2.4.1 Subject content knowledge

Shulman (1986) defines subject content knowledge as the nature and organisation of knowledge in the mind of the teacher. The concept of subject content knowledge emerged out of Shulman's (1986) concern about the disproportionately low priority being given to discipline-specific subject matter in programmes of teacher education in the USA. This shift in focus from discipline-specific knowledge to pedagogy has been reported in other countries including the UK, South Africa, Netherlands, Finland and others (Gess-Newsome, 1999; Kansanen, 2009; Rollnick et al., 2008). These studies suggest that the low priority arises from the assumption that pedagogy is more important than content knowledge (Gess-Newsome, 1999; Rollnick et al., 2008). Gess-Newsome's (1999) study found that without good understanding of discipline-specific content, even the most experienced teachers' lack the capacity to provide additional challenges in the exercises provided to the learners. More recently, similar findings emerged from the South Africa based project by Rollnick et al. (2008), who found that even though teachers had well developed classroom teaching experience and showed good understanding of their learners' context, as well as having the ability to develop teaching procedures, they had difficulties representing the subject in a way that was comprehensible to students. The researchers' analysis of the root cause of the problem revealed that the teachers' difficulties lay with their understanding of the content (Rollnick et al., 2008).

All the studies come to the same conclusion originally proposed by Shulman (1986), and Shulman and Shulman (2004), that an accomplished teacher needs a combination of discipline-specific content knowledge as well as pedagogical knowledge. Both studies demonstrated that teaching is far from being a simple activity that anyone could do, as accomplished teachers possess a specialised knowledge base. Shulman proposed that the knowledge which teachers use in preparing and conducting their lessons is actually distinct from the disciplinary facts and knowledge on which those lessons are based (Shulman, 1986; Shulman & Shulman, 2004).

In making these propositions Shulman (1986) was influenced by the writings of such scholars as Joseph Schwab, who proposed that content knowledge requires going beyond knowledge of the facts or concepts of a subject. According to Schwab (1964), subject knowledge includes both substantive and syntactic structures.

2.4.2 Substantive knowledge structure

Schwab (1964) and several other education researchers describe substantive structures as the variety of ways in which the basic concepts and principles of a discipline are organised to incorporate its facts (Freeman, 1991; Shulman, 1986, 1987); they are also known as the conceptual aspects of science knowledge (Schwab, 1964). Finley & Stewart (1982) emphasise that the important features of substantive structures are the networks of meaning composed of concepts and the systematic relationships among those concepts. They propose that in these networks of meaning, concepts and the specific relationships among them are components of the different propositions used to describe, explain and predict phenomena.

2.4.3 Syntactic knowledge structures

In contrast, syntactic knowledge structures are the procedures of inquiry for determining the warrant of assertions offered (Freeman, 1991; Schwab, 1964). Shulman (1986) describes the syntactic structure of a discipline as the set of ways in which truth or falsehood, validity or invalidity, are established. Schwab (1964) posits that when there are competing claims regarding a given phenomenon, the syntax of a discipline provides the rules for determining which claim has greater warrant. It is the set of rules for determining what is legitimate to say in a disciplinary domain, and what ‘breaks’ the rules. Freeman (1991) posits that teachers must not only be capable of defining for students the accepted truths in a domain; they must also be able to explain why a particular proposition is deemed warranted, why it is worth knowing, and how it relates to other propositions, both within the discipline and without, both in theory and in practice. To illustrate this point, Freeman (1991) offers the contrast between the literary critic, who must know how to recognise ‘good’ poetry, and the literature teacher, who must know that and in addition how to get students to recognise and understand its ‘goodness’. Following many years of studying groups of teachers, Shulman (1986) found that most teachers depend on substantive structure of knowledge and never develop a syntactic one.

2.4.4 Pedagogical knowledge

‘Pedagogical knowledge’ (PK) in its current conception was coined by Shulman (1986) to refer to teachers’ deep knowledge about the processes and practices or methods of teaching and learning. It encompasses, among other things, overall educational purposes, values and aims (Shulman, 1986). This form of knowledge applies to understanding how students learn, general classroom management skills,

lesson planning, and student assessment (Shulman, 1986). It includes knowledge about techniques or methods used in the classroom; the nature of the target audience; and strategies for evaluating student understanding. It is assumed that a teacher with deep pedagogical knowledge understands how students construct knowledge and acquire skills, and how they develop habits of mind and positive dispositions toward learning.

However, this assumption is disputed by some who contend that the complexity of jigsaw pieces that constitute subject-discipline means that pedagogical knowledge free of content knowledge, or content knowledge free of pedagogical skill, is insufficient to help students develop mechanisms to pull all the pieces of the jigsaw together (Diekelmann, 2005; Ironside, 2005, 2006). Shulman (1986) proposed that content knowledge is likely to be as useless pedagogically as content-free skill. To blend properly, the two aspects of a teacher's capacities require that we pay as much attention to the content aspects of teaching as we have recently devoted to elements of the teaching process (Shulman, 1986).

2.4.5 Pedagogical content knowledge

Shulman's (1986) constructs of subject content and pedagogical knowledge were criticised for paying too much attention to cognitive characteristics of teaching and not enough to behavioural characteristics of teaching. Several researchers, particularly from Northern Europe, criticised Shulman's earlier work for reinforcing the belief that most subject content knowledge comes from the academic disciplinary field, while understanding of teaching comes from the field of education (Deng, 2007; Kansanen, 2009); in other words, this separation reinforces a model of subject

discipline that is dissimilar from models of teaching and learning (Deng, 2007; Kansanen, 2009).

In response to his earlier deficiency in the definition of teaching and teacher knowledge, Shulman (1986) developed the construct of pedagogical content knowledge (PCK). This construct acknowledged that there was a connection between content and pedagogical knowledge. Shulman suggested that PCK includes, for the most regularly taught topics in one's subject area, the most useful forms of representation of those ideas, the most powerful analogies, illustrations, examples, explanations and demonstrations – in other words, the ways of representing and formulating the subject that make it comprehensible to others. Shulman (1986) went on to assert that PCK also includes an understanding of what makes the learning of specific topics easy or difficult: the conceptions and preconceptions that students of different ages and backgrounds bring with them to the learning of those most frequently taught topics and lessons (Shulman, 1986, 1987, 1992; Shulman & Shulman, 2004). Shulman (1986) asserted that if those preconceptions are misconceptions, teachers need knowledge of the strategies most likely to be fruitful in reorganising the understanding of learners. PCK was seen by many as a development that took teacher knowledge beyond the cognitive approach, and it incorporated some behavioural aspects of teacher knowledge.

This section placed the present study within the context of professional teaching knowledge. Shulman's models were used to explore what is known about teachers' professional knowledge. Shulman's theory distinguishes three forms of knowledge used in teaching – content/subject knowledge, pedagogical knowledge and pedagogical content knowledge. Shulman's (1986) constructs of subject content and

pedagogical knowledge were criticised for paying too much attention to cognitive characteristics of teaching and not enough to behavioural ones. In response to his earlier deficiency in the definition of teaching and teacher knowledge, Shulman (1986) developed the construct of pedagogical content knowledge (PCK). This was seen by many as a major development, as it clearly took teacher knowledge beyond a cognitive approach, and incorporated some behavioural aspects.

In their latest work Shulman and Shulman (2004) moved from a concern with individual teachers and their learning to a conception of teachers learning and developing within a broader context of community, institution, polity, and profession. In their model they described an accomplished teacher as a member of a professional community who is ready, willing, and able to teach and to learn from his or her teaching experiences. Reflection and learning from experience were seen as crucial elements of teacher knowledge. Shulman and Shulman (2004) argued that the accomplished teacher smoothly integrates vision, motivation, understanding, and practice into the enactment of teaching, and learns to improve that teaching through active reflection. The Shulman and Shulman (2004) model characterises teacher knowledge in terms of five clusters: a cognitive cluster that includes discerning, understanding, and analysing; a dispositional cluster that includes envisioning, believing, and respecting; a motivational cluster that includes willing, changing, and persisting; a performance cluster that includes enacting, co-ordinating, articulating, and initiating; and a reflective cluster that includes evaluating, reviewing, self-criticising, and learning from experience.

2.5 Summary of this chapter

This chapter presented the findings of the literature review on three themes that frame the question of this research: curriculum content, pedagogy and professional knowledge. The literature review identified inequalities in health, socioeconomic determinants of health, epidemiology, and policy and politics as essential aspects of the public health curriculum. The literature showed that inequalities in health are caused by the complex interaction of social, economic and political factors. The understanding of the association between SEDH and poor health is complex; it requires PHNEs who possess knowledge and skill in interpreting the epidemiological evidence of cause and effects, as well as appropriate attitudes, values and beliefs towards social justice.

A review of literature on pedagogical approaches revealed that the PHNEs' pedagogical approaches were influenced by social justice and critical pedagogical theories. Their pedagogical approaches aimed to achieve social transformation at individual and social organisational levels, while also enabling learners to recognise their capacity to effect change. Critical pedagogy was seen as the most appropriate pedagogy to achieve the social justice principles of public health. Understanding of the relationship between pedagogy and social justice principles of public health created a need to examine professional knowledge frameworks to increase my theoretical sensitivity to the knowledge needed to teach public health. The exploration of professional knowledge frameworks revealed that professional knowledge means not just theoretical subject knowledge, but also application of that knowledge in other aspects of life.

The next chapter explains the methodological decisions taken in relation to data collection and analysis in order to address the research question. The choice of methodological approach is justified.

Chapter 3: Methodology

3.1 Introduction

The aim of this study was to build a substantive theory to explain how PHNEs conceptualise their professional knowledge of teaching public health. It was decided that the paradigm within which the conduct of this research was situated was the constructivist qualitative data analysis (QDA) tradition. An aspect of the research consistent with the constructivist paradigm was the fundamental ontological assumption of multiple realities, constructed through the experience and understanding of different participants' perspectives and generated from their different academic, social, cultural, and political backgrounds. Another was the epistemological belief that public health knowledge is shaped by the cultural, historical, political, and social norms that operate within that context and time. These assumptions outlined the importance of taking account of the influence of the researcher's involvement, and the influence of the contexts that surrounded data collection both in time and locality (Charmaz, 2006, 2008). Therefore, the researcher's task was to gain understanding of the meaning participants ascribed to events, and then to spend time revealing the interpretations of the situation by the different participants (W. Carr, 1995; Charmaz, 2006; Pring, 2004). As a public health specialist and educator, it was considered more appropriate for me to attempt co-construction of knowledge with participants, rather than make misleading claims of distance and objectivity (Charmaz, 2006).

The qualitative research methodology used to answer the research question reflects similarity with grounded theory; however, for the reasons explained overleaf it was

decided that QDA would be more appropriate than grounded theory. This is argued in greater detail later in the chapter (see section 3.2).

In table 5 the paradigms of positivism, post-positivism, critical theory and constructivism are summarised in relation to the ontological, epistemological and methodological stances. Following examination of the assumptions behind these paradigms it was decided that the constructivist paradigm was the most appropriate philosophical framework for this thesis (Appendix A).

3.2 Methodology

The decision to use constructivist QDA was based on three considerations:

- Pragmatic approach to data analysis.
- Debate about the inductive versus deductive approaches to theory building.
- The assumptions that underpin the research process.

3.2.1 Pragmatic approach to data analysis

Consistent with QDA, this study drew from a wide range of processes and procedures whereby data collection and data analysis occurred simultaneously, with the data collection being driven by the data analysis (Lewins, Taylor, & Gibbs, 2010). As this was a theory-seeking study, the stages of data collection and analysis drew heavily on different variants of grounded theory, including Glaser and Strauss (1967), Strauss and Corbin (1990, 1998), and Charmaz, (2000, 2006). However, I recognised Glaser's argument (2004a, 2007a), that anything short of 'classic grounded theory' is not a grounded theory. I also recognised that some of the variants from which I drew, for example constructivist approaches, are not compatible with the requirements of classic grounded theory methodology (Glaser,

2007a, p. 49). The scope and the analytic processes used in this study therefore precluded it from being considered an example of grounded theory. Constructivist QDA was considered appropriate for this study, as it allows the analyst to draw on a wide range of ideas to examine the data (Lewins, Taylor, & Gibbs, 2010).

3.2.2 *Debate about the inductive versus deductive approaches to theory building*

Consistent with the constructivist QDA approach to the process of theory building, data analysis in this study used inductive-deductive cycles (Thomas, 2003); for example, the primary mode of analysis was the development of categories from the raw data into a model or framework that captures key themes and processes judged to be important by the researcher (Thomas, 2003). Figure 2 summarises the inductive approach to theory building that was used in this study. The full process of inductive analysis will be explained in chapter 5.

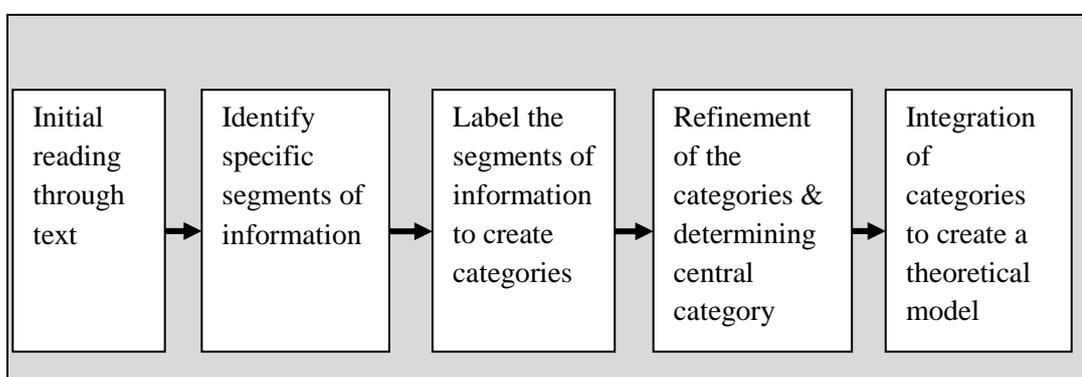


Figure 2: The deductive approach to theory building

Deductive analysis began with close readings of the text and consideration of the multiple meanings inherent in it. I then identified text segments that contained significant incidents, and created labels for new categories to which the text segments were assigned (Lewins, Taylor & Gibbs, 2010; Taylor & Gibbs, 2010; Thomas, 2003). Throughout the process of data collection and analysis I developed

descriptions of meaning of categories by writing memos about the categories (Lewins, Taylor & Gibbs, 2010; Taylor & Gibbs, 2010; Thomas, 2003).

Once the emerging conceptual categories of the substantive theory had been developed, they were tested inductively so as to include a wide variety of cases that show patterns and not one dominant view. The comparative and theoretical analysis (sections 5.2.1 and 5.3) tested the emerging theory against several sources of data including existing formal theories, professional experiences, personal experiences, and knowledge of persons and situations that were the focus of the substantive theory. These inductive approaches reflected some similarities to classic grounded theory as described by Glaser (2004a, 2007a); however, I recognised Glaser's argument (2004a, 2007a) that while the influence of predetermined research objectives on data collection and analysis (Lewins, Taylor & Gibbs, 2010; Taylor & Gibbs, 2010; Thomas, 2003) is acceptable for QDA, it is not acceptable for grounded theory (Glaser, 2004a, 2004b, 2007a, 2007b).

3.2.3 The assumptions that underpin the research process

The assumptions that underpin the conduct of this research are consistent with constructivist QDA(GT) as described by Charmaz (2006):

'...relativism of multiple social realities, recognises the mutual creation of knowledge by the viewer and the viewed, and aims towards interpretive understanding of subject's meanings' (Charmaz, 2006, p. 178).

Although the assumptions that underpin this study are consistent with constructivist grounded theory, I recognised the argument made by Glaser that *'mutual*

construction is inconsistent with classic grounded theory' (Glaser, 2004a, p. 4). Therefore, it can only be considered to be QDA as the research process falls short of what Glaser would describe as classic grounded theory. For example, in 2002, Glaser (2002) argued that while the assumption of mutually constructed interpretation of reality was appropriate for QDA it would be inappropriate for grounded theory, as in grounded theory interviews mutuality is hard to develop as 'much of grounded theory interviewing is a very passive listening' (Glaser, 2002, p. 2). Indeed, Glaser, (2004a, 2004b, 2007a, 2007b) argued that labelling constructivist approaches as grounded theory was nothing short of remodelling grounded theory.

Adding to the complexity of these debates was the fact that, since its inception in 1967 by Glaser and Strauss, grounded theory has developed into three commonly used variants, described as Glaserian grounded theory, Straussian grounded theory and Charmaz constructivist grounded theory (Glaser, 2004a, 2007b). As various strands of grounded theory emerged, questions about the assumptions that underpinned each strand entered the debate (Charmaz, 2000, 2006, 2008; Denzin & Lincoln, 2003, 2008). Glaser (2004a, 2007b) dismissed arguments over which paradigm to choose and its methodology as useless, not applicable and even irrelevant to grounded theory. Glaser (2007a, p. 48) remained constant to the original publication of Glaser and Strauss's (1967) *Discovery of grounded theory* which defines classic grounded theory as 'simply a set of integrated conceptual hypotheses systematically generated to produce an inductive theory about a substantive area' (Glaser, 2007a, p. 48). Although Glaser did not want to be drawn into discussion about the paradigm, several writers argued that his assumptions of objectivity, external reality, and a neutral observer who discovers theory from data (Glaser,

2004a, 2004b, 2007a, 2007b) come close to traditional positivism (Denzin & Lincoln, 1994, 2003, 2008; Guba & Lincoln, 1994).

Although the two key texts of Strauss and Corbin (1990, 1998) appeared to shift from classic grounded theory, neither explicitly addresses the paradigm of thought that underpins their methodology. For example Strauss and Corbin (1998) explained:

'...the researcher is shaped by the data, just as the data is shaped by the researcher. The problem that arises with this mutual shaping process is how one can immerse oneself in the data and still maintain the balance between objectivity and sensitivity. Objectivity is necessary to arrive at an impartial and accurate interpretation of events. Over the years, we have wrestled with the problem of objectivity and have developed some techniques to increase our awareness and to help us control intrusion of bias into analysis while retaining sensitivity to what is being said in the data' (Strauss and Corbin, 1998, pp. 42–43).

The use of terms such as maintaining objectivity, impartial, maintaining unbiased data analysis, proposing a set of technical procedures, and espousing verification, arguably demonstrates the vacillation of their position between post-positivist and constructivist approaches (Mills, Chapman, Bonner, & Francis, 2006, p. 3). The vacillation between constructivist and post-positivist positions was further demonstrated (Mills et al., 2006, p. 3) through acknowledging a multiplicity of perspectives to truth; proposing giving voice to their respondents; acknowledging how respondents' views of reality conflict with their own; and recognising art as well as science in the analytic product and process (Denzin & Lincoln, 2003). The

positivist elements of Strauss and Corbin's (1998) grounded theory assumptions are inconsistent with the position adopted in this thesis for the reason explained earlier in this section.

After critical examination of Glaserian and Straussian families of grounded theory, it was felt that neither sat comfortably with the assumptions that underpinned this enquiry. Instead it was felt that ontologically and epistemologically this thesis sat comfortably with the latest addition to the 'family' of grounded theory, which is the constructivist grounded theory led by Charmaz (2000, 2006).

3.3 Summary of this chapter

This chapter explored the methodological assumptions that underpinned this study. Following consideration of the assumptions that underpin variants of qualitative methodological approaches, it was decided that the most appropriate one to address the aims of this study was QDA.

The next chapter outlines the QDA methods that were used to collect and analyse the data, thus providing an audit trail of the procedures and processes used throughout the data collection, and enabling judgements to be made of the credibility and trustworthiness of the study.

Chapter 4: Methods

4.1 Introduction

This chapter outlines an audit trail of the procedures and process used throughout the data collection and processes used for analysis, to enable judgements to be made of the credibility and trustworthiness of the study. It aims to make explicit the processes by which the substantive theory of the PHNEs' professional knowledge emerged from the research data. The study drew on grounded theory processes that involved iteration between data collection and analysis (Charmaz, 2000, 2006; Glaser & Strauss, 1967; Strauss & Corbin, 1990, 1998): the sources of data were individual interviews with participants. Data collection methods are described including the ways in which the study participants were recruited and interviewed. The List of Interviews (Table 1) illustrates the back and forth nature of the relationship between data collection methods, analysis and development of theory over time.

4.2 Insider research

The methodology used in this study requires researchers to reflect on their status as a researcher in relation to those researched. As someone who was researching in the higher education institution in which I work on a subject relevant to my practice, the work could be considered insider research (Costley, Elliott & Gibbs, 2010; Mercer, 2007; Robson, 2002). However, Griffith (1998) proposed that an 'insider' is someone whose biography (gender, race, class, sexual orientation and so on) gives her or him a lived familiarity with the group being researched 'while the outsider is a researcher who does not have an intimate knowledge of the group being researched, prior to entry into the group' (Griffith, 1998, p. 361). This distinction made me

consider my 'insider' research status. I had worked with some of the participants in this study for a number of years, but my personal career history bore little resemblance to theirs. As a black, African, male interviewing predominantly white, European, females, there were many essential aspects of their sociocultural experiences that I had no privileged access to or related to, a position which rendered me an outsider researcher (Conant, 1968; Mercer, 2007; Oakley, 1981). These aspects of participants' lives were an important part of my investigation; as I indicated in chapter one, these aspects of my biography helped to shape my understanding of public health. Merton (1972) and Conant (1968) appeared to endorse this position. Merton claims that:

'...the outsider has a structurally imposed incapacity to comprehend alien groups, statuses, cultures and societies... [because he or she] ... has neither been socialized in the group nor has engaged in the run of experience that makes up its life, and therefore cannot have the direct, intuitive sensitivity that alone makes empathic understanding possible' (Merton, 1972, p. 15).

Conant (1986) argued that whites can never be as sensitive to the black community as blacks precisely because they are not black. Furthermore, Oakley (1981) asserted that women interviewing other women enjoy a greater rapport, as a result of their shared experiences.

I also recognised Merton's (1972) argument that 'individuals have not a single status, but a status set' (Merton, 1972, p. 22) and that identities are always relative, cross cut by other differences and often situational and contingent (Merton, 1972). In this sense my position in this study fluctuated between insider and outsider. My

‘insiderness’ related to the fact that, having worked within the field of education and public health for the past twelve years, I had an in-depth knowledge of public health and experience of being a public health educator that could be used to enhance the quality of the interview process (Costley et al., 2010). Furthermore, ‘insiderness’ meant I had privileged access, familiarity, and rapport with the study participants (Mercer, 2007; Scott, 1985).

My privileged access to participants created greater flexibility with regard to interview times and cost-effectiveness in the sense that there were no travel costs. However, on the other hand, there were potential conflicts between the researcher-participant relationship and the professional-professional relationship. As Scott (1985) pointed out, with the insider’s constant availability ‘it is often harder to tell where research stops and the rest of life begins’ (Scott, 1985, p. 120). I recognise these references are historical, but this reflects the lack of research that specifically considers aspects of insider research. As Mercer (2007) explained, despite the increase in doctoral courses that require students to undertake research within their fields of practice, there is very little contemporary debate on the subject of insider research (Mercer, 2007).

In my own case, data collection quickly became all-consuming as colleagues continued to discuss the issues uncovered in the interviews in informal social conversations and department meetings. It is a faculty requirement that staff give feedback on their scholarly activities at departmental meetings; some of the participants were at my department meetings and could not resist the opportunity to discuss some of the issues that were emerging from this study. It was clear that, for some, these meetings provided opportunities to take a critical stance and challenge

assumptions about people's understanding of public health without fear of being on-the-record. These off-the-record conversations provided insightful understanding of what they really thought about the issues emerging from the study. I discovered that although in the interview I had encouraged them to take a critical stance on issues discussed, unlike social conversations interview situations tended to create an asymmetrical relationship.

While these off-the-record insights were beneficial, they also caused me some concern, for two reasons: the first related to the promise of confidentiality made to the participants; and the second related to the legitimacy of using information from informal conversations – referred to as 'incidental data' by Griffiths (1998, p. 210) – as data. I took the view that nothing could be gained from making reference to the participants when presenting my findings. Therefore none of my presentations to conferences and meetings included extracts from interviews, nor made any reference that might compromise the information given in confidence or the anonymity of the participants.

In relation to my second concern, I returned to the literature in order to learn how other researchers dealt with it. Their views varied on this issue. Some QDA researchers believed that access to incidental data is part of the privileges of an insider researcher (Hawkins, 1990; Hockey, 1993) and embraced Glaser's aphorism 'all is data' (Glaser, 2001, p. 145). By this Glaser meant that:

'What is going on in the research scene is the data, whatever the source, whether interview, observations, documents, in whatever combination. It is not only what is being told, how it is being told and the conditions of its being told, but also all the data surrounding what

is being told. It means what is going on must be figured out exactly what it is to be used for, that is conceptualization, not for accurate description' (Glaser, 2001, p. 145).

Others believed that the use of such data would be a betrayal of trust and an abuse of access (Campbell, 2002). Before I began my research I envisaged that some of my colleagues might continue to talk about the topic outside the interview situation. I assured them that if that happened I was not going to consider that as data. Admittedly, though I did not include that data in my analysis I benefited from these incidental data in terms of understanding participants' views about the subject of my research.

With regard to the issue of familiarity, researching colleagues had undoubted advantages in terms of better understanding of the social setting I was dealing with. This placed me in a better position to make judgements about the implications of following particular avenues of enquiry (Griffiths, 1998). However, Mercer (2007) argued that greater familiarity can make the researcher more likely to take things for granted; the off-the-record discussion heightened my sensitivity to what I might have assumed was shared understanding of public health knowledge development, and provided a platform for participants to challenge those assumptions.

In addition, I believed that the relationship I had developed with colleagues over the years would give me considerable credibility and rapport with the participants. Undoubtedly, my previous knowledge of the participants helped identify in their body language subtle signs of reluctance to take a critical stance. I responded to these by making it explicit that the interview was about the mutual construction of knowledge. I encouraged them to take a critical stance on existing public health

knowledge development and teaching. I adopted a friendly, respectful, relaxed, informal and open stance toward the participants. I aimed to put them at ease, so they would feel sufficiently safe and comfortable to tell me about their public health knowledge development.

However, Hockey (1993) argued that insider researchers may enjoy easier access and greater rapport, but they also have to contend with the fact that their informants have known them much longer, and have had more time to form preconceptions about them and their research (Hockey, 1993). Sometimes consciously, sometimes unconsciously, the informant may seek to say what they thought the researcher wanted to know (Parades, 1977). This behaviour is said to be particularly prevalent where the playing field is uneven (Eide & Kahn, 2008). Eide and Kahn (2008) posit that this could be addressed by providing self-disclosure as a means to 'level the playing field': this was achieved by openly sharing my story in relation to the subject, as a way of one story calling forth another's story. From the insider researcher perspective, this created a sense of safety in the knowledge that 'we are in it together'. Furthermore, I had selected participants with a similar level of seniority to mine; this might have offset some of the power imbalances.

The advantages and the strategies to offset the disadvantages of insider research have been considered. The relative merits of insider versus outsider researchers have been debated in the literature (Mercer, 2007; Merton, 1972; Shah, 2004). While this study falls under the broad umbrella of insider research as described by Robson (2002), my biographical status as a researcher according to Griffith (1998), Oakley (1981) and Conant (1986) places me in an outsider position. Therefore, in this study the static insider-outsider research dichotomy is rejected in favour of the position proposed by

Mercer (2007) where individual status is considered to continually fluctuate depending on shared or different social, professional and biographical backgrounds.

4.3 Participants and setting

The setting for this study was the Faculty of Health and Social Care in one of the English universities. This faculty is spread across four sites, and it contains 98.6 full-time equivalent (FTE) academic staff; 18 of these are from the Department of Community and Child Health. I work as a senior lecturer in epidemiology within the Department of Community and Child Health. The department is responsible for developing and teaching public health, and the faculty delivers public health pathways from foundation degree to doctoral level. Recently, the faculty has undergone revalidation of its pre-registration nursing programme with greater public health content being included. The process of curriculum development was managed by the pre-registration nursing programme team with input from representatives of the Department of Community and Child Health. Within the new pre-registration nursing programme is a public health module which is managed and delivered by a core team of lecturers from Community and Child Health, but with input from representatives of the adult, learning disability, and mental health fields. Pre-registration nursing students undertake this module in their last semester of their final academic year of study.

4.4 Recruitment of participants

The participants were selected from the population of 98.6 FTE nurse educators from the faculty. Important considerations for the recruitment strategy were to ensure that the process complies with the ethical principles of voluntary participation and equal opportunity to participate. To achieve these principles an email was sent to all nurse

educators within the faculty inviting them to participate. Within the email the nature of the study and the type of data I was interested in eliciting were made explicit: I needed participants who were most likely to provide relevant and rich data to build a substantive theory which explained how nurse educators in public health acquired their professional knowledge to teach the subject. To help potential participants make a self-assessment of their suitability to participate without unfairly depriving others of the opportunity, the email explained that potential participants should meet at least one of the following criteria: currently teach or have taught public health; currently work or previously worked in a public health related field; have a special interest in public health; and see the specific relevance of public health to their area of practice. This reduced the number of potential participants to 18. Two out of the 18 were head and deputy head of the department, and therefore I did not feel comfortable with interviewing my line managers; two more were not available for interview. A further three potential participants went on long term leave before the interview process began. Eleven agreed to participate and were available for interview.

The sampling strategies for this study started with purposive sampling and moved on to theoretical sampling once analysis had formed key theoretical ideas that could be tested comparatively with different people (Lewins et al., 2010). Arguably, this reflects the reported complimentary nature of purposive and theoretical sampling (Strauss & Corbin, 1990, 1998). The initial purposive sample of six senior nurse lecturers was used to establish sampling criteria for further sampling.

As issues emerged from data analysis, theoretical sampling was used to further recruit participants to examine them. Theoretical sampling was carried out of

participants with extensive knowledge and experience of public health, and also participants with extensive knowledge of curriculum planning and development. These were people directly involved with public health curriculum development and teaching, including PHNEs from backgrounds such as health visiting (HV), district nursing (DN), occupational health (OH) nursing, school nursing (SN), and public health representatives from mental health (MH), adult (RGN) and learning disability (LD) fields.

Potential participants for theoretical sampling were approached by email. Voluntary participation remained an important principle for all stages of sampling. This was particularly important from both ethical and insider perspectives, as I did not want my colleagues to feel obliged to participate. To minimise the risk of coercion, a written information sheet about the study was sent to participants and the invitation included the option to decline to be involved. All invited participants agreed to participate.

4.5 Data collection

The approach to data collection adopted was influenced by the constructivist QDA tradition in which knowledge is constructed in the interview, through collaboration between interviewee and researcher (Charmaz, 2000, 2006, 2008; Lewins et al., 2010; Ritchie & Lewis, 2003). Consistent with this tradition, semi-structured interviews were used to collect data for two primary considerations. First, they combined structure with flexibility, allowing exploration of perceptions and opinions of participants regarding complex issues, and enabling probing for more information and clarification of answers (Ritchie & Lewis, 2003; Silverman, 2001; Somekh & Lewin, 2005; Spiegelberge, 1982).

Second, semi-structured interviews provided opportunities to follow an interview agenda, and respond to the flow of the conversation while ensuring all the subject matter was covered. Furthermore, in this approach the participants could be helped to understand the questions, and I could ask for clarifications and probe for further responses, if necessary (Ritchie & Lewis, 2003).

During the process of interviewing I was also conscious of how my beliefs, experiences, emotions, values and culture could affect the interview, as well as my understanding and interpretation of, and response to, what was said. I explained I was not there to judge their level of public health knowledge, but to understand from them how they had developed their own public health knowledge to inform their role as a nurse educator. I explained that I was interested in hearing about their frank experiences of working and teaching public health. I wanted these interviews to be viewed as an opportunity to reflect on those principles and values that brought them to public health education practice. It was evident from the evaluative feedback I received, particularly in off-the-record conversations and meetings, that the participants mostly considered the interviews as opportunities for them to reflect on and re-evaluate their practice.

Participants were asked to choose a convenient day, time and place, and in all cases participants were interviewed in their offices. This meant that interviews were conducted during working hours which created a need to balance the researcher's wish to conduct in-depth interviews and the inconvenience to the participants who were spending their spare time providing personal information with no reward. It was recognised that too lengthy interviews could put off many potential participants, compromise the quality of data and negatively affect researcher-participant

relationships (Richards & Schwartz, 2002). On occasions where the interview took more than one and half hours, participants were offered a break for refreshment.

I transcribed each audiotaped interview myself which gave me great opportunities to learn my data. The data transcription was guided by the QDA code in transcribing – transcribing as much as necessary. For example, some participants had a tendency to use certain phrases and repetitively, such as ‘you know’, ‘err’, ‘I guess’, ‘really’, ‘I suppose’ and so forth; if these words did not add value to the phenomenon under investigation I omitted them. Transcriptions were returned to the participants to check for accuracy of the text and to add further comments where necessary. I had transcribed interviews verbatim, therefore most of the changes participants made related to sentence structure. Once participants confirmed that they had checked their transcripts, they were considered as research data.

Data collection took place between April 2006 and February 2010, and ‘theoretical sufficiency’ (Dey, 1999, p. 117) was achieved after a total of 26 qualitative interviews were conducted (Dey, 1999; Díaz Andrade, 2009). This study adopted the same meaning of theoretical sufficiency as Díaz Andrade (2009) which is ‘that categories have been developed to a sufficient extent, so that it is possible to explore their relationships and draw some conclusions’ (Díaz Andrade, 2009, p. 48). The overall schedule of interviews is presented in table 1 overleaf.

Participant	Background	Interview 1	Interview 2	Interview 3	Interview 4
Tara	RGN	04/06	08/09	12/09	
Jaz	HV	05/06	08/09	12/09	01/10
Iras	DN	06/06	09/09	01/10	
Sierra	HV	08/06	09/09	01/10	02/10
Mosê	OH	08/06	09/09	12/09	
Gus	SN	09/06	12/09	02/10	
Kara	RGN, OH		08/09	02/10	
Haz	HV		08/09		
Pietra	LD		09/09		
Daniel	MH		12/09		
Vieira	RGN		12/09		
RGN = registered general nurse; HV = health visitor; DN = district nurse; OH= occupational health nurse; LD = learning disability nurse; MH = mental health nurse; and SN = school nurse					

Table 1: List of interviews

4.6 Ethical considerations

The Royal College of Nursing criteria of beneficence, avoidance of maleficence, equal opportunity, informed consent and technical competence (Royal College of Nursing, 2004) were used to ensure that the study adhered to these ethical imperatives (Appendix B). Ethical approval was obtained from the university Ethics Committee after their review of the study design, tool used, other research material, and participant information sheet which included a letter of invitation highlighting

that participation was voluntary. The full ethical approval letters can be found in Appendix C.

To comply with the RCN (2004) ethical principles of voluntary and informed consent, potential participants were provided with information about the study (aims, objectives, and the voluntary nature of participation), and were then invited to take part. Ensuring voluntary and informed consent was particularly important in my position as an insider researcher as reflected upon in sections 4.2, 4.3 and 4.4 of this chapter. The ethical implications of the insider researcher were an important consideration in this study: as an insider researcher, I was aware of the reciprocal obligations to the participants' welfare (Morse, 1994). I therefore made it explicit in participants' information sheet (Appendix B) that potential participants should feel free from the obligation to participate.

Data protection and confidentiality were also observed. Potential participants represented a relatively small subset of the academic group, and so reference to contextual detail might enable others (both inside and outside the case) to recognise them. The aim was to maintain anonymity within the case – that is, ensure academics within the study would not recognise each other – though I acknowledged that disadvantage of insider researchers, the difficulty in keeping distance or anonymity. This risk was minimised by asking participants to check their interview transcripts for any threats to their identity; participants were assured that access to their audio recorded interviews would be restricted to principal investigators only, and access to written material would be restricted to the investigator and if necessary to the supervisory team. Many measures were taken to observe the promise of confidentiality, including anonymising transcripts by replacing participants' names

with pseudonyms. Care was taken within presentation of findings in this thesis to make sure that participants' anonymity and privacy were maintained, and this will continue in future dissemination. However, it is impossible to honestly claim that absolute anonymity was maintained. All participants were informed of the findings on completion of the analysis if they requested this.

4.7 Credibility and rigour

The strategies used to enable the reader to make judgements about the credibility and trustworthiness of the theory that emerged from this study were triangulation, reflexivity and detailed audit trail (Finlay & Gough, 2003; Glaser & Strauss, 1967; Patton, 1987, 1990). Throughout the research process I also considered Corbin and Strauss's (2008) ten criteria for judging the credibility of grounded theory: fit, applicability, concepts, contextualisation of concepts, logic, depth, variation, creativity, sensitivity and evidence of memos.

Patton (1999) asserted that by combining theories, methods, and data sources, researchers can make substantial strides in increasing credibility of their findings. Chapter 5.3 details how multiple theoretical comparisons were used to achieve theoretical sensitivity. In chapter 7.1 I explain how the emerging substantive theory was compared with formal theories to provide abstraction and theoretical rendering, in order to achieve maximum conceptual explanation of the PHNEs' knowledge of teaching public health.

Triangulation within the QDA constructivist context means combining two or more views, approaches or methods in an investigation in order to get a more accurate picture of the phenomena (Lewins, Taylor & Gibbs, 2005). Unlike the approach of Lewins, Taylor & Gibbs (2005), in this study whenever two views seemed to

contradict one another, the differences were not used as a reason for deeper and repeated analysis of the data in order to try to explain and resolve them; instead, the differences were incorporated into the developing model.

The other form of triangulation was achieved through participants' validation (Lewins, Taylor & Gibbs, 2005). As an insider researcher this was achieved through regular presentations of the study in the department meetings. Some participants were part of these department meetings, and the feedback I received at these meetings enhanced the credibility of the study. Furthermore these presentations were used to test out what was emerging from the study and for testing out if colleagues could see themselves with the emerging theory in this study. Informal off-the-record conversations with colleagues who participated and who wanted informal conversations about issues of their interest also increased the credibility of this study (Patton, 1999). Some of the issues that were emerging – for example, the differences in PHNEs' knowledge development – were incorporated when responding to the students' evaluation of public health module. The preliminary findings of this study were presented in the UK Public Health Association Conference on 25th March 2010 under the title *Teaching public health as moral justification for social justice: A survey of public health nurse educationists* which provided critical peer review and feedback.

In line with the general openness required to deal with reflexivity, it is usually a good idea to ensure that qualitative analysis is auditable: that it is possible to retrace the steps leading to a certain interpretation or theory to check that no alternatives were left unexamined, and that no researcher's biases had any avoidable influence on the results. Usually this entails the recording of information about who did what with

the data and in what order so that the genesis of interpretations can be retraced. Such an audit trail provides a sufficiently clear account of the research process to allow others to follow the researcher's thinking and conclusions about the data, and thus allows them to assess whether the findings are dependable.

In line with QDA constructivist tradition reflexivity was used to facilitate theoretical sensitivity, which emphasises the reflexive use of self in the processes of developing research questions and doing analysis (Hall & Callery, 2001). Reflexivity involved a continuous process of reflection on how my values, beliefs, experiences and preconceptions, and those of the participants, affected data collection processes and the interpretation of responses (Finlay & Gough, 2003). In chapter one I offered an account of my personal values, beliefs, experiences and preconceptions conceptualised in this study as *intellectual biography*, and showed how my intellectual biography shaped my embodied knowledge of public health.

Patton (1987, 1999) suggested that the researcher as interviewer is the research 'instrument' and can be affected by factors like time, place and person (Patton, 1987, 1990). From the insider researcher's point of view, I was aware that my long period of involvement in public health practice and background characteristics such as gender, age, race, and ethnicity had potential to affect how I was received in the setting under study and related issues (Patton, 1990; Somekh & Lewin, 2005). In section 4.2 I detailed how these external factors were addressed.

I also drew on Glaser and Strauss's (1967) proposition that criteria for judging the credibility of qualitative research are based upon a detailed audit trail of the strategies used for collecting, coding, analysing and presenting data when generating theory. They maintained that the researcher needs to convey to colleagues the

credibility, trustworthiness and plausibility of the discovered theory so that they can make sense of it (Glaser & Strauss, 1967). Glaser and Strauss (1967) identified two main problems faced by researchers in conveying the credibility of the theory, beginning with getting the reader to understand the theoretical framework. To address this problem, an extensive abstract presentation of the overall framework and its principal associated theoretical category is given at the beginning and at the end of the thesis, and also in segments throughout the thesis (Glaser & Strauss, 1967).

The related second problem is how to describe the data of the social world studied so vividly that the reader can almost see and hear its problems, but always in relation to the theory (Glaser & Strauss, 1967). In this thesis this was addressed by presenting data as evidence for conclusions, thus indicating how the theory was obtained from the data. I quoted directly from the interviews and conversations that I had with colleagues. I quoted the telling phrases offered by participants. I detailed how constant comparative analysis was undertaken, making sure that the categories of the theory and their properties were meaningfully interrelated.

4.8 Summary of this chapter

This chapter primarily explored the methods used to collect data. The researcher's characteristics that had the potential to influence the process and the outcome of this study were explored in terms of insider-outsider researcher perspectives. The advantages and disadvantages of being an insider researcher were explored, and it was concluded that my position continually fluctuated between insider and outsider researcher depending on shared or different social, professional and biographical backgrounds. Detailed accounts were provided of the strategies used to address the ethical implications of the research and the credibility of the insider researcher.

The next chapter explains the processes used to analyse the data, thus enabling judgements to be made about the credibility of the emerging theory.

Chapter 5: Data Analysis

5.1 Introduction

This chapter presents the processes used to analyse the transcribed data. The analysis primarily followed constructivist QDA procedures (see figure 3) which involved the identification of themes, ideas, categories and associated properties, and then marking similar passages of text with a code or label so that they could be easily retrieved at a later stage for further comparison and analysis (Taylor & Gibbs, 2010). It also drew on the influences of Charmaz (2000, 2006), Glaser and Strauss (1967), and Strauss and Corbin (1986), in that it employed the principles of constant comparative analysis and the iterative process of data collection and data analysis to build theory inductively.

Whilst the methods of data collection and analysis appear as separate chapters, this does not reflect the experience of conducting the research where both were occurring simultaneously (Corbin & Strauss, 2008; Glaser & Strauss, 1967; Strauss & Corbin, 1986). The data analysis is presented according to the two phases of comparative analysis – making a constant analysis and making a theoretical comparison (Corbin & Strauss, 2008) – a process summarised in figure 3 overleaf.

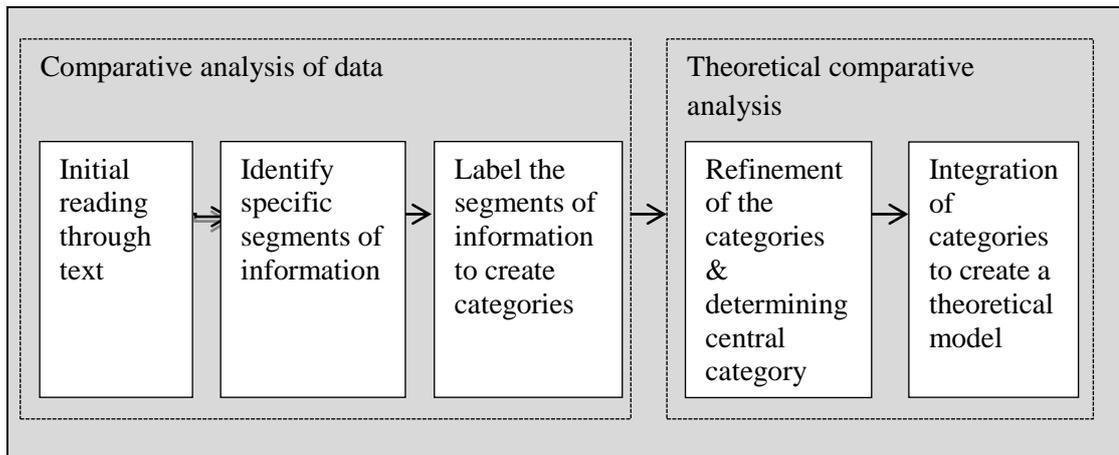


Figure 3: Summary of QDA process of data analysis and theory building

5.2 Making a constant analysis

The first phase of data collection and analysis consisted of:

- 1 Comparative analysis of data from the same participant.
- 2 Comparative analysis of data from different participants' interviews.

5.2.1 *Comparative analysis of data from the same participant*

The comparative analysis began from the first interview and continued throughout the course of the project. The first interview was analysed line-by-line to identify any significant incidents in the data that required further investigation (Taylor & Gibbs, 2010). Significant incidents were coded or given the labels that represent what they stood for (Taylor & Gibbs, 2010), and coded or given the same labels when they were judged to be about the same topic, theme or concept (Taylor & Gibbs, 2010). Figure 2 summarised the inductive analysis. At the initial stages of analysis the data were organised around three themes that were considered important for the development of PHNEs' public health professional teaching knowledge:

- 1 Understanding public health curriculum content.

- 2 Engaging in appropriate pedagogical knowledge.
- 3 Possessing professional knowledge or experiences.

I began examining the collected data by asking the following questions: What is this data a study of? What category does this incident indicate? What is actually happening in the data? What is the main concern being faced by the participants? I coded the data line-by-line to minimise the risk of missing an important incident within the data (Bryant & Charmaz, 2007).

The interrogation revealed that the data were a study of embodying *knowledge of teaching public health*. Although this was clearly a literal description, it aided in focusing the analysis until such time that a more abstract concept that conceptualised the knowledge of teaching public health could emerge from the analysis. I continued to interrogate the data relating to the three initial organising themes, in order to move them from description to abstraction. I asked the key question of each incident in the data: What does it indicate? The themes that emerged from the analysis of the first interviews that provide a conceptual explanation of the process of embodying *knowledge of teaching public health* were an indication of the participants:

- 1 Possessing a wider vision of public health.
- 2 Reflecting and learning from experiences.
- 3 Engaging in appropriate pedagogical practices.

5.2.1.1 Possessing a wider vision

The data indicated that the first participant interviewed for this study envisioned public health as context situated. The participant used established public health concepts, such as inequalities in health, social deprivation, income differences,

policy and politics to illustrate the connectedness and ‘context situatedness’ of public health.

The data showed that the participant envisioned public health as an integral part of all aspects of life at individual, community, socioeconomic and policy levels. This sensitised me to pay attention to the data that described how that vision could be achieved through a public health curriculum. I continued to interrogate the statements associated with their descriptions of what to teach to reveal the meanings they represented. The excerpt below illustrates some of the significant statements that she used to describe her understanding of public health; I have inserted the preliminary coding given to each statement in square brackets and roman type:

‘Public health itself opened up a new aspect of nursing care [a new vision of nursing]. It (public health) is about looking at the interventions of changing behaviours [behavioural intervention]. The government policy is certainly going the right direction, certainly highlighting the relevant issues, but addressing them often difficult to put them into practice [policy intervention]. There are lot of political drivers to reduce incidence [competing political pressure].’

Other statements that were considered significant in her description of her public health vision were:

‘I don’t class public health as a complete separate entity from general nursing care [seeing connectedness]. Public health affects all aspects of life. I can’t see any particular thing that springs to mind that is not affected by public health. Day to day living, employment, where you live, how much money you’ve got, your social life, cultural/political

aspect all impinge on health [seeing connectedness]. This [vision of public health] comes from my community background working within general practice and also working within occupational health nurse practice, because public health is interwoven into these areas [integration]’.

The iteration and comparative analysis comparing each segment with others, asking questions about what they all indicated, revealed that this participant possessed a *wider vision* of public health. She identified the problem that gets in the way of *fully integrating* public health as an integral part of all aspects of life as peoples’ tendency to view public health as a separate entity from their personal and professional lives.

She further described the conditions under which this can change, including community working experience. The code ‘possessing a wider vision’ was then considered appropriate as a conceptual category since it was able to encapsulate all the initial codes. Other codes such as ‘seeing connectedness’, ‘fully integrating’ and ‘context situated’ were presented as subcategories as they provide explanation about the conceptual category.

5.2.1.2 Reflecting and learning from experiences

The first participant to be interviewed for this study began by making a distinction between professional practice experiences and education experiences. This distinction created a need for me to further interrogate the data to explore the differences between these experiences. She drew on these two parallel categories of experience, and could explain how each separately and collectively shaped her knowledge of teaching public health. The next excerpts illustrate how the initial

codes were generated from the significant statements (incidents in the data) used to describe her experiences leading to her role as an educator:

‘Are you referring to practice experience or nurse education experience? [nature of experiences] My (educating) experience it started with general nursing; an element of which was education [educating experience]. This could be educating clients or relatives, education of other colleagues. I then moved on to occupational health nursing and did a BSc in occupational health nursing, again quite a large element of that was going out and educating a group of workers.

‘That gave me mirage of experiences in different fields; from there I applied for a job as an oncology lecturer [growth in knowledge and confidence]. My experience in oncology warranted me getting a (lecturer) job; this was a complete change of direction for me, I was learning a role [change of direction]’.

I further interrogated the data to reveal the associated properties by which these experiences can be described. It emerged that the incidents in the data described the experiences in terms of:

- The nature of experiences (‘Are you referring to practice experience or nurse education experience?’)
- The context of the experiences - general nursing, educating clients, relatives or colleagues
 - Occupational health nursing, educating workers.
 - BSc acquiring knowledge.

- The consequences – growth in knowledge and career change.

The first part of the above excerpt tells us about the nature and context or settings within which teaching experiences were acquired, therefore my initial attempt at coding the data was influenced by the participant's classification of the nature and context within which the educating experiences were acquired. I initially coded it as 'practice, academic and educating experiences'. After a long period of iteration and comparative analysis – comparing each segment with others, asking what they individually and collectively represented, meant and indicated – I concluded that these statements indicated the participant's ability to learn from various experiences. I therefore re-coded it as 'reflecting and learning from experience'.

The second paragraph reflected on the consequences and implications of these experiences on subject knowledge, confidence and professional development. Amongst them were an increase in confidence, professional development, career change, and getting a lecturing job. All these were part of the biographical account of the experiences leading to the participant's current role as an educator, and I therefore considered that the code 'reflecting and learning from experience' had the ability to encapsulate all the initial descriptive codes. The earlier descriptive codes 'practice, academic and educating experience', 'developing confidence', 'knowledge growth' and 'change of direction' were then considered as subcategories of the conceptual category 'reflecting and learning from experience'.

5.2.1.3 Engaging in appropriate pedagogical practices

The line-by-line analysis and open coding of significant incidents in data relating to the participant's description of her teaching experiences indicated that she used appropriate pedagogical practices to encourage students' engagement with public

health concepts in a way that made it intelligible to the learners. The excerpt below illustrates some of the significant statements that she used to describe her approach to teaching public health and the pedagogical reasoning behind it. The line-by-line analysis reveals that her pedagogical practices were directly focused on addressing people's inability to recognise the connectedness between public health and other aspects of their personal, social and nursing professional lives.

'I use case scenarios. When giving students complex case scenarios you can see the principle of public health principle fitting into complex family agenda.'

'I think a good way will always be problem-based learning, encouraging group discussion [dialogue]. Giving group case scenarios to work through on often enables students to bring in complex public health issues, lifestyle issues perhaps overweight, alcohol, no job all, living in socially deprived area. It gets students to think about all those different facts really as oppose to general standing there and telling them that that is what public health is [independent and critical thinking]. The use of complex cases mirrors life more effectively. It gets them thinking differently and works collaboratively [instilling collaborative learning].'

The data revealed that the participant aimed to use teaching strategies that not only encourage learners' engagement with public health concepts, but also mirror life. Following interrogation for the meaning of using these teaching strategies – in other words, asking what this tells us about this participant – I concluded that this indicates the participant's ability to engage in appropriate pedagogical practices that make

public health intelligible to learners. Thus, ‘engaging in appropriate pedagogical practices’ was considered as a conceptual category that has the ability to encapsulate other codes. The other codes, such as independent and critical thinking, encouraging dialogue, and facilitating collaborative learning, were presented as a subcategory.

At the end of the initial analysis comparing categories and their associated properties derived from the same participant, three conceptual categories and several associated properties emerged. This was followed by a memo which presented me with an opportunity to stop and capture conceptual ideas about the codes that I was using. The summary of categories and subcategories that emerged from the initial data analysis and coding is in Table 2 below.

Phenomenon (What is the data a study of?)	Categories (What category does this incident indicate?)	Properties (What is actually happening in the data?)
Knowledge of teaching public health	Possessing a vision	Seeing connectedness, Competing policy, Political pressure, Integration
	Reflecting and learning from experience	Educating experience, Learning from experience, Growth in knowledge, Career change
	Engaging in pedagogical practices	Independent and critical thinking, Encouraging dialogue, Facilitating collaborative learning

Table 2: Comparing categories and their associated properties within the same participant

5.2.2 Memo writing accompanying the comparative analysis of data from the same participant

Following each phase of analysis, I recorded a memo of relevant theoretical concepts and ideas. Memo writing was a crucial element of keeping a record of my analytical thoughts, enhancing the process of iteration, theoretical sampling and theory rendering. It also helped to establish the connection between categories and properties (Corbin & Strauss, 2008). I began memo writing from the first interview and continued it throughout the analytical process (Corbin & Strauss, 2008; Strauss & Corbin, 1990, 1994, 1998). The memo in Table 3 presents summary ideas that emerged from the analysis of the first interview.

<p>08/09</p> <p>Categories and their associated conditions (excerpts from the first interview)</p> <p>The next excerpt provides some clues about the ideas that one may want to explore in the subsequent interviews:</p> <p><i>'I don't class public health as a complete <u>separate entity</u> from general nursing care, that comes <u>from</u> working in general practice and occupational health nurse practice, <u>because</u> public health is <u>interwoven</u> into these areas. It comes <u>natural</u> for me <u>because</u> public health and community nursing have been a <u>big part of my nursing care experience...</u>'</i></p> <p>The first thing that struck me in this sentence was the use of phrase "separate entity". This seemed to imply that some people considered public health as separate entity others did not. I decided that if that was a case there was a need to compare those who considered public health as separate entity to those who considered it as integral part of everyday life in terms of conditions that facilitated these differences.</p> <p>Within this excerpt this participant further provides some clues about the condition that facilitate seeing public health integral part of everyday life. For example, the use of words such as "because" and "from" followed by action word such as "interwoven" and "working in general and community nursing" cued me about the condition that facilitates the seeing public health as integral part of other areas of professional life. The use of phrase it comes "natural" implies the range of integration from easy to difficulty in integrating. Therefore, I needed to explore how can the process of "seeing connectedness and context situatedness" nature of public health be enhanced? And how can the process of integrating public health as part of everyday life be conceptualised?</p>

Table 3: Memo writing showing comparative analysis of data from the same participant

5.2.3 Comparative analysis of data from different participants' interviews

Once the analysis of the first interview had been completed, a further five PHNEs were interviewed to complete the first phase of data collection and analysis. Interviews were read line-by-line to identify segments of data that contained theoretically significant incidents: incidents in the data that appeared to have potential to render a theoretical explanation of the central phenomenon.

Initially, theoretically significant incidents were coded in accordance with Strauss and Corbin's (1998) *open coding*, which is defined as an 'analytic process through which concepts are identified and their properties and dimensions are discovered in data' (Strauss & Corbin, 1998, p. 101). As I moved along with data collection and analysis, I compared each incident in the data with incidents from both the same participant and other participants, looking for similarities and differences (Corbin & Strauss, 2008; Glaser & Strauss, 1967). As the number of codes increased it became necessary to take a more systematic approach to data organisation. Appendixes E and F provide examples of the initial open coding and labelling of significant incidents.

At the end of the initial open coding over three hundred pieces of data had been coded. I started to see the possibility for grouping some codes around the phenomena they represented. At this stage most codes were more descriptive than conceptual. This created a need for further examination of the codes to enable me to form an explanatory model. Therefore, codes were explored by investigating their attributes or properties relating to their data context, process, conditions and consequences. At this point I drew upon Strauss and Corbin's (1998) processes of *labelling and conceptualisation* (Strauss & Corbin, 1998, p. 105), whereby incidents within data,

ideas and events were given names that represented what they stood for. The process of labelling is similar to the one indicated in section 5.2.1. Following the long process of labelling, the next step was determining the major categories around which the codes could be grouped.

5.2.4 Discovering categories

The purpose of labelling the incidents was to group similar ones under a concept that had more explanatory power to pull together different strands of data. Before I could begin to group them around the phenomena they represented, I needed to find more abstract concepts that explained what they were. After a period of interrogation of the data, it was decided that the three categories which emerged earlier – possessing a wider vision, reflecting and learning from experience, and engaging in appropriate pedagogical practices – were sufficiently conceptual to be used for this purpose, and around them subcategories could be grouped. In keeping with constructivist QDA practice, the names of categories began with the gerunds denoting the processes, with the last part denoting the context within which the processes took place (Charmaz, 2006).

Once categories had been identified I began to group the codes around the category they represented. At this stage coding was focused around single categories, and my purpose was reassembling the data that were fractured during open coding (Corbin & Strauss, 2008; Strauss & Corbin, 1998). This stage of coding initially focused on relating categories to subcategories, and later on crosscutting categories. The relationship between categories and subcategories was apparent at the dimensional level; for example, in the code ‘possessing a wider vision’, the type of vision PHNEs possessed could be described dimensionally in terms ranging from narrow to wide

vision. The subcategories associated with this category, ‘fully integrating’, ‘seeing connectedness’ and ‘situated in context’, provided theoretical explanations of differences in the dimensions of PHNEs’ vision. Each subcategory had a set of conditions that determined the nature of the participants’ vision of public health. These conditions arose out of an individual’s relationships with public health, personal biographies, and organisational and institutional values and practices. Table 4 shows a summary of categories and their associated subcategories.

Categories	Sub-categories
Possessing a wider vision	Fully ‘ <i>integrating</i> ’ into personal and professional life Seeing connectedness Situating within wider context
Reflecting and learning from experiences	Reflecting on academic experiences and Learning for others Educating experience Reflecting on learning from others Learning from practice experience
Engaging in appropriate pedagogical practices	Illuminating connectedness Encouraging students’ engagement Situating within context Sharing experiences Facilitating dialogue

Table 4: Relating categories and sub-categories

Table 4 consists only of concepts that gave explanatory power to each category. It was by means of these concepts that I was able to develop explanations about knowledge of teaching public health. By coding my data axially I was able to uncover the relationships amongst the categories. I was also able to contextualise the knowledge of teaching public health; that is, to describe the structure (wider vision), the processes (reflecting on and learning from experiences), and the strategic action/interaction through which the perceived structural defects could be resolved (through engaging in appropriate pedagogical practices).

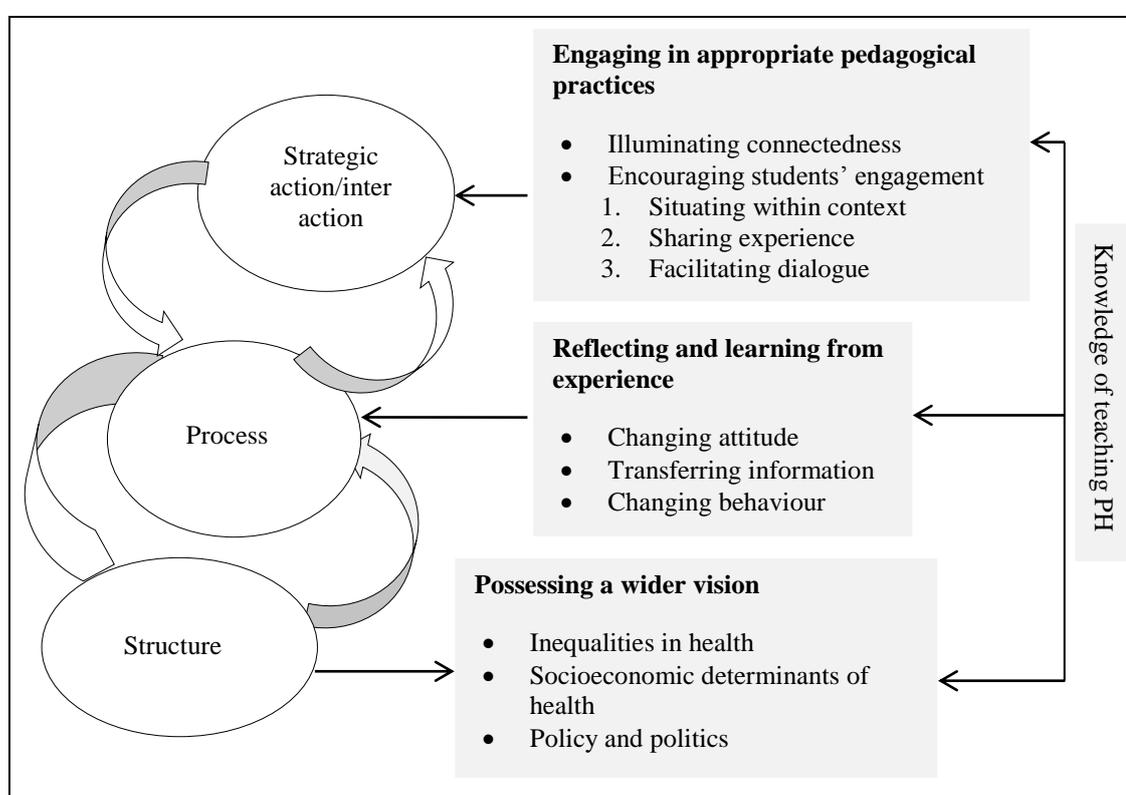


Figure 4: Discovering categories

As illustrated in Figure 4, the structure 'wider vision' set the stage, that is, denoted the context in which the problems were situated or arise. In this instance, inequalities in health were identified as the major issue from which the vision of public health as fully integrated into personal and professional lives, and situated within wider socioeconomic and political contexts, arises. Possessing a wider vision of public

health can be described as being able to see the connection between public health and personal and professional lives; the structural defect would then be seeing public health as a separate entity (narrow vision) from the personal and professional lives. A wider vision develops over a long period of integrating professional and organisational values and beliefs into one's own academic, personal and professional experiences. This results in developing one's own interpretation of public health and taking ownership of it.

This raised the question of how this knowledge structure can be enhanced or facilitated. The conditions that facilitate integrating or seeing the connectedness of public health with other facets of life were not always explicit. However, the use of certain words within interviews cued me, such as 'because', 'due to', and 'when', followed by an event or action: for example, 'seeing the connection between public health and other facets comes natural to me *because* of my background'; 'I knew about the inequalities anyway from *when* I worked as a DN in deprived areas'; 'I fell into public health *because* of my health visiting background'; and '*when* doing my school nurse qualification I realised that if we were to change the outcome for children and young people we need to do it from the public health perspective'.

The conditions outlined above are directly linked to a second element of the conceptual framework of knowledge of public health – reflecting and learning from experience. This denotes the *processes* by which nurse educators integrated values and beliefs over time within their communities and organisations in response to public health problems. By combining the structure and process I began to appreciate the evolving nature of nurse educators' interpretation of public health concepts, and gained understanding of how they develop their public health vision and why their

interpretations of major issues differ. It was clear that when expressing their public health vision nurse educators were not talking about the textbook knowledge of public health; they referred to fully embracing values, beliefs, conceptions and public health principles held by their professional discipline as part of everyday life.

The understanding of structure and process enabled me to make sense of the strategic action/interaction; that is, the pedagogical practices PHNEs engaged in when making public health connected and relevant to their students. If the challenges (public health knowledge structural defects) were people's difficulty with integrating public health in their everyday lives and seeing public health as a separate entity, then it makes sense that the strategic action/integration focuses on instilling critical thinking, illuminating connectedness, and facilitating dialogue.

Figure 4 illustrates that while the axial grouping may appear static, in reality the concepts are dynamic. For example, some concepts are coded as part of structure in one instance, as process in another; therefore, this should not be read as an illustration of cause and effect. A group of people may hold the same academic qualification, or work in the same organisation, and yet have difference values, beliefs and interpretations of public health concepts; there are multiple factors operating in various combinations to create the context (the set of conditions that come together to produce a specific situation).

In this section the elements of knowledge of public health teaching structure, the process, and the strategic action/interaction have been examined, and the relationship between them has been explored. However, I remained unclear about what these three features collectively told me about knowing and teaching public health. I needed a concept that captured the collective meaning of these categories.

5.3 Making a theoretical comparison

The focus of this stage of analysis was on developing categories into a theoretical scheme for a substantive theory. In order to achieve that I needed to elevate categories into higher level theoretical concepts, refine categories in terms of associated properties, and integrate categories into a theoretical scheme.

To elevate categories into higher level theoretical concepts, thus moving from description to abstraction, I drew on the position of Corbin and Strauss (2008) that when an analyst is unsure how to progress the analysis from a descriptive to an abstractive and theoretical level, it is time to turn to what they term ‘theoretical comparison’ (Corbin & Strauss, 2008, p. 74). They proposed that the concepts used can be derived from the literature, or from personal and/or professional experiences (Corbin & Strauss, 2008). Since this study was about the knowledge of teaching public health – in other words, professional teaching knowledge – it was considered appropriate to compare the categories and subcategories that were emerging from this study with other theories of professional teaching knowledge.

Consequently the categories, subcategories and their associated properties emerging from this study were compared with the dimensions and properties of Shulman’s (1986), and Shulman and Shulman’s (2004), theories of professional knowledge development to create a theoretical framework for examining the inter-relationship between structure (possessing a wider vision), process (reflecting and learning from experience), and strategic action/interaction (engaging in appropriate pedagogical practices). For example, the properties of the conceptual category ‘possessing a wider vision’ were found to be comparable with the properties of Shulman’s (1986) concept of ‘content knowledge’. However, this study explicitly acknowledged the

context situatedness of knowledge, and Shulman (1986) did not. This created a need to compare what was emerging in this study with the later Shulman and Shulman (2004) theory. The vision of educator's knowledge described in this study is more comparable with Shulman and Shulman's (2004) theories, in that both recognise educators' knowledge as being rooted in vision, self-reflection and ideological belief. However, the context of the emerging theory (public health and higher education) is different from that of Shulman and Shulman (2004) (school).

I therefore concluded that the concept 'possessing a wider vision' provided an accurate description of the PHNE who has developed a vision of what to teach, is deeply ideological, and committed to their organisational and professional disciplines' values and beliefs about public health.

Similarly, the properties of the conceptual category 'engaging in appropriate pedagogical practice' were found to be more comparable with the later work of Shulman and Shulman (2004) than with Shulman's (1986) earlier concept of 'pedagogical content knowledge'. Both the emerging theory and Shulman and Shulman (2004) moved away from characterisation of knowledge in terms of the distinction between knowledge of the subject discipline and knowledge of teaching, and both describe an educator capable of performing, of engaging in the practices necessary to transform the vision and the conception into action (Shulman & Shulman, 2004, p. 262). However, this study moved even further to make explicit the pedagogical approaches appropriate for transformative and interpretive learning (Table 4), and identified Freire's (1972) critical pedagogical theory as the relevant theoretical framework.

However, this is not to imply that Shulman's (1986) and Shulman and Shulman's (2004) properties were used as data, but that concepts derived from the comparative analysis of similar incidents were used to examine the collected data for this study (Corbin & Strauss, 2008). As Corbin and Strauss (2008) argue, 'We do not need to reinvent the world around us every day, rather we can draw on what is already known to help us understand what we do not know' (Corbin & Strauss, 2008, p. 74).

From the early stages of data collection and analysis in this study, it emerged that various experiences other than formal public health training or practice played a significant role in shaping PHNEs' knowledge of teaching public health. This process was conceptualised as 'reflecting and learning from experience'. It was not until 2004 that Shulman and Shulman considered the role of experience in professional education knowledge theory.

The concept of 'reflecting and learning from experience' was also compared with other literature that might provide abstraction and theoretical rendering to achieve maximum conceptual clarity of the emerging phenomenon. At this point I compared the incidents in my data with the properties of the frameworks used by the Chief Medical Officer for England (DH, 2001a) and the UK Public Health Skills and Career Framework (Public Health Resource Unit and Skills for Health, 2008) to categorise different experiences within the public health workforce, to determine if any were comparable with what PHNEs were telling me about their experiences. Both frameworks outlined three categories of public health workforce – specialists, practitioners, and the wider public health workforce (DH, 2001a). This provided ideas about the possible categories of public health workforce knowledge development and sharpened my theoretical sensitivity.

5.3.1 Theoretical sampling

Once the major categories had been developed and theoretically compared with the existing literature, the next step was filling in the poorly defined categories. While the conceptual categories of ‘possessing a wider vision’ and ‘engaging in appropriate pedagogical approaches’ appeared theoretically sufficient in terms of their properties, I remained uncertain about the properties of ‘reflecting and learning from experiences’. Strauss and Corbin (1998) proposed that the filling in of poorly developed categories be done through review of memos or raw data, looking for data that might have been overlooked, or the analyst can go back into the field and selectively gather data about the category through theoretical sampling (Strauss and Corbin, 1998, p. 158). Consistent with this position, I returned to the field for a further two rounds of data collection and analysis in order to develop the properties of ‘reflecting and learning from experiences’. It was not until after the second and third rounds of data collection and analysis that I was satisfied that all the categories were sufficiently developed in terms of properties and dimension. Strauss and Corbin (1998) proposed that the ultimate criterion for determining whether to finalise the data-gathering process is *theoretical saturation*. However, as explained in section 4.5 of this study, theoretical sufficiency was a more realistic criterion for constructivist QDA than theoretical saturation.

The data collection and analysis had so far created three categories, and several subcategories with associated properties. The breadth and depth of categories and properties appeared sufficiently comprehensive to explain the PHNEs’ knowledge of teaching public health. What was now required was the integration of categories into

a theoretical explanatory model. The first step in integration was deciding on a central category (Strauss & Corbin, 1998).

5.3.2 *Discovering a central category*

To facilitate the identification of a central category, I drew on Strauss and Corbin's (1998) position that one way of identifying a central category is to return to the raw data and reread it, asking the following: What is the main issue or problem with which these people seem to be grappling? What keeps striking me over and over? What comes through although it might not be said directly? To try to address these questions I used two of Strauss and Corbin's (1998) techniques for facilitating integration: 'writing the storyline' and 'diagramming'. The storyline technique goes as follows:

Storyline memo: I conducted 26 interviews of nurse educators who teach public health. I was interested in developing a theory to explain their understanding of public health and their interpretation of how it could be taught.

The two main issues/problems with which they seemed to be grappling were inequalities in health (which was the focus of their curriculum reasoning), and making public health part of everyday life (which was the major focus of their teaching strategic action/interaction). I had already undertaken an extensive literature review to determine the existing knowledge of public health. Comparing what they were telling me with the existing literature, I could postulate that social justice was the underpinning principle in their public health reasoning.

The nurse educators interviewed for this study came from a wide range of backgrounds. Considering the variation of their background, I was interested to

know how they understood or interpreted social justice principles. I found that their interpretation varied according to their nursing discipline or professional background, their organisational or institutional values, and their personal experiences. What kept striking me over and over was that, despite their varying backgrounds, they all emphasised making public health part of everyday life. I needed to understand the processes by which nurse educators integrated public health knowledge into other facets of their lives, and how this was translated into teaching practice.

It emerged in this study that there were three ways that nurse educators acquired and integrated public health knowledge into their everyday lives: the first one is the easiest, and is information transfer. Transferring information, data or facts means that if you do not know about inequalities in health, you attend the academic course and learn about it, and then you know about it. However, nurse educators wanted knowing public health to be understood as being more than just information transfer, and to include being able to see the connectedness of public health to the wider context. For them, knowing public health was about development of a wider vision of public health as social context situated, and integrated into other aspects of peoples' lives. Arguably, acquisition of information without the right attitude is unlikely to produce the kind of knowledge envisioned by nurse educators in this study.

The second one is changing attitudes to public health. This involves how we feel about the public's health and concerns the values, beliefs and principles that individuals, organisations and institutions hold about public health. Nurse educators' values and beliefs about public health reflected their personal and professional

relationship with it. As part of their roles as nurse educators, they wanted to pass on their experiences to the students in a way that would result in learners' attitudinal change and their full embrace of public health values and beliefs as part of everyday life. The data showed that they aim to achieve this by engaging learners with appropriate pedagogical approaches to make public health concepts relevant, realistic, and connected to the students' experiences (Table 4). The nurse educators in this study described pedagogical approaches that are comparable to Freire's (1972) critical pedagogical theory (see chapter 2), and involve instilling critical thinking, independent learning, sharing experiences, dialogical learning and conscientisation. The emphasis was upon education that results in learner realisation of their capacity to effect change at individual, community, and policy levels.

The third process by which nurse educators acquired public health knowledge is changing behaviour or practice approaches; that is, knowledge gain that occurred through people actually doing something. This was conceptualised as 'reflecting and learning from experiences'. For example, as nurses were working in various healthcare settings they were continually reflecting on the connectedness of public health concepts to what they were doing, and over time this became an integral part of their practice.

Figure 5 employs the second of Strauss & Corbin's (1998) techniques for facilitating integration: diagramming. It shows a complex implicit link among information, attitude and practice. Distinguishing/identifying the first and last piece of the three piece chain was complex. For some, the chain seemed to begin with attitudinal change which created a need for acquisition of information, evidence-based data to support their beliefs; in this case one would argue that if you could sufficiently

change people’s feelings towards the subject, they would want to integrate (action) it into their everyday life. For others the chain began with people doing things, and reflection on their action over time resulted in integrating values and beliefs into their everyday lives. Either way, what kept striking me was that, despite their varying backgrounds, nurse educators had a shared vision of what should be taught in the public health curriculum and how it should be understood and, most importantly, they all proposed making public health part of everyday life. Therefore, integrating public health into all aspects of life was seen as central to the understanding and teaching of public health; this was conceptualised as ‘embodying knowledge’. This was to be achieved through the processes of possessing a wider vision, engaging in appropriate pedagogical practice, and reflecting and learning from experiences.

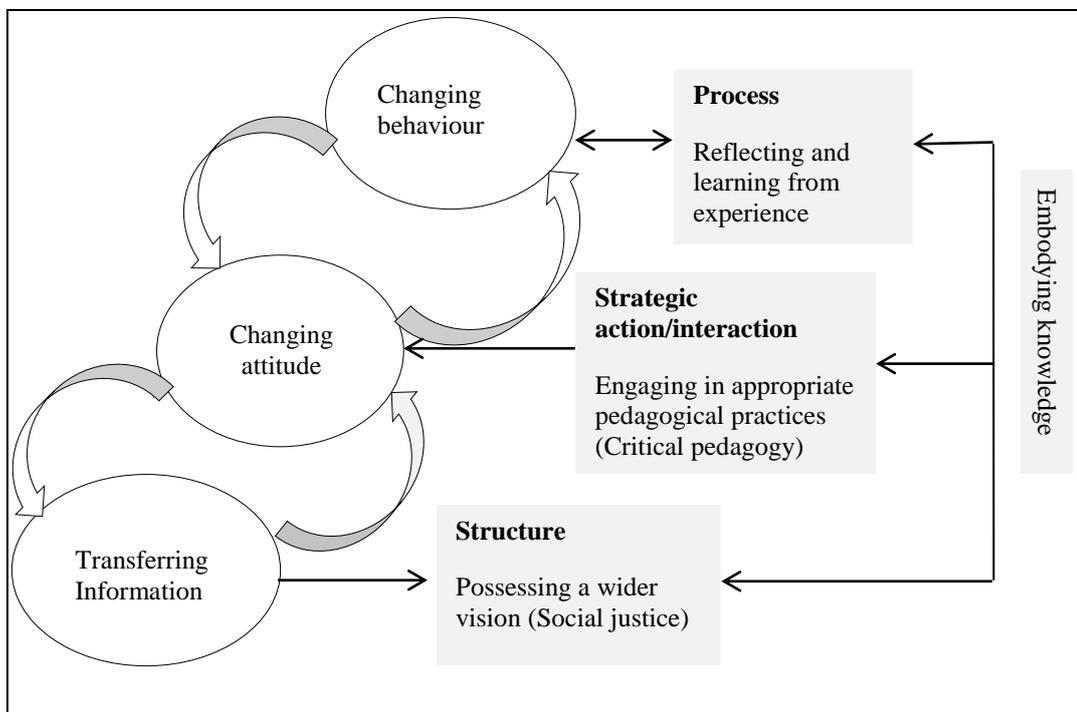


Figure 5: Discovering a central category

There might be different explanations: for example, Shulman and Shulman (2004) would conceptualise it as being an ‘accomplished teacher’. I have decided against

this conceptualisation as it seems to imply one teacher being better than another. In this study ‘embodying knowledge’ seemed to fit the data, and offered one interpretation of the practice of knowing and teaching public health. Other categories fitted logically with the central category. The breadth and depth of categories and properties appeared to explain what the research was about.

The concept of ‘embodying knowledge’ is the central category in this study. Figure 5 illustrates the elements that constitute embodying knowledge. Like any category the central category needed to be defined in terms of its properties. In this case, although the concept of embodying knowledge was not used in the interviews, the memos were replete with references to ‘integrating public health into all aspects of life’, ‘making public health part of everyday life’, and ‘fully embracing public health’ which are all properties of ‘embodying knowledge’. Therefore, ‘embodying knowledge’ within this study could be defined as the process of reflecting and learning from various experiences in which people engage to make sense of the received information and interpretation of it according to their personal and professional relationship with the subject; the integration of the subject into everyday life and taking ownership of it.

5.4 Summary of this chapter

This chapter explained the QDA processes used to analyse the collected and transcribed data. It also drew on the influences of Charmaz (2000, 2006), Glaser and Strauss (1967), Strauss and Corbin (1998), and Corbin and Strauss (2008) in that it employed the principles of constant comparative analysis and the iterative process of data collection and analysis to build theory inductively. Figure 3 summarised the iterative analytic processes undertaken leading to the development of a theoretical

framework to examine data relating to participants' knowledge of teaching public health. Figure 5 summarised the theoretical framework for a substantive theory of which embodying public health knowledge in practice is a central category.

The next chapter presents the substantive theory that emerged from the data analysis, supported by excerpts from the interview data.

Chapter 6: Presentation of Findings

6.1 Introduction

This chapter presents the framework for a substantive theory of PHNEs' knowledge of teaching public health, of which embodying knowledge of teaching public health is the central category. It uses extracts from direct quotations in inverted commas to help to encapsulate the key ideas. The conceptual categories that provide a theoretical explanation of this central category are:

- 1 Structure – Possessing a wider vision.
- 2 Process – Reflecting and learning from experience.
- 3 Strategic action/interaction – Engaging in appropriate pedagogical practices.

Figure 6 is a development of the earlier figures 4 and 5 which illustrate the interrelationship between structure, process and strategic action/ interaction; the structure of the rest of the chapter follows it.

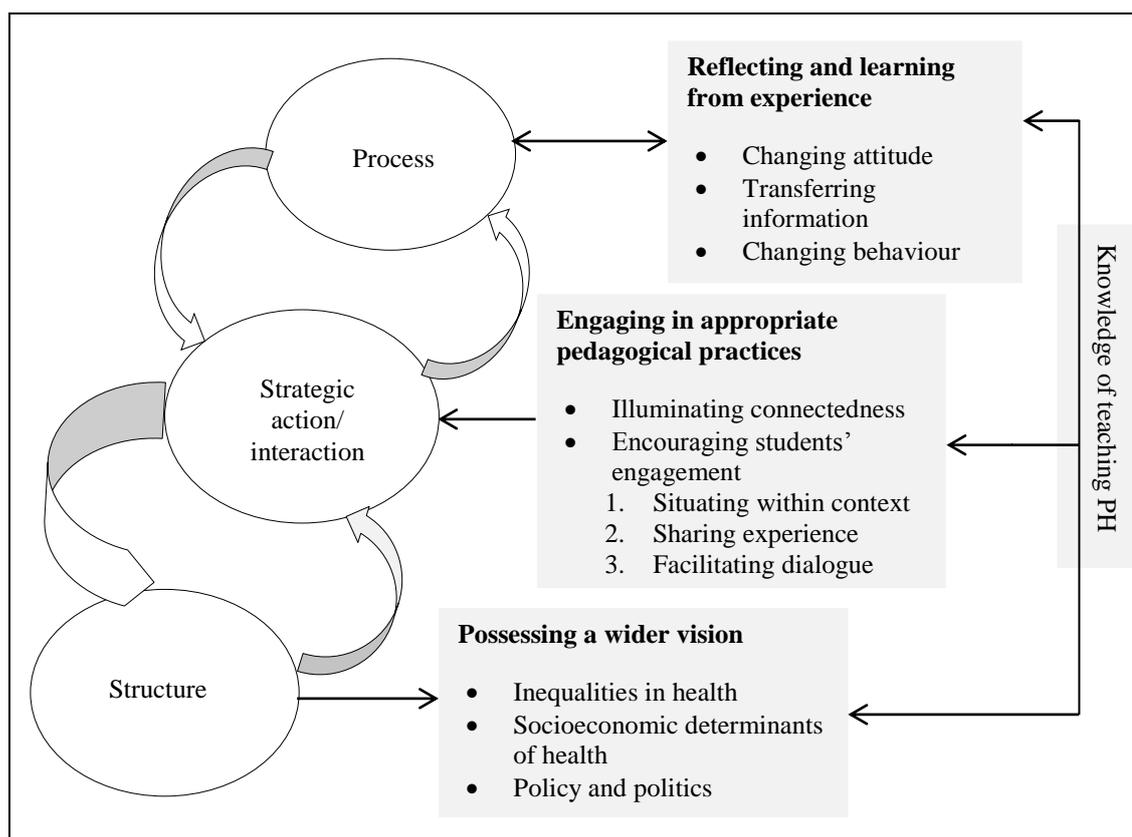


Figure 6: Discovering categories

6. 2 Structure – Possessing a wider vision

Nurse educators in this study described three areas of public health that constitute the *structure* of the public health curriculum framework:

- 1 'Health inequalities are the main thing'.
- 2 Socio-economic determinants in health.
- 3 'Engage with policy and politics'.

6.2.1 'Health inequalities is the main thing'

Tackling inequalities in health was one of the most frequently recurring themes from PHNEs' interviews. Two distinct views emerged of how they should be tackled: some proposed a population approach focusing on upstream preventive strategies, whilst others proposed behavioural approaches, focusing on empowering vulnerable

individuals to improve their own health. I was interested to discover if there was anything in their professional or personal career that explains these different views. Iras, for example, cited tackling inequalities in health using upstream preventive strategies:

'Health inequalities is the main thing, epidemiology is another one, it's identifying where health issues are, where they come from and what the causes of them are and you can only do that by studying the population group looking at the epidemiology of the population, identifying the strategies perhaps to try and prevent ill health by working upstream by sort of putting together preventive strategies and I think in specialist practice programme with variety of students some do work in the primary prevention and other students and I think district nurses work with clients groups who have after-effects of years of ill health.' [Iras]

Does anything in her professional or personal career explain her views on tackling health inequalities? It emerged from the interviews and informal conversations with Iras that she worked for many years as a district nurse in one of the most deprived areas of the North West of England. Her motivation to become a public health practitioner came from professional and personal encounters with health inequalities in her community. She holds a Master's in Public Health (MPH), and she cited that the inequalities in health that she observed working as a district nurse in the community had a pivotal role in her decision to study public health. She asserted that she decided to study public health in order to increase her evidence-based knowledge to support what she already knew about inequalities in health.

Two significant points emerged from this extract: first, her main interest was epidemiology, and she was motivated by her desire to acquire scientific evidence to explain the cause of the inequalities in health that she witnessed first-hand as a district nurse. Second, as a health professional she felt that the individual interventions that she was doing were inadequate for addressing the problem that the local population was facing, and proposed that the appropriate approaches were those that looked at upstream strategies.

She suggested that epidemiology provided skills to identify or specify the nature of the problem. She recalled her experience as a district nurse, stating:

'Health inequalities is an area, it's something that I can link in very much to practice when I was working in district nursing because the area that I work geographically was an area of high deprivation. Although I knew that anyway when I was working in practice the public health information all the data, all epidemiology that give you the context, gives the background evidence to support all that really it all links together now, so that is what I teach the students where to find the information, what are the causes of ill health and what do they think are the causes of ill health. It is interesting at the moment because we have students from hospital they are doing health inequalities now and it's interesting to hear their perspectives of inequalities because they have not worked in the community before, it's good to see what they think are the main causes of ill health and that somebody's health is affected by 70% of what happens outside the NHS.' [Iras]

The extract below gives a different perspective on tackling inequalities in health. This emphasises tackling differences in access to healthcare as opposed to health; it also focuses on the individual behavioural issues that prohibit people from accessing healthcare services, and empowerment of individuals by providing information to enable them to make healthier choices.

Jaz worked as a health visitor for more than twenty five years in the affluent South East of England counties. When the government and the Nursing and Midwifery Council (NMC) introduced new registration for specialist community public health (third part), higher education institutions were charged with developing programmes for training people to meet the competences required. Her main public health teaching was teaching the Specialist Community Public Health Nursing programme. Amongst the things she talks about are promoting access to healthcare, a focus on individual behaviour, empowerment of the vulnerable, and providing information to enable vulnerable and disempowered groups to make them healthier:

'I think that if they have a grasp of what inequalities in health might be, I'm hoping that they might be able to identify individuals as well as groups that fit into those categories, subsequent when it comes to them having to give actually information or being on board with any kind of advice they have some kind of understanding of why people behave the way they do. It very much on the individualistic basis underpinned by some of the theories that we actually trying to give them. And also although we not political animals, but if they buy into any political agenda, they see what the government is trying to do. It's very much now trying to get individuals to make those changes.'

So from the nursing students' point of view they have areas where they can make some impression on people.

'... I guess vulnerable areas; vulnerable groups that may arguably not have the same kind of information, don't feel empowered perhaps to access healthcare. May be they don't even know it is there and therefore you can't avoid this huge focus on health inequalities as well. They are my big things I think. If you can get them to understand what we mean by public health, if you can get them to understand what we mean by those element like I said, the determinants of health and health inequalities what they mean.' [Jaz]

The last part of this comment could be interpreted as meaning that inequalities in health affect vulnerable groups who are either not empowered to access health services or don't know where they are; and therefore if you empower them with the knowledge and confidence to access health services, you would reduce some of the inequalities.

The notion of tackling inequalities in health through motivating individuals to change behaviour was also cited by other participants including Haz [health visitor], Kara [occupational health nurse] and Gus [school nurse]. Gus had been a school nurse for more than thirty years in affluent Cheshire when she took on a much higher public health role as an immunisation co-ordinator in a PCT. To support this role she undertook an MPH, and upon completion took a post as a Specialist Community Public Health Nurse. Amongst the concepts that characterised her approaches to public health teaching were advocacy, personal responsibility, vulnerability, and providing information to enable vulnerable and disempowered groups to make

healthier personal choices. All these seemed to promote behavioural approaches to inequalities in health:

'I think the major role that I certainly advocate with the public health community specialist practice is advocacy. I think advocacy is the one that have been neglected in the new public health arena where we are very much about giving people the responsibility for their own health and in actual fact they have neither skill or motivation to take on that role so we need advocacy.'

'I think health is a personal choice but is a choice with caveat, you can only make choice if you are informed and also if are in that arena in the circle of change that actually enables you to make that change you need to make that where advocacy comes in we all know from our experiences for example smoking cessation that people fail several times and failure reinforces that belief that they cannot achieve the cessation position but in actual fact with advocacy and support and information we can move people to that point.'

'I think knowledge is power if given in a continuous drip feed, consistently at appropriate level across the life span. I think advocacy is very important because all people are vulnerable at some stage in their lives, some people move into the stage of vulnerability and move out of it very quickly and others live in almost permanent state of vulnerability. And it is the vulnerable that suffer the greatest inequalities in health and therefore if we lose vision to advocacy, we

lose power to help these people to move on from that state of vulnerability.' [Gus]

Sierra was a nurse lecturer for more than twenty years, and prior to that was a health visitor for several years. She took a different view from that of Jaz. Sierra maintained that access to healthcare provision was not the answer to tackling inequalities in health. She argued inequalities in health were about fairness:

'The big one at the moment obviously is pandemic flu, obesity which is linked to health inequalities which also linked to social status. There are issues around the access to healthcare even in the UK where there is supposed to be universal access to health the issues of inequalities go beyond that, it's about fairness; I mean my daughter is working with these asylum seekers who are not registered yet, apparently once registered they become refugees, their status changes, but while they're asylum seekers they have got no right to access healthcare, where is fairness in that?'

'My daughter was citing an incident of a lady who came from Africa who was poorly when she came, she was diagnosed with AIDS when she was in Africa because apparently when you're ill in her country that was the first thing that came to people's mind, but when she went to the doctor she was diagnosed with type 1 DM.' [Sierra]

The idea of tackling fundamental causes of inequalities in health was clearly argued by Tara who stated that:

'We can educate people about health but unless inequalities on things such as education, environmental issues, if they aren't addressed then we will have a very limited impact.' [Tara]

This subsection presented six interview passages from five individuals from four disciplines of nursing denoting the context in which the public health structure is situated. It also provided insight into the background of each individual, their motivation to do public health and their perception of inequalities in health. Two participants from a community background (health visiting [HV] and school nursing [SN]) worked in affluent parts of the country, and came to public health as part of career progression; one has a MPH and Master's in Education. Both advocate reducing inequalities in health by empowerment of vulnerable groups, providing them with information to make healthier choices and promote personal responsibility. Three individuals (HV, DN and RGN) all worked in deprived parts of the North West, and were motivated to do public health by their observation of health inequalities. They studied public health related subjects at postgraduate level, and believe that inequalities in health require upstream population approaches.

6.2.2 Socioeconomic determinants of health

The phrase 'facets of life' was frequently used by the participants to explain the relationship between inequalities in health and ill health. Looking at the meaning of this phrase in the context of this study, it emerged that they were referring to the socio-economic determinants of health (SEDH). This was first made explicit by Haz who made reference to Dahlgren and Whitehead's model:

'Well we all know socioeconomic determinants of health... it's a bible really isn't it? All people are familiar with Dahlgren and Whitehead's

model really... because the layers identified there have a great impact on health; take out any these the facets of life collapse.’ [Haz]

The expression by Haz ‘...It’s a bible really’ reflects the value they attached to the model. All public health nurse educators in this study referred to SEDH as an important component of the structure of the public health curriculum. On interrogation of the meaning of SEDH as seen by participants, it transpired that they refer to the whole range of processes through which social factors impact on health:

‘Public health [is affected by] all facets of life whether it’s just day to day living, employment, where you live, how much money you’ve got, your social life, cultural political aspect, all impinge on health.’

[Kara]

However, it would appear from the PHNEs’ stories that SEDH were not understood or made explicit by all the PHNEs in the same way; rather it depended on their discipline or relationship with the public health field. For example, Daniel offered an insightful account into how the theory of SEDH can be used to explain inequalities in health in a mental health context. He explained that people with mental health problems shared a disproportionately high burden of all determinants of inequalities in health compared to the general population: they tended to have poor education, and thus end up unemployed or in low paid employment, and have disproportionately high prevalence of lifestyle related conditions such as cardiovascular disease, obesity and smoking related disease. These conditions could be attributed to a combination of a poorly paid job and poor education, which in turn resulted in them having limited choices in terms of access to commodities that were essential for good health such as diet, exercise and health literacy. His understanding

of the application of SEDH in a mental health context related to his experience as mental health nurse:

*'For the whole of my career I have seen the inequalities in health... every mental health nurse with... brain has... this cliché about people's choice is a lot of ***... excuse my French. Look at unemployment for example... we know that people with mental health have highest level of unemployment, highest smokers, highest in obesity and if luck to have job lowest paid. What choices do they have?'* [Daniel]

Other nurse educators such as Vieira and Kara came from a hospital-based nursing background, and perceived the SEDH as a holistic approach to assessment of patient conditions such as cardiac or respiratory disease. They proposed that consideration of the role of socioeconomic circumstances in disease development helped them gain a holistic view of their clients' nursing care. The following two quotations illustrate how participants proposed this model could be applied in a hospital setting:

'Public health affects all aspects of people's lives whether it's just day to day living, employment, where you live, how much money you've got, your social life, cultural, political aspect, all impinge on health. If you are a hospital-based nurse the best way to look at it is to think of someone coming to the hospital with coronary heart disease, what you have to ask yourself is: what circumstances got them there in the first place, looking in the facets, public health facets, lifestyle issues, deprivation, social, political issues which actually got them to the situation they are in. Because sometimes

students think that certain public health issues sit outside their remit, for example they may think well what housing has anything to do with what I do, I work in the hospital.’ [Kara]

This view about the relevance of SEDH to other aspects of nurses’ practice has been shared by most participants in this study. For example:

‘I think for example in holistic care you might be looking at respiratory condition or a cardiac condition. For me you have to consider all the socioeconomic and political factors because the medical model would say we bring people in, we treat them and we let them go home. From a more holistic point of view it is looking at all socioeconomic factors that contributed to that disease process in the first place.’ [Tara]

The participants who came from traditional public health settings were divided into two perspectives, behavioural and population. Those with a health promotion background proposed application of SEDH in their health promotion nurse's role to determine why individuals chose to engage in unhealthy lifestyles. They proposed that effective approaches to health promotion and behavioural change interventions involved consideration of socioeconomic and political/environmental factors that might have influenced people’s attitudes towards health. The concepts that emerged from the data that captured these views came from the interview with Kara who stated:

‘Public health is an intervention to change behaviour.’

This was also confirmed by Haz's response when asked to talk about the 'big ideas' that underpin public health nurse education. Haz had been a health visitor for several years until two years ago when she took a post as senior lecturer in the university; her public health teaching involvement is teaching the Specialist Community Public Health Nursing programme. Her response was:

'I suppose really it's understanding of the wider determinants of health I think that is really key, because when I sort of went into public health, health visiting helped me develop understanding that you cannot apply the same principle to every situation, everybody has individual needs, I think for students you can say okay you have a key health promotion message but how you approach that with an understanding of where people are coming from. I think as nurses I think in the past we are sort professional judgemental really, in that we sort of think we know best what they [patients] should be doing that. I'm quite new to teaching but having that opportunity to influence the students so that they realise that it's not necessarily that person's fault, there are lot of reasons why they choose that behaviour and I think for the short time I have been here it's nice to see the students [develop] that understanding; therefore less judgemental about why people smoke, why they drink, why they have unprotected sex and things like that.' [Haz]

Expressions such as 'individual needs', 'key health promotion message' and 'choose that behaviour' in this excerpt gives a distinct sense of the individual behavioural

approach to tackling inequalities in health. The same sense was evident in Jaz's comment:

'I think that if they have a grasp of what inequalities in health might be, I'm hoping that they might be able to identify individuals as well as groups that fit into those categories, subsequent when it comes to them having to give actually information or being on board with any kind of advice, they have some kind of understanding of why people behave the way they do. It's very much on the individualistic basis underpinned by some of the theories that we're actually trying to give them.' [Jaz]

Again, one got a sense that this PHNE believed in promoting behavioural change as a way of reducing inequalities in health. She believed that understanding of SEDH was important to enable nurses to tailor their health promotion messages according to individual needs.

This subsection presented one component of the structure of the public health curriculum and how it related to inequalities in health. SEDH emerged as an important public health theoretical model to explain how social, economic, and environmental factors influence health, the most prominent factors being income, employment and education. It also emerged that PHNEs' understanding of the application of SEDH differs according to their background and their relationship with public health. This subsection has shown the views of PHNEs who proposed to use SEDH to tackle health inequalities using behavioural approaches; those who proposed using population and policy approaches are presented in section 6.2.3.

6.2.3 ‘Engage with policy and politics’

It was evident from participants’ comments that they regarded understanding of policy and political influences on public health as essential for students. The UK policy directives most frequently cited included *Choosing health: Making healthy choices easier*, the Wanless reports and the Darzi report. Participants expressed different views about what understanding of government policy and politics meant in relation to nurses’ roles. PHNEs who expressed the belief that tackling inequalities in health required tackling the fundamental causes tended to suggest that the nurses’ role within the health inequalities agenda should involve engagement with policy and politics. They furthermore suggested that for nurses to be effective contributors to tackling inequalities in health, they needed to develop an understanding of policy processes and increase their political engagement. It was suggested that for overall population (not just individual) improvement, nurses needed to affect the policy changes. Tara, one of the proponents of this approach, argued that as long as the conditions that introduced differences in burdens and benefits remained intact, efforts to reduce inequalities would not be successful. The nurses’ role, it was argued, was to present the health argument for policy changes, take part in the political process in the form of voting, and gain understanding of political parties’ ideologies and their positions on health, voting for those parties that are making an inroad into addressing inequalities in health. This is how Tara expressed this view:

‘I know I have to be apolitical when I’m talking about politics so not to influence people, but student nurses are citizens of the country and also nurses. I think you have to engage with policy and politics because otherwise from the health point of view I don’t think we are

going to see any great changes, because any changes have to be supported by the government. We can educate people about health but unless inequalities on things such as education, environmental issues, if they aren't addressed, then we will have a very limited impact. It has to be holistic and has to be global as well, so I think when I teach a subject it's about thinking how you can draw into that situation appropriate public health messages, because Wanless Report put emphasis on us nurses being out there being role models.'

[Tara]

PHNEs in this study expressed contrasting views about the potential of specific policy directives to reduce inequalities in health. These contrasting views were particularly evident in their analysis of the two key principles underpinning *Choosing health*, choice and personal responsibility. In relation to the principle of 'choice', this is what Tara said:

'I think ultimately people do have choices, we are autonomous beings, but I think there is a ceiling in those choices in as much as I can decide to eat healthily, I can decide to do the best that I can to eat a healthy diet, then there comes a ceiling as to what choices are made available to me within my environment, what the government is doing in terms of food legislation which is something I have been grappling with for a long time. I think the people have to take responsibility and have to act as autonomously as possible. If you are not happy, we are a democratic country and one of the most powerful instruments for change we have as citizen of the country is a right to vote; so

therefore we should be voicing our concerns and voting or lobbying parties to make inroads into areas where we feel we don't have much control over.' [Tara]

PHNEs such as Tara and Mosê felt that the principles that underpin *Choosing health* and other subsequent policy documents which promote choice served to exacerbate inequalities in health, as the only beneficiaries of this were affluent groups. For example, Tara and Mosê criticised *Choosing health* for promoting personal responsibility and choice as a way of tackling inequalities in health, when people who suffer the most effects of inequalities in health were those who neither had choice nor were empowered to take that role of personal responsibility. Mosê stated that:

'Taking that forward to public health, the Choosing Health document that says we must give people more responsibility, we must work in partnership, how can get them to take responsibility if there so much on their way? How can we get partnership working between the haves and disempowered people?' [Mosê]

Gus criticised the government's notion of choice and personal responsibility. She stated that:

'I think advocacy is the one that have been neglected in the new public health arena, we gone down the path of giving people the responsibility for their own health and in actual fact they have neither skill or motivation to take on that role, so we need advocacy.' [Gus]

Kara, Haz and Jaz expressed positive views about the direction of UK policy, feeling that *Choosing health* provided a direction and guide for nurses' practice. Kara was positive about the government position regarding reducing health inequalities, stating that:

'I think the government policy [Choosing health] is certainly going in the right direction, certainly highlighting the relevant issues, but addressing them is often difficult to put them into practice if there are insufficient resources or those resources are not targeted effectively.'

[Kara]

Haz's narrative provided some insight into the group of participants who felt that *Choosing health* provided a guide to their practice:

'I suppose really I sort of fall into health promotion more, so probably a lot of that is due to my background as a health visitor as health visiting is very much about promoting health... the key policy to me is Choosing Health, that sort of set the ground... that focus very much on promoting public health. The other thing is the whole notion of early education is ultimately what I sort of hope to empower people to realise that getting there early, parents and education is key if will make a difference.' [Haz]

This view was also shared by Jaz who stated that:

'I think if I think about health education and policy I guess the one that we're certainly working towards is Choosing Health, what it does I suppose in many ways it encapsulated some of the major public

health issues, and that allows us therefore to go away and examine them in a much broader way if you like, from those six or so main targets if you like in terms of public health there are various policies that sit within those different areas as well – healthy lives, healthy weight etc.’ [Jaz]

However, it was evident from Kara’s comment that she was concerned about the availability of resources to put these guidelines into practice. Like Kara, Sierra also expressed concerns that government policy decisions were influenced by resources rather than needs. This view was made explicit when Sierra stated that:

‘Finance is the big driver and the target is the obvious driver and another thing really is that the government is only in power for five years, they have no really aspirations to make long term changes because there is so much self-interest with them when you look at them they will always a quick fix.’ [Sierra]

The issue of financial influence on policy decisions was expressed by other participants; for example, Jaz stated:

‘I think would be something around finances, it would be around the ability to make changes, whether there are responsibilities and I guess is what is highlighted on their agendas as well. What is important for that particular party at that time? The political ideologies of the day. Certainly finances because it has a knock on effect on what care delivery is required. Arguably I guess as nurses our influence on policy development is getting less and less particular because fewer nurses are being employed different skill mixes then

you've got different levels of understanding and ability to make difference. I think the government thinks we have ability to influence but it's just about having resources to enable us to deliver those changes.' [Jaz]

The section presented inequalities in health as a base of the public health curriculum structure, and as a context in which public health problems arise. Nurse educators in this study identified epidemiology as an essential component of the public health curriculum, providing evidence-based knowledge of the extent of inequalities in health. SEDH emerged as an important public health theoretical model to explain how social, economic, and environmental factors influence health. It emerged that PHNEs' analysis of policy and political engagement focuses on two levels of engagement with policy and politics: first, engagement as part of being a citizen, in the form of lobbying and voting for a party that is sympathetic to a health inequalities agenda; and second, increasing understanding of policy directives with a view to implementing the policy directives in nursing practice.

One of the key findings that emerged here was that nurse educators' understanding or explication of the structures of the public health curriculum depended on their professional and organisational values and beliefs about public health. The next section presents the processes by which nurse educators integrated their professional values and beliefs into their everyday lives.

6.3 Process – Reflecting and learning from experience

It had been observed that all participants drew on their personal and professional backgrounds to inform their teaching and reasoning about inequalities in health. Even those who acquired their public health knowledge through academic routes

used a combination of their academic knowledge and personal and professional experiences to make judgements about the connection between inequalities in health and the distribution and occurrence of disease. It emerged from their stories that this recollection of professional and personal experiences was based on the fact that before people embarked on a public health programme of study to increase their scientific knowledge of public health theory, they already knew about the subject through what I call ‘intellectual biography’ – the set of understandings, values, beliefs, experiences, conceptions, and orientations that constitute the source of their comprehension of the subject. Throughout this chapter I have introduced each participant with their brief biographies; this section explores PHNEs’ stories of their connection with public health to see if there was anything that might provide insight into how their experiences shaped their vision of what should constitute public health curriculum content and how it should be taught. It emerged from the participants’ biographical data that PHNEs in this study, particularly in pre-registration nursing, consisted of groups of nurses with highly contrasting backgrounds. Their public health experiences were captured in three processes by which nurse educators acquired public health knowledge:

- 1 Changing attitude.
- 2 Changing behaviour.
- 3 Transferring information.

Figure 5 illustrates the interrelationship between attitudinal change, behavioural change and information transfer, which is theoretically explained in the storyline memo (section 5.3.2). The development of PHNEs’ embodied knowledge of public health occurred through the three processes stated above, and they in turn used

Freire's (1974) pedagogical approaches to develop learners who not only understand public health concepts, but embody public health practice.

6.3.1 Changing attitude

It emerged in this study that one of the processes by which public health was integrated into people's everyday lives was changing attitude. The study revealed that the way people felt about the public's health determined the level of engagement and integration of the public health perspective into other aspects of their practice. For example, Daniel had been a mental health nurse for more than twenty years, working in the most deprived regions of England and Wales, and in the United States of America. He identified being able to see the connection between public health and one's areas of interest as a necessary condition for the integration of public health into one's everyday practice. He made this point explicit by stating:

'I wouldn't say I necessarily have public health expertise, but I see the connection between public health and mental health.' [Daniel]

He proposed that selection of who teaches public health should be based on ability to accurately interpret the connection between inequalities in health and poor health, rather than availability to teach. Daniel expressed his views as:

'Forgive my cynicism, but it appears to me that the decision in my department [mental health] about who teaches public health is based on availability rather than ability to see the connection between public health and mental health. Whoever says yes to becoming a mental health representative in public health modules... and very often it's new members of staff who have not got much in their diaries

yet, for example at the moment the representative is Betty, but as soon as she started she went off to maternity leave and I got called to sit in for her. Don't get me wrong, I don't mind stepping in; I wouldn't say I necessarily have public health expertise, but I see the connection between public health and mental health, I always believe that the pattern of disease distribution follows the pattern of how privileges are distributed, I have lived and worked in North Wales and Northwest of England long enough to know that and believe that one way of improving health of many people in our society is to tackle inequalities in health.' [Daniel]

The data showed that, for most participants, availability was the main reason that they became involved with public health. Some did not develop their expertise beyond understanding the influence of public health in their areas of practice. This was evident in Vieira's narrative. Vieira is from a surgical nursing background, has been a nursing lecturer for fourteen years, and taught health promotion within the Project 2000 curriculum. Vieira explained the relevance of public health in the surgical nursing speciality as:

'I came from the surgical background. In a word yes, I can see the relevancy of public health in surgical speciality, because it affects the whole well-being of our patients. I come from rural area for example, and when you call an ambulance for an emergency it could take up to an hour. By the time it comes the patient's condition has worsened or they have died; obviously there are lot of public health questions to

be asked in that situation, a question about the inequalities in health comes to my mind.' [Vieira]

She went on to explain that:

'Since we changed from health promotion to public health module and moved the sites I don't do any more public health teaching but I am still interested in public health as it affects my patients. You can see influence of inequalities in health even in surgical wards that I think as a nurse I have a moral obligation to advocate for my patients against inequalities in health.' [Vieira]

The notions of 'availability' and 'seeing the connection' that emerged in Daniel's comments were also evident in Pietra's narrative. Pietra became involved in public health teaching by default following the launch of the Project 2000 curriculum, which demanded the inclusion of health promotion content. She recalled her experience as:

'I first became interested in public health because originally we used to deliver the public health module separately; obviously somebody from the learning disability team had to deliver it. And I've always had this interest in public health going back when we started with Project 2000 back in 1990s. We then had a public health module, and then called a health promotion module, and I actually worked on that team then, and it goes back a long time. It was before this institution existed in this current format.' [Pietra]

The ability to see the connection between public health and learning ability appeared to be the motivation that kept Pietra interested in public health. She explained that:

'Public health probably relates more strongly to LD now than it has done in the past. There is a growing awareness of inequalities in health particularly in relation to people with the learning disabilities and the role of the learning disability nurse has become very much health oriented particularly in the last few years. So the link now is probably stronger now than has been for quite a few years.'

'Obviously I am more interested in it as it relates to people with learning disability so areas such as inequalities in health that sort of thing and also general health policies and how that gets related to people with learning disabilities.' [Pietra]

It is clear from Pietra and Daniel's comments that these teachers never conceived of themselves as public health practitioners *per se*; they saw themselves in terms of their branches – that is, learning disability nurse, mental health nurse, health visitor, general nurse and district nurse – and, for most, public health was more of an adjunct than the main focus of their practice. The factors that determined their involvement with public health were availability, interest, willingness, and a belief that inequalities in health were major determinants of the pattern of disease and health benefits; all of which involved changing attitude.

6.3.2 *Changing behaviour*

The statement by Kara typifies how some participants saw public health through the lens of what they do in their everyday lives:

'I think in general is about looking at the interventions of changing behaviours which is very complex thing anyway, by sort of education on health.' [Kara]

As an OH and community practice nurse Kara explained that 'a large element of [what she did] was either teaching patients, colleagues and relatives or going out and educating workers, local government, police and fire brigade etc., on various aspects of health promotion'. The evidence revealed that health promotion was a major part of what she taught in practice; consequently, she saw public health as mainly about health promotion.

Haz similarly saw public health as mainly about health promotion; she cited practising as a health visitor as a condition that facilitated her vision of public health:

'I suppose really I sort of fall into health promotion more so probably a lot of that is due to my background as a health visitor. Health visiting is very much about promoting health and various other projects that I have been involved with sort of put me into it looking at brief intervention as an example, which is very much about looking into promoting health and also looking at the interventions.' [Haz]

A common element between these participants was that their professional disciplines had recently undergone a change of emphasis in response to national policy change. Before 2001 all nurses, health visitors and midwives were registered either on part one or part two of the register. Concurrent with the national health reforms and greater attention being paid by policy makers to public health, the Nursing and Midwifery Council as the nursing and midwifery regulatory body created a specialist community public health register (part three) for nurses deemed to have a public

health focus. This allowed some branches of nursing such as school nurses, health visitors and some occupational health nurses who qualified prior to 1998 automatic migration to part three by virtue of their practice experience. These branches of nursing were under no requirement to undertake any public health specific training; they therefore interpreted this as validation that their health promotion practice was what public health was all about. As Kara asserted:

'It [public health] sort of comes natural for me because public health and community nursing are a big part of my nursing care role, and then that was sort of formalised with revalidation of specialist nursing programme. With the change in national health policy, occupational health nursing is now a specialist public health route. This has provided more structure within the public health agenda.'

[Kara]

In this excerpt Kara identified her practice as an OH and the change of policy as conditions that facilitated her public health approach. Overnight, some people who had never conceived of themselves as public health practitioners, or had no public health qualification other than school nursing, health visitor and occupational health nurse training certificates, became specialists in public health. The next quotation presents another example:

'I sort of came really from a public health perspective, because I did my health visiting training and health visiting is very much about promoting health, looking at prevention, getting there early, really, and that is basically where I became very interested in public health, and obviously as part of that health visiting course you looked at

public health generally, and then as a mentor for health visiting students that developed.’ [Haz]

This is not to say that all nurses who were granted automatic registration on part three were not interested in public health. Some had acquired public health skills in various areas of healthcare systems, and the migration served to formalise their public health credentials. The next quotation typifies this group of nurses:

‘My nursing career started with general nursing... moving on to occupational health nursing and did a BSc in Occupational Health Nursing, again quite a large element of that is going out and educating a group of workers in various aspects of health. That gave me a range of experiences in different fields because as an occupational health nurse you work within the local government, police and fire brigade etc., very often you would go out and deliver health education sessions for them, mainly from health promotion. I don’t class public health as a completely separate entity from general nursing care. I think that comes from my community background working within general practice as a practice nurse, and also working within occupational health nurse practice, because public health is sort of interwoven into these areas anyway. It sort of comes natural for me that public health and community nursing is a big part of nursing care, and then that was sort of formalised with revalidation of specialist nursing programme. Occupational health nursing is now a specialist public health route so there is more structure within the public health agenda.’ [Kara]

Some nurses who qualified for automatic migration to part three registrations took up senior positions in public health and identified their public health knowledge gaps. To fill their knowledge gaps, they studied public health at Master's level. This is the story of a nurse who took that route:

'My interest in public health stems from my role as school nurse. When doing my school nurse qualification, I realised that if we were to change the outcome for children and young people, we need to do it from the public health perspective. And from that point on I became really interested in public health aspects of health and well-being. When we moved to PCT systems, I began to undertake some public health work, I then went on and did Master's in Public Health from Liverpool University to provide the theoretical framework for the work I was doing. Following that I moved from my role as fulltime professional school nurse to 50/50% split as a public health specialist and school nurse professional lead. Having done that for couple of years carrying a portfolio around public health aspects of nursing immunisation and cervical cytology, I came to university as a lecturer practitioner, part time lecturing in school nursing pathway. And two years ago I became full-time at the university as a full time lecturer.'

[Gus]

This subsection presented excerpts from nurse educators who came from health visiting, school nursing and occupational health nursing backgrounds, to illustrate how nurses continually reflect on what they do, and how over time that becomes their embodied knowledge of public health.

6.3.3 Transferring information

As indicated in section 5.3.2 one of the key processes by which nurse educators in this study acquired public health knowledge was information transfer. This involved people encountering situations in their personal or professional lives that challenged their existing knowledge, and then deciding to undertake an academic course to fill the gaps in their knowledge. As Iras explained, when she came to study for a Master's in Public Health she already knew about inequalities in health from when working in practice: the information gained from doing the MPH, which included epidemiology, gave her the context and the background evidence to support what she already knew about public health.

Iras' comments, like those of most participants in this category, reflect the complexity of the relationship between processes – changing attitudes, transferring information and changing behaviour – by which nurse educators in this study acquired and embodied public health knowledge. Even though she holds a MPH qualification, and has several years of district nursing experience and a senior lecturing position, she considered a lack of public health practice experience as a significant gap in her public health expertise. Iras explained that her lack of practical public health experience meant that her teaching was purely theory based; there was no practical experience to draw upon.

'The only problem is that I find to be honest is that I have never had an opportunity to work in a public health arena, all my knowledge is theoretical, because I was taught theoretical. I did a theoretical programme of study and now I teach the theoretic element of it, I have never actually worked in public health arena although my

background is community nursing. That is something I would like to do, to go out and spend time with them, I have tried to do, but they were so short staffed, I wanted to shadow them to see what they did so then I can come back to talk to the students with more practical application.' [Iras]

The features that emerged in Iras's comments, namely 'use of theoretical evidence' and 'access to formal education' to inform practice experience, were also evident in Mosê's comments. Mosê explained that the stimulus to join public health came from:

'...awareness that people in civil service such as nursing, social workers and others don't really live to enjoy the pension. That really stimulated my interest to learn more about how work influences your life.' [Mosê]

Mosê went on to explain that the Whitehall studies report by Marmot and Brunner (2005) was:

'...looking at the pensionable ages of the prison civil service staff ... [the report showed the] simple fact that the average prison officer on retirement only lives for six months post retirement and dies usually from CHD.' [Mosê]

He explained that this report stimulated his interest to investigate the relationship between work and health. He explained:

'I kind of did some research as part of my dissertation as why that was the case [civil servants not living long after their retirement age] and the effect of people working with people, and then that broadened it out really into civil servants, nurses, police etc., how many of those

live to enjoy long and healthy retirement and it not very many. This opened my eyes into all sorts of the inequalities in health that I never thought of. When you think of the inequalities and poor health, you tend to think of people who are on [social benefits], civil servants are the last people you would think of but yeah this report painted a grim picture.’ [Mosê]

Similar to Iras, Mosê also identified epidemiology and inequalities in health as two aspects of public health he was interested in. He stated that:

‘My favourite subject is mental health stress, organisational culture, inequalities in health and the epidemiology of stress. My two favourite things though are mental health and epidemiology...’

[Mosê]

Unlike Iras who claimed that her public health knowledge was purely theoretical, Mosê and Gus qualified for automatic migration to part three registration by virtue of their nursing specialities, and both went on to study public health at Master’s level.

The experience Mosê was exposed to while studying for a MPH served to enrich his understanding of and embracement of public health and social justice principles.

This participant went further to explain his interest in public health:

‘When I left the army I went to study a degree in occupational health nursing. I qualified as an occupational nurse, and I developed an interest in relationships between work and health. That was stimulated by awareness that people in civil service such as nursing don’t really live to enjoy the pension – that really stimulated my interest in how work influences your life. From that I did my Master’s

in Public Health at University of Lancaster under Professor Allan Beatie (what a brain!). I was just really... I'm fascinated by how the determinants of health influence us really as human beings. In terms of teaching, I teach occupational health and I also teach public health modules in pre-registration nursing. I started my teaching at University of Lancaster with Alan Beatie as my mentor. I have been in education for ten years now.' [Mosê]

Apart from Gus, participants who studied public health at postgraduate level identified epidemiology and health inequalities as aspects of interest, and proposed upstream population principles; their motivations to do public health were 'use of theoretical evidence' and 'access to formal education' to inform practice experience. Gus acknowledged the importance of the upstream approach, but advocated behavioural interventions, asserting that the main elements of public health are advocacy and empowerment of the vulnerable. This is how she explained her understanding of public health:

'My main interest is actually in adolescent health and well-being... I think it links in many ways because the behaviours that develop in childhood are the behaviours that actually dictate the health of the adult... I think from the prevention, promotion and protection role the input that we need to put in the school age is very important, and I think we need to work much closer with HV and with families. But I think that the role that I see the school nursing working with young people is when they move to the high school, where they're making the decision about their lifestyles often independent from their parents. I think all the major public health issues such as obesity,

alcoholism, smoking, etc. all have their stem in adolescent, if we don't get it right at that age we are really working downstream... I think advocacy is the one that has been neglected in the new public health arena where we are very much about giving people the responsibility for their own health, and in actual fact they have neither skill or motivation to take on that role so we need advocacy... think knowledge is power if given in a continuous drip feed, consistently at appropriate level across the life span. I think advocacy is very important because all people are vulnerable at some stage in their lives, some people move into the stage of vulnerability and move out of it very quickly, and others live in almost permanent state of vulnerability.' [Gus]

This subsection presented PHNEs' stories which suggest that their exposure to a variety of personal and professional experiences, and the values and beliefs that underpin their varying personal and professional backgrounds, contribute to their understanding and teaching of public health. It presented excerpts that revealed the conditions that stimulated nurse educators' interest in public health. It also presented three processes by which nurse educators acquired public health knowledge and the complexity of the relationship among them.

6.4 Strategic action/interaction – Engaging in appropriate pedagogical practices

PHNEs in this study were engaged in pedagogical practices aimed at illuminating the connectedness between public health concepts and everyday lives, and encouraging students' engagement with public health. This section uses extracts from direct quotations in inverted commas to help to present their views.

6.4.1 *Illuminating connectedness*

The concept of ‘illuminating connectedness’ emerged out of PHNEs’ expressed concerns about public health being treated as a separate entity from other aspects of nursing professional practice. This concern about the fragmentation of their subject and the lack of consolidation represented the feelings of PHNEs across all branches of nursing. It was therefore suggested that the teaching strategies need to consider ways to fit together the jigsaw pieces that make up public health. Kara explicitly illustrated this complex interconnectedness of public health with various activities in our everyday lives by stating:

‘It depends who you’re teaching, but I think public health sometimes is a problem for students because they tend to think of public health as something separate, a separate entity... you’ve got acute care, secondary care, you’ve got whatever care, and public health come sort of like...it’s put on the box really. I suppose it’s sometimes difficult for me to understand why they don’t understand public health, it affects everything, but I suppose I have got the benefit of experience really and hopefully of that knowledge as well really, and again by being able to look at public health as interwoven into, say, a patient case history. If you are a hospital-based nurse, the best way to look at it is to think of someone coming to the hospital with coronary heart disease. What you have to ask yourself is: what circumstances got them there in the first place, looking in the facets, public health facets, lifestyle issues, deprivation, social political issues which actually got them to the situation they are in.

Because sometimes students think that certain public health issues sit outside their remit, for example they may think, well, what has housing anything to do with what I do? I work in the hospital. Again sort of like certain disciplines within nursing, they concentrate on a certain pathway, often think what sort of relevancy to my particular pathway when again it encompasses every aspect of health. Again it is getting them to think outside the box.’ [Kara]

Tara argued that students’ tendency to view public health as a separate entity was reinforced by curriculum design that reduced public health into just one module:

‘If I am honest it [public health] gets boxed in a module called public health and everything else is random, in as much as somebody is interested in public health will find its way into the module content, I don’t think it’s a true theme that runs throughout the programme.’ [Tara]

This view was also shared by Haz who expressed her concerns as:

‘I don’t think it should be seen as separate entity, I think it should be part of all the modules. I mean it’s great that it’s recognised, but I’m not sure that it should be so separate I think, and to be honest I think all lecturers should have that public health background in every module they teach that public health comes into that. I don’t think public health should be seen solely on its own, that is just my opinion, because they keep saying public health is everybody’s business, then it should be integrated in every module.’ [Haz]

Mosê presented a slightly different reason why students seemed to see public health as a separate entity. He suggested that the problem resided with the timing at which public health was introduced to the students. He and others such as Iras and Haz believed that public health should be introduced at the beginning of the nursing education programme, in order to facilitate its seamless integration into other elements of nursing practice. This is how Mosê argued his case:

'Public health is seen as a separate entity as everything is seen as a separate entity, but none of them is a separate entity – they are all holistic, they are all combined so when you start off from day one public health should be there and should go through to the end, but it doesn't at the moment; there is a block here and block there, we have no mechanism to pull all the jigsaws so that they can see where everything fits.' [Mosê]

Consistent with Tara's view, Mosê appeared to believe that curriculum design lacks the mechanisms to encourage connectedness.

The major concern discussed in this section is that students fail to see the connection between public health concepts and subjects, and other facets such as their nursing practice, how it affects their communities and their lives in general. Participants argued that public health teaching strategies need to consider mechanism to pulls together the jigsaw pieces that make up public health.

6.4.2 Encouraging students' engagement

The participants identified several methods of promoting students' engagement with public health concepts and subjects. These could be broadly described as

engagement through use of scenarios familiar to the students, and active engagement through active participation or observation. Properties that emerged from the data associated with this subcategory of encouraging students' engagement are:

- 1 Situating within context.
- 2 Sharing experiences.
- 3 Facilitating dialogue.

6.4.2.1 Situating within context

Engagement through situating public health within context involved taking students to off-campus community facilities, or involved scenarios resembling those activities that take place in real life. The first form of engagement with a physical environment involved teachers exposing students to a community where there were observable public health issues taking place. An example of this form of teaching activities was described by Haz:

'It is difficult, isn't it, because you don't want to preach, you want to engage them. Recently I used something that my colleague used called public health games. I found it quite useful, it could just be a bottle of water or pair of trainers placed at different stations around the room, students would go around and link each item to its public health significance. I found that actually had more effect. I would say it's a different way of teaching; it makes them think.' [Haz]

Haz described another form of engagement that involved students undertaking off-campus activities:

'Another thing that I thought was a very good way of teaching (which sorts of links to brief intervention training which hasn't properly developed as it could be) is neighbourhood study, where the students actually go to an area and look at what facilities are out there and you know access to service and things like that. I think getting them out into the field, that type of thing, things like that are very good I think just standing there lecturing... there is need to be a lot more interaction, they seem to respond better if you put them into groups and go off and find some stuff and come back and feedback.' [Haz]

Gus explained the teaching approach that involved the lecturer recreating an artificial environment that resembles activities that take place in real life. Recalling her teaching experience, she stated:

'Yes, I have been using the public health games across all the levels. I bring in a variety of everyday objects and place them at strategic stations, and then I ask students to go around first individually to identify the object and identify its implication for public health, and then ask them as groups to identify pros and cons.' [Gus]

6.4.2.2 Sharing experiences

The engagement through sharing of personal experience of inequalities in health was also seen as a good way of promoting students' engagement with public health concepts and subjects, as it was believed to enhance consciousness of the socio-cultural conditions that promote health inequalities. Sierra, Tara and Mosê suggested that it is one of the most effective ways to conscientise students about their local

environment. Sierra recalled her encounter with her ex-public health students to illustrate this point. She stated:

'The name itself public health is a bit dry, but when people hear that name they think um, but once they realise what it encompasses they realise that they can apply in their practice. Just yesterday I met a student who did public health, like all district nurses when she came in she thought public health has nothing to do with her, but once I started talking about it she realised that yes public health is for everybody. I mean both my kids are not health trained at all, but one of them works with asylum seekers and the other one is working with a human rights organisation. When they talk to you about what happens in there, you can see that in both of their jobs there are huge public health implications.' [Sierra]

In her teaching Sierra explained that she achieved students' full engagement with public health issues of social justice through conscientisation, whereby the lecturer advises students to take an interest in their local community's current affairs. In promoting this teaching approach, participants believed that students learned best by engaging with public health problems that were familiar to them, and proposed the use of examples from everyday community experience to teach public health. Central to their pedagogical reasoning was that students' engagement with material was best when working with familiar material, which was well articulated in the next extract:

'I actually like to go local to the students. I use local newspapers, get them to look around their neighbourhood, even use their own

personal experiences and relate it to health. You start by components of health problem that are local to them. I try to get them involved, get them to think, that way they can make the link themselves. We've got a good example in the Wirral where you've got East and West side of the motorway, and if you look at life expectancy you have a ten years gap between the East and West side.' [Sierra]

It is evident from Sierra's quotations that she was comfortable with using her experience to get others engaged with the subject. This personalisation of learning was also emphasised by other participants – for example, Tara's narrative also emphasised sharing personal stories as a way of learning:

'The first thing is try and make it look realistic because you can help somebody from the theoretical point of view but then it has to be real to them; students have to see how it works for them, it has to be applicable. I get them to tell their stories, share their experiences that relate to the subject we are talking about. I did a catch up session on brief intervention recently with pre-registration students. I said to them we have to think about the behaviour that we would like to change and I immediately said to them the behaviour that I would like to adopt is exercise, I would like to exercise more. I kind of lead in sharing my own weakness, because in my view how can I expect them to participate and think about their health behaviours if I do not start up front and identify weakness in me? I think that sort of gives people permission to talk about in an open environment so really to try and

engage I think the discussion, which opens the door for further exploration.’ [Tara]

Similarly, Mosê believed in getting students fully engaged with public health through sharing personal stories about their own immediate environment:

‘I think that the important issues to talk about are the difference between the north and south, between rich and poor, between different segments of the world, just making a point that our health is influenced in many ways that we don’t understand and can’t control, and to talk about what individuals can do within their environments and what nurses can do, pre-registration nurses within their immediate environment, just to get people to be aware of the old approach to walking the patch, knowing the patch. I think the pre-registration nurses don’t know the areas in which they live. I know that sounds paternalistic and pompous, but from my own experiences knowing the area where you live I found very empowering and this is something I would like to pass on to others.’ [Mosê]

6.4.2.3 Facilitating dialogue

Promoting interaction was seen as a good way to facilitate students’ integration of public health concepts into their everyday practice. All participants wished to promote shared learning through dialogue between lecturers and students and among students. For those who use scenario-based learning, interactive learning was an integral part of teaching strategy, while those who used a traditional lecture-based approach tended to promote interaction through group discussions and discussion

boards. A quotation from Kara sums up the stories of all participants who promote dialogue through scenario-based learning:

'I am a big fan of case scenarios, giving students complex cases to look at and again sometimes you can see those wonderful public health principles sort of fitted into sort of like complex family agendas with so many different facets that are affecting health. I think a good way will always be problem-based learning, encouraging group discussion, giving groups case scenarios to work through often of complex public health issues, lifestyle issues... perhaps overweight, alcohol, no job at all, living in socially deprived area, get students to think about all those different facts really as opposed to generally standing there and telling them that is what public health is. Moving that into them looking at complex cases, I think it mirrors life more effectively. Get them thinking, really, about how they can work differently, and also how they can work collaboratively, what other services that are involved in a situation.' [Kara]

Concurring with this view, Vieira said:

'I am a great believer in problem-based learning type of teaching; I use a lot of scenario and get students to discuss amongst themselves.'
[Vieira]

On the other hand, Iras typifies those who use lecture-based learning and yet still promote students interaction and debate:

'I use the discussion boards, new articles, new publications, I'll post them on there and encourage a debate when they come back in class

and say bring them with you. Apart from that I use normal teaching and face to face. I always try to link everything I teach to clinical practice, I always try to make that link which is hard as I said, I never worked in public health in practice, but I always try and get them to make that link and say how could you use that, how do you see that being used in your area. So I kind of open it up to them for them to give me the answers, rather than me trying to think of them, I give the examples from when I was a district nurse to start them off as to what I did as a community nurse.’ [Iras]

Haz promoted interaction between students and the environment where public health took place as well as interaction among students:

‘I think getting them out into the field, that type of thing, things like that are very good I think, just standing there lecturing there is need to be a lot more interaction, they seem to respond better if you put them into groups, and go off and find some stuff, and come back and feedback.’ [Haz]

This subsection presented evidence that illustrated that the PHNEs’ major pedagogical approaches were directed at making it possible for students to integrate public health into everyday practice. It presented extracts that indicate that connectedness could be achieved through pedagogical approaches that encourage students’ engagement with public health subject concepts. Students’ engagement can be achieved through situating public health concepts within context, sharing experiences and facilitating dialogue.

6.5 Summary of this chapter

This thesis set out to build a substantive theory to explain how nurse educators in public health acquired their professional knowledge to teach the subject. This chapter presented data from the interviews that support three conceptual categories that emerged from the data analysis, providing theoretical explanation of the structure, the process, and the strategic action/interaction of the theory of embodying knowledge of teaching public health.

The themes that were considered by participants as key components of the *structure* of the public health curriculum are inequalities in health, socioeconomic determinants of health, and engaging with policy and politics. Of the three, inequalities in health were considered as the foundation on which the whole public health curriculum was built. However, it emerged that expressions of their understanding of these public health concepts varied according to participants' personal and professional backgrounds.

It also emerged that nurse educators' views varied on how inequalities in health might be tackled. Some believed that tackling them required empowerment of vulnerable individuals to change behaviour and adopt healthy lifestyles. Others believed that inequalities in health were created by unfair policies, therefore tackling them required upstream approaches that deal with social and economic inequalities.

All nurse educators in this study identified the SEDH as an important component of the public health curriculum; SEDH was described as a theoretical model that helps to explain the association between inequalities and poor health. However, participants' explanations of how social, economic and environmental factors caused

ill health, and their policy analysis, depended on their professional experiences and their relationship with the public health field.

The *process* by which nurse educators in this study developed public health knowledge was through reflecting and learning from practices. This acknowledges that PHNEs bring to the public health field their values, beliefs and experiences. It emerged that these aspects contribute significantly to their interpretation of public health content, and their ability to make public health content meaningful to learners. The three processes by which nurse educators acquired and integrated public health knowledge into everyday practices were transferring information, changing attitude, and changing behaviour.

The *strategic action/interactions* that they engaged in making it possible for students to integrate public health into everyday practice were based on one major concern: perception of public health as a separate entity. They therefore proposed that public health teaching strategies should consider a mechanism to pull together the jigsaw pieces that constitute the public's health.

Chapter 7: Discussion of Findings

7.1 Introduction

In this chapter the substantive theory of which embodying knowledge of teaching public health is the central phenomenon is compared with Shulman and Shulman's (2004) formal theory of professional teaching knowledge, to provide abstraction and theoretical rendering and achieve maximum conceptual clarity. The detailed explanation of how the theory of embodying knowledge of teaching public health is comparable with the theories of Shulman and Shulman (2004) can be found in section 5.3. It has been acknowledged that there are several features that make it different from the Shulman and Shulman theory: for example, some of the key findings from this study that distinguish the emerging substantive theory from the comparable formal theory are that PHNEs' vision of public health is based on social justice principles, and their pedagogical reasoning about approaches by which the embodying social justice principles can be facilitated reflect resonance with critical pedagogy. These findings, together with evidence from the literature review, confirmed that critical pedagogy was appropriate for tackling the social justice issues of inequalities in health. Based on this evidence, Freire's (1972) critical pedagogical theory was considered to be an appropriate theoretical framework within which the substantive theory in this study could be situated.

Although Shulman and Shulman's (2004) theory with which the substantive theory is being compared made reference to education based on praxis, which would suggest that they drew some of their influence from Freire's (1972) critical pedagogy, they did not explicitly acknowledge that their work was influenced by Freire's theory. This view is discussed in detail later in this chapter.

The emerging theory of embodying knowledge is also different from the comparable formal theory in that it advances the discussion about professional education knowledge, from characterisation of it in terms of content structure and pedagogical elements, to identification of processes by which embodying knowledge of the subject can be facilitated. Figure 6 page 107 illustrates the complex interaction among structure, process and strategic action/interaction to develop embodied knowledge.

The emerging substantive theory, as did Shulman and Shulman's theory, proposed that the process of embodying knowledge was complex and required a greater understanding of structure (possessing a wider vision of what to teach), process (reflecting and learning from experience), and strategic action/interaction (engaging in appropriate pedagogical practices).

The concept of embodying knowledge as used in this study refers to the process of reflecting and learning from experience in which people engage to make sense of received information, interpreting it according to their personal and professional relationship with the subject: the integration of the subject into everyday life and taking ownership of it. Embodying knowledge in this study is reflected in three themes: possessing a vision, reflecting and learning from experience, and engaging in appropriate pedagogical practices.

PHNEs who are embodying public health in practice possess a vision of public health as an integral part of all facets of an individual's life. Their understanding of public health concepts reflects that wide range of experience upon which their knowledge was drawn. They have a common belief in social justice, but differ on how that may be achieved: some believe it could be achieved through behavioural

approaches to public health, while others believe in societal transformation. They have also developed a vision of a particular kind of student learning and understanding. They think of public health teaching as a process other than telling, and of learning as a process.

7.2 Structure: Possessing a wider vision

In this study inequalities in health, SEDH, policy and politics, and epidemiology were identified as key components of the public health curriculum. Based on emerging associated properties of the conceptual category of possessing a wider vision and data from the literature review, it was concluded that social justice was the underpinning principle of participants' public health vision. Consideration of social justice as the underpinning principle of public health is consistent with several other studies: for example, Fahrenwald et al. (2007) proposed that teaching nursing students to understand and participate in social justice actions that aim to amend and reinvent the social conditions that influence health and the delivery of healthcare is a critical role of nursing faculty staff. This is also in line with the policy of previous UK Labour governments which explicitly declared social justice to be the principle that governed their views on population health. Internationally, the International Council of Nurses (2008) argued that engaging in public health requires an explicit commitment to tackling the social justice issues of health inequalities through the process of blending science and politics in the context of social values and interests.

In this study possessing a wider vision of public health was considered as being able to see the connectedness between public health and wider socioeconomic and political systems that produce and sustain inequalities in health. This view was consistent with several studies presented in chapter 2 (literature review), including

the WHO's Commission on Social Determinants of Health (2005, 2008). This view was well articulated by Alberta Health Services (2009) who stated that 'public health is situated at the intersection of major social, political, economic and cultural forces in society' (Alberta Health Services, 2009, p. 1). This study revealed that the challenges facing nursing education included nurses' difficulty in seeing the connectedness of public health concepts to their nursing profession, as well as to other, wider social contexts.

A second challenge was that the amount of understanding, interpretation and integration into their everyday practices of social justice principles varied amongst the PHNEs. These variations in understanding or embracing social justice principles amongst nurses were also identified in a review conducted by Bountain (2005) which revealed that there was limited understanding of social justice within the discipline of nursing. However, no study was found that identified conditions under which the integration of social justice principles into everyday practice could be enhanced. The use of constructivist QDA axial coding (see 5.2.4) enabled this study to advance the discussion, by outlining the conditions that influenced the variation in understanding, interpretation, and articulation of the social justice principle as personal, professional or organisational relationships with the public health field. For example, it was evident that when working within nursing disciplines and organisations whose core approach to public health was tackling health inequalities through changing individual lifestyles, some PHNEs changed their public health conceptions and adopted upstream population approaches as they moved to public health teaching practice, while others retained behavioural conceptions derived from previous practice.

Knowledge of the conditions that influence the variations in understanding and interpretation of social justice enabled me to appreciate the processes by which PHNEs integrated social justice principles in their everyday lives. The conditions emerging from the substantive theory that influence these variations are different from those identified by Shulman and Shulman (2004). These differences reflect the different conceptualisation of PHNEs' knowledge in my study and Shulman and Shulman's, as illustrated in section 5.3.

The next section discusses the second conceptual category of embodying knowledge of teaching public health: reflecting and learning from experience.

7.3 Process: Reflecting and learning from experience

The processes by which PHNEs engaged with public health concepts and integrated them into their everyday practice are transferring information, changing attitude and changing behaviour. The theoretical model of embodying knowledge in Figure 5 illustrates the complex interaction amongst these processes. The constructivist QDA iteration revealed that embodying knowledge through integration of received information with personal, professional and organisational values and beliefs is an indication of reflecting and learning from the experience. This capacity to learn from one's own and others' experiences through active reflection has been reported as one of the essential qualities of the critical pedagogical approach to teaching (Freire, 1972; Shulman & Shulman, 2004). As Shulman and Shulman (2004) explain 'if an [educator] were merely capable of vision, motivation, understanding, and practice, he or she would still lack the capacity for learning from experience and, thus, the capacity for purposeful change' (Shulman & Shulman, 2004. p. 264). These findings are also comparable to Freire's (1972) theory that the more reflective of our own

experiences we are, the more conscious we are of our understandings and need for further learning.

The new perspective that emerged in this study and was not included in previous reports, such as *How and what teachers learn: A shifting perspective* (Shulman & Shulman, 2004), *Chief Medical Officer's Report on public health workforce* (DH, 2001a), and *Public health skills and career framework* (Public Health Resource Unit and Skills for Health, 2008), was articulating the influence these varying experiences have on public health professionals' understanding and conception of public health as a strategy to reduce inequalities in health.

7.4 Strategic action/interaction: Engaging in appropriate pedagogical practices

PHNEs embody knowledge in teaching practice through critical pedagogy, and their choice of teaching strategy aims to address the challenges relating to nurses' understanding of public health (see 7.1). The findings of this study go further than Shulman and Shulman's (2004) theory that teachers must not only possess the vision of the subject, but also engage in appropriate pedagogical practices to facilitate the integration of deep disciplinary understanding with sustained motivation and interactions among students (Shulman & Shulman, 2004, p. 263). This study found evidence that, within the context of public health, the appropriate pedagogical approaches are those that specifically emphasise the importance of making it possible for learners to see the inextricable connection between public health concepts, personal and professional lives, and the broader societal context in which health inequalities are generated; and to develop an intimate understanding of the social orders, processes and practices that sustain and mask social injustices.

As this and several other studies confirmed, to achieve these in the context of public health and social justice requires PHNEs to be able to engage in pedagogical practices that illuminate connectedness, encourage students' engagement with public health concepts, situate public health within context, share experiences and facilitate dialogue whilst sensitising the students to injustice, inequality and domination, issues relevant to all health contexts (McAllister et al., 2006; Mezirow, 2003). Evidence from this and other studies found that critical pedagogical approaches increase ethical consciousness in both students and nurse educators (McAllister et al., 2006; Nagda et al., 2003). For example, Lynam et al. (2008) and Lynam (2009) found that educators who base their teaching on critical pedagogy analyse social life through the lens of diversity and social justice, and prepare students to be transformative democratic agents. Their teaching strategies involve recognising and taking into account the broader societal context; its impact on local problems and social change are articulated (Lynam, 2009).

The next section discusses two concepts that render theoretical clarity to the construct of engaging in appropriate pedagogical practices: illuminating connectedness and encouraging students' engagement.

7.4.1 Illuminating connectedness

One of the reported challenges of teaching public health within the nursing curriculum was enabling learners to see the connectedness between public health and their professional nursing practice. This concern about the fragmentation of their subject and the lack of consolidation represents the feelings of PHNEs across all branches of nursing, and was also reported in previous studies (Focusgroup, 2008; UKCC, 2001).

This study suggested that the students' tendency to treat public health as a separate entity was reinforced by inadequate integration of public health content within the pre-registration curriculum. This view is supported by the number of studies: for example, Whitehead (2003, 2004, 2005, 2007) and Valaitis et al. (2008) all reported insufficient integration and inappropriate sequencing of public health content within nursing curricula as a major concern.

The idea of a curriculum that illuminates the connectedness between the subject and the learner's life is theoretically comparable with the aims of critical pedagogy (Freire, 1972; Lynam, 2009). For example, Freire (1972) argued that when students lack understanding of the reality of social orders that create social injustices, apprehending it in fragments which they do not perceive as interacting constituent elements of the whole, they cannot truly grasp the reality of what it – in this context, public health – is about (Freire, 1972, p. 67).

The next section discusses some of the forms of public health representation which PHNEs in this study believed make it possible for students to recognise the *connectedness* of public health.

7.4.2 Encouraging students' engagement

PHNEs described a number of teaching strategies that seek to encourage students' engagement with public health concepts in a way that makes it possible for them to recognise the *connectedness* of public health with their lives. They believed that this can be achieved by situating public health within context, sharing experience and facilitating dialogue. These approaches reflect resonance with the aims of Freire's (1972) theoretical concepts of 'banking' and 'authentic praxis'. For example, PHNEs believe that instead of subjecting learners to what Freire (1972, pp. 46-47) termed

‘banking education’, and the PHNEs call ‘preaching’ – whereby learners are expected to receive and store information delivered to them by PHNEs – learners should be allowed to engage with the public health subject in ways that reflect real life.

This study found that PHNEs’ proposition ‘getting students out to the community’ theoretically compares to Freire’s (1972) concepts of ‘authentic praxis’, described by Shulman and Shulman (2004) as a ‘form of practice that is critical, rooted in both vision and ideological beliefs and self-conscious’ (Shulman & Shulman, 2004, p. 264). In relation to critical pedagogy and social justice, authentic praxis is based upon the idea of encouraging students to seek sustainable measures to tackle inequalities in health (Freire, 1972, p. 60). The value of public health education based on praxis is also supported by several studies of public health written from education perspectives (Fahrenwald, 2003; Getzlaf & Osborne, 2010; McAllister, Rowe, et al., 2006; Nagda et al., 2003; Vickers, 2008). Furthermore, as Shulman and Shulman (2004) pointed out, praxis links the basic attributes required of learners – public health learners in this context – including processes of raising social consciousness, reflection and action, leadership and research (Getzlaf & Osborne, 2010). PHNEs in this study posit that if nurses and other health professionals are to be effective contributors to public health strategies to reduce health inequalities, then their knowledge must be translated into actions that transform the socioeconomic determinants of inequalities in health.

The PHNEs’ ideas of getting students out to the community and encouraging them to develop awareness of social order within it resonate with Freire’s notion of ‘conscientisation’ (Freire, 1972, p. 71). In this context PHNEs aimed to sensitise

students to the injustice of the social inequalities in their own communities, building critical consciousness of self in relation to others; an idea expressed colloquially as *'go local... and know your patch'*. Their idea of building students' critical consciousness was to direct their attention beyond the practices of healthcare of individual patients, to an analysis of social and organisational structures, policies and practices, including healthcare systems. These findings are consistent with other studies that argued that nurses and other healthcare professionals who can bring a critical consciousness to their work have an important role to play in identifying and rectifying inequalities in health status and healthcare (Fahrenwald, 2003; Fahrenwald et al., 2007; Getzlaf & Osborne, 2010; McAllister et al., 2006; Nagda, Gurin, & Lopez, 2003; Vickers, 2008).

It emerged in this study that PHNEs' pedagogical approaches also sought to foster interaction between students and PHNEs in which thinking from the perspective of others was encouraged. This teaching approach was conceptualised by Freire (1972) as 'dialogue'. Freire's (1972) use of dialogue in the context of adult literacy was aimed at fostering the development of basic skills in reading and writing; the development of a sense of confidence and efficacy, especially in collective thought and action; and the desire to change, not only oneself, but the circumstances of one's social group. In a public health context, it is believed that the use of dialogue would facilitate increasing the level of students' engagement with subject content and practice, developing them from being recipients of knowledge to being active participants in finding solutions to the public's health problems.

7.5 Critical reflective and reflexive account

A critical account of my influence on this study, as researcher, enhances the transparency and enables the reader to judge the merits of the study. In chapter one I conceptualised the set of understandings, values, beliefs, experiences, conceptions, and orientations that constituted the source of my comprehension of public health as intellectual biography. I explained the context of my social status, political and philosophical orientations, and professional practice, and the way they influence my understanding of public health and the development of the research questions for this study. I outlined my belief in health as a fundamental human right for all, not just for some.

It was the belief in health as a human right for all that provided a source of motivation to join the health profession. As a young man growing under the apartheid system, it was apparent to me that this fundamental human right was not being observed. I came into the health profession naïvely hopeful that I could make an aspiration of health for all a reality. Within a few years of working as a nurse in South Africa I had experienced repeated bouts of disillusionment with the healthcare profession. It seemed to be characterised by admitting people who suffered from socio-environmentally caused disease, treating them and discharging them back to the environment that made them ill in the first place. Often patients were labelled as ‘regulars’. This seemed to be accepted as the norm. The question about fairness in the distribution of health benefits and disease was not explored. The MSc in Public Health course I attended in the UK provided an opportunity to enhance my theoretical and scientific understanding of patterns of disease distribution, and deepened my understanding of social justice principles.

The thesis arose from a belief in social justice as a foundation principle for public health, and in public health as a strategy to reduce inequalities in health. Several years of teaching an MSc in Public Health provided me with opportunities to share my public health understanding with colleagues and students. The experience of teaching public health within the nursing curriculum has been a source of inspiration for undertaking this project. I was increasingly concerned about the variation of interpretations PHNEs attached to the public health concepts taught within the nursing curriculum, which created a need to develop a research-based explanation for this variation. Before undertaking this study I had developed a pragmatic explanation to cope with those who had different interpretations from mine: I often giggled and said ‘It must be the Xhosa man in me’, suggesting that my socio-political background might have had an influence on my understanding of the subject. Back in South Africa, Xhosa are known for their fierce struggle against social injustices and their invention of the concept of ‘ubuntu’ – that is, humanity towards others. Before the start of this study I was conscious that my family’s political and religious beliefs that all are equal, all are free, and all deserve a chance to pursue their full measure of happiness were consistent with social justice principles.

Chapter two critically explored the literature on social justice and inequalities in health. It concluded that social justice is based on the idea of creating a society or social institution that is built upon the principles of equality and solidarity, that understands and values human rights, and that recognises the dignity of every human being. I was aware that my acknowledgement that my intellectual biography is strongly influenced by social justice principles could create the impression that I simply created the theory from these biases. However, I do not believe this was the

case: one of the reasons for conducting the literature review was to check my understanding of the relationship between public health and social justice against the published literature. The theory of embodying knowledge of teaching public health evolved out of an iterative process of immersion in the data and study of the literature. Furthermore, participants were involved throughout the process of analysis and development of the theory. Ideas were tested out in several public health professional forums including department meetings, faculty meetings, and national and international conferences. These checks sought to enhance the credibility of the findings of the study.

Chapters three to five presented the assumptions that underpin this study, and the methods used to collect and analyse data. These processes presented me with enormous challenges as well as opportunities for intellectual growth as a researcher. I had devoted most of my professional life to enhancing my epidemiological expertise through a Master's in Public Health and various short courses including certificates in epidemiology, screening, systematic review, and critical appraisal of epidemiological evidence. These played a fundamental role in shaping my assumptions about knowledge and reality. Engagement with this study involved a gradual change in my view of the world, from an earlier approach as an epidemiologist, to a researcher who engages with QDA and grounded theory approaches in order to address and answer questions that epidemiology couldn't answer for me.

The theory seeking nature of the research question led to the conclusion that grounded theory was the most appropriate methodology for this study. However, the critical review of different research methodologies in relation to their ontology,

epistemology and methodology within my position as a researcher undertaking investigation within the institution where I worked precluded the adoption of full scale classic grounded theory. It was therefore decided that constructivist QDA offered an appropriate approach to my research question. Constructivist QDA recognises multiple social realities and mutual creation of knowledge which sat comfortably with my insider-researcher position within the study. While the paradigm shift has been a positive experience in terms of broadening my view of the world, it created a number of challenges related to data analysis in particular, notably coding the data and moving from a literal description to a more conceptual, interpretative and abstract approach.

My epidemiological view of the world became a major barrier in my initial attempt at coding the data. I became more concerned about the calculation of frequency with which a particular incident or event in the data occurred, than about the interpretation of the significance of that incident or event in relation to the research question. I had read several published sources on qualitative methodology and was convinced that constructivist QDA was the most suitable methodology to address my research question; however, its philosophical underpinning and application to the examination of collected data proved difficult.

In chapter five I was confronted with the major challenge of learning to abstract from the interview data. While I had begun to embrace the notion of a subjectivist epistemology for this study, its application to data analysis proved difficult. I found myself reluctant to interpret and abstract from what the participants had told me. The supervisory process facilitated critical self-reflection of this learning contradiction. I lacked confidence to interpret the data, preferring to remain at a descriptive level. It

took a great deal of persuasion and encouragement for me to become comfortable and confident enough to take a risk and abstract from the data.

During the analysis I reached a number of theoretical dead-ends and had to keep returning to the literature to enhance my theoretical sensitivity. I believe the main reason for these dead-ends was my limited theoretical sensitivity to the issues emerging from the data. I particularly found it difficult to theoretically explain the PHNEs' differences in understanding and articulating public health concepts. I suspect that my position as an insider-researcher had an influence on this process. My familiarity with the public health subject and the concepts used within the public health discipline might have led me to take some unfamiliar descriptions for granted and to not see their relevance. For example, my initial attempt at coding data consisted of literal extracts from the interviews and established public health concepts. These initial difficulties in interpreting the perspectives of the participants and in analysing the interview data at a more conceptual level can be attributed to my obsession with trying to establish cause and effect and a concrete knowledge of public health. Continued iteration between the literature and the data enhanced my theoretical sensitivity and, facilitated by constant comparative analysis, enabled me to interpret and abstract from the data at a more theoretical level. After a period of interrogation of data, the concepts of 'possessing a wider vision', 'reflecting and learning from experience' and 'engaging in appropriate pedagogical practices' emerged as sufficiently conceptual to explain the PHNEs' knowledge of teaching public health.

A later stage of my analysis confronted a further challenge: the identification of a central category to provide abstraction and theoretical rendering, and to achieve

maximum conceptual clarity. In an attempt to facilitate the discovery of a central category I returned to the field for theoretical sampling. The use of Strauss and Corbin's (1998) techniques of facilitating integration – 'writing the storyline' and 'diagramming' – was what finally led to the identification of a central category of embodying knowledge of teaching public health.

Chapter six presented the framework for a substantive theory of PHNEs' knowledge of teaching public health, of which embodying knowledge of teaching public health is the central category. It used extracts from direct quotations to help to encapsulate the key ideas. The idea of using excerpts from the data to support the conclusion sat comfortably with my view of the world.

Chapter seven presented a theoretical model of embodying knowledge. This chapter presented me with another major challenge, relating to writing up the chapter on discussion of the findings. I initially found it very difficult to let go of the literal data and write my own interpretation, as my experience of epidemiology had taught me to keep interpretation separate from the results of the study. I overcame this block by writing several drafts of the findings chapter, each time introducing a greater degree of analysis. The writing process itself facilitated theoretical insights and enabled me to build a substantive theory.

The process of completing the study also involved a gradual change of position within the context of the study. During the initial interviews my identity as a public health expert was still very strong; that is, I had strong opinions on how it should be understood. This was evident in my reaction to the participants who expressed a different understanding of public health from mine. For me the only way of knowing public health was through formal schooling in public health and working in a public

health setting. This made it difficult for me to consider anything that was inconsistent with established public health expert opinion. To truly hear what PHNEs were telling me, I had to detach myself from the expert identity and take a researcher one. It took a long time for my identity as a researcher to come to the fore. The exploration of PHNEs' knowledge of teaching public health and the experiences that informed their knowledge helped to broaden my view of public health knowledge. I moved from categorising knowledge in terms of the differences between syntactic and substantive knowledge to embodied knowledge.

The emergence of the concept of embodying knowledge of teaching public health in this study acknowledges various experiences in which people engage to make sense of the received information and interpret it according to their personal and professional relationship with the subject: the integration of the subject into everyday life and taking ownership of it. It liberated me to explain to the students that PHNEs' knowledge is shaped by context, and what is presented in class is a representation of their embodied knowledge of public health. The classroom is used as context and processes for the learners and lecturers to explore, critique, and deconstruct the issues that are pertinent to the public's health, rather than the teacher telling students what they should know.

My appreciation of the social context situatedness of public health knowledge enabled me to become comfortable with uncertainty and ambiguity, and this has helped me facilitate students with divergent views. In the past I suspect I tended to challenge views that were inconsistent with an established expert opinion. My hope, at the inception of this study, was to find consensual understanding of social justice being a foundation principle for public health. However, I realised that public health

knowledge is context situated: the PHNEs with whom I worked came from a variety of backgrounds, and their understanding reflected their social, cultural, academic and political contexts; and therefore there can be no single understanding of public health.

7.6 Summary of this chapter

The aim of this study was to build a substantive theory about PHNEs' knowledge of teaching public health. It proposed that embodying knowledge represents complex accounts of their life experiences that influence their understanding of public health and how they act to make the public health curriculum content more intelligible and connected to their students' experiences – conceptualised as *embodying knowledge in practice*. It proposed that embodying knowledge requires understanding of structure (possessing a wider vision of the subject), process (reflecting and learning from experience), and strategic action/interaction (engaging in appropriate pedagogical practices).

The components of the public health curriculum structure were identified as inequalities in health, socioeconomic determinants of health, epidemiology, and policy and politics. However, it emerged that these essential areas were not made explicit or understood by all the PHNEs in the same way; rather, it depended on how they learned public health, their professional backgrounds, and relationship with the public health field.

PHNEs wanted public health concepts to be understood as an integral part of professional nursing practice as well as everyday lives. This study has outlined the processes by which PHNEs interpreted received information and integrated public

health knowledge into their everyday practice as transferring information, changing attitudes and changing behaviour.

It proposed that PHNEs' approach to teaching should specifically emphasise the importance of making it possible for students to see the intimate connection between public health concepts and the broader societal context in which health inequalities are generated. The strategies suggested by PHNEs in this study to address the lack of integration of social justice principles into their practice reflected resonance with Freire's (1972) critical pedagogy.

7.7 Conclusion

Public health practice takes place within a context of rapidly changing social and health policies. Health policies reforms are realities any health research in a national context has to face. The challenge for researchers is to ensure that their research project remain relevant despite the changing context. This has been evident during the life of this research project: the context within which it was conceived is very different for that within which it is being completed. However, the issues that emerged from this project are as relevant in the current political context as they were in the previous one.

The review of literature in chapter two confirmed that the political context within which this study was conceived was underpinned by social justice. There was much evidence of the UK government's commitment to public health as a strategy to reduce inequalities in health, signified by the number of initiatives to support the development of a well-educated public health workforce to move forward the public health agenda. However, there was no evidence of consideration of PHNEs' understandings and interpretations of public health, or of public health interventions

to reduce inequalities in health. This study provides the first documented theoretical explanation of PHNEs' knowledge of teaching public health. The findings of this study will stimulate debate at a time when social justice is less apparent in the UK political context.

The findings in this study have indicated that inequalities in health are the major public health problem; it also indicated that social justice is the foundation principle upon which intervention to tackle inequalities in health should be based. Furthermore, this study found that PHNEs have varied interpretations, understandings and articulations of public health principles of social justice. These findings contradict the assumption held by previous Labour governments that all nurses are willing and able to deliver a social justice agenda. It confirms the evidence presented in the literature review which indicated that understanding of social justice is not consistent across the nursing profession. The current reform within health policy and the lack of evidence of commitment to social justice within current health and social policy have created a greater demand for health professionals with greater awareness of social justice principles to bring social justice back on the agenda.

I would like to end this thesis with a reflection on concepts borrowed from W. Carr (1995) of continuity and change, linking it to the observation by Tata (Father) Nelson Rholihlahla Mandela in his biography *Long walk to freedom* where he stated:

I have walked that long road to freedom. I have tried not to falter; I have made missteps along the way. But I have discovered the secret that after climbing a great hill, one only finds that there are many more hills to climb. I have taken a moment here to rest, to steal a view of the glorious vista that surrounds me, to look back on the distance I

have come. But I can rest only for a moment, for with freedom comes responsibilities, and I dare not linger, for my long walk is not yet ended. ' (Mandela, 1995, p. 751).

Indeed the long walk is not ended: I will continue to refine the ideas about embodying knowledge of teaching public health, taking them outside the study area and disseminating them for others to critique. Having learned about the influence of life experiences on embodying knowledge, this opens the way for studies with different methodologies to explore this further. This could include a more narrative approach to the stories of PHNEs.

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Appendices

Appendix A: Application of paradigms to thesis

Question	Positivism	Post-positivism	Critical theory	Constructivist	Thesis
Ontology	Naïve realism. Apprehensible reality. Reductionist and deterministic. Research can identify the true state of affairs.	Critical realism. Imperfect apprehension of reality. Reductionist and deterministic. Research can identify truth as closely as possible.	Historical realism. Reality shaped by political, cultural, social, ethnic and gender factors over time.	Relativism. Realities understood as multiple mental constructions. Socially and experientially based. Local and specific in nature.	Multiple realities.
Epistemology	Constrained by ontology i.e. relationship must be objective. Duality – research and subject are independent entities. Not influenced by values and beliefs.	Modified dualist/objectivist. Objectivity is an ideal aim. Critical community used as external guardians of objectivity.	Transactional/subjectivist. Researcher and subject are interactively linked. Values of researcher influence inquiry. Findings are value mediated.	Transactional/subjectivist. Researcher and subject are interactively linked. Values of researcher influence inquiry. Findings are created as research proceeds.	Interactive relationship between researcher and subject.
Methodology	Experimental/manipulative. Questions and/or hypotheses are subjected to empirical testing. Control of variables. Quantitative methods.	Modified experimental/manipulative. Falsifying (rather than verifying) hypotheses. Natural settings – situational information. May include qualitative methods.	Dialogic/dialectical.	Hermeneutical/dialectical.	Grounded theory (GT). In-depth interviews. QDA

Table 5: Application of paradigms to thesis in terms of ontology, epistemology and methodology.
(Adapted from Guba and Lincoln, 1994, p. 109)

Appendix B: Participants' information sheet

Investigation of lecturers' perceptions of education, learning and teaching

Participant Information Sheet

As part of my doctorate I am now undertaking an explorative qualitative study into *public health nurse educators' conceptions of public health*. The aim of the investigation is not to gather information about individual lecturers, but rather to understand lecturers' perceptions, beliefs and experiences of teaching and education and learning. You will appreciate that research on lecturers' experiences of teaching in university will guide education policies, improve teaching experiences, promote good practice and promote education initiatives. The study hopes to identify the factors related to teaching experience that participants perceive as important for them. We hope to be able to pick up those variables that exhibit strong explanatory power towards positive teaching experiences.

Ethical approval for the study has been granted as per the University ethical procedures. Your participation is COMPLETELY VOLUNTARY and you will be required to participate in it for no longer than a one hour tape recorded interview. If you do decide to take part you will be given this information sheet to keep and be asked to sign a consent form. If you decide to take part you are still free to withdraw at any time without giving a reason. A decision to withdraw at any time, or a decision not to take part, will not affect you in any way.

All data that you supply are absolutely confidential and shall be stored securely under lock and key and protected by the standard Data Protection Act of 1998 procedures. No person other than researcher shall have access to the information. YOUR NAME IS NOT REQUIRED and all interviews shall remain anonymous.

Please be aware that this should not be taken as a knowledge test, therefore there are no 'right' or 'wrong' responses to any of the questions. Every effort has been made to avoid questions that may cause distress during the interview. However, should this occur I will terminate the interview. I will provide you with the contact details of my supervisor who is available to talk to you. I will also provide you with the contact

details of the Chair of the Ethics committee at the Faculty of Health and Social Care who is available to deal with any unethical conduct during the study.

I would like to thank you for your participation, and shall be happy to provide any feedback required if you would like to see the results. Please do not hesitate to contact me on my mobile phone or email address, both of which are available on the University portal.

Thank you for your participation!

Appendix C: Ethical approval letters

Phase 1 Letter of ethical approval

AW/man

23 November 2006

Andi Mabhala
Senior Lecturer
School of Health & Social Care

Dear Andi

I am pleased to inform you that the Research Ethics Sub Committee of the School of Health and Social Care has approved your project “Lecturers’ Perception of Teaching”. The approval was given by Professor Tom Mason and Alan Gee.

Approval is subject to the following conditions:

1. That you provide a brief report for the sub-committee on the completion of your project.
2. That you inform the sub-committee of any substantive changes to the project.

May I take this opportunity to extend the best wishes of the Sub Committee and its Chairman for the successful completion of your project.

Yours sincerely

Marilyn Norbury
Secretary to the Sub Committee

cc File
AW/man

Phase 2 Letter of ethical approval

22 July 2009

Andi Mabhala
Senior Lecturer
School of Health & Social Care

Dear Andi

I'm sorry for the delay. I am pleased to tell you that your ethics application has been granted approval. The readers have asked me to pass on their comments.

Thanks

Barbara

Appendix D: Interview guide

1. Before we start can I ask you to tell me about your own history and experience in nurse education e.g. when did you come into nurse education, what is your own nursing background?
(A question to help me paint a picture of the 'history' of the nurse educators in this case study and help me to put their own experience into a context of policy change.)
2. Can you talk to me about the areas of public health that you like to teach?
3. What are the 'big ideas' that underpin public health nurse education for you?
What is public health about? For example for some public health is about health inequalities, for others public health is about epidemiology, what would you say public health is about for you?
(A choice of the vocabulary that would be most appropriate for me and my colleagues is important here. I want to enable them to indicate their understanding of the key concepts of public health nurse education. The answers may or may not elaborate on some of the key themes in the curriculum and in the literature.)
4. Why do you think these ideas are important to nurse education?
(A question to enable them to express some of their values and beliefs about public health. These may express some of the themes of social justice that I have been picking out in my reading, or they may not, which will be just as interesting.)
5. What can you tell me about the ways in which any particular government policies or initiatives in public health have had an influence or impact on your practice and your experience as a nurse educator? Can you suggest examples to illustrate some of the points?
(This question to get them to think about the context of the policies that they have been working in, and are now trying to address in nurse education.)
6. What can you tell me about some of the teaching and learning strategies you use to encourage students to think about and understand fundamental/key/core/

important public health issues?

(This might give me some further insight into their beliefs about teaching and learning – I might wish to refer to, or develop the sorts of answers they gave to me last time in Assignment 3.)

7. What can you tell me about some of the public health issues that students find easy or difficult to understand in their nurse education? ...and that you find easy or difficult to teach as a nurse educator?

(Again, this might give some insight into issues of social justice and underlying concepts of public health, as well as a picture of nurse education.)

8. This is two questions in one: how do you think that the curriculum and teaching strategies within the institution enable or constrain you in helping student nurses to understand the key issues of public health and government policy for public health? What suggestions might you make for developments?

(A question which might give insights into curriculum and teaching strategies, as well as highlight some of the underlying issues of values for social justice etc.)

9. What are some of the main opportunities and challenges to you currently as a nurse educator in teaching public health at this time here in the UK?

(Links with personal motivations and experiences in nursing and nurse education, challenges of policy to conceptions of nursing and public health.)

10. What do you think are some of the drivers/influences on current government policies and initiatives for public health? How do these relate to your experience as a nurse educator?

(Such a question might help me to get a picture of their own understanding of policies, and their relationship to policy initiatives.... it might not be in the best place as the last question, it might be more appropriate earlier on.)

Appendix E: Sequential data analysis

Significant statements	Codes
I teach students where to find information	Delegation of ownership
I try to get them to make links between public health with personal and professional lives	Connectedness and delegation of ownership of learning
Public health comes natural for me because public health and community nursing has been a big part of my nursing care experience	Integral part of my life
I fell into health promotion due to my background as a health visitor	Integral part of my discipline
I was not confident that I could go on and do a degree. I asked people about that I started my first degree which is BSc in Health Sciences and Psychology, following which I did postgrad Certificate of Education, then I taught for period of years and more recently three years ago I completed my MSc	Reflection and learning for others
The holistic care approach to respiratory condition or a cardiac condition is to consider the socioeconomic and political factors that contributed to that disease process	Context situated
In addition to that as citizens of this country we've got to vote because there are political connotations regarding health	Political consciousness
[Nurses] have to engage with politics	Political consciousness
Choosing health is important both from patient and practitioner perspective, it examines how they live their lives	Connectedness
People have to take responsibility and act autonomously, we are a democratic country, therefore we should be voicing our concerns and voting or lobbying parties that represents our aspirations	Political consciousness
Make it look realistic because you can help somebody from the theoretic point of view but then it has to be real to them	Relevant and connected
Students have to see how it works for them, it has to be applicable	Relevant and connected
Get them to tell their stories, share their experiences that relate to the subject	Encouraging reflective learning

Table 6: First phase of data collection and line-by-line coding

Significant statements	Codes
Before coming to education I had been a health visitor for over thirty years, I have led numerous modules but the main themes were around public health and health promotion. I only got involved with the teaching public health as part of the SPC [specialist practitioner community] programme teaching health visitors I have since taught numerous courses around health promotion areas	Reflecting on experiences (embodied knowledge)
[Educators] consider what is it that we are doing, what is the government, the policies of the day; the driving forces	Political consciousness
[Educators] need to think about the health promoting messages, the campaigns, the initiatives to address these public health issues	Health promotion
[Educators] need to get [students] to see the bigger picture, how it actually fits into their nursing perspective	Connectedness and context situatedness (embodying knowledge)
[Educators] should ensure subject is not departmentalised	Connectedness
[Public health is] very much trying to get individuals to make those changes	Intervention
Nurses are in ideal position to address these health inequalities	Role perception
Choosing Health encapsulated major public health issues and that allows us to examine them	Understanding policy and politics
In terms of health education and policy the one that we working towards is Choosing Health	Policy and politics
At diploma, it useful to start by giving information, drawing on their experiences, give group work, encourage discussion	Knowing how to teach
At post-reg the focus is on discussion, reflecting on practice, how they can make changes, negotiation	Dialogue, reflective, interpretive and transformative learning
At post-reg they come with host of information and experiences	Learning from experience
Post-reg understand public health concept from community	Learning from experience
Nurses' influence in policy is getting less	Policy and politics
Political ideology influence the direction of change	Policy and politics

Table 6: First phase of data collection and line-by-line coding (continued)

Significant statements	Codes
I was given a responsibility to run a masters module in Public Health; that was stressful given that I had no opportunity for application or consolidation of my theory	
The programme helped me understand the public health principle	Learning from experience
All my knowledge is theoretical, I was taught theoretical, I teach the theoretic element of it	Teaching from experience
Inequalities in health I can relate to from my practice experience working in an area of high deprivation	Reflecting from experience
I knew from experience in practice that inequalities and deprivation major cause of disease; public health course, particularly epidemiology gave me evidence to support my observation	Learning from experience
I teach students what causes ill health; I'm interested to hear their perspectives of inequalities	Shared learning
The inequalities in health are our biggest concern, but how do you get students to understand how the inequalities in health connect to disease that they see in the hospital?	Connectedness
Epidemiology identifies where health issues are, where the inequalities in health come from and what the causes of them	Vision
The only way of knowing [inequalities] is by studying epidemiology of the population	Vision
It helps identify and focuses the strategies to try and prevent ill health by working upstream; developing preventive strategies	Vision
Understanding of population is vital; move away from the individual perspective and take a broader look	Connectedness and context situated
I encourage debate, link to personal experiences	Dialogue and connectedness
Public health elements in their everyday work which they didn't see previously	Connectedness and relevance
I get them to make that link; say how they could use in their area.	Interpretive
I have an interest in relationships between work and health	
[My interest] was stimulated by awareness that people in civil service such as nursing don't really live to enjoy the pension	Learning from experience
I learned Master's in Public Health in University of Lancaster under Allan Beatie	Learning from others

Table 6: First phase of data collection and line-by-line coding (continued)

Significant statements	Codes
The report in pensionable age of civil servants opened my eyes to the inequalities in health	Learning from experience
Early in my career I came across a very good manager who taught me the very simple actions to improve health in work place	
It is important to	
I try to emphasise that issue and talk about primary health care and public health, how individuals have lost the ability to self-care	
[Educators should] talk about [public health in relation to] the difference between the north and south, between rich and poor, between different segments of the world	Connectedness and context situated
[Educators should] talk about what individuals can do within their environments and what nurses can do, preregistration nurses within their immediate environment, just to get people to be aware of the old approach to walking the patch, knowing the patch	Connectedness and context situated – ability to effect change
Without understanding socioeconomic and political we are trapped in cycle of power of bio medicine	Policy and politics
[Students] struggle to see where public health fits, the jigsaw doesn't come together for them	Connectedness
[Students] see public health as a separate entity; there are no mechanisms to pull together all the jigsaws so that they can see where everything fits	Connectedness
[Students] should be exposed to public health from the beginning to the end of their programme	Connectedness
At the moment it's a block here and block	Connectedness
My public health understanding comes from my background as a health visitor	Learning from the experience
Health visiting is about promoting health, early intervention	Learning from the experience
Understanding of the wider determinants of health is key	Policy and politics
When I went into public health, health visiting helped me	Policy and politics
The key one is the Choosing Health; it sets the ground for the inequalities policy agenda; focus in promoting public health, early education; empower people	Policy and politics
[Educators] need to engage students with activities that make public health real, it needs to be interactive	
Public health is everybody's business, then it should be integrated in every module	Connectedness
I am more interested in it as it relates to people with learning disability so areas such as inequalities in health that so of things and also general health policies and how that gets related to people with learning disabilities	Connectedness

Table 6: First phase of data collection and line-by-line coding (continued)

Significant statements	Codes
In LD we combine public health policy with the specific policies relating to people with LD	Understanding policy
My interest in public health stems from my role as school nurse	Reflective
With the change in policy and increase in young people who come with MSc in Public Health I realised I needed to have a qualification in public health to increase my public health knowledge and credibility	Vision of advocacy
My main interest is actually in adolescent health and well-being	Vision of advocacy
I think all the major public health issues such as obesity, alcoholism smoking, stem in adolescent	Vision of advocacy
Major role of the public health community specialist practice is advocacy	Vision of advocacy
The new public health is about giving people the responsibility for their own health when in actual fact they have neither skill or motivation to take on that role	Vision of advocacy
Health is a personal choice but is a choice with caveat, you can only make choice if you are informed	Vision of advocacy
We all know from our experiences, for example smoking cessation, that people with advocacy, support and information we can help people to change	Vision of advocacy
Knowledge is power	Vision of advocacy
It is the vulnerable that suffer the greatest inequalities in health and therefore if we lose vision to advocacy, we lose power to help these people to move out of that state of vulnerability	Vision of advocacy
The general feeling is that public health is something that happens outside the hospital when in actual fact public health is a major part of the acute sector	Connectedness
Pre-registration curriculum provides opportunity to embed issues around the population health and enable [students] to apply public health principle within and outside the health service, because public health is much wider than health service themselves	Connectedness and embeddedness
I think nursing students need to have much broader picture than just inside nursing, they need to be aware of the impact of social and economic environment in what they do	Connectedness
They need to consider where their patients come from, what is it that cause illness in their environment	Context situatedness
I'm rather cynical about the Choosing Health policy directive, you're not going to address inequalities in health by promoting choice	Policy and politics
I go local to the students, I use local newspapers, get them to look around their neighbourhood, even use their own personal experiences and relate it to health	Relevant and connected; experiential
I try to get them involved, get them think, that way they can make the link themselves	Delegating responsibility
These exclude first two interviews	

Table 6: First phase of data collection and line-by-line coding (continued)

Appendix F: Open coding

Themes	Sub-themes	Properties
Socioeconomic determinants of the inequalities in health	<ol style="list-style-type: none"> 1. Social deprivation 2. Employment and unemployment 3. Social status 4. Access to healthcare 	<ol style="list-style-type: none"> 1. Standards of living 2. Housing 3. Access to health supporting resources 4. Employment 5. Unemployment 6. Materialistic 7. Social deprivation 8. Educational attainment 9. Affects other facets of life 10. Social status 11. Identity 12. Haves and have nots 13. Long working hours culture 14. Family life 15. Work-life balance 16. Influence on self-perception 17. Social deprivation 18. Standards of living 19. Access to health supporting resources 20. How much money you've got 21. Where you live 22. Affects other facets of life 23. Social status

Table 7: Themes, sub-themes and properties derived in this study

Themes	Sub-themes	Properties
		24. Loss of identity 25. Haves and have nots 26. Influence on self-perception 27. Social deprivation 28. Standards of living 29. Access to health supporting resources 30. Employment 31. Unemployment 32. Materialistic 33. Social deprivation 34. Resources are not targeted effectively 35. Insufficient resources 36. Are we reaching the people who needs the most care 37. Theory of worried well 38. Those who need most may not be responsive to health promotion 39. We can educate people about health but unless inequalities on things such as education, environmental issues, if they aren't addressed then we will have a very limited impact 40. Living in socially deprive area 41. Health inequalities 42. Public health affects all aspects of life whether it's just day to day living, employment, where you live, how much money you've got, your social life, cultural/ political aspects, all impinge on health. 43. Public health is about health inequalities others public health is about epidemiology 44. Health certainly from occupational health perspective, how employment is so important to people 45. Again if employment is not there is a loss of identity, and

Table 7: Themes, sub-themes and properties derived in this study (continued)

Themes	Sub-themes	Properties
		<p>46. Again if you look at it from the social deprivation angle and other issues where there is no prospect of any kind of identity and</p> <p>47. Again how that affect other facets of life such as standards of living and access to sort of things like resources and again and sort of changing culture really</p> <p>48. We tend to define ourselves by what we do and the status that goes with it, whether that is materialistic view of how we perceive ourselves and it gets to the stage where that</p> <p>49. To think that there are so many facets that affect anybody's health really, and employment or lack of employment for some is a big part of that</p> <p>50. We do have a moral obligation to tackle inequalities in health; because there are so many injustices and unfairness that goes with it, however, as a professional body we don't seem to have strong voice to influence political agenda</p> <p>51. You have to consider all the socioeconomic and political factors</p> <p>52. We can educate people about health but unless inequalities on things such as education, environmental issues if they aren't addressed then we will have a very limited impact</p> <p>53. What determines ill health you know or, what determines being healthy</p> <p>54. Therefore you can't avoid this huge focus on health inequalities</p> <p>55. I work geographically was an area of high deprivation</p> <p>56. For me Dahlgren and Whitehead is the best way to unpack the links</p> <p>57. Its understanding of the wider determinants of health</p> <p>58. There is a growing awareness of inequalities in health particularly in relation to people with learning disabilities</p> <p>59. I am more interested in it as it relates to people with learning disability so areas such as inequalities in health</p> <p>60. Need to be aware of the impact of social and economic environment</p> <p>61. Need to consider where their patients come from, what is it that cause illness in their environment</p>

Table 7: Themes, sub-themes and properties derived in this study (continued)

Themes	Sub-themes	Properties
		<p>62. Cannot ignore the fact that there are pockets of inequalities that are hidden within this vast wealth</p> <p>63. Holistic approach to healthcare</p> <p>64. Holistic care you might be looking at respiratory condition or a cardiac condition, for me you have to consider all the contributing factors to that disease process in the first place</p> <p>65. Holistic approach to nursing</p>
Policy and politics	<ol style="list-style-type: none"> 1. Health policy 2. Political engagement 3. Choosing Health 4. Wanless reports 	<p>66. Think the government policy is certainly going the right direction</p> <p>67. Without adequate resources to put that into place sometimes I think it all falls short of the target</p> <p>68. There is ceiling in those choices in as much as I can decide to eat healthily, I can decide to do the best that I can to eat healthy diet, then there comes a ceiling as to what choices are made available to me</p> <p>69. Student nurses are citizen of the country but also nurses, and I think you have to engage with politics because otherwise from the health point of view I don't think we are going to see any great changes, any changes have to be supported by the government</p> <p>70. We not political animals, but if they buy into any political agenda, they see what the government is trying to do</p> <p>71. The government is doing in terms of legislation with food</p> <p>72. We are a democratic country so therefore we should be voicing our concerns and voting or lobbying parties to make inroads into areas where we feel we don't have much control over</p> <p>73. Acknowledges the real issues</p> <p>74. Resources are not targeted effectively</p> <p>75. Insufficient resources</p> <p>76. Are we reaching the people who needs the most care</p> <p>77. Theory of worried well</p>

Table 7: Themes, sub-themes and properties derived in this study (continued)

Themes	Sub-themes	Properties
		<p>78. Those who need most may not be responsive to health promotion</p> <p>79. Choosing Health is important both from patient contact perspective, also from students' perspective</p> <p>80. Change in your own life, you have to think about whether or not those choices are made easier for you</p> <p>81. Choosing Health, what it does I suppose in many ways it encapsulated some of the major public health issues and that allows us therefore to go away and examine them in a much broader way</p> <p>82. Choosing Health, that sort of set the ground</p> <p>83. Was a key I think, NHS now is having to look at the business</p> <p>84. If you looking at a business, you got to look at the prevention really in terms of sustainability and things like that, I think the economy where things are going, these all have an impact really in policy direction</p>
	<p>1. Health promotion</p> <p>2. Empowerment of the vulnerable groups</p> <p>3. Motivating peoples' awareness of the impact of their behaviours on health</p>	<p>85. Lifestyle issues</p> <p>86. Overweight</p> <p>87. Alcohol, no job all</p> <p>88. Sexual health</p> <p>89. Teenage pregnancy</p> <p>90. Obesity</p> <p>91. Things that they can change particular in terms of lifestyle changes</p> <p>92. Health promoting messages</p> <p>93. Health trainers</p> <p>94. It is more of a negotiated role really, as opposed to more sort of like directive role</p> <p>95. To empower people to realise that getting there early, parents and education is key if will make difference</p> <p>96. Brief intervention</p> <p>97. Health education</p>

Table 7: Themes, sub-themes and properties derived in this study (continued)

Themes	Sub-themes	Properties
		<p>98. Vulnerable groups that may arguably not have the same kind of information, don't feel empowered perhaps to access healthcare, maybe don't even know it is there and therefore you can't avoid this huge focus on health inequalities</p> <p>99. Get individuals to make those changes</p> <p>100. Intervention for changing people's behaviour</p> <p>101. It is more of a negotiated role as opposed to directive role</p>
	<ol style="list-style-type: none"> 1. Scenarios – Problem-based learning 2. Group discussion 3. Case scenarios 4. Lecture-based 5. Reflective practice 6. Web-based 7. Public health games 8. Neighbourhood study 9. Treating PH as separate entity 	<p>102. I think a good way will always be problem-based learning</p> <p>103. Encouraging group discussion giving group case scenarios to work through on often</p> <p>104. Get students to think about all those different facts really as opposed to general standing there and telling them that that is what public health is</p> <p>105. Make it look realistic because you can help somebody from the theoretic point of view, but then students have to see how it works for them</p> <p>106. You don't want to preach, you want to engage them</p> <p>107. It depends on students, it depends on levelness in terms of their understanding, so I guess if you talking about students nurses looking at diploma perspective, it is quite useful to start by giving information, I suppose lecture-based to start with, but drawing them on their understanding, getting them to do some group work and discussion in order to establish whether that understanding is there</p> <p>108. I tend to use web-based information, I use the discussion boards, new articles, new publications, I'll post them on there and encourage a debate when they come back in class</p> <p>109. Used the public health games</p> <p>110. Neighbourhood study where the students actually go to area and look at what facilities are out there and, you know, access to service and things like that</p> <p>111. Get boxed in one module</p> <p>112. Not treating it as a theme that runs through the programme</p>

Table 7: Themes, sub-themes and properties derived in this study (continued)

Themes	Sub-themes	Properties
		113. Teaching strategy – e-learning 114. Assessment brief 115. Students focus on assessment and less on wider public health 116. Limited of public health expertise 117. Financial constraints 118. Slave to competencies 119. Social needs to appease voters 120. Topical issues that raise public awareness 121. Research 122. Public expectations 123. Finance – affordability of healthcare

Table 7: Themes, sub-themes and properties derived in this study (continued)

Appendix G: Data analysis – category, subcategories and properties

Categories	Subcategories	Properties
Learning – curriculum content	Main areas of public health teaching	Inequalities in health, epidemiology, policy and politics, socioeconomic determinants of health
	Interpretation of public health concepts	Variable
	Explication of essential public health concepts	Variable
	Perceived government response to public health concerns	Sufficient, good, insufficient
	Major public health concern	Health and social inequalities, deprivation
	Factors that determine varied explication	Variable
	Area of public health expertise	Variable
	Beliefs about public health	Variable
	Settings where public health was practised	Variable, highly affluent and most deprived
	Relevance of public health to all nursing disciplines	Interwoven
	Integration and connectedness	Social, cultural, political, income, employment
	Major concern	Differences between haves and have-nots
	Conceptualisation	Determinants of health and health inequalities
	Interventions	Government policies and motivating people to change their behaviour

Table 8: Data analysis – category, subcategories and properties

Categories	Subcategories	Properties
Experiencing – PHNEs’ experiences	Nursing professional background	Health visitors, district nurses, learning disability nurses, mental health nurses, occupational health nurses, general nurses, school nurses
	Nursing practice setting	Community, general hospital, mental health hospital, schools, private sectors
	Years in nursing practice	Over ten years
	Experience prior to becoming public health educator	Variable
	Type of public health experience	Varied from no experience to health promotion experience, theoretical experience
	Motivating factors to become public health practitioner	Values (career aspiration), beliefs (social justice), practical (current job); policy change
	Motivation to become public health teacher	Variable
	Years in public health practice	Variable from none to years
	Years of teaching public health	Variable from two years to over thirty years
Expressing – pedagogy	Methods of teaching	Variable
	Contradictions	Integration and connectedness; students
		Separate entity
Mechanism to deal with contradiction	Engagement, dialogue, conscientisation, participation	

Table 8: Data analysis – category, subcategories and properties (continued)

Appendix H: Comparative analysis of data relating to the phenomenon of experience

Excerpts from Iras interview (phenomenon of experience)

I was given a responsibility to run a Masters module in Public Health. This was very stressful given that *I had only just finished my Master's in Public Health [theoretical experience]*, I had no opportunity for application or consolidation *[no practical experience]* and I was basically given public health module. When I raised my concern about it I was told that, well you've done the course, you should be able to teach, so I picked it up for that year....

Now when I teach the students, students district nurses to understand the principles of public health because you have to have that passion, drive for it. The only problem is that I find to be honest is that I have never had an opportunity to work in a public health arena, all my knowledge is theoretical, because I was taught theoretical. I did a theoretical programme of study and now I teach the theoretic element of it, I have never actually worked in public health arena although my background is community nursing, that something I would like to do to go out and spend time with them, I have tried to do, but they were so short staffed, I wanted to shadow them to see what they did, so then I can come back to talk to the students with more practical application

Excerpt from Haz interview (phenomenon of experience)

I came from public health perspective because I did my health visiting training and health visiting is very much about promoting health, looking at prevention, getting there early really, and that is basically where I became very interested in public health. and obviously as part of that health visiting course you looked at public health generally, and then as a mentor for health visiting students that developed, and I have done various other jobs, I worked for the public health network for Cheshire and Merseyside, so again it's all linked to looking at public health really, and developing policies and then the workforce development my role was very much based on.

Table 9: Comparative analysis of data

Excerpt from Jaz interview (phenomenon of experience)

My background is health visiting really; I have been in education for five years, in that five years there has been a numerous modules that I have led, but in the main themes certainly were around public health and health promotion. Before coming to education I had been a health visitor for over thirty years, I always maintain that health visiting is part of public health because there is a lot of health promotion, promoting child health; I have recently done a course in family planning. I only got involved with the teaching public health as part of the SPC [specialist practitioner community] programme teaching health visitor [new NMC education requirement for the specialist community public health registrants], of course health visiting is very much public health. I have since taught numerous courses around health promotion areas

Excerpt from Gus interview (phenomenon of experience)

My interest in public health stems from my role as school nurse, when doing my school nurse qualification I realised that if we were to change the outcome for children and young people, we need to do it from the public health perspective. And from that point on I became really interested in public health aspect of health and well-being, when we moved to PCT systems I began to undertake some public health work, I then went on and did Master's in Public Health from Liverpool University to provide the theoretic framework for the work I was doing, following that I moved from my role as fulltime professional school nurse to 50/50% split as a public health specialist and school nurse professional lead.

Excerpt from Daniel interview 11 (phenomenon of experience)

Forgive my cynicism but in pre-reg it appears to me that the decision in my department [mental health] about who teaches public health is based on availability. Whoever, is says yes to becoming a mental health representative in public health modules... and very often it's new members of staff who have not got much in their diaries yet, for example at the moment the representative is Becca but as soon as she started she went off to maternity leave, and I got called to sit in for her. Don't get me wrong, I don't mind stepping in; I wouldn't say I necessarily have public health expertise, but I see the connection between public health and mental health.

Table 9: Comparative analysis of data (continued)