An investigation into the recruitment and retention factors of nurses who work across Northern Scotland's remotest island communities using a life history methodology.

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Dedication

To my dear lifelong partner Scott. You have helped and supported me through times of happiness and sadness. You have been my rock over the years. I love you so much, and not forgetting little Geoff for all the love hugs and bites you have provided over the years.

Acknowledgement

Thank you to Professor Annetta Smith and Professor Gill Hubbard from the University Highland and Islands. The support you have provided over the past seven years has been outstanding. You have pulled me from the depths of despair and dragged me kicking and screaming into reality. Your honest comments and encouragement will never be forgotten. Thank you both so much.

To all the people that have helped me during the course of this study, while providing motivational support and much needed push in the right direction. Thank you to all who participated in this study all of whom made me feel so welcome and provided much needed coffee and warmth.

Abstract

Background

Over the past decade the nursing profession has seen a significant shortage of nurses to meet the ever-increasing demands of the National Health Service (NHS). This has placed recruitment and retention at the forefront of political agendas. In order to meet increasing demand, health boards need to explore new avenues of working especially for remote and rural practice.

A group of nurses are at the forefront of patient care and who's role incorporates working in some of the harshest environments across the UK. These nurses work on remote and rural islands known locally as non-doctor islands (NDI). These islands are unique to Northern Scotland and cover three health boards, NHS Orkney, NHS Shetland and NHS Highland. These nurses provide 24-hour cover 365 days a year with a diverse skill set that covers primary, secondary and emergency care. This study will explore the factors that influence nurse's decisions to live and work on the NDIs and furthermore the factors that keep them in post.

Aims and Objectives

The overall aim of this study is to understand the life history and career events that influence the trajectory of nurses who work on non-doctor islands across Northern Scotland. To furthermore understand the career journey of nurses and what influences their decision-making process to work on non-doctor islands. To understand the experiences of nurses who work on non-doctor islands and to understand the reasons nurses, remain or leave their employment on non-doctor islands.

Methods

This research explored the life history of eleven nurses who work and live on the NDIs. The aim of which is to understand the factors that influence their overall recruitment and retention to the islands. What makes this research unique is the use of a life history methodology. This methodology is used to underpin semi-structured interviews of the nurses, taking them back to their early childhood memoirs and mapping their career and life journeys to the present day.

Results

The results show that childhood support networks form an important aspect in their early childhood experiences. It is these experiences where we see the emergence and recurring life history themes of independence, resilience and teamwork. The pathways into nursing were fostered by first-hand experiences of caring and that of family role models. Today we see nurses that form part of the wider island community who have clinical autonomy and work life balance. The move to a non-doctor island for many is their final steppingstone before retirement.

Conclusion

This research has identified the factors that influence nurse recruitment and retention to NDIs. The use of a life history methodology has facilitated an insight into the life history of the participants from their early childhood memories to the present day.

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Definition of Terms

Life History

Life history is an approach taken via the social sciences methodologies that documents a person's life over time. It is a recall of personal events in their own words and understanding and is used in qualitative research (Ssali 2015).

Non-doctor Island

An inhabited island across northern Scotland that is only accessible via boat or aeroplane. The health needs of non-doctor islands are provided by community nurses from varied clinical backgrounds i.e., primary and secondary care. They provide medical cover 24 hours a day, seven days a week to the island community.

Primary Care

The aim of primary care is to provide a broad spectrum of prevention and curative care for example, General practice (GPs), community pharmacy and dental services (Alderwick and Dixon 2019). Primary care services provide the first point of contact in the health care system, acting as the 'front door' for NHS patients. Primary care is a patient's main source of regular medical care which is provided within the community setting.

Remote and Rural

A classification of remote and rural is based on two factors: population and accessibility. It classifies a settlement of less than 3,000 with accessibility based on a drive time to a settlement of 10,000 or more people (Scottish Government 2014).

Key Words:

Nursing, Nurse, Remote, Rural, Shetland, Orkney, Highlands, Care, Life history, Scotland, Scottish, Islands.

Chapter 1 Introduction

1.1 Introduction

This introductory chapter will begin with a brief overview of the study and puts into personal context the reasons for undertaking the research along with an outline of reflexivity. This will be followed by a summary of the national government drivers that have been implemented across Scotland's remote and rural health boards with a predominant focus on shifting the balance of care from secondary and tertiary services back into the hands of primary care providers (Imison et al 2017). This shift in the balance of care has implications for smaller Island Health Boards in Scotland for example, NHS Shetland, Orkney and Highlands in relation to how care is delivered. Examples of shifts in the balance of care include focus on long term health conditions, end of life care and rapid access to specialist practitioners. The remainder of this chapter defines remote and rural health care and explores the homogeneity of the non-doctor islands.

1.2 Reflexivity in qualitative research

It is important to acknowledge the role of reflexivity throughout the different stages of this study. The term reflexivity refers to the position of observers and/or interviewers being part of, rather than separate from the data (Morse 1990). The researcher can therefore be implicated in the construction of knowledge as a result of their personal stance and experience (Bryman 2016). As described in the following section, my own background and experience of a nurse living and working in the Scottish islands prompted both my interest in this research study and to an extent influenced my methodological stance.

There are acknowledged advantages and constraints when considering the position of personal reflexivity in research that have also been relevant to this study. Morse (1991) describes the research interview as an interpersonal encounter which can be supported through a position of mutual understanding, rapport and trust – leading to more candid interview conversations. Therefore, it was important that I acknowledged my own professional experience to the participants, that was, as a nurse who worked in the Scottish Islands and as such had insight into their context. However, at the same time

I did not share my experience of that context as that could have both influenced participants responses and would have impacted on the objectivity of the research. Morse (1991) further cautions the researcher who enters the study believing that the culture is already familiar resulting in important data being overlooked. Therefore, while I had experience of nursing in similar settings to the participants it was important that I 'suspended' or packed away my own experiences and focused on the participants experiences. Additionally, methods used for data collection that included the interview schedule, audio recording and transcripts helped to increase my objectivity in relation to the interpretation and analysis of data.

The following section will outline my own personal story and describes how this story prompted my interest in this study.

1.3 My own story

I wanted to begin by telling my own life story and provide the personal context for undertaking this study. I was born and raised in Liverpool by my mother Lynne and father Peter. We lived in a typical town house in Liverpool. Life growing up was spent with my friends doing what typical boys do at that age. I was a very shy child; I spent a lot of time with my dad in the kitchen and doing photography around Liverpool docks, hence two of my current passions. I always found solitude in my own company as a child, the teenager years were other spent camping and climbing.

I didn't enjoy primary or secondary school, any opportunity not to be there was taken. My childhood dream was to be a paramedic. Having not achieved at school, I went to college and completed a teaching certificate and national diploma in public services, in an attempt to get into the ambulance service. The minimum age to train as a paramedic was twenty-one. Having just turned eighteen I decided to become a nurse then transition to paramedicine, however this did not happen until my 30s. I graduated as a nurse in 2004 and went to work in the local Accident and Emergency department.

The year 2011 was an important time for my career journey. Having worked in one of Liverpool's busiest Accident and Emergency departments and specialising in resuscitation medicine, it was time for a change; a new career pathway, a new way of

life away from secondary care. I decided to expand my clinical practice as there was nothing keeping me in Liverpool and noticed a job advert in for NHS Shetland remote islands.

There are several nurses led islands across northern Scotland, these are known locally as non-doctor islands, without resident medical doctors. Non-doctor islands are found in the more northern remote island health board areas where experienced nurses are used to provide health care to these remote island communities.

Working as a nurse on a non-doctor island seemed my ideal job and the challenge I was looking for. I was fortunate enough to be offered some agency nursing work with NHS Shetland covering primary care across the non-doctor islands. It was the Christmas of 2011 when I found myself surrounded by snow, having travelled over four hundred miles north I eventually found my way to Fetlar, one of Shetland's most northerly islands. I was alone, next to the sea surrounded by snow, unable to get out of the accommodation and encircled by the Northern Lights and beautiful scenery.

It was at this point when I decided life needed to change. Having worked and been educated in Liverpool, there seemed to never be a period when I could honestly say I offered the best care I could to the patients I looked after. Patients were not patients, they were often numbers and statistics within a system, and for me, I became a nurse to care for people.

After three weeks of island life, it was time to go home. Once back in Liverpool I pined to return. I waited for a job to become available, had a interview and was offered a job. I left my family, friends, an established career pathway and everything that I had known for this new challenge, and to this day I never looked back. It was perhaps one of the hardest decisions I had ever made, but one of the best.

My career journey was not easy and often I question my career decisions. This made me realise I have never explored my own personal reasons for moving, and for some of the life / career decisions I have made. I had my own reasons for wanting to move from Liverpool to Shetland. However, I was also curious about - the motivations and life

experiences for other nurses relocating to remote, rural and island settings. I was also conscious of the importance of recruiting and retaining nurses to these fragile communities, hence the reason for this study.

1.4 Aims of the study

To understand the life history and career events that influence the trajectory of nurses who work on non-doctor islands across Northern Scotland.

Study Objectives:

1 To understand the career journey of nurses and what influences their decision-making process to work on non-doctor islands.

2 To understand the experiences of nurses who work on non-doctor islands.

3 To understand the reasons nurses, remain or leave their employment on non-doctor islands.

There is very little known about nursing across Scotland's most northerly islands. The understanding of an individual's personal and career history will provide a unique insight into why nurses choose to live and work in such unique clinical environments and the daily challenges they face. The use of a life history methodology is ideally placed to explore the decisions individuals have taken and how life experiences have influenced their recruitment and retention to non-doctor islands. This unique insight will contribute to the wider understanding of clinical practice across remote and rural islands and inform strategies to develop nursing workforce resilience and sustainability for future generations. Furthermore, the insight gained will help identify key characteristics which individual nurses may possess to make them suited to this unique and challenging nursing role.

Remote and rural practice have unique challenges not routinely found in every day clinical settings (Goodridge and Marciniuk 2016). Non-doctor islands are part of the NHS Scotland's remit and therefore are encompassed within national health policy. To understand the life history and career events that influence the trajectory of nurses who

work on non-doctor islands across Northern Scotland has the potential to inform relevant heath policy which could then have an impact on health care on these island communities. What follows is a brief exploration of the nursing workforce and the wider policy and governmental drivers that have shaped clinical practice over the past decade with a focus on how the nursing workforce has diversified from more traditional nursing practice to meet increasing demand of primary care services across remote and rural practice.

1.5 Changing Scottish health policy

In 2012 the integration of the adult health and social care bill was introduced in Scotland (Scottish Government 2012). This bill focused on the re-shaping of clinical practice by greater merging of health and social care services including the pooling of resources and staff (Scottish Government 2012). This combined with the Quality Strategy (2010) identified the need for equitable access to high quality health care services for all patients regardless of personal characteristics such as gender, ethnicity, geographic location or socio-economic status (NHS Scotland 2010). These policies influenced how care was delivered across remote and rural practice for example, co-located community nursing teams, increased use of telecare and telehealth to deliver care, increased anticipatory care and increased specialist care pathways (Scottish Government 2016). However, despite these developments what was truly needed was a nursing workforce that was diverse and could meet the everyday holistic needs of patients (Royal College of Nursing 2015).

In 2016 the Scottish Government set out a new trajectory for change in an attempt to make the Scottish NHS a leader in care delivery, patient safety and patient centred care. The main drivers for change were identified in the Clinical Strategy for Scotland (2016) and include:

- Demographic changes in the Scottish population.
- The changing pattern of illness and disease.
- Inequalities in health.
- Balancing health and social care in relation to need.
- Managing the workforce.
- Finance.

- Remote and rural challenges.

The past decade has seen the Scottish population increase, with an estimated population in 2014 of 5,347,600, an increase of 19,900 from the previous year (Scottish Government 2015). The estimated population by April 2020 will be approximately 5.5 million, of which it is estimated that 20% of the Scottish population will live in a remote and rural areas, which comprises 94% percent of the total land mass (MacVicar and Nicoll 2013). Stresser (2003) and the Scottish Government (2021) report that population distribution and its overall infrastructure makes remote and rural practice unique.

Whilst the overall Scottish population is increasing, the island populations have been on a general slow decline over the past decade. Orkney and Shetland for example are each projected to lose 2.2% of their population by 2041. However, the Scottish government's 'Islands national plan' (2020) aims to increase the island population by supporting economic development, wellbeing, and promoting health and community empowerment over the following decades in an attempt to stabilise a shifting population (Scottish Government 2020).

The Scottish Government (2016) and Arvinth (2015) report that people are living longer, healthier lives with an increased life expectancy increasing. This trajectory is set to continue until at least 2030 with the number of people over 65 years of age increasing from 0.93 million to 1.47 million over the current decade. A shift is occurring from acute illness towards long-term term stability of conditions for example, heart disease, diabetes and cancers, with the prevalence of long-term conditions increasing with age. The Scottish Government (2016) found that people with long term illness are twice as likely to be admitted into secondary care for longer, thus accounting for over 60% of hospital bed usage. The burden of long-term illness can lead to increasing loss of independence (Maresova et al 2019). For many older people this has restrictions on daily living and therefore quality of life and their inability to maintain independence with activities of daily living. Their deterioration in confidence, motivation, memory, sensory awareness, and mental health can be exacerbated by rural remoteness and social isolation, thus placing extra burden on health services to deliver

patient centred care.

For those patients living in remote and rural settings accessibility to health care can be costly with many patients having to travel long distances to reach health care services (Kelly et al 2016). In terms of accessibility and travel, people living in remote and rural areas are generally out with reasonable drive times for accessing primary care services. Thus, people in remote and rural areas have an increased spend per month on fuel, with an average cost in excess of one hundred pounds (Scottish Government 2017) and these costs are expected to increase significantly. This subsequently leads to health care inequality across remote and rural localities. Levin (2006) identified that health inequality has grown across Scotland in the past twenty years, with a significant increase over the past decade, with a noticeable proliferation amongst the remote and rural elderly groups.

The National Health Service (NHS) is required to deliver high quality care within one of the toughest budget restraints in ten years. With an estimated spend of 13.4 billion in 2018/2019 this equating to 6.9 billion (53%) being spent across the workforce. (NHS Scotland 2019). This spending forecast was prior to the expected negative financial impact on the NHS due to the Covid-19 pandemic. The relationship between health care expenditure and health outcomes is not a positive linear transition where more expenditure leads automatically to improved health outcomes (Scottish Government 2016). To meet increasing demands and balancing outgoing expenditure, more onus needs to be placed on delivering safe effective patient centred care within the community and home environment, thus shifting the balance of care away from secondary care setting back into primary care (Scottish Government 2009; Imison et al 2017). This shift in the balance of care is placing more responsibility into the hands of the patients with a direct focus on self-management of chronic diseases (Grady and Gough 2014).

What is seen is that national policy is shaping remote and rural practice which offers unique challenges when it comes to the delivery of health care. In order to meet increasing demands placed on health boards a way is needed to find innovative ways to overcome health inequality, balance financial restraints and support transportation

and infrastructure (Scottish Government, 2016). One way to achieve this is by diversifying and pushing the professional boundaries of its workforce. What has become evident over the past decade is that the traditional professional boundaries of health care practitioners have blurred (Gilburt, 2016). Once nurses were often described as handmaids to doctors. Nurses today are taking on increasing clinical responsibility associated with critical thinking, autonomous practice, and non-medical prescribing. This model of practice breaks down the traditional professional barrier to clinical practice and allows nurses to utilise their clinical skills across both primary and secondary care services. This is not exclusive to the nursing profession but across all allied health professions.

1.6 Nursing roles

Nursing practice roles have emerged over the last 25 years in response to two major challenges: the significant reduction in available doctors; and the rise in numbers of patients with complex health needs (Gray 2016). One important response to these challenges has been the development of extended and advanced nursing (and allied health professional) roles. Fundamental to these developing roles is exposure of nurses to education that extends their scope practice. Registered nurses are increasingly extending and expanding their scope of practice beyond initial registration in all health care settings developing their skills, competence and confidence (RCN 2021) who have the freedom and authority to act autonomously and independently (RCN 2021). Nurses with extended roles beyond initial professional regulation are found in a wide variety of practice settings and will have specialist skills, relevant to primary and secondary care settings. These may include additional professional roles, for example health visitor or district nurse; specialist roles, for example diabetic nurse specialist, advanced practice roles and nurse consultant roles (Scottish Government 2021). As will be discussed in subsequent chapters, the nurse participants in this study held varied additional post-registration qualifications and nursing expertise gained in primary and secondary care settings.

Currently, in the UK there is no specific nursing qualification that focuses on remote and rural nursing practice. Additionally, the definition of remote and rural nursing in the literature can be ambiguous and ill-defined (MacKay et al 2021). This is despite

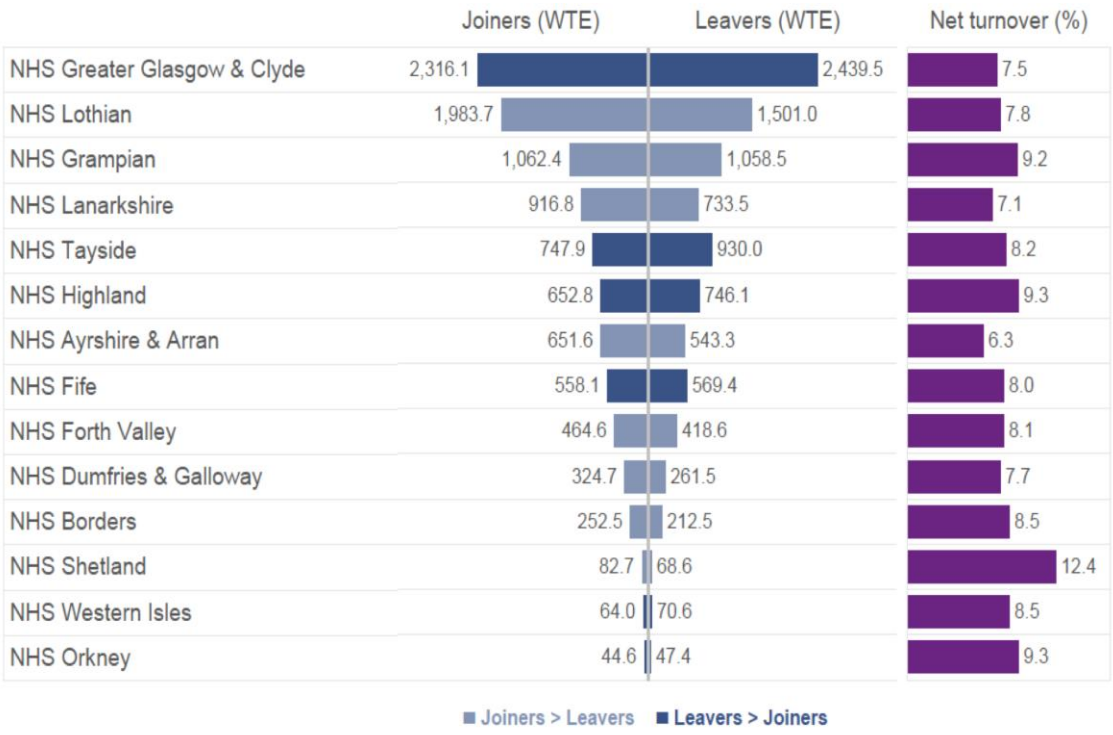
the assertion that rural nursing practice has been defined as a unique, demanding and challenging speciality requiring specific personal qualities such as flexibility, versatility and adaptability (Caldwell 2007). There is a dearth of literature that specifically focuses on nurses working in non-doctor island settings. Campbell, (2013) identified that nurses choosing to live and work in remote and rural remote areas is dependent upon a combination of demography, developmental and environmental factors. Furthermore, the complexity of demographic, environmental and developmental variables are often intertwined and complex resulting in the fact that one model does not fit all situations. Up until this point little is known about the role of the non- doctor island nurse. The international literature does go some way in explaining the challenges faced by the more remote and rural nurses and while much of this evidence can be relevant in the UK context, there is limited direct comparison to non-doctor islands contexts.

1.7 Workforce Strategy

In 2018, there was 163.061 staff employed across NHS Scotland (Scottish Government 2018). This represents an increase of 0.3% on the previous year, with the overall representation of growth of health care professionals remaining steady year on year. However, the overall net turnover of staff was 6.6% in 2017/18, thus an increase of 6.3% from the previous year. So, although the rate of recruitment has remained relatively static, the number of leavers has increased.

Figure 1 shows a comparison in relation to joiners and leavers Whole Time Equivalent (WTE) across NHS Scotland's health boards in 2017-2018. What is notable is the net turnover in the remote and rural health boards. For example, NHS Shetland 12.4%, NHS Orkney 9.3%, Western Isles 8.5% and NHS Highlands 9.3% which represent the highest percentages for staff turnover (Scottish Government 2018).

Figure 1 Overall trend of joiners and leavers between April 2017 and April 2018.



The workforce across remote and rural settings offers unique challenges to rural health boards especially when it comes to recruitment and retention (Green et al 2018). Some workforce challenges are not specific to non-doctor islands and apply across mainland rural Scotland including for example, unsustainable workloads, difficulty in taking annual leave, professional and personal isolation, maintaining professional boundaries, lack of schooling for children and lack of employment opportunities for spouses, irregular accessibility of locum cover, and lack of supportive services for example care / nursing homes (Green et al 2018). An international collaboration project undertaken between 2011 and 2014, called Recruit and Retain (Abelsen 2020) included Scotland, Sweden, Greenland, Iceland, and Norway. The aim of the project was to provide baseline data on recruitment and retention of health professionals using interviews, surveys, literature reviews and observations. The recruit and retain project found that in order to have sustainability across the workforce context specific needs to be taken into consideration. For example, understanding historical issues, community engagement, adequate and sustainable investment, annual review of activities and monitoring and evaluation (Abelsen et al 2020).

The Making It Work Framework for remote and rural workforce stability sets out a more proactive approach to workforce management by investing in human and financial resources, thus leading to workforce stability, improved outcomes, and productivity across remote and rural practice (Abelsen et al 2020). This new framework contains three key elements: Plan, Recruit and Retain. The plan stage, explored the population service needs, aligns models to service needs and targets the relevant recruits. The recruit stage emphasises information sharing, community engagement and support families/ spouses. The retain element includes training opportunities, personal professional development, and team cohesion. This three-staged framework breaks down the workforce challenges identified in the previous paragraph by considering the unique remote and rural context and its unique impact on recruitment and retention. Recommendations direct top level management be at the forefront so that there are dedicated resources readily available to address the issues relating to recruitment and retention (Abelsen et al 2020). The application of this framework noted the importance of the uniqueness of remote and rural issues and the wider inclusion and engagement of the community as an important factor in overall recruitment and retention.

In Scotland and the UK, health care policy is constantly evolving to meet the growing demands of the nation's health care needs, an evolving staffing crisis within health and social care all of which have been exacerbated by the COVID 19 pandemic. Figures produced by NHS Scotland (2021) show that a discrepancy exists between the number of nurses in post and the number of nurses required to run services. This nursing shortfall dates back 2015 (Royal College of Nursing 2021). Importantly, nursing is classified as a safety critical profession and research from the Royal College of Nursing (RCN) has shown that there is a direct correlation between staff having the time to care and positive outcomes for their patients (Royal College of Nursing 2021).

The Health and Care (Staffing) (Scotland) Act, (SG 2019) is the first legislation of its kind in the UK to apply in both health and social care settings. It means that staffing for safe and effective care in Scotland is enshrined in law. The Act ensures that all suitably qualified and competent individuals are working in such numbers that are appropriate for the health wellbeing and safety of patients, thus allowing them to

provide high quality health care (Health and Social Care Act 2019). However, the RCN (2019) highlight the act alone will not deliver the workforce needed to address staffing challenges across health and social care pointing to a longer-term strategic approach that includes redesigning services. Furthermore. a nursing shortage in Scotland has intensified over the pandemic period (RCN 2021).

The impact of the workforce challenge, the rise in health care demand coupled with more complex long-term conditions presenting in the population affect health and social delivery care at every level. Arguably, for the population of the remote island communities these factors can be further intensified with older populations to care for and very specific recruitment and retention challenges. To achieve a sustainable workforce across remote and rural communities and to comply with the staffing act 2019 requires health service modelling that is designed and responsive to the local population's health needs and that understands the factors that influence overall recruitment and retention of health care professionals to remote and rural practice (Abelsen et al 2020).

1.8 Remote and rural homogeneity

Classifications of remote and rural differ internationally and are widely debated in the literature (Ryan-Nicolls 2004; Scottish Government 2004, 2014; Shucksmith and Philips 2000). Higgs (1999) identified an inconsistent approach across the literature about what constitutes rural and urban. Almost two decades later the United Nations (2017) conclude that there is no precise definition for rural and urban and that the distinction between urban and rural populations is not amenable to a single definition that would fit the global picture.

In the UK context, the Scottish Government (2014) identified a set parameter to define rural and urban differences such as, population density, postcode, demographical structure, and accessibility to services. This classification provided two clear categories to aid definition: (i) population, and (ii) accessibility based on drive time (Table 1).

Table 1: Scottish Government urban/rural classification (2014)

Large Urban Areas	Settlements of over 125,000 people.
Other Urban Areas	Settlements of 10,000 to 125,000 people.
Accessible Small Towns	Settlements of between 3,000 and 10,000 people, and within a 30-minute drive time of a Settlement of 10,000 or more.
Remote Small Towns	Settlements of between 3,000 and 10,000 people, and with a drive time between 30 and 60 minutes to a Settlement of 10,000 or more.
Very Remote Small Towns	Settlements of between 3,000 and 10,000 people, and with a drive time of over 60 minutes to a Settlement of 10,000 or more.
Accessible Rural Areas	Areas with a population of less than 3,000 people, and within a drive time of 30 minutes to a Settlement of 10,000 or more.
Remote Rural Areas	Areas with a population of less than 3,000 people, and with a drive time of between 30 and 60 minutes to a Settlement of 10,000 or more.
Very Remote Rural Areas	Areas with a population of less than 3,000 people, and with a drive time of over 60 minutes to a Settlement of 10,000 or more.

Other countries use similar classifications, for example Australia uses the rural remote and metropolitan areas (RRMA) classification. This classification is similar to the Scottish classification and is based on (i) distance in relation to urban centres of

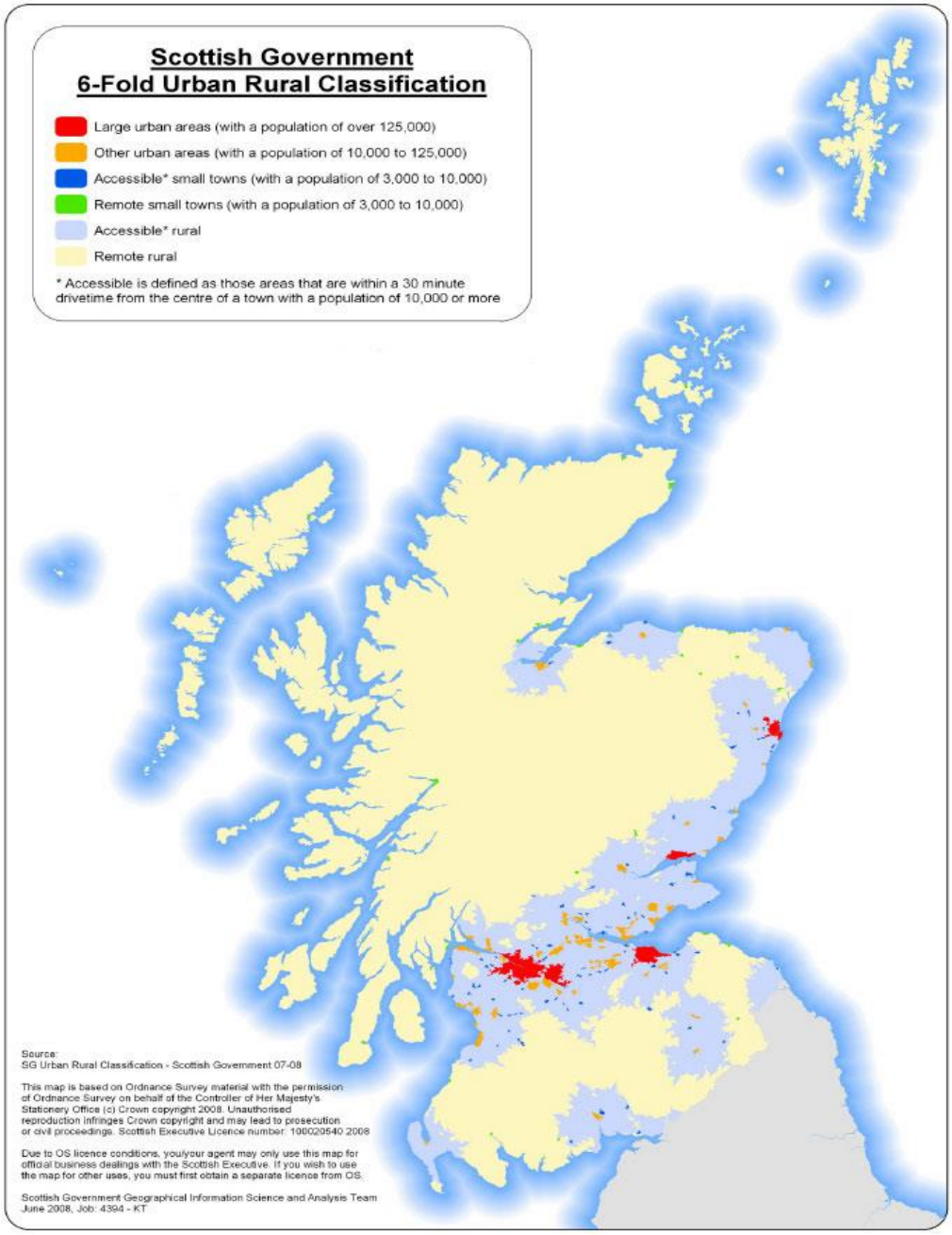
populations of 10,000 and (ii) personal distance, thus the average distance of residence from one another (McGrail 2009).

For the purpose of this research the Scottish Government (2014) definition will be used when referring to remote and rural practice:

> "A classification of remote and rural on two factors population and accessibility. It classifies a settlement of less than 3,000 with accessibility based on a drive time to a settlement of 10,000 or more people" (Scottish Government 2014).

Figure 2 below is a visual representation of the Scottish Governmental classification identifying populations defined as very rural with population density of less than 3,000 to those larger urban localities withincreased population density of 125,000 and over.

Figure 2: Scottish map showing the rural and urban classification as per the Scottish Government (2014).



In 1991 the national census identified 87 inhabited islands across remote and rural Scotland, with a total population of more than 100,000 (Scottish Islands Federation 2010). In comparison, the 2011 census shows that across Scotland there are 94 inhabited islands of which 89 were offshore islands. Between 2001 and 2011 the

Scottish island populations grew by 4% to 103,702, with the average age between 45 and 59 (Scottish Islands Federation 2010).

Table 2: Population density for each non-doctor islands between 1961 and 2011.

Islands	Health Board	1961	1971	1981	1991	2001	2011
Bressay	Shetland	269	248	334	352	384	368
Fair isle	Shetland	64	65	58	67	69	68
Fetlar	Shetland	127	88	101	90	86	61
Foula	Shetland	54	33	39	40	31	38
Skerries	Shetland	34	35	33	27	26	74
Eday	Orkney	198	179	147	166	121	160
Flotta	Orkney	123	73	178	126	81	80
North Ronaldsay	Orkney	161	134	109	92	70	34
Pappa Westray	Orkney	139	106	92	85	65	90
Rousay	Orkney	237	181	209	217	212	271
Shapinsay	Orkney	416	346	329	322	300	146
Gigha	Highland	163	174	153	143	110	163
Rassay	Highlands	211	163	152	163	192	161
Total Population		1959	1644	1725	1673	1535	1443

(Scottish Islands Federation 2010).

The national census was conducted in 2011 with another planned 2021. However, due to the COVID 19 pandemic updated statistics are currently not available despite a freedom of information request sent to NHS Orkney and NHS Shetland and NHS Highlands.

1.9 Non-doctor islands

The Scottish Federation Survey (2018) identified that remote and rural islands pose significant challenges when it comes to access health care and access to social and elderly care**.** The non-doctor islands in this study are unique in that they are only accessible by boat and/or aeroplane making them reliant on external support for health

care and other essential services and goods. One example of this includes accessibility to fuel (oil, gas) as well as everyday consumables i.e., food and household goods. Health and social care policies for remote and rural clinical practice often follow the trajectory of urban practice in that governmental policy is based on urban localities (Isom 2015). What is often not accounted for is that remote and rural localities have additional challenges which reflect on how health and social care is delivered, for example the importance of additional support services for the elderly generations (Bruce and Parry 2015). However, it also important to note that in general, the population demand across remote and rural health and social care practice is relatively small compared to urban practice due to the smaller island population (Palmer et al 2019). Moreover, island communities are generally noted for their sense of "will do", "can do" attitude that often prevails. Despite being relatively small the challenges exist in the delivery health care services. As part of the research process it was important for the researcher to gain first-hand experience of the challenges identified within the literature to allow for a true emersion into the lived experiences of living and working on the non-doctor islands.

There are 13 non-doctor islands across 3 health boards: NHS Shetland, NHS Orkney and NHS Highland.

Table 3: Locality of each non-doctor island as per health board

NHS Shetland (Figure 3)	**NHS Orkney (Figure 3)**	**NHS Highland (Figure 4)**
Bressay	Eday	Gigha
Fair Isle	Flotta	Rassay
Fetlar	North Ronaldsay	
Foula	Pappa Westray	
Skerries (Housay, Bruray)	Rousay	
	Shapinsay	

Figures 3, 4 and 5 provide a visual representation of each of the non-doctor localities in relation to the Scottish mainland.

Figure 3: Locality of Non-Doctor Islands NHS Shetland and NHS Orkney

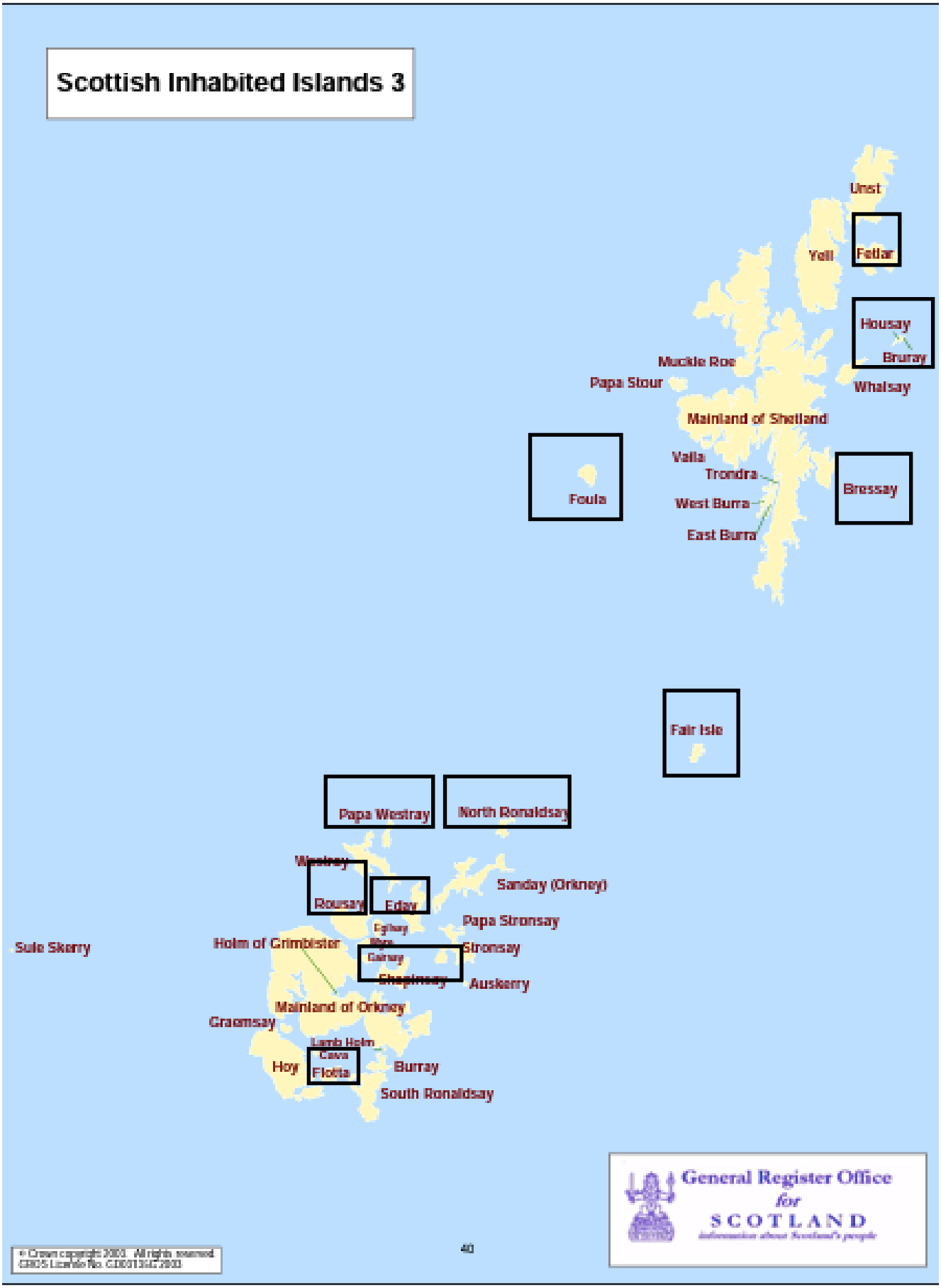


Figure 4: Locality of Non-Doctor Islands NHS Highland

Figure 5 Location of Non- doctor island Gigha

There is no evidence within the wider literature that looks specifically and the non-doctor island their economy or infrastructure as a collective. (Appendix one contains

more detailed information about the non-doctor islands and provides a more generalised overview)

1.10 Summary

In summary, the need to meet supply and demand for health care across remote and rural practice has never been greater due to a range of factors including the changing demographic profiles of the islands population and presentation of more complex long terms conditions and co-morbidities all of which is placing ever more pressure on limited resources. The current challenges facing Scotland's remote and rural health care providers are not new and records demonstrate similar challenges almost a century ago with the publication of the Dewar report 1912 (Douglas 2013). Therefore, health boards need to continue to look for new ways of attracting and retaining the health workforce to both meet contemporary health care needs and bridge the gaps in service delivery. The national and international literature consistently evidences that turnover of health professionals across remote and rural practice remains a concern (Wakerman et al 2019). Whilst policy such as the safe staffing legislation (2019) is important, arguably this only partially addresses the specific health care needs of remote island populations in Scotland. If we understand the factors that influence recruitment and retention of health care professionals who work and live in remote and rural areas, then we may be a step closer to recruiting and maintaining a suitable workforce.

1.11 Organisation of the thesis

This first chapter has set out the general context for the study. I have provided some information about my own life history that led me to work in the Scottish Islands. In doing so I have also highlighted the importance of reflexivity and its relevance to this study. Furthermore, a broad overview of the workforce challenges faced by NHS Scotland has been discussed, and how policy has attempted to ameliorate these challenges. A specific focus on the health care challenges in remote and rural Scotland and the Scottish islands sets out the main context of this study.

Chapter two explores the national and international literature relating to recruitment and retention of nurses in remote and rural practice. Chapter three explores a life history methodology as the framework used to underpin this study and to address the study

aims and objectives. Furthermore, this chapter looks at study design, including, for example sampling, recruitment, data collection, date interpretation, consent and ethics. Chapter four presents the findings from the study using a thematic analysis to underpin the data interpretation and the emergence of themes. Chapter five is the final chapter of this thesis and discusses the findings of the study and puts into context the findings in relation to the wider international literature. Furthermore, the chapter provides an opportunity for identifying recommendations for clinical practice, reflecting on the research process and the overall dissemination of the results.

Chapter 2 Scoping Review

2.1 Introduction

This second chapter will explore the national and international literature relating to recruitment and retention of health care professionals to remote and rural practice. Literature reviews within the health care setting are not new and backdate to the early 1970s followed by the emergence of the Cochrane and Briggs institute in the early 1990s (Bastian et al 2010). There are various methods to reviewing the literature for example: systematic review, rapid review, scoping review, evidence mapping and realist reviews (Colquhoun et al 2014, Munn et al 2018). Due to the limited information, available surrounding the non-doctor islands a scoping review was felt to be advantageous for this research. There are several definitions of scoping review within the literature. One that was pertinent to this research was by Arksey et al (2005) who identified a scoping review as a method used to map key concepts that underpin a research area and to furthermore identify the main source and types of evidence available. The aim of this scoping review was to identify commonality within the national and international literature surrounding non- doctor island recruitment and retention and to furthermore explore how previous research was undertaken and the methodologies used.

The following section will outline how the scoping review was undertaken using the 6 staged around identified by Templier and Pare (2015)

2.2 Scoping review

To provide a structure to the scoping review a staged approach was undertaken as identified by Templier and Pare (2015). This stepwise approach involved:

1. Formulating a research question.
2. Exploring the current international and national literature.
3. Identifying areas for inclusion and exclusion.
4. Identification of primary studies.
5. Quality appraisal of the literature (an additional step added).
6. Extracting and analysing the data in order to identify gaps in the research, furthermore, to interpolate the evidence and draw conclusions.

Review Question (Step 1)

The scoping review question was based on three key areas these included: population, concept and context (Archibald et al 2016). The scoping review question was 'What attracts health professionals to work in remote and rural areas, and what influences their decisions to stay?' This question addressed the overarching aim and objectives as outlined in chapter one.

Exploring the international and national literature (Step 2)

A comprehensive search of the literature in the English language was conducted using the following databases: Medline, Pubmed, CINAHL, Health Management Library, Health Management Information Consortium Database (HMIC) and Health Business Elite. These electronic databases were chosen because they are likely to include all relevant literature pertaining to the research question. The PubMed database for instance, contains more than 33 million citations and abstracts of biomedical literature.

The following key words were used: Remote* AND Recruitment*, Rural* AND Recruitment*, Remote* AND Human Resources, Rural* AND Staff Retention, Remote* AND Staff Retention.

Variations in job titles were also used, for example nurse, doctor and allied health professionals. In order to identify the more recent literature a date range from 2004 – 2019 was applied (this was later updated to 2021). A more thorough search was then conducted using MeSH terms "rural' and 'allied' to increase the sensitivity of the search performed. A reviewing technique was then applied whereby the references from the articles were searched for relevant citations. A scoping review is likely to include different types of studies including qualitative and cross-sectional studies and therefore a generic quality appraisal tool is likely to be most appropriate.

Identifying areas for inclusion and exclusion (Step 3)

As typical in a scoping review, the eligibility criteria are kept broad so that all relevant literature is included. The table below outlines the inclusion and exclusion criteria for the literature search.

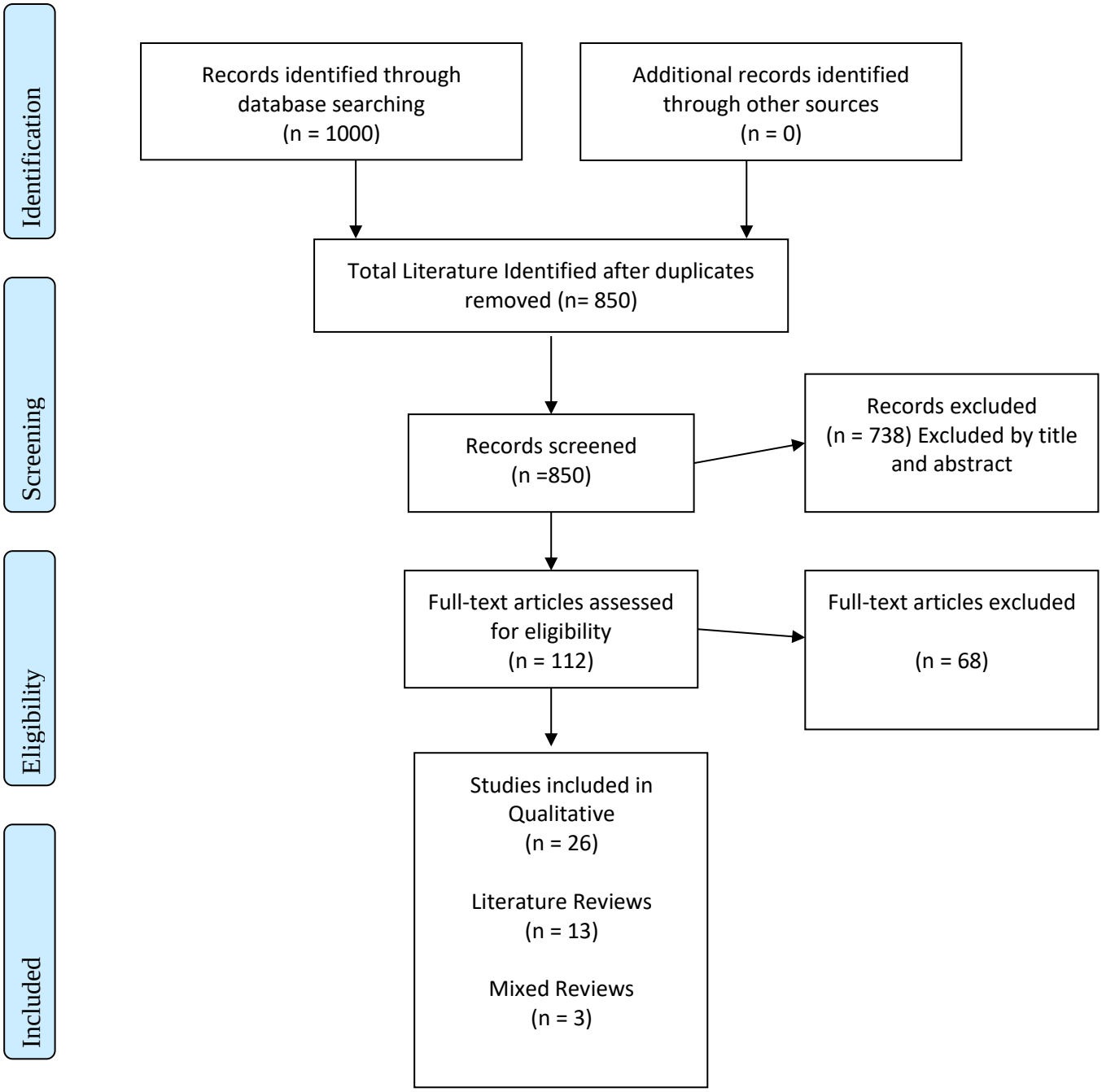
Table 4: Inclusion and exclusion criteria applied to the literature search.

Inclusion	Exclusion
Published between 2004–2021	Published prior to 2004
Published in English language	Published in other languages
Primary research article or thesis, literature reviews.	Did not relate to remote and rural settings
Articles related to remote and rural practice	
Related to health care professionals	
Related to perceptions of real experiences	
Internationally relevance	
Recruitment and retention factors of remote and rural practice	

Identifying primary studies (Step 4)

In order to provide a systematic approach to the scoping review search a PRISMA diagram was used (see figure six). The aim of this diagram is to provide a structured pathway / roadmap to this scoping review. Furthermore, use of the PRISMA checklist facilitated greater transparency and complete reporting of systematic reviews and meta-analyses (Liberati et al 2009, Moher et al 2015).

Figure 6: A breakdown of the literature search.



The following table gives an overall summary of the articles reviewed within this scoping review. A total of 42 articles was reviewed, all of which met the inclusion criteria described in table 5.

Table 5: Scoping review summary

Author & Year of Publication	Location	Focus/Aim	Sample	Design/Method	Definition of 'Rural' and Rural	Recruitment	Retention	Additional Comment
Auer, K. Carson, D. (2010)	Northern Territory, Australia	How can general practitioners establish' place attachment in Australia's Northern Territory? Adjustment trumps adaptation	GP'S	Semi structured interview.	None Given	Work i.e., remote working, small practices Lifestyle i.e., border of city life Word of mouth	Place attachment: Social Personal Structural Education Professional networking Living standards i.e., children, family	Strong structural motivators were identified for GPs to move practice to Northern Territory. However, they only last a short period of time
Buykx, P. Humphreys, J. Wakeman, J. Pashen, D. (2010)	Australia	Effective retention incentives for health workers in rural and remote areas.	GP'S	Systematic Review	None Given	Financial incentives	Financial incentives Personal motivations Maintaining adequate staffing levels Appropriate Infrastructure Professional Environment, with staff recognition	Little evidence to suggest effective retention strategy

							Community Support Flexibility of working	
Campbell, N. McAllister, D. Eley, D. (2016)	Australia	How do allied health professionals construe the role of the remote workforce? New insight into their recruitment and retention	AHP'S	Systematic Review	None Given	None Given	Job satisfaction Salary Work Status Security Development Increased Autonomy Flexibility Small caseload Cross cultural Environment Family commitment Rural living Broad Experience	Extrinsic motivational factors for remote and rural practice are clearly defined. However, the lack of positive extrinsic incentives is eroding the workforce
Warburton, J. Moore, M. Clune, M. Hodgekin, S. (2014)	Victoria, Australia	Extrinsic and intrinsic factors impacting on the retention of older health care workers	Health care workers	A qualitative study of semi structured interviews as part of a large mixed methods	None-Given	None Given	Valued by the organisation Feeling valued Support Flexibility Interpersonal practice Intrinsic factors Intention to retire Family influences Enjoyment of current work	Study outcomes provide important insight into factors that impact on the retention of older rural health care workers, and, importantly, the imbalance in effort and reward participants experience in their current workplace.

							Financial influences Sense of self Social input	
Paliadelis, P. Parmenter, G. Parker, V. Giles, M. Higgins, I. (2012)	New South Wales, Australia	The challenges confronting clinicians in rural acute care settings	AHP'S	3 phased mixed methods study	Rurality is difficult to define, but generally reflects a small population and distance / isolation from major centers.	Increased autonomy Lifestyle	Job Satisfaction Broad range of clinical experiences Greater autonomy Feeling of embeddedness	The challenges are significant surrounding recruitment and retention of health care professionals
Voit, K. Carson, D. (2012)	Northern Territory, Australia	Retaining older experienced nurses in the Northern territory of Australia	Nurses over 50 Yrs. old	Qualitative study, via semi structured interviews	None Given	Flexibility in hours Professional development Phased retirement Shorter hours Job Sharing	Ease transition into retirement Flexibility in working patterns Coverage of annual fees (older nurses) Affordable accommodation	Recruitment strategies mainly favor young professionals
Walker, J. DeWitt,D. Pallant, J. Cummingham, C. (2012)	Victoria, Australia	Rural origin plus rural clinical school placement is a significant predictor of medical student's intentions to practice rurally	Medical students	Questionnaires were used across 6 universities	None Given	Recruiting students from rural backgrounds Training in rural regions Exposure to rural placements Rural training pathways	Career advancement Development of skills Practice Autonomy Family opportunities Financial incentives	Students with a rural background were 10 times more likely to prefer to work in rural areas compared with other students.
Wilson, N. Couper, I, Vries, E. Reid, S. Fish, T.	South Africa	A critical review of interventions to redress the inequitable	AHP'S	Critical review	Rural and remote illustrates the complexity	Bursaries / Scholarships	Rural background aids retention	Key interventions include, selection, education, Coercion, incentives and support

Marais, B. (2009)		distribution of health care professionals to rural and remote areas			of establishing universal definitions. Thus, there is a lack of research surrounding this definition		Family connections i.e., spouse Scholarships in rural practice	
Renner, D. Westfall, J. Wilroy, L. Ginde, A. (2010)	Colorado, USA	The influence of loan repayments on rural health care provider recruitment and retention in Colorado	AHP's	Retrospective cohort study,	None Given	Location of the community Scope of practice Family friendly settings Financial incentives i.e., loans Spouses in areas	Availability of Loans/ financial incentives Educated in rural settings	The availability of financial incentives plays a key role in both the recruitment and retention of health care workers, thus combined with scope of clinical practice.
Lea, J. Cruickshank, J. (2007)	New South Wales, Australia	The experiences of new graduate nurses in rural practice in New South Wales	Newly qualified graduate nurses	Qualitative hermeneutic-phenomenological framework	None Given	None Given	Partners/ spouses Financial Commitments	There is a significant transition between ward-based nursing and nursing across remote and rural practice.
Halaas, G.W., Zink, T., Finstad, D., Bolin, K. and Center, B. (2008)	Minnesota	Recruitment and Retention of rural physicians: Outcomes from the rural physician associate program of Minnesota	Post graduate medical students	Evaluation study	None Given	Birth into rural locality Family medicine Loan payment programs	None given	Evidence supports those students who originate from urban localities return as professionals.
Fisher, K. Fraser, J. (2010)	Australia	Rural heath career pathways: research themes in recruitment and retention	AHPs	Systematic Review	None Given	Training opportunities during professional training	Financial incentives Lifestyle Ease of childcare Professional autonomy	It is evident that the factors in relation to recruitment and retention are similar across all allied health professionals

Stewart, N. Arcy, C. Kosteniuk, J. (2011)	Canada	Moving on? Predictors of intent to leave among rural and remote nurses	Nurses in rural practice	Cross sectional mail survey	Remote and rural is based on small towns where people loving outside commuting zones, with a population of 10,000 more	Non-identified	Job satisfaction Quality of schools Increased autonomy Size of community Distance to major populations Work flexibility Shift patterns	This article looked a the factors that related to the overall retention or registered nurses, with a focus on urban, acute care settings.
Henry, L. Roderick, S. Hooker, S. (2007)	United States	Retention of Physicians Assistants in Rural health clinics	Physicians assistants	Qualitative exploratory design	None Given	Non-identified	Job satisfaction Increased autonomy Job security Demographics Personal attributes Community acceptance Flexibility Safety in work and personal life	The role f the physician's assistant is still relatively new to clinical practice. Although like many other health professionals it has the same advantages and limitations. This research to support this role is limited.
Dotson, M. Dinesh, S Joseph, A. McLeod (2013)	United States	Nurse retention in United States.	Registered nurses	A cluster analytic approach/ focus group	None Given	Non-identified	Job satisfaction Professional autonomy Lower levels of stress	This study explored the factors that influenced a nurse's choice to continue working in a rural area compared to urban settings.

Eley, D. Synnott, R. Baker, P. Chater, A. (2012)	Australia	A decade of Australian Rural Clinical School graduates, where are they and why?	Medical Graduates	Longitudinal study, followed by a mixed methods sequential design.	None Given	Rural background Positive rural experience Personal/ family reasons	Lifestyle	This study shows three key themes that emerged of post- graduate medical students.
Hanock, C. Steinbach, A. Nesbit, T. Adler, R. Auerswald, C. (2009)	United States	Why doctors choose small towns: A developmental model of rural physician recruitment and retention.	GP's	Semi structured interviews	None Given	Rural upbringing Rural placement Rural focused pathways Loan program	Rural culture Diversity in workload and working patterns Autonomy Empowerment Social integration Familiarity Self-Actualization	In order to understand recruitment e]and retention for key areas must be addressed, familiarity, sense of place, community and self-actualization
Dywili, S. Bonner, A. Anderson, J. Brien, L. (2012)	Australia	Experience of over-seas trained health professionals in rural and remote areas of destination countries	Overseas AHPs	Literature review	None Given	Non-identified	Relaxed rural living Professional enjoyment Continuity of care delivery Rural acceptance	Effective orientation coupled with organizational structure are key to the retention of remote and rural staff
Henry, L. Roderick, S. Kathryn, L. Yates, B. (2011)	North Texas	The role of physician's assistants in rural health care.	Physician Assistants	Systematic Review	None Given	Increased autonomy Varied clinical practice	Lifestyle Inter-professional working	Key factors have been identified in relation to recruitment and retention. However, is till proves a challenge to recruit doctor's assistants into clinical practice.
Lea, J. Cruickshank, M. (2008)	New England	Factors that influence the recruitment and retention	Nurses	Qualitative study utilizing a hermeneutic	None Given	Previous connection to rural areas.	Non-identified	The emphasis of this study is not about new graduates, but the importance of treating

		of graduate nurses in health care facilities		phenomenological framework		Parental links to rural areas		them as long-term investments.
Morell, A. Kiem, S. Millsteed, M. Pollice, A. (2014)	Australia	Attraction, recruitment and distribution of health professionals in rural and remote Australia.	AHPs	Quantitative analysis	None Given	Financial incentives Professional development Location Previous placements	Non-identified	Early evidence suggests that early case managed recruitment specifically aimed at remote and rural practice, has a significant impact on retention.
Lea, J, Cruickshand, M. Palladelis, P. Sanderson, H. Thornberry, P. (2007)	Australia	The lure to the bush: Do rural placements influence student nurses to seek employment in rural settings?	Final year nursing students	Qualitative methodology using descriptive surveys and semi structured interviews	None Given	Financial factors Culture of rural lifestyle Learning environment Rural origins	Non-identified	The focus of this article was to look at rural clinical placements for student nurses at rural university and to ascertain if rural placements influenced nurses decisions to join remote and rural practice areas
Daniels, P, Zina, M. Betsy, J. Vanleit, J. Skipper, B. Sandres, M, Rhyne, R. (2007)	America	Factors in recruiting and retaining health professionals for rural practice.	AHPs	Quantitative survey	None Given	Rural Origin Family specialty Rural training pathway Family in rural locality Economic incentives Spouse employment opportunities	Desire to stay close to family Community size Rural training pathways Career development opportunities Meeting the needs of the community 'job satisfaction'	Rural backgrounds and preference for smaller sized communities are associated with both recruitment and retention of health professionals
Gillham, S. Ristevski, E (2007)	Victoria, Australia	Where do I got from here: We've got enough seniors	Nurses	Qualitative study using semi structured interviews	None Given	Social networks Familiarity Previous placements Financial incentives	Management Styles Organizational policies Access to health service resources	To maximize staff retention, it is important to ensure that there are career progression pathways within service organizations

						Short term accommodation and relocation costs Access to health service resources	Career opportunities	
Ramani, S. Rao, K. Ryan, M. Vujicic, Berman, P. (2013)	India	For more than love or money: Attitudes of student and in-service health workers towards rural service in India	Student and in service allopathic doctors and nurses	Qualitative Interviews	None Given	Salary Career Development Policies and Management opportunities Health Facilities	Non-identified	The main focus for the recruitment of staff was increasing salary in order to attract candidates to rural practice.
Lee, D. Nicols, T. (2014)	USA	Physician recruitment and retention in rural and underserved areas	Physicians	Literature Review	None Given	Medical Education/ Pathways Rural Background	Rural Lifestyle Family Life Lifestyle Community Attachment	To identify challenges to recruitment and retention of rural physicians and to look at methods of success
Viscomi, M. Larkins, S. Gupta, T. (2013)	Australia	Recruitment and retention in general practitioner in rural Canada and Australia: a review of the literature	GPs	Literature Review	None Given	Upbringing in rural areas Family Commitments Positive student experiences Scholarships in rural practice	Cash incentives Tuition repayments Accommodation Paid holidays Spouse Employment Lifestyle Adequate Childcare	Various factors that pertain to each life stage of a family physician have been shown to positively correlate with the eventual decision to commence and remain in rural practice.
Sargeant, J. Allen, M. Langille, D. (2004)	Canada	Physician perceptions of the effect of telemedicine of rural retention and recruitment	Physicians	Literature Review	None Given	Non-identified	Professional Relationships Workload Community Factors	Does the use of telemedicine across remote and rural practice influence overall retentions of physicians
Slagle, D. (2013)	Tennessee	Recruitment and retention strategies for	AHPs	Literature Review	None Given	Competitive bonuses	Job relevance	Laboratory staff have the same staffing issues as other allied health

		hospital laboratory personnel in urban and rural settings				Access to further education Word of mouth Comparative wage packets Recruitment bonuses	Clear job description Working relationships Job security Lifestyle Valued by employer Autonomy Rural Background	professionals and from reading the literature they also seem to have the same focus when it comes to recruitment and retention
Cameron, P. Este, D. Worthington, C. (2010)	Alberta Canada	Physician Retention in Rural Alberta: Key Community Factors	Physicians across primary care	Qualitative, collective case study	None Given	Non-identified	Community Supportive of family/children Physical, natural and recreational assets Reciprocity Workload/ working patterns	What community factors overall influenced the retention of physicians in remote and rural areas
Cameron, P. Este, D. Worthington, C. (2012)	Alberta Canada	Professional personal and community: 3 domains of physician retention in rural communities	Physicians	Qualitative collective case studies	None Given	Non-identified	Physician supply Physician dynamics Scope of practice Practice setup Innovation Family Support Individual Choice Reciprocity Managerial Support	Three key areas have been identified in this study. Professional factors, personal factors and community.

Richards, HM. Farmer, J. Selvaraj, S. (2005)	Scotland	Sustaining the rural primary health care workforce Survey if health care professionals in the Scottish Highlands	AHPs	Qualitative postal survey.	None Given	Rural Background Spouse in rural localities	Community integration Peer relationship Patient relationship	Those education spent their childhood in rural localities, were more likely to return to rural practice
Dolea, C. Stormont, L. Braichet, J (2010)	Switzerland	Evaluated strategies to increase attraction and retention of health workers in remote and rural areas.	Health care workers	Literature Review	None Given	Educational influences Rural origins Clinical educational pathways	Financial incentives CPD program Job satisfaction	The article looked at the effectiveness of long-term interventions in the recruitment and retention of heal care workers
Perkins, D. Larsen, K. Lyle, D. Burns, P. (2007)	New south Wales	Securing and retaining a mental health workforce in Western New South Wales	Mental health	Qualitative interviews	None Given	Slower pace of life Smaller communities Lower cost of living Family reasons	Job satisfaction Job variety Job security Rural upbringing Supervision Family connections Good pay	Strategies to recruit and retain staff must take into consideration personal needs and aspirations, while improving the attractiveness of jobs.
Matsumoto, M. Okayma, M. Inoue, K. Kajii, E. (2005)	Japan	Factors associated with rural doctor's intention to continue a rural career.	Doctors	Questionnaires cross sectional study	None Given	Non-identified	Rural background Undergraduate exposure Post graduate education	Rural background plays a key factor in recruitment and retention, however some undergraduate and postgraduate factors where independently associated with the intention to continue a
Smedley, A.M. (2008)	UK	Becoming and being a preceptor: a phenomenological study", Journal of continuing education in nursing	Nurses	Phenomenological Study	None Given	Non-identified	Non-identified	Preceptors help to orient and socialize the student to the real nursing workplace environment.

Jones, G.I., Alford, K.A., Russell, U.J. and Simmons, D. (2003)	Australia	Removing the roadblocks to medical and health student training in rural hospitals in Victoria", Australian	Medical Students	Cross sectional postal survey	None Given	Non-identified	Non-identified	To assess the extent of undergraduate health student placements in regional hospitals in northern Victoria
Cleland, J. Johnston, P,W. Walker, L. Needham, G. (2012)	Scotland UK	Attracting health care professionals to remote and rural medicine: Learning from doctors in training in the north of Scotland.	Doctors	Focus Groups and individual interviews	None Given	Non-identified	Educational experiences Work Related issues i.e., Autonomy	Junior doctor and educational influences on their recruitment and retention across Scotland
Edwards, S,L. Sergio, DA Silva, Rapport, F,L. Kimm, J. Williams, R. (2015)	South Wales UK	Recruitment of doctors to work in out hinterland. First results from the Swansea Graduate Entry program in medicine	Junior Doctors	Mixed Methods Questionnaire and Semi Structured Interviews	None Given	Non-identified	Family connections Developing new skills and autonomy	This study looked at new graduated post qualification. The main factors for retention were family connection, and the deployment of skills in a friendly clinical environment.
Syahmar, I. Putera, I, Istatik, Y. Furqon, MA. Findyartini. (2015)	Indonesia	Indonesian medical students preferred associated with the intention towards rural practice.	Medical Students	Cross sectional study	None Given	Non-identified	Family connection and rural upbringings	This study explored medical student's decisions to move back rural practice and the factors associated with recruitment and retention.
Koebisch, S. (2020)	Canada	Recruitment and retention of health care professionals in rural Canada: A systematic review	AHPs	Systematic Review	None Given	Community Factors Family Connections Lifestyle Incentives	Lifestyle Professional Practice Education Community Factors	This was as systematic review. It was evident from the finding that recruitment and retention go hand in hand and often overlap professional and personal factors
Rose, A, Rensburg-Bothyyen. (2015)	South Africa	The factors that attract health care professionals to and retain them in rural areas in South Africa	AHPs	Qualitative Study	None Given	Community acceptance Giving back to the community Sense of belonging	Non-identified	This review focused on the factors of recruitment and the notion of giving back to the community

Jones, A, Rahman, J. O, Jiaqing (2019)	Wales UK	A crisis in the countryside- Barrier to nurse recruitment and retention in rural areas of high-income countries.	Nurses	Qualitative meta-analysis	None Given	Family connections Community integration	Non-Identified	This paper focused more on the barrier to recruitment and retention of nurses.
Conomos, A.M., Griffin, B. and Baunin, N. (2013)	Australia	Attracting psychologists to practice in rural Australia: the role of work values and perceptions of the rural work environment	Psychologi-sts	Cross-sectional survey	None Given	Prestige	Lifestyle Autonomy	Rural background was not significantly related to having had rural work experience. Rural background was a weaker predictor than expected

Appraisal of the literature (Step 5)

The scoping review search and application of inclusion and exclusion criteria resulted in the following articles for inclusion: qualitative studies (n=26), systematic reviews (n=13) and mixed method studies (n=3). Scoping reviews often include different types of studies and therefore warrant the use of a range of quality appraisal tools that align with study type. There are numerous tools available and there is no specific guidance for choosing one against the other. Due to the diversity of the literature numerous quality appraisal tools where used within the scoping review. The qualitative studies and systematic reviews were appraised using two relevant critical appraisal skills programme (CASP) checklists. Furthermore, the mixed methods studies were appraised using a checklist devised by Hong et al (2018) called a mixed methods literature critiqued appraisal tool (MMAT).

Each article was appraised using ether the CASP (n=26 Qualitative, n=13 systematic reviews) or MMAT (n=3) checklists. The use of the checklists allowed for the literature to be reviewed in a systematic way ensuring a consistent approach to the scoping review. Table 6 shows the CASP questions used to appraise the qualitative and systematic reviews and table 7 shows the mixed methods appraisal tool used to critique the mixed methods literature. An example of a critiqued qualitative paper by Pamela et al (2008) Physicians Retention in Rural Alberta: Key Community Factors can be found in appendix two. This outlines how the CASP tools was applied in reviewing the literature.

Table 6: CASP questions used to review the literature table 5

CASP: - Qualitative Review Questions	CASP: - Systematic Review questions
1. Was there a clear statement of the aims of the research? 2. Is a qualitative methodology appropriate? 3. Was the research design appropriate to address the aims of the research? 4. Was the recruitment strategy appropriate to the aims of the research? 5. Was the data collected in a way that addressed the research issue? 6. Has the relationship between the researcher and the participants been adequately considered? 7. Have ethical issues been taken into consideration? 8. Was the data analysis sufficiently rigorous? 9. Is there a clear statement of findings? 10. How valuable is the research?	1. Are the results of the review valid? 2. Did the author look at the right type of papers? 3. Do you think the important, relevant studies where incorporated? 4. Did the authors review do enough to access the quality of the included studies? 5. If the results if the review have been combined, was in reasonable to do so? 6. What are the overall results of the review? 7. How precise are the results? 8. Can the results be applied to a local population? 9. Where all-important outcomes considered? 10. Are the benefits worth the hams and cost?

Table 7: Questions used for the mixed methods literature

Mixed Methods Appraisal Tool (MMAT), version 2018

Category of study designs	Methodological quality criteria	Responses			
		Yes	No	Can't tell	Comments
Screening questions (for all types)	S1. Are there clear research questions?				
	S2. Do the collected data allow to address the research questions?				
	Further appraisal may not be feasible or appropriate when the answer is 'No' or 'Can't tell' to one or both screening questions.				
1. Qualitative	1.1. Is the qualitative approach appropriate to answer the research question?				
	1.2. Are the qualitative data collection methods adequate to address the research question?				
	1.3. Are the findings adequately derived from the data?				
	1.4. Is the interpretation of results sufficiently substantiated by data?				
	1.5. Is there coherence between qualitative data sources, collection, analysis and interpretation?				
2. Quantitative randomized controlled trials	2.1. Is randomization appropriately performed?				
	2.2. Are the groups comparable at baseline?				
	2.3. Are there complete outcome data?				
	2.4. Are outcome assessors blinded to the intervention provided?				
	2.5 Did the participants adhere to the assigned intervention?				
3. Quantitative non-randomized	3.1. Are the participants representative of the target population?				
	3.2. Are measurements appropriate regarding both the outcome and intervention (or exposure)?				
	3.3. Are there complete outcome data?				
	3.4. Are the confounders accounted for in the design and analysis?				
	3.5. During the study period, is the intervention administered (or exposure occurred) as intended?				
4. Quantitative descriptive	4.1. Is the sampling strategy relevant to address the research question?				
	4.2. Is the sample representative of the target population?				
	4.3. Are the measurements appropriate?				
	4.4. Is the risk of nonresponse bias low?				
	4.5. Is the statistical analysis appropriate to answer the research question?				
5. Mixed methods	5.1. Is there an adequate rationale for using a mixed methods design to address the research question?				
	5.2. Are the different components of the study effectively integrated to answer the research question?				
	5.3. Are the outputs of the integration of qualitative and quantitative components adequately interpreted?				
	5.4. Are divergences and inconsistencies between quantitative and qualitative results adequately addressed?				
	5.5. Do the different components of the study adhere to the quality criteria of each tradition of the methods involved?				

Hong QN, Pluye P, Fàbregues S, Bartlett G, Boardman F, Cargo M, Dagenais P, Gagnon M-P, Griffiths F, Nicolau B, O'Cathain A, Rousseau M-C, Vedel I. Mixed Methods Appraisal Tool (MMAT), version 2018. Canadian Intellectual Property Office, Industry Canada.

Table 8: Critical Appraisals of the Qualitative Literature (CASP)

	Are the results of the study valid?						What are the results?			Application Locally
	Aim	Method	Design	Sampling	Data	Reflexivity	Ethics	Analysis	Findings	Value
Auer, K. Carson, D. (2010)	Yes	Yes	Yes	Yes	Yes	Cannot tell	Yes	Yes	Yes	Yes
Cameron, P. Este, D. Worthington, C. (2008)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cameron, P. Este, D. Worthington, C. (2012)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cleland, J. Johnston, P,W. Walker, L. Needham, G. (2012)	Yes	Yes	Yes	Yes	Yes	Cannot tell	Yes	Yes	Yes	Yes
Cruickshank, J. Lea, J. (2007)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Conomos, A.M., Griffin, B. and Baunin, N. (2013)	x	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Daniels, P, Zina, M. Betsy, J. Vanleit, J. Skipper, B. Sandres, M, Rhyne, R. (2007)	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
Dotson, M. Dinesh, S. Joseph, A. McLeod (2013)	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes
Gillham, S. Ristevski, E (2007)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Hanock, C. Steinbach, A. Nesbit, T. Adler, R. Auerswald, C. (2009)	x	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Jones, G.I., Alford, K.A., Russell, U.J. & Simmons, D. (2003)	Yes	Yes	Yes	Yes	Yes	Cannot Tell	No	Yes	Yes	Yes
Lea, J, Cruickshand, M. Palladelis, P. Sanderson, H. Thornberry, P. (2007)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Lea, J. Cruickshank, M. (2008)	Yes	Yes	Yes	Yes	Yes	Cannot Tell	Yes	Yes	Yes	Yes

Matsumoto, M. Okayma, M. Inoue, K. Kajii, E. (2005)	Yes	Yes	Yes	Yes	Yes	Cannot tell	Yes	Yes	Yes	Yes
Morell, A. Kiem, S. Millsteed, M. Pollice, A. (2014)	Yes	Yes	Yes	Yes	Yes	Yes	No (Audit)	Yes	Yes	Yes
Perkins, D. Larsen, K. Lyle, D. Burns, P. (2007)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Ramani, S. Rao, K. Ryan, M. Vujicic, Berman, P. (2013)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Renner, D. Westfall, J. Wilroy, L. Ginde, A. (2010)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Richards, HM. Farmer, J. Selvaraj, S (2005)	Yes	Yes	Yes	Yes	Yes	Cannot Tell	Yes	Yes	Yes	Yes
Smedley, A.M. (2008)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Stewart, N. Arcy, C. Kosteniuk, J. (2011)	Yes	Yes	Yes	Yes	Yes	Cannot Tell	Yes	Yes	Yes	Yes
Voit, K. Carson, D. (2012)	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
Halaas, G.W., Zink, T., Finstad, D., Bolin, K. and Center, B. 92008)	x	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Warburton, J. Moore, M. Clune, M. Hodgekin, S. (2014)	Yes	Yes	Yes	Yes	Yes	Cannot Tell	Yes	Yes	Yes	Yes
Syahmar, I. Putera, I, Istatik, Y. Furqon, MA. Findyartini.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Rose, A. Renenburg- Bonthuyzen, E (2015)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Table 9: Critical Appraisals of the Systematic Reviews (CASP)

	Are the results of the study valid?					What are the results?		Will the results help locally?		
Author & Year of Publication	**Are the results valid.**	**Right type of papers**	**Important/ relevant studies included**	**Access quality of studies**	**Is the results combined**	**Overall results of the review**	**How precise are the results?**	**Can results be applied locally**	**Outcomes Considered**	**Benefits worth harms and costs**
Buykx, P. Humphreys, J. Wakeman, J. Pashen, D. (2010)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Campbell, N. McAllister, D. Eley, D (2016).	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Dolea, C. Stormont, L. Braichet, J (2010)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Dywili, S. Bonner, A. Anderson, J. Brien, L. (2012)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fisher, K. Fraser, J. (2010)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Henry, L. Roderick, S. Kathryn, L. Yates, B. (2011)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Lee. D.Nicols, T. (2014)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Viscomi, M. Larkins, S. Gupta, T. (2013)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Wilson, N. Couper, I, Vries, E. Reid, S. Fish, T. Marais, B. (2009)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Koebisch, S. (2020)	Yes	Yes	Yes	Yes	Yes	X	X	Yes	Yes	Yes
Henry, L. Roderick, S. Hooker, S. (2007)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
Sargeant, J. Allen, M. Langille, D. (2004)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Slagle, D. (2013)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Table 10: Critical appraisal of the mixed methods.

Mixed Methods Appraisal Tool (MMAT).

Screen			Qualitative					Quantitative (RCT)					Quantitative (Non RCT)					Quantitative Description					Mixed Methods				
Author and publication Date	**S1**	**S2**	**1.1**	**1.2**	**1.3**	**1.4**	**1.5**	**2.1**	**2.2**	**2.3**	**2.4**	**2.5**	**3.1**	**3.2**	**3.3**	**3.4**	**3.5**	**4.1**	**4.2**	**4.3**	**4.4**	**4.5**	**5.1**	**5.2**	**5.3**	**5.4**	**5 .5**
Elay, D,S. Synnott, R. Baker, PG, Chater AB (2011)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	NA	NA	NA	NA	NA	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Edwards, S.L. Sergio, AL. Silva, DA. Rapport, FL. Mc Kimm, J. Williams, R. (2015)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	NA	NA	NA	NA	NA	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Paliadelis, PS. Parmenter, G, Parker, V. Giles, M. Higgins, I (2017)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	NA	NA	NA	NA	NA	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

2.3 Quality of the literature

In total 42 articles were quality appraised in this scoping review. Thirteen articles were appraised using the CASP Systematic review questions (see table 9). All 13 articles were judged to have valid results, include the right types of papers according to the aims of the literature review and to have selected for inclusion relevant documents. Additionally, all 13 articles discussed the implications of the finding across remote and rural practice areas. Although the articles are taken from the international literature, the findings traverse a wide variety of health care professions, and although clinical practice may differ, the challenges identified within the literature may be transferable to remote and rural practice across Scotland.

The CASP qualitative questions (see table 8) was used to quality appraise 26 qualitative articles identified within the scoping review. All 26 articles showed validity in relation the overall aim, design, method, data and sample. However, it was difficult to ascertain reflexivity (researcher and participant relationship) with 8 of the articles. Although 4 did mention the relationship between the research and the participants this was brief and difficult to ascertain the extent. Furthermore, 23 articles discussed the ethical challenges in undertaking the research and were all granted ethical approval. Similar to the systematic reviews, the articles were from the international literature. They do identify challenges in relation to remote and rural practice and meet the inclusion and exclusion criteria for this scoping review. While the remaining 3 articles where meta- analysis and as such did not discuss the ethical process.

The remaining articles (n=3) used mixed methods. Hong et al (2018) introduced several questions that can be used to critique the mixed methodological studies (MMAT). Table 7 outlines the questions used. Due to the design of the MMAT each of the articles were appraised using the representative qualitative and quantitative methodologies and again this showed overall validity in relation to design, sample, data, analysis and outcome. With further application of the MMAT questions it was evident that the (n=3) articles showed a strong methodological, rigor and transparency across the overall design and implementation.

The use of the CASP tools and the MMAT provided a fundamental framework to critique the national and international literature identified in this scoping review. It was concluded that the articles in this scoping review were in general, of a high methodological standard that showed transparency in their overall methodology, implementation and overall design.

Extracting and analysing the data. (Step 6)

The national literature relating to the recruitment and retention of health care professionals across Scotland and the UK, was limited: with only three articles, Smedley (2018); Richards et al (2005) and Cleland et al (2012) reporting studies conducted in Scotland. However, the international literature has been particularly successful in capturing the factors that influence recruitment and retention of health care professionals within the remote and rural settings.

It may seem logical to explore recruitment factors than retention factors, however what became evident within the literature was that recruitment was intrinsically linked to retention. This is known as the cylindrical model (Cameron 2012). One example of this cylindrical model would be young person leaving their rural home to go to university in an urban locality; they spend several years away from the rural setting to complete their undergraduate studies; they return home later in life because they are familiar with the rural setting, have family connections and fit into the wider social and professional community.

There are three concurrent themes that emerged from the national and international literature these were, rural background, educational factors, and lifestyle factors. The following table gives a meaning to each theme identified.

Table 11: Themes that influence recruitment and retention of health care professionals to remote and rural practice:

Themes from the literature	
Rural Background	A direct correlation to rural life for example place of birth or a family connection to a rural locality.
Educational Factors	The educational factors that influence recruitment and retention pre-and post-graduation, for example placement exposure.
Lifestyle Factors	The ability to balance own social / personal interests in combination with working life.

2.4 Rural Background

Hegney et al (2002a) in a cross-sectional postal survey of nurses identified several personal factors when it came to why nurses choose to work in remote and rural areas which included a strong desire to work in remote and rural areas, with a high percentage of nurses influenced by rural family connections and origins in rural areas. This desire to return to a rural setting was also associated with an intention to raise a family in a remote and rural locality.

Lea et al (2007) also found similar findings in the study "The Lure of the bush: Do rural placements influence student nurses to seek employment in rural settings" noting that the participants that had rural origins i.e., raised in rural localities or had some sort of family connection associated likelihood of them choosing a rural placement as part of their undergraduate placements.

This desire to return home was evident by Lea and Cruickshank (2005) in another study 'Factors that influence the recruitment and retention of graduate nurses in rural health care facilities' who again noted commonality with the aforementioned. In this study, the main consideration for graduate nurses was having previous connections with rural areas. It was evident from this qualitative study that a desire to return home contributed to their overall decision-making. This again correlates to the work of Hegney et al (2002b) who noted it was not uncommon for nurses who were raised in rural localities and have family connections to have an increased tendency to follow a remote and rural career pathway.

Richards et al (2005) also noted a commonality amongst nurses in a predictor of rural working in those from a rural background, and furthermore found that rural origin should be

considered as part of any recruitment of nurses. Furthermore, Molinari, (2011) identified that there needs to be a better understanding of how nurses plan their career pathway.

A similar pattern emerges from the literature when it appertains to medical colleagues. Hancock et al (2009) found that rural raised medical students, tend to practice in communities like their hometowns and are furthermore motivated to practice in similar settings to where they were raised.

A cross-sectional study by Syahmar et al (2015) aimed at doctors in Indonesia showed a correlation with the wider literature and supports the work by Hancock et al (2009) in that student with a strong rural background were more likely to return to rural areas post qualification. Cleland (2012) identified in a group of Scottish junior doctors a correlation between happiness and remote and rural living if this was with a partner or significant other. However, Renner et al (2010) in a survey of 122 health care workers claims that spousal influence may have a correlation to recruitment but argues against any correlation between marital status and rural recruitment, and that a stronger bias towards family connections does exists.

In one of the very few quantitative studies Morell et al (2014) examined the factors that influenced recruitment and retention. Morell et al (2014) found that participants who had previously lived in rural localities were more likely to follow a remote and rural career pathway.

Allied health professionals i.e., occupational therapists, paramedics, also contribute to the wider delivery for health care across remote and rural practice. The literature to support the recruitment and retention of allied health professionals was limited with only three studies identified in this review (Conomos et al 2013; Perkins et al 2007; Fisher and Fraser 2010). Conomos et al (2013) undertook a cross sectional study looking at attracting psychologists to practice in rural Australia. This study examined associations between relationship background, work values and rural environmental perceptions on psychologists within current practice. This study showed that unlike nursing and medicine colleagues a rural background had a weaker predictor value than expected, with more emphasis placed on autonomy and lifestyle as factors that influence overall recruitment.

There is very little evidence to support recruitment and retention of allied health professional, by profession. One study by Gillham and Ristevski (2007) goes some way in exploring the reasons why allied health professionals choose remote and rural practice in the study 'Where do I go from here: We've got enough seniors? This study used a structured interview method to interview allied health professionals across two rural health services across Australia. This study found similar results when it came to family connections and rural upbringing. However, what was evident from this study is that all the participants had some connections to the local area, i.e., they had ether grown up or moved to the areas with family.

Sleagle (2013) supported the work of Gillhan and Ristevski (2007) in a study looking at 'recruitment and retention strategies for hospital laboratory personnel in urban and rural settings. This study identified that laboratory professionals working in rural settings are more likely to be from rural localities than their counterparts and concluded that recruitment into laboratory services should target rural / local populations.

The international literature to this point strongly correlates to recruitment and retention of nurses, doctors and other health care professionals who have a rural background or upbringing, thus having a direct correlation to career decision making. It was evident from literature that existing connections were a significant factor in the recruitment of health care professionals to remote and rural practice.

The next theme to emerge from the literature review was that of lifestyle as a factor that influences recruitment and retention of health care professions to remote and rural practice. This will be explored in further detail as follows.

2.5 Lifestyle Factors

Bushy and Leioert (2005) highlight that personal and professional lifestyle factors contribute to the recruitment of nurses. The personal reasons included small town lifestyle, love of nature, less crime, good quality of life and a good place to raise children. The professional reasons included, varied clinical exposure, family practice and continuity of care. Bushy and Baird-Crooks (2000) takes this further and looked at the work life balance of community nurses and claimed that remote and rural practice is defined by the context to

which they actively engage, both within the professional and social contact (belonging) in which they work and live.

A study by Molanari (2011), supports the work by Bushy and Baird-Crooks (2000) in that social contact is an important factor when it comes to recruitment and retention of nurses. Furthermore, Molanari (2011) found that one of the significant reasons why nurses choose to live and work across remote and rural practice was lifestyle, identifying relatively cheap cost of living coupled with social relationships and a sense of community belonging. This is further supported by Hegney et al (2002b) in a study of why nurses are attracted to rural and remote practice; found that a rural background is a key contributing factor to recruitment and retention followed by lifestyle. In this study, the participants identified that a strong social network that characterises typical country life was an important factor along with a sense of belonging to the wider and professional communities. Similarly, Campbell et al (2016) found a correlation between rural lifestyle and the presence of family makes rural working more attractive. The literature relating to lifestyle factors that influence nurses' recruitment and retention seem to correlate across the international literature and includes family connections and rural origins.

Auer and Carson, (2010) conducted a small study across the Northern Territory of Australia where staff turnover was relatively high. Although a relatively small study, the findings show a shift from urban practice i.e., Sydney, Melbourne, Brisbane into remote and rural practice. This shift from urban to rural locality was influenced by a change in lifestyle with the ambition to see the 'real Australia', thus 'getting out of the city' and for many, was a temporary change. One of the main contributing factors found in this study was the importance of lifestyle with many of the participants engaging in outdoor activities, for example bush walking, camping with many enjoying a laid-back way of life.

Lee and Nichols (2014) identified two new concepts when it came to lifestyle - a 'sense of place' and 'self-actualization'. Hancock et al (2009) found a sense of self-actualization when it came to health care professionals who are motivated by a desire to live happy and satisfying lives. Similarly, Fisher and Fraser (2010) noted that the enjoyment of rural lifestyle or 'sense of place' included supportive networks, a sense of belonging and ease of childcare are also key contributing factors when it comes to lifestyle choices and overall recruitment and retention of health care professionals.

The importance of feeling valued and appreciated was also noted within the international literature. Medves et al (2015) noted the importance of nurses feeling valued by the patients, families and the community to which they live and work. This is further supported by Rose et al (2015) who also discussed the importance of feeling appreciated by the community to which health care professionals live and work. However, this sense of place/ belonging can be problematic when it comes to maintaining professional boundaries and anonymity (Hegney and McCarthy 2002a). Jones et al (2019) found that a sense of belonging can also be problematic and noted that rural communities place strong emphasis on the 'local concept' which can be prejudiced by politics, familiarity, and overall bias. Furthermore, health care professionals need to maintain confidentiality and privacy can be threatened in such small communities, where everyone knows each other, and the overall level of community power can at times be overwhelming.

The lifestyle factors that influence recruitment and retention of allied health professionals is limited within the literature. In a systematic review of the factors of recruitment and retention of health care professionals in rural Canada (Koebisch et al 2020) it was noted that lifestyle was one key contributing factor to overall recruitment, with those attracted to nature and outdoors activities being attractive. Lifestyle was categorised fifth out of twelve factors that influence overall retention of health care professionals within this study.

Furthermore, Perkins et al (2007), in the study 'securing and retaining a mental health workforce in Far Western New South Wales' found that one of the main attractors for recruitment and retention to remote and rural practice was lifestyle and environment, noting that small communities, friendly atmosphere, slower more paced way of life and relatively cheap cost of living were important aspects that contributed to overall lifestyle choices.

Based on the above, it is evident from the international literature that lifestyle incorporating a sense of community, security, belonging combined with cheap cost of living, work life balance all contributes to the overall recruitment and retention of health care professionals to remote and rural practice.

Ramani et al (2013) identified other factors not previously mentioned within the literature, for example good housing, good living facilities, the availability of water and electricity are important considerations for nurses thinking of taking up remote and rural job. Although this study was from India and the environmental conditions do vary between the more developed and less developed countries it was yet important findings to note.

The final theme identified in the international literature was that of pre-exposure during undergraduate and post graduate education and will be explored in more detail as follows.

2.5 Educational Factors

Lea and Cruickshank (2005) found that undergraduate nurses who had experience of rural nursing practice during their graduate education, were more likely to follow a remote and rural pathway post-graduation. Additional studies by Lea and Cruickshank (2008) surveying final year degree nursing students noted that many respondents felt that their final clinical placement into remote and rural practice had provided them with an insight into a different nursing career and lifestyle that they would have never routinely been exposed to. This exposure offered them a broad range of clinical experiences routinely not found in rural practice and proved dividends in that many would spend part of their professional life working in rural practice post-graduation. Similarly, Dolea et al (2010) in a literature review found that a rotational model as part of the undergraduate nurse education accompanied by educational preparation creates more interest in remote and rural working and subsequently aids recruitment to remote and rural practice.

A literature review conducted by Viscomi et al (2013) looked at a comparison between Canada and Australia and how they differ in post graduate medical education. Canadian graduates apply directly into specialities where in comparison, Australians must complete a year of internship with no specific speciality. It was evident after this internship, that Australian medical students who had post graduate training in a rural locality were more likely to be in a clinical post in a rural location more than five years later.

There seems to be a correlation between undergraduate and post graduate educational exposure to rural practice and the subsequent correlation to career pathways within the international literature. To support this observation, Jones et al (2003) identified the

importance between a student's positive and negative clinical experience and their decision to practice in a rural setting. The collaboration between a remote and rural placement with academic activities was an important element in student happiness and thus their desire to return to rural practice. Smedley (2008) believes that rural immersion combined with clinical supervision plays a key role in influencing students' decisions post registration. Likewise, Veitch et al (1999) found that students are more likely to complete a post graduate placement in a remote and rural based setting if they had a substantial and meaningful exposure of remote and rural practice during training. Similarly, Cleland et al (2012) found that a positive educational experience has overall benefits to recruitment long-term.

In one of the very few national studies across Scotland, Cleland et al (2012) found that increased autonomy, better teaching and learning environment and a more friendly and supportive working environment were important aspects. Strasser and Neusy (2010) also noted that trainee doctors in a locality with a relatively small number of other trainees provided more scope to develop skills and were more generalist in nature. However, despite these findings Gillham and Ristevski (2007) noted that regardless of their rural elective experiences some students are more likely than others to choose a career in remote and rural settings.

A small study was conducted in Cardiff, South Wales by Edwards et al (2015) highlighted that many graduates see rurality as a positive experience and the opportunity to develop new skills and clinical independence without the benefit of specialist services at hand. The major strength of this study was its locality within the UK, and its correlation with the wider literature. However, Borracci et al (2015) found in a cross-sectional study conducted in Argentina that rural exposure during undergraduate education is simply not enough and that this exposure has minimal impact.

While findings about the extent of exposure during undergraduate education varied in the studies reviewed, it was evident that when health care students were exposed to remote and rural practice this factor helped to influence decisions to work in these areas.

2.6 Gaps in the literature

The evidence to support recruitment and retention of health care professionals is constant across the three professionals highlighted in this review, i.e., nursing, medicine and allied health professionals. There is a wealth of international literature to support recruitment and retention, and although elements can be comparable within the UK there remain gaps. A key gap is a lack of research about recruitment and retention to island communities. In order to bridge this gap in the literature more research is needed to look at the factors that influence all health care professionals to work on islands. If this gap in the literature can be filled, what we will have is detailed understanding of the factors that appertains to the recruitment and retention of health care workforce across a specific remote and rural setting. Factors influencing island career pathways may vary to factors influencing recruitment and retention in mainland remote and rural areas. This research may ultimately shape the sustainability and understanding of the wider workforce as we move into the next decade.

2.7 Summary

This literature review has explored the national and international literature relating to the recruitment and retention of health care professionals across remote and rural practice. There are three factors that influence overall recruitment and retention of health care professions who work in remote and rural areas; these are rural background, lifestyle and education influences /exposure. What is evident is that these three factors are all intertwined and ultimately influence each other but it is not known if these factors pertain to recruitment and retention in islands.

Chapter 3 Design

3.1 Introduction

This chapter will introduce a life history methodology exploring its origin, advantages, limitations and application in the context of this study. The later section of the chapter looks at the design method and considers how a life history provides a framework that supports this study design in relation to, sampling, recruitment, data collection, data analysis and ethical considerations.

3.2 Origins of life history research

It is important to consider the epistemological perspective of life history research and also its position as related to this study. Epistemology is described by Crotty (1998) as a way of looking at the world and making sense of it. Furthermore, Manon and Morrison (2007) identify that epistemology is the assumption a person makes about the very bases of knowledge, its nature and form. Simply put, epistemology is concerned with how we gain knowledge and is specifically concerned with the nature, sources and limitations of that knowledge. What follows is an overview of life history that helps to illustrate how knowledge was gained gathering life history data which allowed for a deeper level of data capturing to occur by gaining insight into different contexts which have shaped the individual's experiences. Similar to my study, in the examples provided, the focus is not on objective facts of the stories themselves, but instead on the meaning life events have had on the participants.

A life history approach was first used by the anthropologists around 1926 (Shaw 1980), and was later adapted by sociologists in the late 1930s (Harrison 2009). A life history framework underpinned the work of Thomas and Zaneickis in the 1920's with the use of personal records for example, letters, correspondence, diaries and individual life histories were all used to understand the migrations of Polish peasants from the slums of their native villages to the United States (De Chesnay 2015).

This initial research of migration by Thomas and Zananecki in 1920 was the foundation for further work conducted by the Chicago School, under the remit of Park and Buggess (Ballis 2007). The late 1930s saw life history as a method for capturing people's experiences of

life which were often untold (Atkinson et al 2001), and led to a number of notable life history research, for example The Hobo by Anderson in 1923, and the more infamous "Jack- Roller", by Shaw in 1930 (Goodson 2001).

During the interwar period, traditional methods of research often employed more quantitative designs, for example quantitative demographic and survey methods, but what was missing was a more micro analysis and exploration of individuals' lives that provided a more detailed understanding of the lived untold experiences (Harrison 2009). One example was the research carried out by Clifford Shaw a criminologist from the Chicago School in 1930. Shaw undertook life history research on a young man called Stanley. Stanley's criminal activity started from an early age when he was approximately six years old even before he had started school. Stanley was arrested on many occasions for theft, truancy and absconding and later for committing robberies on drunk homosexual men. Shaw undertook a six-year study of Stanley, looking at his life history and factors that influenced him and his decisions. As part of this research Stanley wrote a two-hundred-and-fifty-page document telling his own story of how he perceived his own life. This story was ratified by Shaw with the use of medical records, arrest reports and other documentation. What makes the story of Stanley so infamous is its ability to transverse both criminology and sociology, by allowing researchers to truly emerge themselves into the life of Stanley, and become immersed in his world, thereby offering a unique perspective of what is often taken for granted and often untold (Becker 1970, Shaw 2013).

The late 1970s saw the development of the feminist movement where oral history played a key role by making the 'invisible' visible. Using social research, female scholars began to look at constructing stories, emphasising the importance and uniqueness of 'first-hand' experiences (Harrison 2009). The focus on life histories continued with a direct focus on individual life history that would have traditionally been unheard, overlooked or even lost. An example of this untold voice was research by Berger (1995) who portrayed two brothers who survived the holocaust and another by Kakuru and Paradza (2007) in their study of African women in Uganda's communities where HIV and AIDS are a part of daily living. The use of life history allowed for the participant in both these studies to have a voice to tell their own story. What was different about this research was the empowerment of the participants; for example, this life history approach by Kakuru and Paradza (2007) was in

essence women researching women. This single gender research method allowed for a deeper empowerment of women's research and allows for a deep understanding which may often be overlooked or culturally forbidden with male researchers (Kakuru and Paradza 2007).

What these two studies identify is that life history research needs to continue to be imbedded into the plethora of modern research methods in which individuals make sense of their environments thus shaping understanding of human experience. Ontology in research is the assumption we make about the kind and nature of reality and the world and what exits (Richard et al 2003, Snape and Spencer 2003). The aim of research both in the studies reviewed and also in the context of my study is to uncover the life history reality as experienced by the research participants which is independent of the reality of the researcher. As previously reviewed in Chapter 1, I have provided a personal account of my own journey to working on a non-doctor island, but the research participants in this study will have a different and personal reality independent of my own. The aim of using life history research in this context of this study is to uncover that reality.

3.3 Why life history was chosen for this study

Life history is an historical recall of personal events told by an individual that relates to their entire life from childhood to the present day (Bakar et al 2017; De Chesnay 2015). There are common themes that closely align this methodology with ethnography. In both approaches research provides a thick description of the participants life and the participants understanding of events is treated as part of their life history (Denscombe 2010). Where ethnographic research produces detailed accounts of events or cultures (Denscombe 2010) life history uses an in-depth study of an individual's life and the social and historical circumstances that have shaped certain aspects of that person's life.

Life history is perfectly suited to the nursing profession, as nurses have always valued personal stories, thus improving their understanding of their own lives and that of patients (De Chesnay 2015). There are a number of ways that nurses can tell their individual story, for example when it comes to the application of life history, these include autobiographical and biographical accounts**.** Autobiographical accounts are written by the person, usually within the context of the first person and allows the participant to connect with their past,

present and future, thus exploring their own life experiences and a deeper understanding (Holloway and Freshwater 2009; Nasheeda 2019).

In comparison, biographical accounts are written by someone else but like autobiographical accounts offer a unique record an individual's life and is often chosen to record major life events (Novak 2017). This approach collates holistic information about the participant, by using their life history and their life experiences as analysed by others. Ingham-Broomfield (2015) noted that biographical accounts have increased in popularity over recent years with a direct emphasis on qualitative study designs for example, oral history and life history.

One example of biographical narratives used in life history was a study by Ramvi (2015) who undertook a single case interview of a senior Norwegian nurse entitled "I am only a nurse" a biographical narrative study of a nurse's self-understanding and its implication for practice". The aim of this study was for the nurse to tell her story of her life and how her work has affected her and possibly changed the way she perceived herself. With the use of biographical narratives, it was possible to identify and explore common themes throughout her life history, looking at her experiences both personally and professionally about just being "only a nurse". With the use of a biographical interpretive method, it was possible to understand the hidden dynamics of the participant and how the interaction between personal and social factors shaped her professional practice. The use of narrative interviewing allowed for the hidden story to be told of how low self-esteem and the feeling of not being good enough had a direct correlation to her clinical practice. What was evident from the conclusion of this study is that individuals can ultimately inform the profession and possibly change clinical practice, using narrative interviewing. Furthermore, Iranmanesh et al (2012) in an exploration of the nurse's experiences of the dying patient, found that a nurse's understanding of care and the context of delivery is dependent on their own life experiences. In this qualitative study, nurses described how their personal experiences has shaped their professional careers, by providing personal insight; it's this lived experience that has helped then develop care and compassion, that ultimately reflects as part of their holistic nursing care.

In 2000, Harker tells the story of how she went from being a nurse, to suddenly being a patient and subsequently being on the other side of care delivery (Harker 2000). This

autobiographical account explores how she felt let down and at times vulnerable being a patient, and a feeling of betrayal within the nursing profession. This recall of events by using biographical narrative allowed for Harker, to reflect on her own clinical practice and subsequently change how she undertook her role as a nurse. Arbon (2004) also noted that individual nurse life experiences are associated with how they ultimately relate to others and interact within clinical practice, these life experiences are often reflected in the stories nurses tell about their practice. What the paragraph is implying is that biographical narratives and life history of nurses, ultimately shape and change clinical practice (Harker 2000; Arbon 2004; Iranmanesh et al 2011).

There are several advantages to the use of life history and biographical narratives that were specific to this study. Firstly, life history contextualises individuals' lives within the wider social, cultural and historical moments (Plummer 2001; Lansford 2019). This contextualisation allows for the examination of events and how they impact individuals and their life trajectory, revealing turning points, epiphanies and transformations that may occur over the course of the individual's life (De Chesnay 2015). Jack and Smith (2007) found that the ability to care for others necessitates understanding the patient's need which in turn, necessitates first understanding ourselves.

Life history and biographical narratives can also capture untold stories, using primary sources i.e., nurses on the non-doctor islands. This methodology allows for those untold stories to be brought into the wider research domain with the use of open-ended questions as part of an interview process. This method of telling one's own story will be used to allow the nurses to provide detailed accounts of their life allowing them to elaborate on key life events (Bakar et al 2017). Furthermore, Lewis (2008) found that history can provide a higher level of historical depth and ethnographical detail by focusing on the trajectory of an individual's life and work. The use of life history methodology within this study will allow for a better understanding of the nurses' individual journeys and how this has ultimately shaped their careers on non-doctor islands.

In the course of a life history a great deal can be learnt about the nurses and their own life history that shaped their career (D'Antonio et al 2010). The ability to understand individual turning points in life and to explore their decision-making process and the factors that

contribute to their wider career decisions are all achievable with a life history methodology. Ramvi (2015) discussed that the ability of nurses to understand themselves, has a direct influence upon their professional work.

Although life history is best placed to answer the research question, Hj et al (2008) and DeLyser et al (2009) identified several limitations with the life history methodology. For example, it can be time consuming, the sample sizes are usually small, the contents are less generalised, and the data is difficult to aggregate and make comparisons. The historical literature also identified some challenges in relation to a life history methodology which were felt still applicable and relevant to this study. Howarth (1998) noted that memories are recalled in a way that places the participant in a more positive perspective, with memories and similar experiences often merging. Atkinson (1998) found that while a life history typically aims to offer the 'whole life', invariably, it's impossible to explore this in its entirety. Furthermore, recollection of life events can be skewed given that memories fade with age and over time, thereby questioning the validity of the data presented. The narrative nature of life history is based on the recollection of prior events and it's possible that the stories may be elaborated rather than be based on actual facts (Bakar et al 2017). Lim (2011) remarked on the overall infeasibility of life history and noted that given memories are likely to fade over time with neurological and physiological processes, the recall of memories does raise questions in relation to the validity of life history data. However, Backman (2006) does acknowledge that individual memories and perceptions change over time, but also noted that memories always involve some degree of factuality and that the use of biographical interviewing is informed by the participants own analysis of their own life events. Life history interviews may need to be conducted over several occasions if the participant has a significant history or frequently diverts off the topic. In contrast, the participant may have little to say and offer brief answers and may feel awkward talking about past personal events. Bakar, et al (2017) noted that the interview process is often a drawn-out process with numerous interviews over numerous sessions. Furthermore, the accessibility of the participant may be limited as well as adverse weather considerations.

This study will have a small sample size due to the limited number of non-doctor island nurses. However, Dworkin (2012) and HJ et al (2008) noted that small sample sizes are

common with life history methodology due to the in-depth and detailed nature of the approach.

In summary, a life history methodology was best placed to answer the aims and objectives outlined in chapter one, by encouraging the participants to think holistically about their own lives over time and varied professional and personal contextual factors that were appropriate to them. The application of life history was to provide a chronological recall of events from childhood to present day, outlining by key life events for example, childhood, family, teenage years and career journey/ decisions. This life history approach will provide wider understandings of why nurses choose to live and work in remote and rural island settings.

3.4 Qualitative Interviewing

Life histories usually make use of in-depth interviews to collect data (Denscombe 2010). A life history interview invites the participant to look in detail across their life course and shows the reality of events that unfolds and inter-relates in people's lives. The study sought to understand the individual's life history, experiences and events that ultimately influenced their decision to work on non-doctor islands. The ability to gather information about individuals / life experiences, views and beliefs through id-depth individual interviews would support the research question outlined in chapter one, by allowing a deeper understanding of the life history and how experiences have shaped career trajectories (Ritchie et al 2013).

Qualitative interviewing is among the most used method of data collection in qualitative research (Sandelowski 2002; Young et al 2018). Although a relatively dated reference Weiss (1999) provides a perfect summary of how qualitative interviewing was used to inform this this research study; "Interviewing can inform about the nature of social life. We can learn about the work of occupations and how people fashion careers, about cultures and the values about the challenges people confront as they live their lives. We can learn also, through interviewing about people's interior experiences. We can learn the meanings to them of their relationships, their families their work, and their selves. We can learn about all the experiences, from joy through grief, that together constitute the human condition" (Weiss 1999, p.1).

An example of a qualitative interview underpinned by a life history methodology was by Cardero (2014) who undertook a phenomenological study to understand the experiences of female survivors of domestic violence. What was unique about this study was the untold story of the women interviewed many of whom were involved in abusive relationships, and who told their story to a complete stranger to help raise awareness of domestic violence. This shows the importance and the power of qualitative interviewing and a life history methodology.

Another method of data capture within life history is the combined use of interviews and timelines. Adriansen (2012) in an article 'Timeline interviews a tool for conducting life history research' noted that one strength of life history interviews is the increased emphasis on holism. A timeline is simply drawing a line on a large piece of paper usually horizontally, where the ordering of events is guided by the interview process. What was evident from the timeline is the start and end points. Although timelines have been used in qualitative research for several years, they have only just begun to emerge more recently and have become popular in life history research (Bremner 2020). Adrainsen (2012) started with their birth year and moved chronologically towards the present day. The timeline incorporated key life events for example marriage, children, divorce etc. This method also allowed for Adrainsen (2012) to open different avenues within the interview process, for example, one advantage with the use of timelines was the ability of seeing events within the wider context of the individual's life experiences. Similarly, timelines provide the opportunity for flexibility and diversity in the formation of a narrative (Pell 2020). However, the use of timelines within life history is often used as a starting point to explore key events as noted by Goodson (2001) and should not be used as an assumption of a linearity of a chronological timeline.

What is evident from the literature relating to life history is the importance of the untold story and the voice of the silent and how once this voice is heard how this can shape a different understanding of clinical practice. To understand the factors that influenced decisions to work on non-doctor islands it was felt that qualitative biographical interviewing would enable the ability to capture the life history of these nurses and to use their stories to understand the factors that influence recruitment and retention across the non- doctor islands, starting from childhood to present day.

There are three types of interviews that can be used to capture a life history, these are standardized (structured), the semi standardized (semi structured) and the unstandardized (unstructured) method (Jamshed 2014). This study used a semi structured interview technique. The use of semi structured interviews is commonly used in qualitative research and are a frequent source of data in health service research (DeJonckeere 2019). The advantage of this semi structured interview is its ability to offer more freedom and flexibility within the interview process, with the ability to probe ideas and concepts with the use of open-ended questions (Gerrish and Lacey 2010; DeJonckeere 2019). In addition, this approach has the ability to build up a relationship of trust between the interviewer and the interviewee. Ritchie et al (2013) and Adams (2015) note that a relaxed, confident and attentive interviewer will help support the interview process, unlike other methods for example, telephone or email interviews. The key advantage of face-to-face interviews in this study was the ability to actively listen and take notes. Although direct body language and facial expressions was not being recorded, the importance of active listening and letting the interviewee talk was of particular importance. The process of interviews can often provoke anxiety, to overcome this a non-judgemental approach was undertaken again this can only be supported by a face-to-face interview process.

Qualitative interviewing does have some limitations. First and perhaps the most relevant for this study was the overall financial costs. The financial costs of face-to-face interviewing needs to be considered especially when traveling to agreed localities (Doody and Noonan 2013; Hay-Gibson 2009). This was particularly relevant to this study especially when traveling to the non-doctor islands, considering the cost of air and sea travel across northern Scotland. Oltmann (2016) also noted the importance of personal safety which is often overlooked and is often exacerbated by the locality of the interview and time of day and the overall nature of the interview. Interviewees may also feel social pressure to be available to meet as agreed location and time, thus yielding an increased no show rate (Gubrium, and Holstein 2001, 2012). In addition, interviewee privacy may also be of a concern especially if the face-to-face interviews are more invasive and are often conducted in the interviewee's home of work office environment. Although a telephone / Skype may be one method to overcome this it was felt that the face-to-face element was important in making personal connections with the interviewees.

3.5 Interview Guide

A semi-structured interview was used to capture life history data from the participants. To structure the interview, an interview guide was used as an aide memoire, and provided a list of key events and subsequent questions. The guide was linked to the aims and objectives outlined in chapter one and aided the interview process by providing a framework, that allowed for flexibility and fluidity across the individual life history as well as the ability to probe into key life events. There is no formal structure / guidance within the literature in relation to a life history interview schedule. The following interview guide was built on the work by several authors, McAdams (2018, 2001) and Mansfield et al (2015).

McAdams (2018) in the early 80s introduced a life story model into mainstream psychology. McAdams at this time identified that life history is about personal identity, and that personal life should be considered as "life phases" or chapters. McAdams undertook a series of life history interviews exploring various life chapters and key events for example high points, low points, turning points, childhood, adulthood memories, wisdom moments and finally future plans. McAdams (2001) found that young adults start to organise and make sense of their life history by creating what McAdams described as inner personal stories. These personal histories then reconstruct the individual's own past experiences thus shaping their future. What McAdams, found is that individuals draw upon previous life events, collate them together in a meaningful way and use this as a story to explain who they are, what this means and where they are going. Building upon this Mansfield et al (2015) identified additional content for example gender, family and parenthood that play important aspects in people's lives.

The following interview guide takes aspects of both McAdams and Mansfield as well as additional supporting questions in relation to this study to create the following guide. Table 12 is the interview guide that was used for this study in its entirety. The following paragraphs will provide a rationale for the questions used.

Table 12: Interview Guide

Interview Guide

Introductions:

Aim of the study:

Consent verbal and written:

Any Questions:

Childhood experiences and family.

- Were you born and did you grow up in a remote and rural place, or was your job on one of the Scottish islands the first time you had lived in such a remote and rural location?
- Tell me about your parents or your family background – were they from a remote and rural area and did they work in health care like you?
- What other relatives did you have contact with growing up? Where did they live and did they work in health care?
- Many people come to live in remote and rural parts of Scotland because they like being in the countryside or like walking or looking at wildlife. Was this one of your reasons for taking up a post as a nurse on a Scottish island? If so, was this interest encouraged by your family? What activities did the family do together?
- What about any sibling? Do they work in health care? And do they like the countryside and wildlife? What did they think when you moved to an island?
- Describe the community you grew up in. What are the similarities and differences between the places you grew up in as a child and the island that you worked on as a nurse?
- What was primary school like for you? What did you like about it? What was hard about it for you? Did your interest in health emerge here or was it later in life?
- What did you do in your spare time as a child? And do you still have these interests? Do you think that these interests developed as you got older and did they remain when you lived and worked on the island?

Teenage years / Growing up and education:

- Many nurses come to the profession later in life. Was nursing your first choice? If not, what made you choose this profession?
- Many people have a choice as to which university they attend; what influenced your decision to study at a specific university?
- Did you have any peer/family pressure in your choice of university?
- What was your aspirations as a teenager? Did you have any role models?
- There are a number of academic levels, for example, degree, diploma, masters etc. What level did you study initially and, again, what influenced this decision? Did you have a clear career pathway that you wanted to pursue at this point?
- Once you finished your initial education, did you ever return to education? And if so, what made you return?
- Did you ever have a placement in a remote and rural practice, and if so, what did you particularly enjoy about this experience? Likewise, was there anything you did not like?
- What are your current career aspirations*?*

Career history and current career.

- Working and living in such a small community can be challenging; what do you feel is the most challenging part of your job?
- Do you have any on call commitments, and what is your working pattern
- Working across remote and rural practices can be stressful; what do you do to relax? Do you have any hobbies or interests. Do you think you have a good work-life balance?
- Would you recommend this lifestyle to other health professionals looking at career pathways in remote and rural settings? If not, why?
- What do you currently like about this role? And what do you dislike about your role.
- What influenced your decision to work in a remote and rural setting, and in particular this island setting?
- What drew your attention to the job?
- How long have you worked within your current role, and have you had any gaps in service before applying for this role?

- Have you always worked in a remote and rural setting? If not, what did you work at before? And what made you switch jobs?
- Have you always wanted to work in a remote and rural setting?
- Can you give me an example of a typical day and what influence your daily routine?
- What do you currently like about this role? And what do you dislike about your role?
- Do you have any other paid work or is the NHS your fulltime employment?
- Working in such a small community can be challenging; what do you feel is the most challenging part of your job?
- Working on remote community islands can often have possessive tendencies. Do you feel that the communities take advantage? For example, do they phone you OOH?
- Do you get professional development in your current role? If so, can you give examples, if not why not?
- Do you currently get access to CPD and study days?
- What was your previous skill set? And what does it know?

Future plans.

- When did you leave your current job? And what made you decide to leave your current post?
- Did you remain within the community setting or did you move to another locality?
- If you had to recommend remote and rural practice to others, knowing what you know now, would you? If not, why not?
- Have you continued your nursing career, or do you do something different? If so, what?
- Would you return to remote and rural practice, for example, in another area?

END OF INTERVIEW

Closing remarks: …

Any questions: …

Thank you: …

Close: …

The interview guide is divided into key chronological life events, starting with childhood experiences which incorporate family and friends and role models. This was followed by teenage years including growing up and exploring primary and secondary education. The final section looked at career history including previous jobs, current role and future plans. A key element in the development of the interview guide was the ability to follow the individual journey as they experienced childhood, teenage years, education and their career journey to produce a chronological life history of the individual. What was needed was the individual to tell their own story, in their own words, with the interview guide to simply provide a framework for the interview process. Yow, (2014) in the book 'Recording oral history', talks about the importance of putting non-threatening questions first. People generally like to talk about their birthplace first, early childhood memories and significant people, role models or events that occur at this time, so this seemed a logical starting point.

The use of open questioning allowed for the question to be posed and the individual to answer, elaborating on as much detail as possible. This first section of the interview schedule was to provide an understanding of the individual's early childhood memories and connections with family and friends. To aid this understanding, questions were used, for example: Tell me about your parents and your family background? Where, were you born? Have you ever lived in remote and rural localities? What other relatives did you have contact with growing up? These questions were used to ascertain connections with family i.e. parents, siblings or other role models and to ascertains the characteristics. Variables such as family structure, roles assumed by each member, relationships between the members, the system of values and attitudes, which influence career choice and development in later life.

The next section of the interview schedule explored teenage years and growing up and exploring the decision-making process. The complexity of career decision increased as young people get older and can often be influenced by their environmental circumstances (Howard and Walsh 2011; Gati and Saka 2001). The career decision making process of young people requires a process of understanding by the exploration of varied career and life options (Porfeli and Lee 2012). To support the work by Porfeli and Lee (2012) and to understand the factors that influenced career decisions, leading / open question were used for example: What were career aspirations at the time? Did you have any role models or people that you

admired? What influenced your decision to become a nurse? Were you influenced by peer or family pressure? Did you always want to be a nurse? The aim of these questions was to build upon the previous childhood experiences and explore the individual choices to why they chose a particular career and to see if there are any correlations to childhood, for example parental influences, peer pressure etc.

The third section of the interview guide was more specific and explored career history in more detail, and looked at their past career pathways and how this has shaped their current role across remote and rural settings. The career decision making that adults undertake is more complex with family and friends and peer groups having significant influence on the decision-making process. Other factors are also taken into consideration i.e., job security, lifestyle factors, work life balance, and enjoyment and work interest. In order to explore this within the context of this study the career history was explored in this section, with leading questions for example: What drew you to this role? Have you ever worked in remote and rural settings? Likes and dislikes of the current role? Do you have a work life balance? Key questions were also asked appertaining to the working culture, for example community living, educational opportunities, day to day aspirations were also included within this section.

The final section of the interview guide was simply looking forward at new challenges, career aspirations or retirement. Although this was not life history within the context of this study, it was important to understand the final career aspirations of the participants and to bring the interview to a natural close.

A pilot interview can add value and credibility to an entire research project (Van Wijk and Harrison 2013). A pilot interview was undertaken to highlight any ambiguities, difficult or unnecessary questions, thus allowing for them to be discarded or modified and thereby improving quality of the interview schedule and subsequent data collected (Chekail 2011). Furthermore, it also allowed a free flow of communication and to ascertain if the questions elicit a relevant response to address the aims of objectives of the study. This ensures that the replies can be properly interpreted in relation to the information required (Van Teijlingen and Hundle 2001). The interview schedule was piloted on a fellow nurse who worked across primary care. Although she was not working within a remote island setting, she did move to

remote and rural practice from an urban locality, so could relate to the questions. This was also the ideal opportunity to trial the participation information sheet and consent forms at this point. Again, no changes were made. The pilot interview was recorded and overall, apart from a few teething problems the pilot seemed to go well, with good overall feedback from the participant. The time taken to complete the interview was reasonable at around 90 minutes from the initial consent to closing comments. Although many life historical interviews are conducted over a number of sessions it was felt with the information provided and with the above guide that one session would be adequate.

3.6 Sampling

Sampling is a procedure used to systematically select a relatively smaller number of representative individuals from a pre-defined population to serve as participants as per objectives of their study (Sharma 2017). The aim of this study was to explore indepth the life history that influence recruitment and retention of nurses to non-doctor islands. Hence, the sampling procedure needed to facilitate the selection of nurses with experience of working as a nurse on non-doctor islands.

There is little evidence within the literature to support the best sampling strategy for life history research. Two recent research studies by Bailey-Morrissey and Race (2019) and Netherwood's (2020) use a purposeful snowballing sampling method. Bailey Morrisseys, and Race (2019) study of black women within secondary education used a purposeful sampling method of black, females in senior leadership positions in secondary schools in England; this method was suited to the research study and supported the aims and objectives. This sampling method led to a sample size of sixteen participants. However, it was evident that this approach yielded women from African and West Indian descent, who were in leadership role across secondary education in England. Missing therefore were women from other black, Asian and minority ethnics groups and women who were not in a leadership role.

Netherwood (2020) study of teachers in special educational settings also used a purposeful sampling strategy, in that they are all linked to a career in teaching. This led to an overall small sample of five participating in the overall study who were predominately white British, with four being female with only one male participant. The emphasis on the

quality of the data, rather than overall numbers or sample size was important in this study. What was evident across both these studies was the relatively small sample size and arguably this could be due to the relatively narrowed field of the chosen research areas but was also a common issue with life history research (HJ et al 2008).

The use of purposeful sampling enables a selection of information rich participants and is argued to be one of the most effective use of limited resources (Palinkas et al 2015). When applying this study this involved the selection of individuals i.e., nurse across non-doctor islands who will have the specialised knowledge and clinical expertise to answer the aims and objectives of this study. Furthermore, Palinkas et al (2015) in an article titled 'purposeful sampling for qualitative data collection and analysis in mixed method implementation research' noted a number of purposeful methods for example Criterion- I, criterion- e, typical case, homogeneity, snowball and extreme/ deviant. This research used a homogeneity method in order to identify the correct sample. Homogeneous sampling is a subset of purposeful sampling where the sample all shared similar characteristics or traits i.e., age, gender background, occupation etc. For the purpose of this study, participants all shared occupational commonality for example, they all worked on non-doctor islands, were all nurses and all worked for the National Health Service (NHS) across remote and rural practice (See table 13).

There are, however, several potential disadvantages to homogeneous sampling as discussed by Palinkas et al (2015) that would apply directly to this study for example, its inability to generalise the wider research findings to wider population groups if the sample achieved is not representative. However, given the small number of nurses currently or recently working on non-doctor islands it was deemed possible to use homogeneous sampling to achieve a representative sample. To capture a true homogeneous representation the following criteria was used.

Table 13: Inclusion and exclusion criteria for the sample

Non-doctor island nurses	
Inclusion Criteria	**Exclusion Criteria**
• National Health Service employed	• Non-NHS employees

• Current non-doctor islands post holder • Based across Orkney, Shetland, Highlands • Work as isolated practitioner (non-resident GP or other health care professionals) • Relief nurses with above criteria • Previous employed meeting the above criteria.	• Non-doctor island employees • Unable or unwilling to partake in the research. • Daily relief nurses

There are thirteen non-doctor islands in Northern Scotland. The total number of nurses employed on non-doctor islands at the time of the study was nineteen. Eleven nurses were recruited. In the interests of protecting the identities of participants, the islands whence they came are not reported. Life history research can use make use of secondary sources data such as archive material, diaries and letters (Dencombe 2010) however these types of data sources were not relevant to the aims of this study. Additionally, other participants could have been included, for example Health Board chief executives and national policy makers. While such sources of alterative information are important, inclusion of additional perspectives would not have been compatible with the philosophical stance of the study as earlier described. Hence the focus on the reality and personal perspectives of the nurse participants.

3.7 Recruitment Strategy

In order to purposively sample nurses with experience on non-doctor islands, all three Human Resources departments for the NHS Health Boards (Highland, Shetland and Orkney) were contacted by email. The HR department provided the contact details of all nineteen current nurses working on the non-doctor islands. All current nurses were contacted by email in the first instance. Initial information was sent out including an overview of the study as well as the participation information sheet (See appendix three).

In order to increase the sample, size the relevant human resource department were contacted again. However, they were not able to provide contact details of nurses no longer employed. In order to identify previously employed nurses, current nurses involved in

study were asked if they knew or had contact with their predecessors or any previous nurses. This yielded four potential participants. These were contacted by email. However, only one returned email correspondents. This gave a sample size of eleven out of a potential twenty-three who agreed to partake in the study.

The next stage of the recruitment upon granted ethical approval was to arrange for the interviews to take place, and for formal consent to be undertaken. The following paragraphs will look at this process in more detail. Exploring the role of dual consent and minimising deductive disclosure.

3.8 Informed Consent

In accordance with the UK policy framework for health and social care research (Health Research Authority 2017) consent from all participants was sought using the following approach. Two consent forms (See appendix four) were developed in compliance with the University of Stirling policy guidance on research consent and approved by the university research ethical committee as well as National Health Service ethical committees for each health board (Shetland, Orkney and Highland). The purpose of the initial consent form was to obtain written and verbal consent from the participant to conduct the interviews and have its audio recorded. All the participants agreed to be interviewed as part of this study. The second consent process was used once the interview had been completed and transcribed. These transcriptions were sent back to each of the participants for them to review. They also had the opportunity at this point to decline further involvement in the study, but also had the opportunity to remove any aspects of the transcript that felt miss represented them or disclosed their identify.

The initial consent form outlined the aims and objectives of the research along with five statements outlined below.

1. I confirm that I have read the information sheet dated..... (version.....) for the above study. I have had the opportunity to consider the information and ask questions and have had these answered satisfactorily.

2. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason and without my medical care or legal rights being affected.

3. I understand that the information collected about me will be used to support other research in the future and may be shared anonymously with other researchers.

4. I agree to have the interview audio recorded.

5. I agree to take part in the above study.

Each participant had to agree the above statement in order to progress to the interview. This initial consent form was sent to the participants prior to undertaking the interviews. This allowed them to review the above statements and seek clarity about the study by telephone or email, if needed. Two copies of this consent form were made available to sign one was kept by the participant, while the other was kept by the principal researcher (myself).

Each participant had the opportunity to review the consent form on the day of the interview and could seek clarity if needed. This initial consent process took only a few minutes. In addition, verbal consent was also gained from the participant, and this was audio-recorded as part of the interview process. All the signed consent forms were scanned and stored electronically on a University of Stirling data drive.

The second consent process was undertaken post interview. All the interviews were transcribed using an approved transcriber authorised by the University of Stirling. Once all the interviews had been conducted and proofread, each participant was contacted by telephone and asked for an email address that was suitable for the transcripts to be sent electronically or via post if this was preferred. This ensured that if participants had allowed others to access work email addresses that information governance would not be breached. Each participant received a copy of their transcript for comment and to confirm the accuracy of the transcript and to ensure the participants agreed with the overall content. Along with the transcript the second consent form was sent. The second consent form included the following statements:

1. The information may be disseminated with no details changed.

2. The information may be disseminated. However, it is my wish that the following specific pieces of data are not shared without first making alterations to protect my identity:

Each participant was given fourteen days to review the transcript, all signed consent forms were returned via email to me within this period. All the participants agreed with the above statements, however, one participant wanted a statement removed from the transcript; although the statement was an accurate portrayal, the participant felt uncomfortable upon reflection. This was documented on the consent form, and the statement was removed from the final transcript. To ensure a full audit trail the removed statement remained within the original transcript and stored electronically. This was clearly marked and evident upon reading to ensure compliance with the participants request. A second transcript subsequently was produced with the statement removed. This was sent back to the participant for review and overall agreement was successively gained. It was this second version of the transcript that was used in the analysis and dissemination of the data.

To ensure an audit trail an excel data sheet was completed to identify when the interviews were conducted, additional information was also captured for example, initial date of consent, dates of any further communications with the participants and when the second constant process was undertaken. This is stored electronically along with the date obtained from the interviews and is password protected to comply with data protection legislation.

3.9 Data Collection.

Once initial consent was obtained, the interviews took place. The interviews were conducted at an agreed time and location of the participant. The majority (n=5) of the interviews were conducted on the non- doctor islands, 3 were conducted in the homes of the participants while the remaining 3 were conducted at a mutually agreed location. To ensure safety of the principal researcher and to comply with the university of Stirling policy on lone working location information and the visit purpose was stored electronically and accessible to NHS administrator if needed.

Each interview was conducted using the interview schedule (see previous chapter) and was recorded using a digital Dictaphone. Al-Yateem (2012) identified several areas to be mindful of when recording interviews these are:

1. Does the use of recording equipment have an effect on the participant, thus effecting the overall quality of the data?

2. Is there evidence of reluctance, to speak freely and express their true lived experiences and finally how does the researcher minimise effects of recording on interviews.

Al- Yateem (2012) identifies a number of strategies to ensure that data collection was maximised with the use of recordings. These included: the use of an interview schedule, a comfortable, familiar environment to undertake the interview, being prepared for the interview process, i.e., arriving early, checking equipment, the use of correct equipment, ideally as small unobstructed dictaphone. All these recommendations were adhered to in this study.

The interviews lasted between sixty and ninety minutes including the verbal consent process and preliminary discussion about the study. It was evident from the outset that all the participants felt comfortable with the questions being asked and there seemed to be no reluctance in answering them, with many elaborating on areas they found interesting. Two of the interviews were interrupted by patients wanting to be seen by the nurse, and this was evident and clear on the audio recording, and a subsequent break was taken in the interview process.

All the interviews were planned face-to-face however, due to severe weather and the cancellation of ferries it was agreed that one interview was conducted via skype, this was agreed following discussion with the participant and the academic supervisors. To ensure consistency with the face-to-face interviews, the interview was recorded using a Dictaphone and written electronic consent was gained prior to the interview.

All the interviews addressed the aims and objectives of this study, with many of the participants elaborating on key areas of their life history. The quality of the audible data was clear and suitable for transcription. There was no evidence of patient confidentiality breaches or areas of concern noted as part of the interview process. The data from the interviews was transferred onto the secure University of Stirling network drive and deleted from the Dictaphone. These audio data were later transcribed as outlined in the following paragraphs.

3.10 Data Analysis

As qualitative research and life historical research becomes increasingly recognized and valued, it is imperative that it is conducted in a rigorous and methodical manner to yield meaningful and useful results (Nowell et al 2017). Thorne (2000) characterized data analysis as the most complex phase of qualitative research, and one that receives the least thoughtful discussion in the literature.

The use of a thematic analysis is one of the most common forms of data analysis in qualitative research (Guest et al 2012). Braun and Clarke (2006) found that a thematic analysis is a more richer strategy that provides a detailed and complex account of the data thus going beyond simple description. The use of a thematic approach is for the extraction of meaning, themes and concepts from within the data. This data can be in many forms for example interviews field notes, pictures and political documents (Guest et al 2012). Rubin and Rubin (2011) noted that the use of a thematically analysis can be very exciting, especially when new themes are discovered within the data.

The use of a thematic analysis is common amongst life history research. One example of this was a study by Bailey-Morrisey and Race (2019) who looked at the lived experiences of black women secondary school leavers. In this study, an intersectionality lens was used, in combination with a narrative analysis with a thematic framework. This chosen method allowed for common themes to emerge from within the data.

Another example of the use of a thematic analysis within the scope of life history is by Netherwood (2020) in a study called ‘An investigation into the career development of teachers and their view of special education, using a life history approach. This study sets out to explore the life history of six teachers, identify the factors that might have influences

on their career decisions, and identify factors which may have led them to work in specialist practice. This study fundamentally built upon a thematic analytical framework as when reporting its finding from the interview process.

The use of a thematic analyses was felt to be the most suitable method for the interpretation of data within this study and had a number of advantages Firstly, it's suited for novice researcher's due to its ability to learn quickly, secondly it provides a highly flexible approach that if needed, can be modified to the needs of the study while providing a rich account of the data (Braun and Clark 2006). Thirdly, it allows for themes to be identified within the data, thus allowing for the exploration of relationships across the whole research data set and finally the use thematically analysis allows for the comparison of data gathered at different times of the project to be compared and interpreted (Nowell et al 2017).

The implementation of a thematic analysis is a clear, uncomplicated and straight forward data analysis tool. However, it does have a number of pitfalls that must be considered. The previous paragraph identified flexibility as an advantage of a thematic analysis, however, caution must be taken that this flexibility does not lead to inconsistencies across the data (Holloway and Todres 2003). Braun and Clarke (2006) and Nowell et al (2017) found that a thematic analysis has the potential for theoretical bias, thus themes are developed under the influence of a researcher's presumptions, this has the potential to destroy the values and validity of the research. Thus, it was important to be aware of these biases and to consider processes to reduce risk of bias, for example, use of data tool such as Nvivo which helps to organise data and review of themes with research supervisors.

Taking into consideration the advantages and disadvantages associated with a thematic analysis, it was felt to be a suitable analytical method that meets the aims and objectives of this study.

According to Braun and Clarke (2006) there are varied phases to a thematic analysis. The first phase is to conduct a review of the data to identify patterns meaning and areas of interest. Table 14 provides an overview of this initial phase of a thematic analysis as outlined by Braun and Clarke (2013).

Table 14: Thematic analysis structure (Braun and Clarke 2006).

Data Analysis Phase	Description of each phase
1. Initial read and compile the data	Transcribe the data, reading and re reading, with the initial development of codes
2. Familiarisation with the data	Coding interesting features with the data collaborating all data under relevant codes
3. Code the data set	Develop above codes in the themes, Exploring all the data and its relevance to each theme
4. Review codes and develop themes	Review the codes and extracting the data, thus generating a thematic map
5. Compile themes and meaning	Refine the themes, generating clear names and boundaries for each of these themes
6. Final write up findings	Develop final idea and link back to literature review and final write up

Braun and Clarke went onto develop a 15-staged checklist of criteria for a good thematic analysis. This checklist was used to provide a framework for the data analysis.

Table 15: Checklist from Braun and Clarke thematic analysis (2013 p.35)

Transcription	1.	The data was transcribed to an appropriate level of detail, and the transcripts have been checked against the tapes for 'accuracy'.
Coding	2.	Each data item has been given equal attention in the coding process.
	3.	Themes have not been generated from a few vivid examples (an anecdotal approach) but, instead, the coding process has been thorough, inclusive and comprehensive.
	4.	All relevant extracts for all each of the theme have been collated.
	5.	Themes have been checked against each other and back to the original data set.
	6.	Themes are internally coherent, consistent, and distinctive.
Analysis	7.	Data had been analysed rather than just paraphrased or described.
	8.	Analysis and data match each other – the extracts illustrate the analytic claims.
	9.	Analysis tells a convincing and well-organized story about the data and topic.

	10.	A good balance between analytic narrative and illustrative extracts is provided.
Overall	11.	Enough time has been allocated to complete all phases of the analysis adequately, without rushing a phase or giving it a once-over-lightly.
Written report	12.	The assumptions about, and specific approaches to, thematic analysis are clearly explicated.
	13.	There is a good fit between what you claim you do, and what you show you have done – i.e. described method and reported analysis are consistent.
	14.	The language and concepts used in the report are consistent with the epistemological position of the analysis.
	15.	The researcher is positioned as *active* in the research process; themes do not just 'emerge'.

Initial read and compile the data.

The transcripts were reviewed to ensure consistency in the format and accuracy of the content following transcription. The transcripts were reviewed several times over consecutive weeks. Each transcript was then put into Nvivo to allow for effective data analysis and also to ensure data protection and appropriate storage of the files and to comply with data protection legislation.

Familiarisation with the data

Braun and Clarke (2006) recommended that the researchers read through the entire data at least once before beginning to code. Following this advice, a number of readings took place over a few non-concurrent days. This additional reading allowed a reflection of the data and to allow the development thoughts and meaning from the spoken word of the participants.

Coding the data set

Attride-Stirling (2001) noted that codes at this early phase should have quite explicit boundaries ensuring they are not interchangeable or redundant. Codes can have many levels and sub levels. This was an important stage, being a relatively novice researcher it was

important not to get lost or confused within the data (King 2004). The development of codes was stated as soon as the first interview had been conducted.

There are several theories in the literature when it comes to the generation of codes from the data. Creswell (2013) described a systematic process for coding data in which specific statements are analysed and categorised into themes that represent the phenomenon of interest. Furthermore, King (2004) outlined the process of creating provisional templates that forces the researcher to justify the inclusion of each code. What was needed at this point was an approach that unpicked the data in a systematic way, one that was easy to understand, implement and utilise. It was felt that Creswell's (2013) recommended method best suited the style of the data.

The coding process was simply a way of indexing or mapping data, to provide an overview of disparate data and to make correlations in relation to their research question (Creswell 2017). To get an idea of the data, a pattern coding method was used. This method pulls together the data into smaller numbers of the same meaningful unit, for example factors that influence recruitment was one identified in the study. More broadly speaking the word "code" was used to express the label, which is attached to a piece of data (Punch 2013; Elliott 2018).

The generation of the codes was done using Nvivo software. The first stage was to develop a list of codes, these were, lifestyle, career, family, friends, childhood, parents and hobbies - each code represented a sentence or paragraph within the transcript. An element of reflection during this phase has allowed the development of ideas as they evolve. A reflective diary was kept from the onset of this research process, thus, to serve as an audit trail and a place where ideas can be gathered and stored (Bashan and Holsblat 2017; Ortlipp 2008)

Review codes and develop themes

Stage four began straight away once the third phase was completed. This fourth phase looked more at the themes generated from the literature rather than the actual codes. Braun and Clarke (2006) noted that a theme captured an element of importance within the data in relation to the research aims and objectives, and ultimately represents a level of patterned response or meaning with the data.

It became evident during this phase that a number of the themes identified did not have enough evidence to remain as stand-alone themes, yet were important points within participants life histories. These were subsequently collapsed and incorporated into broader themes, for example previous accident and emergency experience, was included in career history. What was important at this point was that the themes were coherent and had meaning and could be related to the aims and objectives of the study. At the end of stage four a collection of themes emerged that helped to tell the wider picture of recruitment and retention of nurses across remote and rural to non-doctor islands. (Appendix five outlines the codes generated from the interview data)

Compile themes and meaning

Phase five was to compile all the themes and identify what is of interest about them and the reason why. It was at this point that each theme told its own unique story. It was important at this stage to have a clearly defined theme. Furthermore, these themes must be able to articulate the chronological life history of the participants, rather than just been a random sample of themes.

Final write up findings

The final sixth stage of the data analysis is the final writing up of this study. In the following chapters the results from the thematic analysis are presented that are concise and coherent whilst also taking account of the participants life histories. Each theme identified from the data will be discussed in more detail and linked to the overall aim and objectives set out in chapter one.

3.11 Ethical Considerations

Autonomy is at the forefront of this research and was fundamental in allowing participants to make their own decisions about what to reveal and this is subsequently recognised and respected. To ensure autonomy all the participants received an electronic copy of the participation sheet (See appendix three). This was initially sent by email with the initial expression of interest letter. This information sheet outlined the study and their involvement if they choose to partake. It was important from the outset of the study for the participants to be aware that key areas of their life history would be explored, thus taking

them on a journey from their past childhood memories to present day. This exploration of individuals' past had the potential to recall personal challenges and upsetting memories, which may have previously been laid to rest. K'Meyer and Crothers (2007) noted the importance that the participants understand why certain questions are being asked and empathises the importance of honesty about the purpose. It was made clear from the outset of the study that withdrawal from the study was possible without any detriment to the participants and that their right to autonomy was respected from the onset. In the unlikely event of causing upset, the participants would be signposted to the relevant support services, provided by the University of Stirling and voluntary services.

The principle of non-maleficence underpinned this study. The life history methodology as discussed in the previous chapter, does have the potential to cause psychological harm, for example: embarrassment, emotional distress or perhaps unwelcomed emotions. It was important at this point to reduce the risk of perceived harm to the participants; this was initially done by providing an information sheet as discussed in the previous chapter. The use of an interview schedule allowed for key questions to be explored as part of the interviewing process, thus allowing for a structured and systematic approach that took the participants on a life historical journey. Prior to the start of data collection, the schedule was piloted to ensure the format did not cause intentional upset whilst also meeting the aims and objectives of the research.

Barrow et al (2021) noted that the right of beneficence has close links with confidentiality and anonymity. The confidentiality and anonymity of the participants of this study was paramount in reducing deductive disclose upon publication of the research. Coffelt (2017) noted that if anonymity cannot be protected then confidentiality needs to be addressed.

To ensure participant safety, rights and wellbeing, this study underwent review by the University of Stirling's ethical committee (Number NICR 16/17) and passed withinitial university ethical committee review approval. Due to the study involving NHS nursing staff, agreement was sought from the research and ethical committee for each health board NHS Orkney, NHS Shetland and NHS Highland which comes under the remit of the National Research and Ethics Service National Patient Safety Agency (2008). Ethics submission was also completed and agreed by the Integrated Research Application System (IRAS).

Table 16 gives an overview of ethical agreement dates, agreeing officer and relevant Health Boards.

Table 16: Ethical agreements

Health Board	Agreement Date	Health Board lead	Ethical Agreement Number
NHS Shetland	6th March 2018	Mrs Kathleen Carolann Director of Nursing	Ref: N/A NRS: 17/224971
NHS Orkney	18th February 2018	Mrs Louise Wilson Director of Public Health	Ref: N/A IRAS 224971
NHS Highland	9th January 2018	Mrs Frances Hines Research and Development Manager	Ref: 1392 NRS: 17/224971
IRAS Application Number: NRS17/ 224971 (See appendix six for approval verification)			

Researcher safety was paramount in this study. Due to the need to conduct face-to-face interviews, the interviews were undertaken on the non-doctor islands. To ensure research safety and to comply with policy the University of Stirling long worker policy was followed. An electronic diary was used to timetable and to schedule the interview. This was made available to the principal researcher and was also accessible by one administration team member. Telephone contact was the main method of check-in upon start and finish of each interview. In the event of a failed check-in further escalation to relevant managers would be sought.

Data collection and secure storage were also important. Face to face interviews were recorded using a passworded protected dictaphone. Upon completion, the interviews were downloaded onto a secure passworded laptop that was NHS issued. These files were downloaded onto a secured deposited into a secure University of Stirling drive where they will remain for 10 years and will be deleted as per University of Stirling data storage policy. Both written and recorded participant consent was gained. The written consent form was scanned and stored electronically. All key identification characteristics for example name, locality, gender, age was all cross referenced with a unique identification number to anonymise data. It is a legal requirement that researchers break confidentiality in the unlikely event that a participant discloses having committed or being about to commit a crime or where wider public safety takes precedence. If this was evident, advice would be

taken from the academic supervisors, as well as following NHS and university policies. On study completion, no additional ethical challenges were identified.

3.12 Summary

In summary, the design of this research was driven by the aims and objectives and the underpinning philosophical stance that supports life history research. A purposeful snowballing sample strategy was used due to the small scale and unique context of this study. This allowed for data collection that was relevant and would meet the aims and objectives outlined in chapter one. A thematic analysis was undertaken of the data this allowed for emerging themes to emerge from the data. The final section of this chapter explored the ethical challenges of small-scale research, and how ethical approval was sought and approved across all the health boards. The following chapter (five) will explore the fin
dings of the thematic analysis and the themes that emerged from the data.

Chapter 4 Findings

4.1 Introduction

This chapter will present the findings from the interviews with participants. The first section of the chapter will provide a summary and overview of each of the participants. Section two will present the research findings from the life history interviews. The findings will be presented reflecting a chronological life history timeline as follows:

- Early life experiences.
- Transitions through adolescence to adulthood.
- Nursing as a career choice.
- Applying for nursing posts on non-doctor islands.
- Factors influencing retention to non-doctor islands.
- Challenges faced by non-doctor island nurses living and working.
- Factors contributing to nurses leaving.

In the concluding section of this chapter, a summary of the key themes will be provided including how these themes help to answer the research aims and objectives.

4.2 Quality checked of data and analysis.

All interview transcripts were made available to two supervisors. Frequent supervision meetings facilitated iterative discussions about the interview transcripts. Thematic analysis was shared and tested with supervisors and helped to confirm consistency of emerging themes and identify any additional themes / sub themes.

4.3 Introducing the participants

The total number of study participants was eleven and all had direct experience of working and living on non-doctor islands across Northern Scotland. In the interests of anonymity, no further details about participants current or previous employees, gender, age can be reported.

The participants had varying lengths of time working as a nurse on non-doctor islands ranging from 1 year to 18 years, with an average of 9.5 years employment. From the descriptions provided participants were employed in generalist positions wherein they were

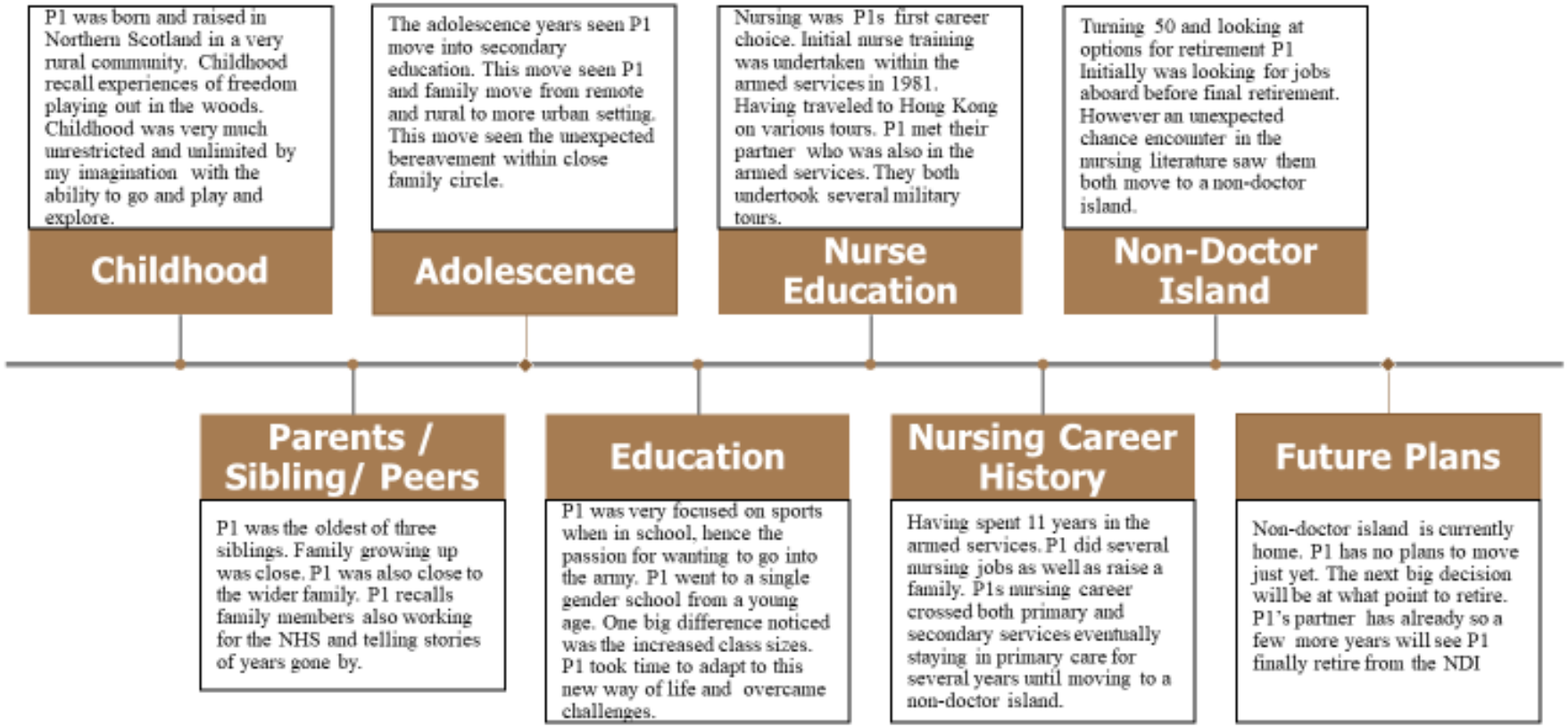
required to provide a wide range of health (and social care) interventions that included acute emergency care, chronic disease management and preventative health care. These nurses were also required to participate in regular on-call duties out with normal clinic hours and over the weekends and holiday periods. A brief overview of the non-doctor islands has already been discussed in chapter two, further details about the nursing role on these islands are presented in later sections of this chapter.

4.4 Overview of participants

The following participant timelines provide a brief synopsis of each participant's life history and career pathways into non-doctor islands. The purpose of the timelines is not to provide a detailed life history of each individual, but to give an overview of key life events that highlight significant stages in each participant's lives

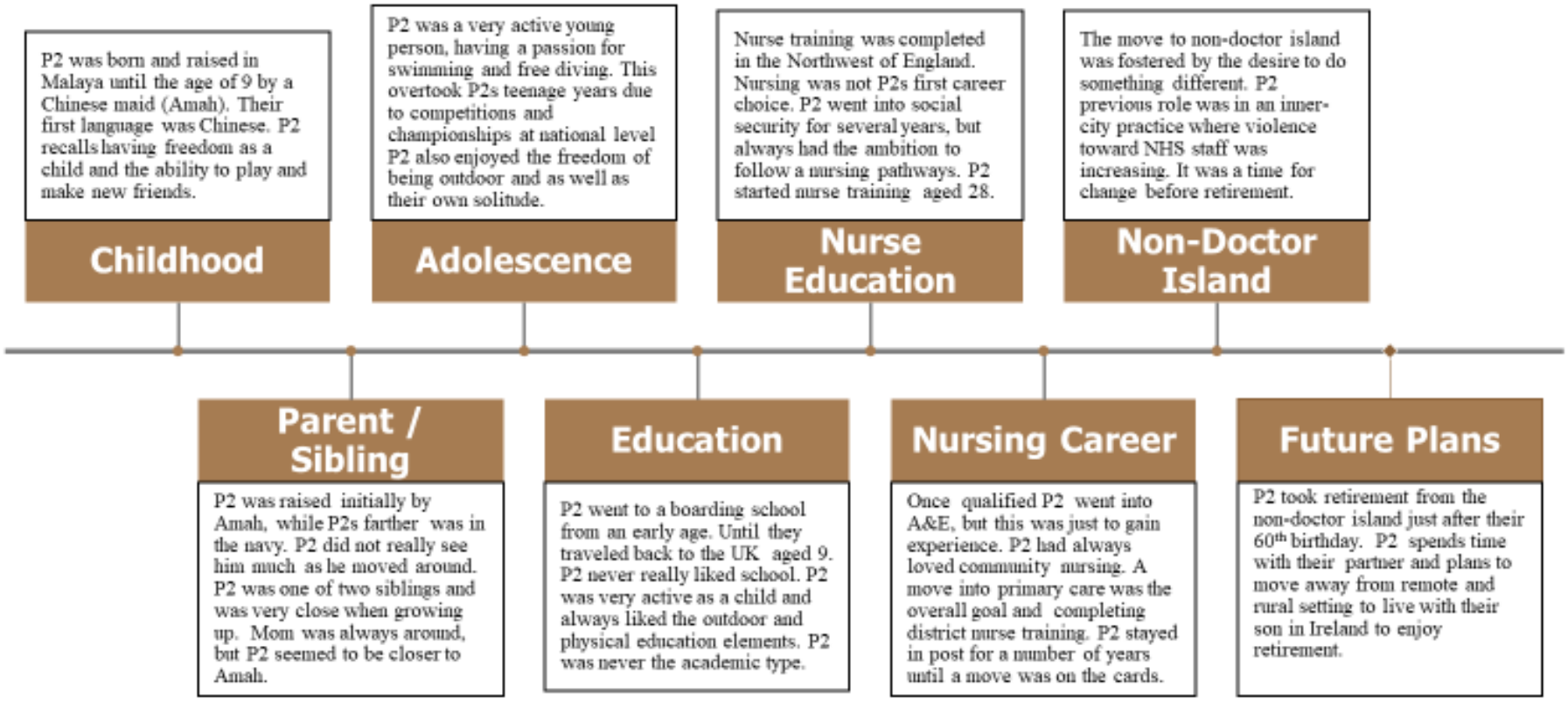
Participant 1 (P1)

Life History



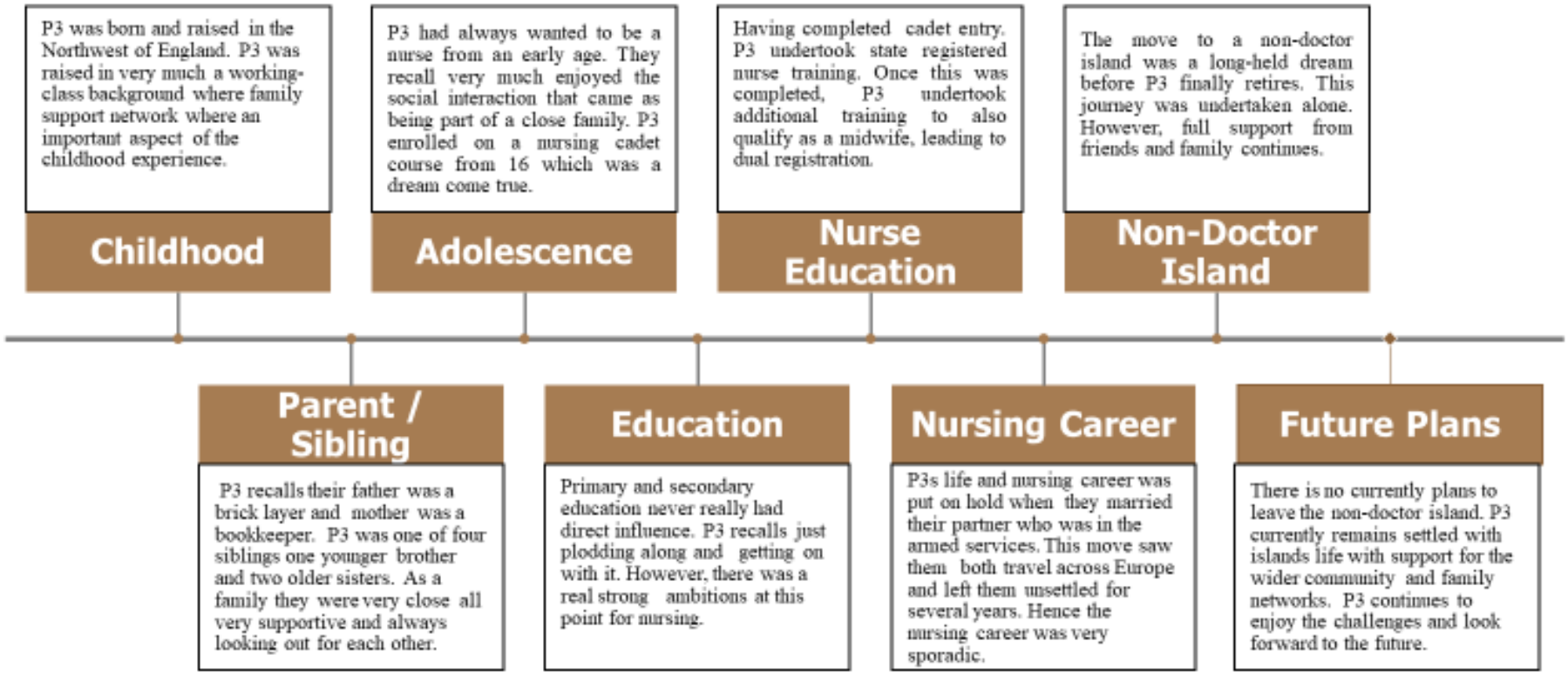
Participant 2 (P2)

Life History



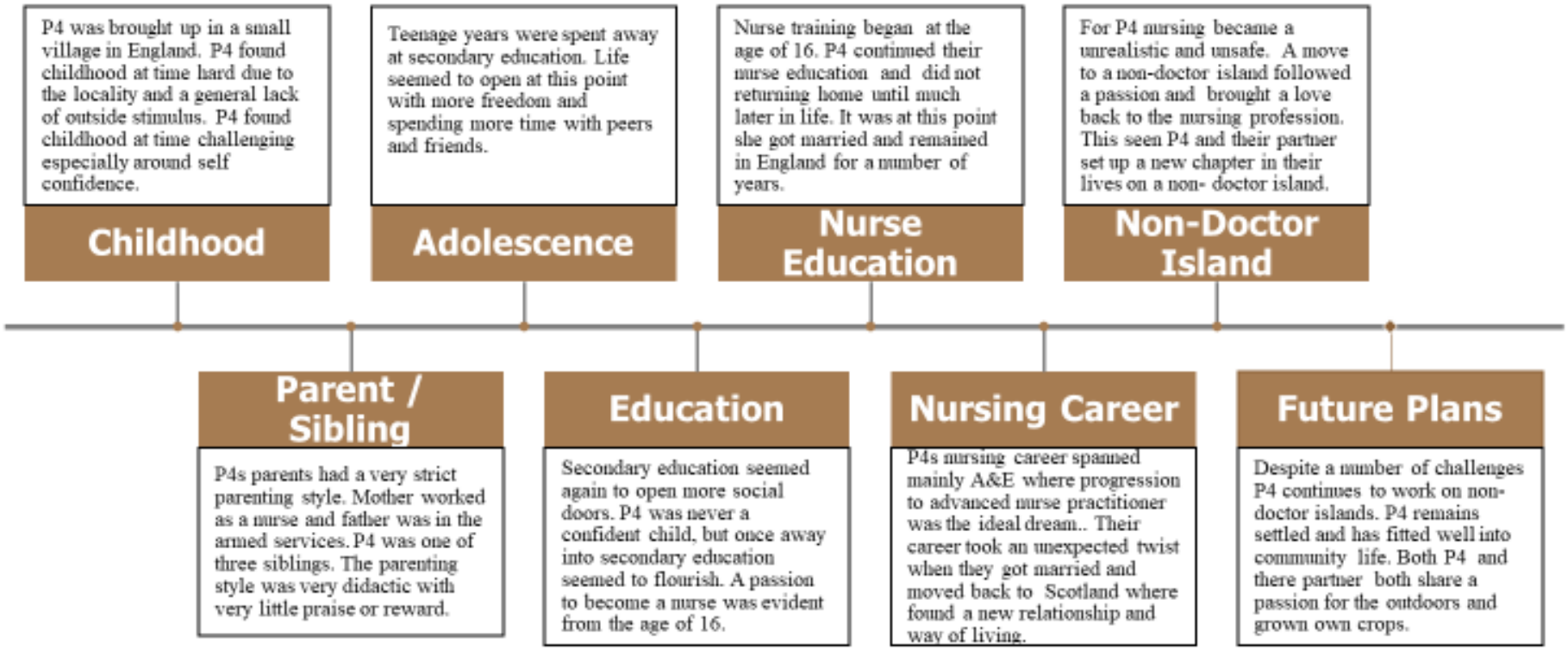
Participant 3 (P3)

Life History



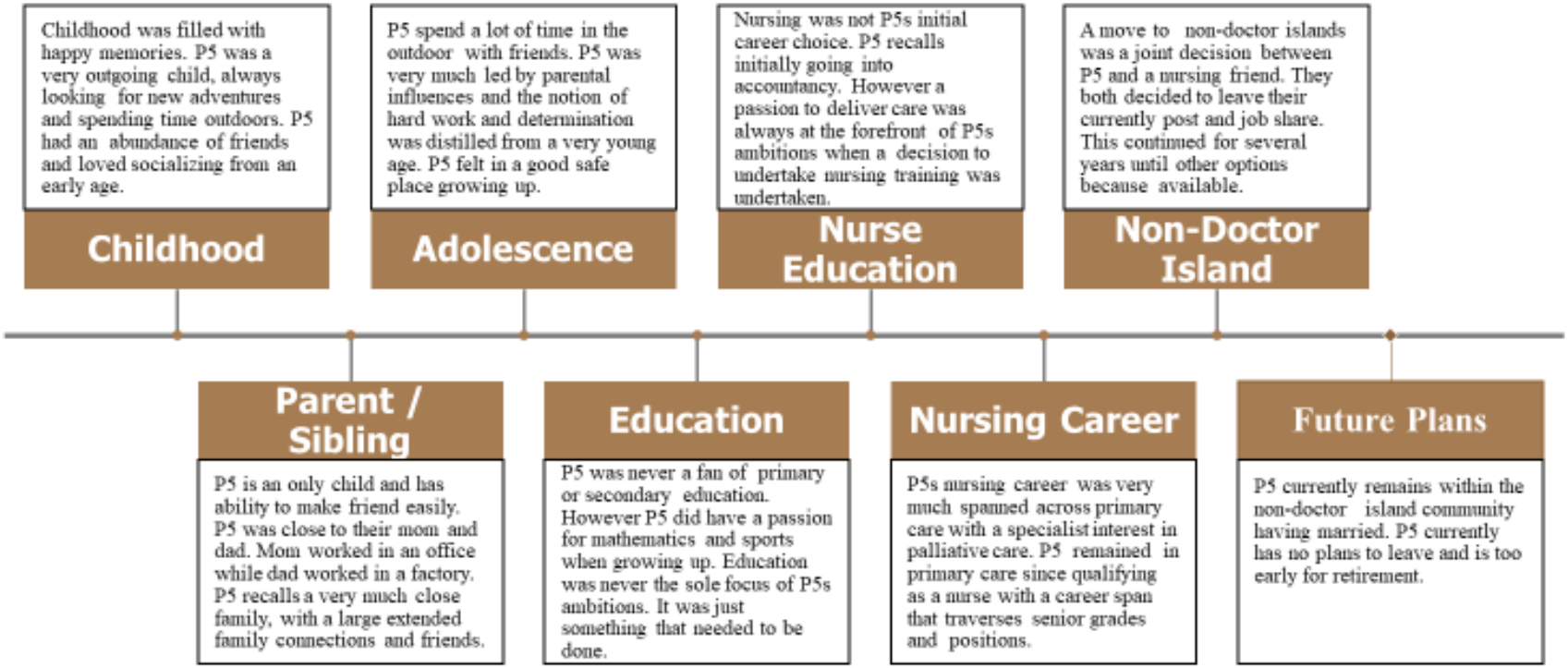
Participant 4 (P4)

Life History



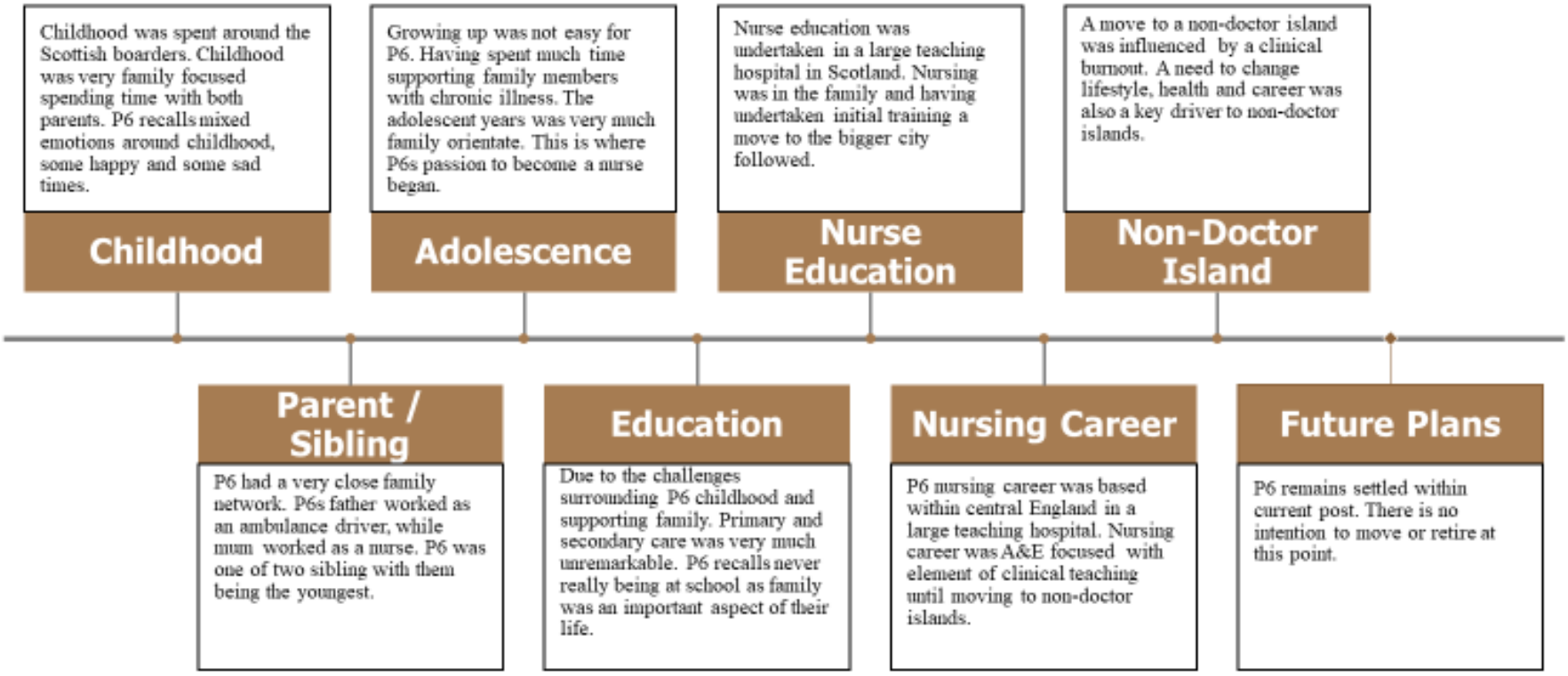
Participant 5 (P5)

Life History



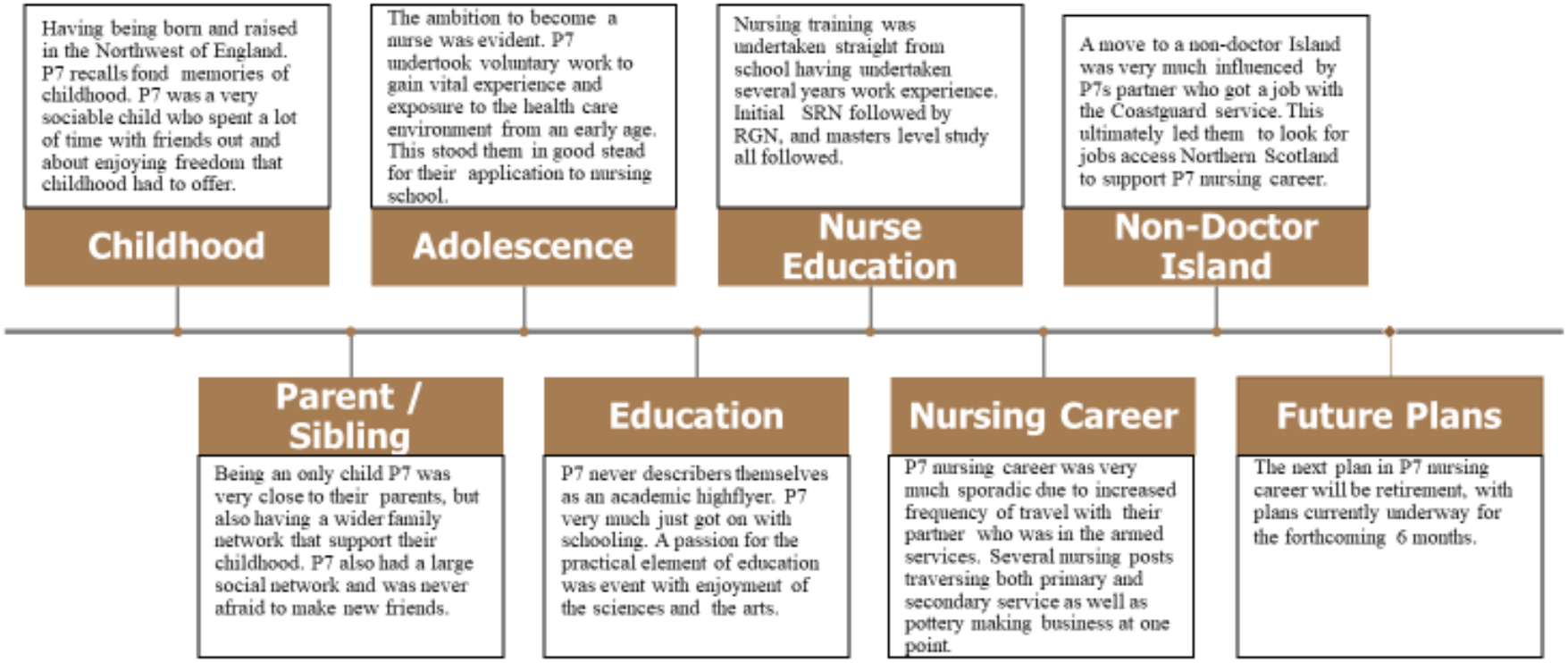
Participant 6 (P6)

Life History



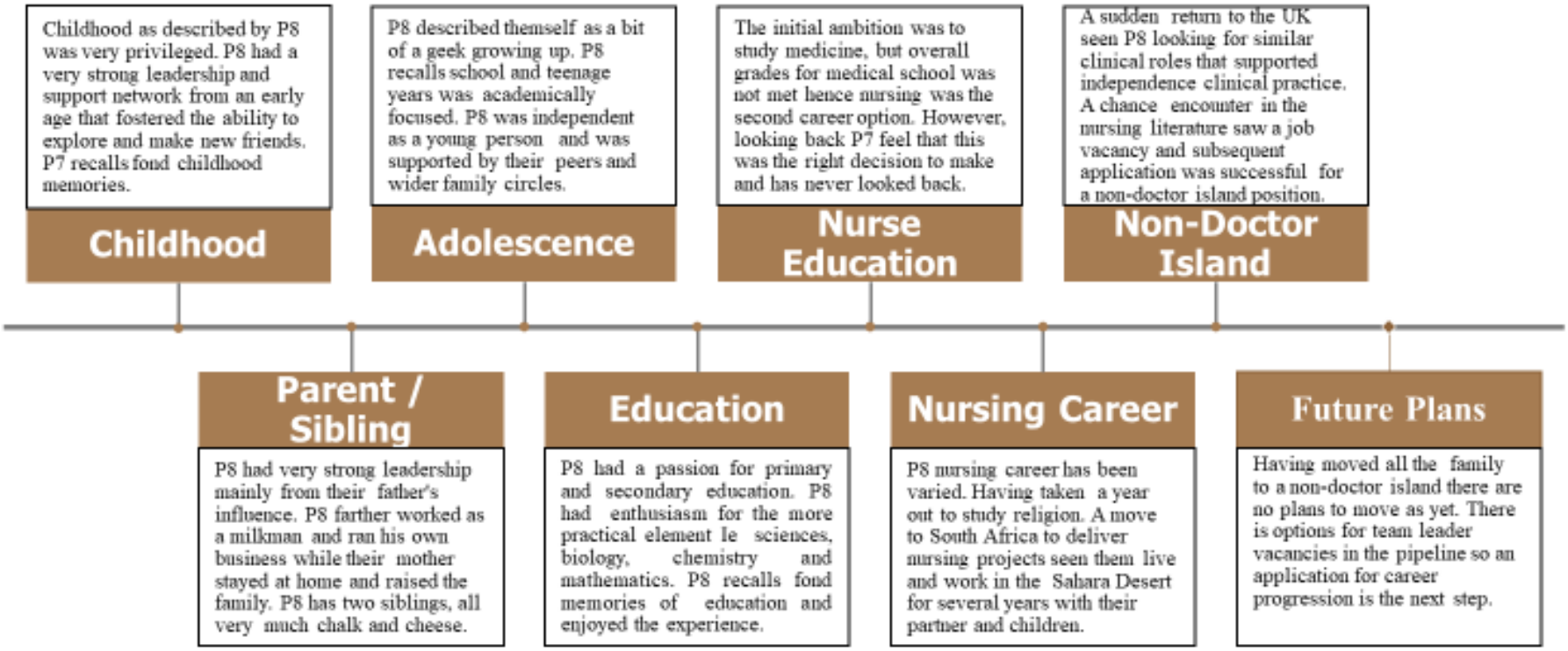
Participant 7 (P7)

Life History



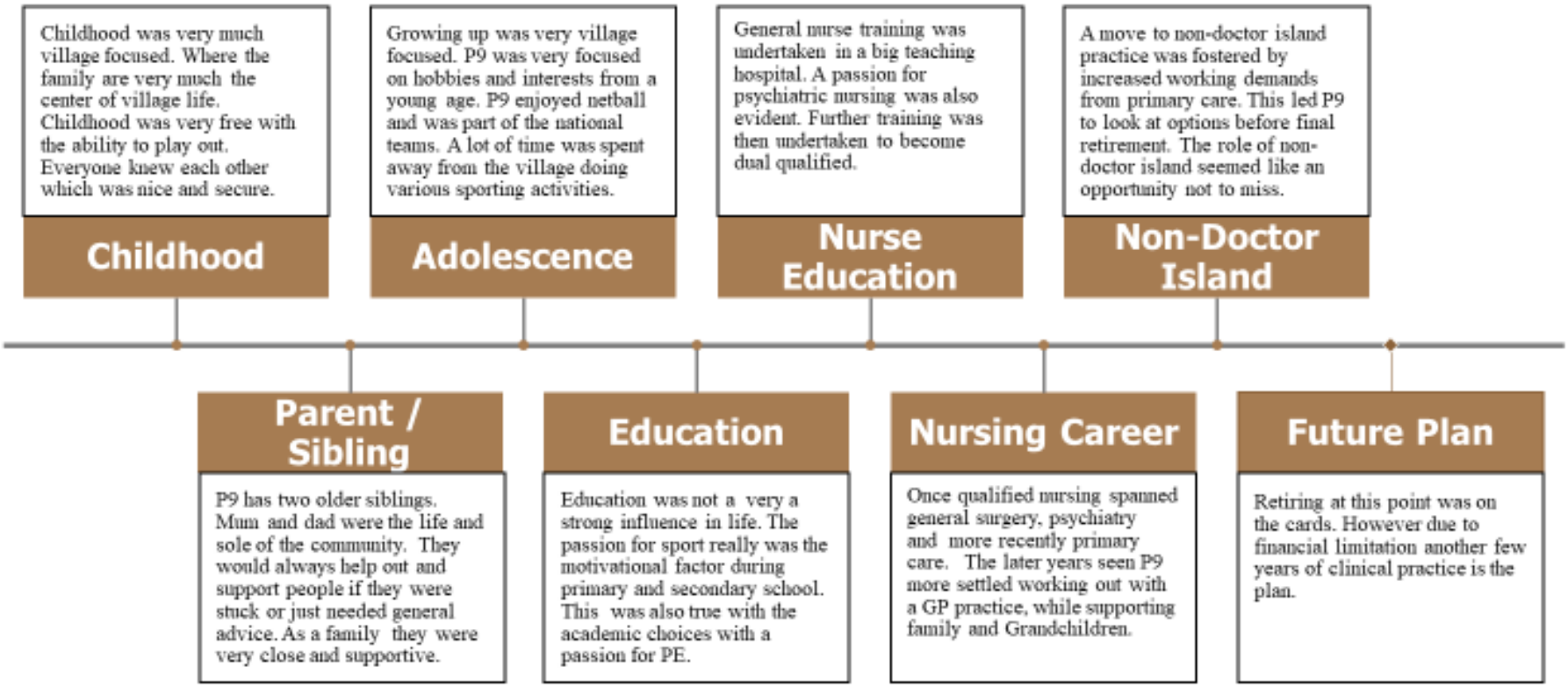
Participant 8 (P8)

Life History



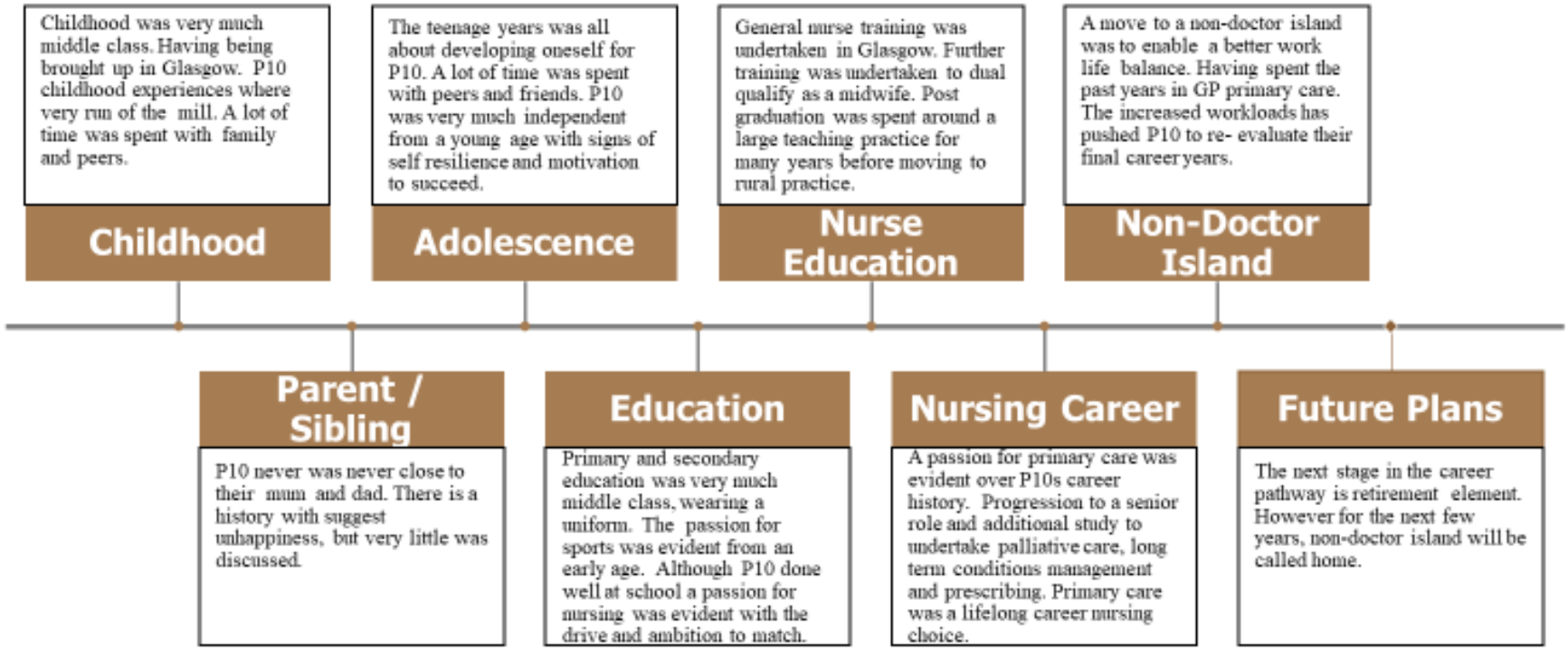
Participant 9 (P9)

Life History



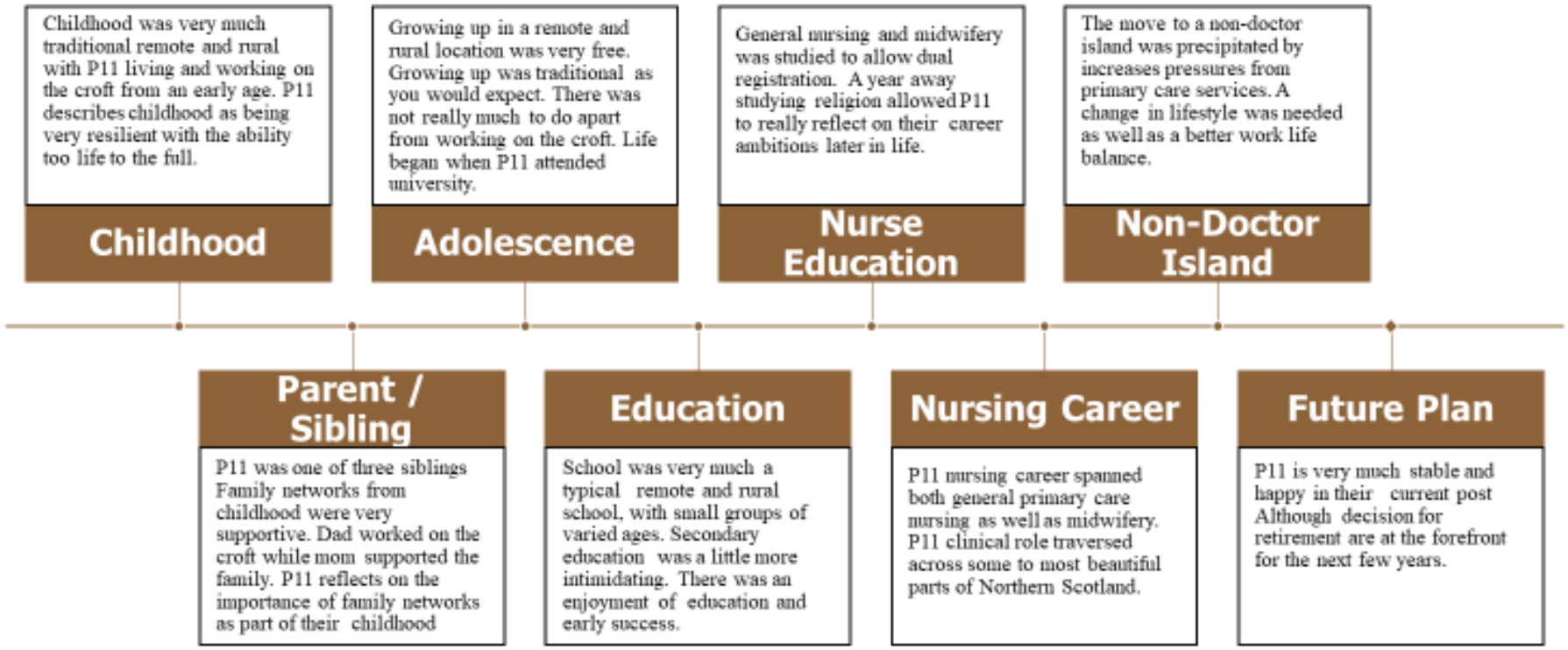
Participant 10 (P10)

Life History



Participant 11 (P11)

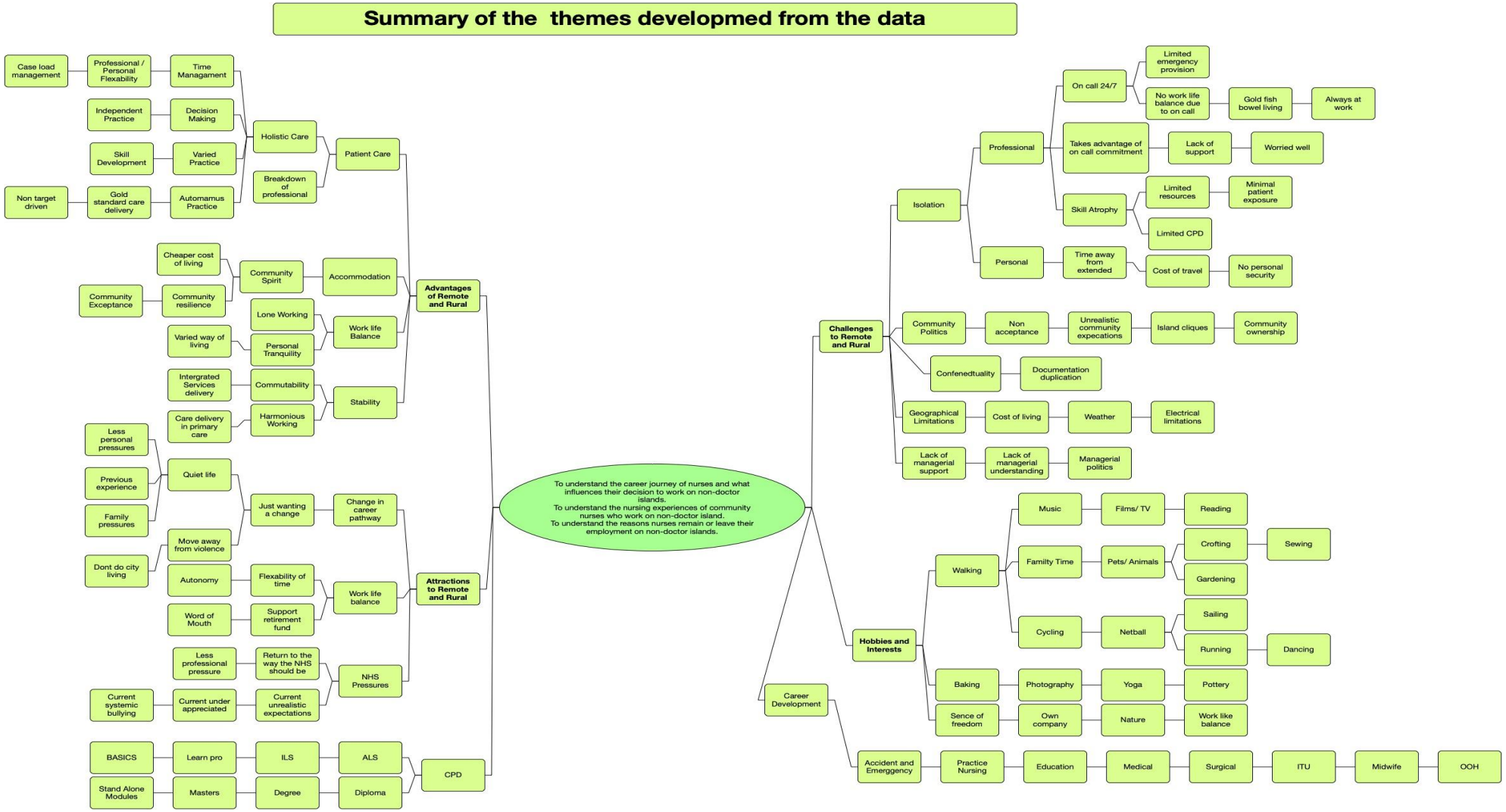
Life History



4.5 Emergent themes

The participant discussions are presented using a life history sequence as underpinned by the life historical methodology outlined in chapter four. The emergent themes will start with the participant's early life experiences and progressing through participant's careers including their experience of working on non- doctor islands. Key themes are presented from each life history sequence. Verbatim quotations from the participants are used to illustrate the themes. Figure 7 is a mind map produced exploring the initial themes from the data.

Fig 7: Shows the emergent themes from the initial review of the data.



4.6 Early Life Experiences

Early life experiences describe the point in time from participants' earliest memories up to the beginning of primary education aged 6 years. The localities of their childhood vary across the participants; 4 participants said that they were from a rural setting, 5 described themselves as semi-rural and 2 as urban. As participants recalled their early experiences the importance of supportive networks during childhood emerged. These support networks consisted of either direct family for example, mother, father, siblings, or the wider extended family, for example aunts, uncles, and also included close friends and as discussed by one of the participants included an Amah (identified by the participant as a Chinese nurse maid). For those participants who lived in smaller communities it was evident from the discussion that these small community settings also act as support networks to those growing up.

Participants experienced varied approaches to parenting, from childhoods that were described as 'very free', to those that experienced a stricter approach. Despite these contrasting experiences what was clear from the accounts of the participants was the importance of the supportive childhood networks they described and how these ultimately shaped their early childhood memories.

P.1 *"I've always had a very free life as a child; I've never lived where you couldn't go out and about. As a child, I would go out wandering in the woods and it was never a case that anybody would ever think anything. I felt safe where I lived."*

Participants 3 recalls how growing up in a small semi-rural village where their extended family was close with siblings seen very much as role models. Participant 6 also described the importance of their grandmother especially when young.

P3 *"All the family's there, so it was very close, yeah, uncles, aunties, cousins, just part and parcel of the whole framework. My brother was very much a role model when growing up".*

P.6 "*My gran then came and lived with us and looked after us and was babysitting us, during the day, she stayed in the house and looked after us when we were at school".*

Participant 9 was also brought up in a small village, in Central Scotland describing a close-knit community where everyone knew each other. The participant described how their mother acted as an advocate for the wider village community.

P.9 *"My mother was a very well-liked person in the community. She was a bit of a go-to person in the village. If there were new people who came into the village you would go to her to find out where you paid your rent, what school the children would go to, how you would enrol your children in school when the church was and all that kind of community stuff. She was a very well-respected person and my sister kind of took that role over as well, and even to this day she's still a role model*".

Participant 2 was the only participant not to be born in the UK and lived in Malaya until 9 years of age. In their account, they articulate about being raised by an 'Amah' who was the person they saw as a parental figure 'a Chinese maid'. Participants 2 clearly articulates the importance of 'Amah' while young, especially when reflected on the prolonged absence of a father figure.

P.2 *"I was born and brought up in Malaya, I had an amah to look after me – a Chinese nursemaid, so I spoke Chinese before I spoke English., I went to amah for everything because my parents was busy and my father was away travelling, I had a lot of freedom as a child. If I was upset, I went to amah I didn't run to mum, she was very much a parenteral figure growing up".*

Unlike some of the participants who described their childhoods as 'free', Participant 4 recalled their childhood as more authoritarian, experiencing strict discipline which upon reflection identifies as shaping particular attributes in later life including fostering a sense of independence.

P.4 *"Mum's approach was strict disciplinary however this has led to positive outcomes when it came to personal qualities of high standards and independence in later life. My mother has been my moral compass and I have her standards as I have grown up. Mum was a disciplinarian; she was very strict and gave very little praise. She's not at all affectionate. Mum has the ability to crush you. She doesn't say anything about being proud of you or that you've done well or any of those sorts of things. However, my dad will tell me that she has said that. She has the ethos that you can't go out to*

play until you've done all your jobs. We've always done the housework. My younger sister started doing the dusting when she was 4 or 5. Not in a slaver driver kind of away, but we all had a responsibility to be doing things"

The importance of family networks was highlighted by participant 8 as they recalled growing up with their brother, just outside London. They described their relationship with their brother as very much 'chalk and cheese' despite only a 12-month age gap. Participants 8s father was also a church minister and while mother stayed at home and looked after the family. Similar to participant 4, participant 8 described how their father influenced the leadership attributes they developed as an adult.

P.8 *"My father was that generation where at 16 you needed money, so you didn't get an option of staying on at school to do exams. I would say the biggest single-family quality is that we're all quite strong leaders. My dad is a leader, my brother is a leader, I'm a leader, in terms of childhood and family, I'd say probably the single greatest things for me was I've inherited was leadership".*

Only 2 participants 7 and 8 had no siblings. Yet, close family relationships were described and the way that family relationships helped to shape attributes in adulthood like confidence and independence.

P.7 "*I was an only child; I never had any brothers or sisters. I was close to my mum and dad, they seemed to give me confidence when growing up. I'm very independent and I just get on with stuff."*

P.5 "I had a really good childhood. Although I'm an only child I had lots of friends. I've always been fairly sociable but then I like my own company as well, so I can balance the two. Growing up was just really good; it was a good school and I had supportive parents and good family life. I had a big circle of friends and I've never been shy at sort of you know, going and making friends and getting myself in there, which I think is quite helpful in this job".

While participant 10 came from an urban background they recalled their experience of crofting in the rural setting with their grandparents lived. Participants 10 goes further and

described their upbringing as ‘fantastic’ and significantly with a close association between these early positive experiences and the promotion of independence.

P10 *“I had a fantastic upbringing because although I was brought up in the city and had a city life, my mum was from crofting folk up in Sutherland, so we spent a lot of our summer holidays on the croft working, and we’d go up in October for the tattie picking and, you know, we'd be up for the lambing at Easter, unless Easter was very early, so you know, I was brought up very rural as well. We were brought up to be quite independent, to think for ourselves and to just get on with it and make friends”.*

Participants’ accounts in the main reflected positive childhood experiences where supportive family and community networks were evident. However, for a small number of participants their early years brought some challenges, as described by participant 11.

P.11 "My father was a crofter – who didn’t enjoy it at all – and my mum had multi jobs just to try and keep us together. Croft life wouldn’t have been for me. My father had issues, you know, he had mental health problems”.

Participants 6 also described a childhood where their father’s ill health impacted on the family; it is significant to note that despite these difficult circumstances the participant describes how the family helped to care for their father.

P.6 “My dad was diagnosed with MS in 1980, so I was a seven-year-old, so from that age both me and my siblings were exposed to nursing, catheters, feeding somebody, hoists and everything else, electric stuff and all that, from a very young age, so we were used to that, and because my mum was a nurse working nightshift we were used to, you know, if we needed to go, sometimes when the family couldn’t look after us we were dropped off at the hospital”.

What has also become apparent is that with some participants the development of independence and self-confidence was encouraged. Participant 4 articulates how independence was fostered from an early age around the house by their mother. Similarly, participant 10 recalls a childhood of self-independence. While participants 5 and 7 recall how being an only child has helped them develop confidence and social skills.

Sub-themes

Several sub-themes emerged under the main theme of early life experiences, these included support networks, experiences of rural life independence and leadership. The accounts of the participants offer an insight into their earliest childhood memories with many participants having recollections of freedom and play. What was evident from the accounts was the importance of parental and other support networks while growing up. This appeared to encourage participants developing individualised characteristics that were seen later in life for example, independence, self-confidence and leadership skills. Finally, many of them had fond memories of either being brought up in a rural area and/or engaging with rural life from a young age. They recall mixed emotions about remote and rural living and childhood, but what is shown is how this supportive upbringing has ultimately shaped them into what we see today.

Summary

The early memories of the participants are an important aspect in understanding their childhood experiences. The experiences of childhood bring back fond memories of freedom, family and independence. The importance of supportive family / parental networks is discussed by all the participants as an integral part of their childhood that later foster individualized characteristics that traverse not only childhood, but also into adulthood.

4.6 Transitions through adolescence to adulthood

In the next stage of their life history accounts, participants described their adolescence and teenage years up to the ages of 18 when all completed their primary and secondary education. Participants described their experience of education with mixed emotions, with some enjoying the education experience, while others found this a challenge. Additionally, participants described hobbies and activities they participated in and the wider social interactions they experienced.

All participants completed their secondary school education in the United Kingdom, 5 in England and 6 in Scotland. Additionally, 5 participants attended a single gender school, 5 attended traditional state education schools while 2 participants were required to board away from their home base - for participant 2 this was also an all-girls school. Participant 2 described their experience of attending a boarding school along with multiple moves due to their father's military occupation. Participant 2 attributes a sense of independence to these experiences.

P.2 *"I was born and brought up in Malaya. I went to boarding school from the age of six. We left there when I was nine and I attended boarding school in the United Kingdom for twelve months, then my dad came home to England, so we were taken out of boarding school. The school was where you don't have a choice, you had to support yourself, I mean that you learned to just be independent. I did not mind school. I think possibly why I'm quite good at being solitary because we never really stayed in one place long enough".*

Participant 1 also had to board away from their home base for the school week to attend secondary education. This was not an uncommon situation for secondary school children living in remote and rural parts of Scotland where the distance between home and school made daily commute difficult.

P.1 "I went to junior school in the West of Scotland just outside Fort William where we stayed in accommodation on site for the week and went home for holidays. The school was slightly boring because it was an same gender school even things like PE and things, there'd be netball and rounder's, but I'd just get bored".

As previously identified, 5 of the participants attended same gender educational setting. Their feelings about their education varied from enjoyment to ambivalence to dissatisfaction.

P.1 *"It was an single gender school, the senior school. Well, I would have preferred a mixed school".*

P.3 *"It was a single -school in an urban location and that was it. I had no sort of bad feelings about it was just school, just plodding through".*

P.4 *"I went to an single gender school and hated it. At the time, I lived in the country. I felt unintelligent, felt I wasn't achieving, I just had a miserable time really".*

P.5 *"I went to a single gender school. I enjoyed school, I was an only child so I had lots of friends. It was a grammar school, and it was just about 12 miles away from where I lived. I had a big circle of friends at school and was never afraid to make friends and get myself known".*

P.7 *"I enjoyed school, I wasn't academically a high-flyer, I went to an single gender school, it got bottom of league tables when they started doing lists".*

While it may have been unusual to have 5 participants from this study attending a single gender school there were no key common factors that emerged from the experience they described.

Three participants attended a Roman Catholic school. Participant 9 described how attending school out with the village meant that it took more effort to make friends and on reflection viewed that effort in a positive light.

P.9 *"I went to a mixed school. It was 5 miles out because it was Roman Catholic so there were very few Roman Catholic schools we had to travel. We were in the minority, the Roman Catholic children, I found friendship out with the village. So, there was a very closed, isolated group of friends within the village whom all knew one another very well and they all went to school, and I had to branch off but actually, reflection on that was the best thing I could ever have done".*

For the rest of the participants who attended a mixed boys' and girls' school, their experience of school was similar.

P.6 *"I went to a mixed school it was all right in the first and second year, and then in the third year, me and school tended to have a little disagreement then basically I skived third and the fourth year at that time my dad was unwell and sadly died when I went into my third year".*

P.10 *"We went to a very good school. It was primary and secondary all inter-combined. We used to have to walk past a Catholic school on the way to and from school and we got called 'jobbie knickers. It was an amazing education looking back at it, what a range of things that we had available to us".*

Participants' recall of their school experiences was mixed, some performed well and enjoyed their education, others less so. While 5 participants attended all same gender schools, their recall of that experience was similarly mixed.

As the participants recalled their adolescent years; one notable sub-theme that emerged was their enthusiasm for participation in their extra curriculum activities, often with an emphasis on the outdoors and participation in sport. Significantly, with many of the participants, these interests have continued to follow into adulthood.

P.1 *"I became more of an outdoor person when I joined the army, a lot more of the activities like you had squash leagues, you'd go out running, there were a lot more interesting things to do sports-wise in the army".*

P.4 *"I was a high jumper and a hurdler and used to have county trials and went up to Crystal Palace and that. Played Hockey into being an adult for a mixed team".*

It is interesting to note that two participants played sport at a senior level, representing their national teams.

P.9 "*I am an outdoor person. I went on, I played netball and I went on to play netball for Scotland. So, I was under 21's netball team for Scotland. A long, long time ago. But loved it. Was very, very heavily involved there".*

P.2 "*I enjoyed PE and hockey and stuff like that in school, games, and swimming and diving anything outdoors really. Because I was in Malaya there were outdoor pools. I was the Scottish champion diver when I was older. When I was sixteen, I tried to get a jockey apprenticeship, but I was ten years too old. I was in the Girl Guides when I was younger".*

Participant 10 also described her enjoyment of outdoor activity which has continued into adult life. Similarly, to participant 1, they recall how a passion for the outdoors led into Girl Guiding and subsequently traversed into adulthood.

P.10 "*I've been a Guide guider for all my life, having come up from being a Brownie at seven, I ran the Guides in my village unit for 32 years until they closed four years ago. I am a very outdoorsy sort of person, I used to do 10-kilometer road-running, kayaking, canoeing, abseiling, you know, I'm just an adrenalin-freak".*

Furthermore, participant 10 also described how the activities they undertook in their youth helped to further foster independence.

P.10 "*I was quite happy because my parents had been very independent doing things, they encouraged both my sister and me to go and do things without necessarily a friend with us. I was quite happy to go off to Sussex to arrange a Guide Camp and not know anybody, for a week, you know, we were, we were brought up to be quite independent, to think for ourselves and to just get on with it and make friends and, that stead me in good".*

Participant 5 recalled spending time with their father in the outdoors and how this passion for the outdoors has continued into later life.

P.5 "*I was always outside doing sporty things roller-skating going on walks and adventures. I was outdoors a lot of it. I used to go out with my dad quite a lot, he had working dogs and we used to go out a lot, so I still, I suppose I do that sort of thing, and I've always been interested in, so I don't think the interests have changed that much in outdoorsy stuff".*

P.4 *"So I used to do ballet and did that until I was 20".*

P.7 *"I liked going out and about with the dogs, I liked makings things, sewing, drawing, being out and about, you know, a sandwich in your pocket and off you go".*

P.6 *"I enjoyed reading, sort of science fiction, crime, drama, stuff like that, also movies and archery".*

It was interesting that all participants described their enjoyment of hobbies and personal interests, and these interests were important to them. Perhaps significantly, the majority described a love for sports, physical activity and being in the outdoors. In some examples, social networks were strengthened through the pursuit of these interests.

Sub-themes

The sub-themes to emerge under the main theme of transitions through adolescence to adulthood were support networks, independence and outdoor hobbies/ sports. This section has presented some of the key events and interests experienced by participants throughout their transition from childhood to adolescence. While the experience of school education was mixed between participants, more commonalities emerged when they discussed their interests and hobbies. In particular the love for outdoors, participating and competing in sport was also evident. Some talked about the importance of friendship during their time at school, which is a type of support network.

Summary

As the participants transition though adolescent to adulthood several key similarities emerged from the interviews. Again, the importance of support networks was evident, but what was also seen was the emergence of increased independence, social networking and enjoyment of outdoor activities, especially sports. What is evident from the discussions is that these early years helped foster a desire to undertake health care as a career direction.

4.7 Nursing as a career choice

The next stage in the participants' life histories considers the reasons why the participants undertook nursing as a career. Participants described their different routes into nursing and some of the factors that influenced that choice.

For 8 of the participants nursing was their first career choice upon leaving secondary education. 1 participant recalled a lack of ambition but pursued a career in accountancy but decided later to become a nurse. One participant started radiography, another went into the armed services as a clerk but quickly transferred into nursing and the final participant wanted to enter medicine but failed to achieve entry grades.

Although entry into the nursing profession was for most of the participants a direct entry process upon leaving education for three participants 5, 2 and 8 they recall nursing as secondary option.

P.5 *"I was 18, I didn't want to go to university, although the school I went to push you to go to university. I didn't want to leave home, believe it or not, crazy isn't it now, so I just fell into accounts, because I quite like maths and things like that, and then as time went on, I realised that that wasn't for me in terms of, you're lining someone else's pocket, that kind of thing, and I wanted to do something that gave me some kind of reward for what I was doing, and I how about doing nursing".*

Participants 2 and 8 recalls how their entry into nursing was a fall-back option having not achieved the relevant grades for radiography and medicine, respectively.

P.2 *"When I was eighteen, I went and trained as a radiographer, but I couldn't pass physics, so I failed part one, I passed everything else. I don't know why radiography, but I enjoyed it, But I think I probably just fell into it, it was not really out of choice".*

P.8 *"I went to university at 18 to do my nursing degree. I thought at one point about medicine as well it was either medicine or nursing, but school results pushed me towards nursing because I was one grade short but looking back I'm really glad now".*

The participants also described different routes into their nursing careers once that initial career choice had been made. For example, 8 participants went straight into nurse training from leaving school with 2 out of the 8 undertaking the cadet entry at the age of 16 years old. 1 participant entered nursing via the armed services, while another 2 participants undertook nurse training as a mature student in their early / late 20s.

Two participants described their experience of cadet entry courses. Participant 3 recalls not having a particular interest in nursing but just 'fell into it' while participant 7 described their 'hankering to be a nurse from an early age'.

P.3 *"I've been nursing since I was sixteen as a cadet, I didn't know what to do when we left school. It was something that just cropped up and sounded interesting. I'll go and have a go at that now. I was just bumbling along, and none of this has ever been planned. It was just something I fell into".*

P.7 *"I did the pre-nursing course at college which was interesting, you didn't go anywhere near a hospital or anything, it took over from the old cadet system. Nursing was something I always wanted to do but I have no idea why". I also did volunteer work for the British red cross. I think I've always really had a hankering to be a nurse".*

Similarly, participant 1 recalls always wanting to be a nurse and after joining the army undertook her nurse training.

P.1 *"I joined the army as a clerk and I always wanted to be a nurse so I asked if I could go over onto the nursing in the army and that's where I did my training, I was initially an enrolled nurse and then registered nurse before the army dropped down to registered training".*

Participant 5, 10 and 11 also described some early experiences that drew them to the nursing profession. Participant 5 had a Saturday job in a nursing home, and this exposed them to the caring profession and working with older people helped to confirm their decision to become a nurse.

P.5 *"I worked in a nursing home from an early age, it was a Saturday - Sunday job. I'd go in, I'd make the teas, take them a cup o' tea, do a tea round, make the sandwiches and then take them out for a walk, cause obviously at that age I couldn't do any personal care, and do any cleaning, tidying, and then yeah, take them out in the wheelchair if the day was nice, I did that for three years. I liked working with the elderly, it was, I've always liked working".*

Working with people, serving the public and a desire to help were also identified as rationale for selecting nursing.

P.10 *"Serving the public I'm a blether and I do like working with people, I think. And even when I was at school, I was a waitress"*

P.11 *"At one stage I thought primary school teacher back in my day it was just nursing, hairdressing, secretarial, we didn't have a wide range, and I thought of primary school teaching, but I thought that could be very lonely, so I thought of going in for nursing, and yes, to hopefully be helpful to people, and I wanted to go away from my croft"*

It was also interesting to note that the influences from family and friends were evident. Three of the participants' mothers had been nurses although that did not necessarily mean that nursing was always their first-choice career option.

P.4 *"My mother's a nurse. It was kind of an automatic thing really. I'd have preferred to be a vet, but I didn't think I was clever enough".*

P.6 *"I wanted to be a doctor initially, but then I looked at my mother and I thought well doctors don't do a lot really, the nurses tend to run hospitals. My dad was an ambulance man before he retired due to ill health, and my mother was a nurse".*

While participant 10s mother was a nurse, the recollection of selecting nursing as a career appeared to be more accidental than anything and a result of a life series events eventually led to a nursing career.

P.10 *"My mother was a nurse, but I wasn't interested at the time, so at school I read loads and the usual teenage stuff. Then I met a partner who was joining the navy and I thought, oh, the navy, that sounds quite good will be a naval nurse, I'll go into nursing, I'll go into nursing in the navy, but they buggered me up, so I thought well sod them, I'm not working for them. Still wanting to go down the nursing route I went to London, loved it, had a fantastic training, met lots of lovely people, saw lots of amazing things".*

While it is not possible to say that participants' experience of having nurses in their family positively influenced all their career decisions it may be that exposure to the profession provided a level of insight into what nursing involved.

Participants 5 recalls how nursing was not their first chosen career with a passion for mathematics at school, yet upon reflection a passion was evident for a career that was rewarding, hence the nursing career choice.

Participant 2 also recalled entering the nursing profession at the age of 28. The initial career was in radiography and social services before commencing nurse training. Despite undertaking nursing as backup career option both participants 2 and 8 have followed a very successful nursing career that proceeded four decades.

What became evident was that despite various reasons for choosing to nurse as a career, following registration career progression and personal and professional development were identified as being important to all the participants post qualification. For example, 2 participants undertook degree level education. 9 participants undertook masters level study, with 5 of these completing a master's degree in advanced practice. Additionally, 6 participants completed extended skills training, for example non-medical prescribing and 4 became District Nurses.

Participants 3, 9, 10 and 11, undertook additional training post general qualification and registration.

P.3 *"I well started cadet at sixteen, then it was the old SRN in those days, then I went to do midwifery because that's what you did, you did SRN, SCN, then I got married and*

I was married to somebody in the air force, so we moved abroad, for the next ten years".

P.11 *"I am the old RN, then RM and also midwifery, so I am dual-trained. I didn't really like midwifery".*

Participant 10 specialised in the management of sick children and became a registered children's nurse, while participant 9 was registered as a mental health nurse. Furthermore, what was also evident from the account of the participants is that this process of dual or triple registration was difficult to maintain especially in the early stages of their careers.

P.9 *"I initially went into enrolled general nursing and then when I finished my training I then went into psychiatry and the psychiatric nursing setting and realised, I don't know enough about this, so went and did my RMN training and stayed in psychiatry for a while*".

P.10 *"I'm an SRN and an RCN, I'm a midwife and all these Diplomas and a BSc Honours Degree in Sciences, which is ridiculous because I can't stand science. I did midwifery for ten years. I've regrets for not keeping my midwifery up, but then if I had gone back to midwifery, I wouldn't be doing the job I'm doing now, you just make the best decision at the time and you have to stick with that decision was the right thing at that right time, so move with it".*

As participants progressed in their nursing careers, for most participants two areas of clinical practice became their chosen speciality, these included primary care and critical care settings (accident and emergency and intensive care). Notably 8 participants worked in primary care quite quickly after qualifying or following period of practice consolidation in other clinical specialities.

Participant 2 and 11 described how their career almost entirely focused on primary care when they qualified.

P.2 *"I went as a school nurse in the community when I first qualified. I then transferred to district nursing as an enrolled nurse then I did the conversion course and became a specialist nurse practitioner in district nursing and eventually a district nursing*

manager. It was just something I always wanted to do, loved it. I don't like working, I know it sounds awful though, I prefer working on my own. I'm not good in like on a ward with lots of people. I like to be autonomous, and I like to get on with it".

P.11 *"When I was a kid, we had a District Nurse come to the house, a Double Duties District Nurse and I thought I quite fancy that. I have always been a district nurse I did a post-grad Degree I did six modules, and I couldn't face the dissertation, so I ended up with a Bachelor of Nursing"*

Participant 5 acquired some acute hospital experience before working in primary care. It was notable that they had enjoyed this experience as a student and also identified the importance of being able to practice autonomously in a community nursing role.

P.5 *"My career started in emergency surgical admissions, I was there for about a year and then I went to intensive care for a couple of years, but I'd always enjoyed community as a student, I enjoyed the autonomy of community practice".*

Similarly, participant 3 also worked in acute care before working in community and describing how community work better fitted with their expanding family commitments.

P.3 *"A&E, medical, community, practice nursing, treatment room, was my career. I loved working in the community because it fitted in with the school hours and my partners work. Was more of a lifestyle choice".*

For participants 7, 8, 9 and 10 primary care was their initial focus with them working in or out with GP practice. What is also evident at this point is their relative seniority and clinical autonomy.

P.7 *"I worked as a practice nurse/receptionist in one of the general practices in Scotland".*

P.8 *"I'm a trained district nurse. I was a DN team leader for many years with a very good general primary care background and experience".*

P.9 *I was an ANP in a GP practise where I was the lead ANP with another 4 junior practice nurses in a big practice. We did your minor illness, your chronic diseases, basically your flow for CPD, appraisals, recruitment and retention".*

P.10 *"I live very rural, it's a nice place. I worked a few sessions in my village surgery, but most of my job was in a town, a practice, a big training practice".*

The remaining participants spent more of their career in hospital acute services working across a wide variety of clinical specialisms.

P.6 *"I was working in down in London accident and emergency setting for many years. I got to the stage when what else could I do, and I started looking for jobs. In the mean time, I was job sharing as an A&E Charge nurse practitioner and also the Resuscitation Officer.*

P.4 *"I worked in gynie, trauma orthopaedics, and emergency care. They considered them the emergency specialities. And I did a little stint in x-ray when nurses started being involved in the intervention so I was doing barium enemas, would inject dye for contrast, that sort of thing so that was always quite interesting. This was empowering really good training. That was my first emergency nurse practitioner role".*

It was significant to note that over one third of participants had spent time overseas, either as a result of personal choice to work as a nurse in different countries or because their partners occupation determined where the family lived. Participant 1 spent time working overseas and described a variety of jobs undertaken around their family life, these were not always nursing related.

P.1 "*I qualified as a nurse in 1981, I have had a couple breaks to raise a family from nursing profession, then I worked for Special Branch out in Hong Kong, where my partner and I were both in the armed services, I trained in the armed services, so I accompanied them on their tours, and we did two tours of four years out in Hong Kong. I wasn't working as a nurse in Hong Kong other than as an agency nurse I did a few shifts, which was very interesting to see how hospitals are in Hong Kong".*

Participant 8 also spent time overseas spending time as a nurse working for a Christian charity. Initially going out to join a project but ended up developing new service pathways to support patient progression across care services.

P.8 *"We lived in the Sahara Desert. I owned a camel and rode a camel to work. We went out into the bush, and we did health campaigns. My kids grew up in the desert in West Africa it was fabulous it's a fantastic place for children. I mean yes there are always some risks involved but it's probably a safer place there than it is in Britain".*

Another overseas experience was described by participant 11, working as a nurse for a short time in Pakistan before working in Israel for a further two years.

P.11 *"I went to Pakistan, after studying the Bible in Glasgow. I worked in a hospital there which was a real eye-opener – for about nine weeks, horrendous when you look back. I just wanted to do something different and to learn about the bible more. I worked in Israel for two years in a hospital before coming back to Scotland".*

Participants 3 and 7 had married partners in the armed services and travelled extensively for significant periods across Europe. They also discuss putting put their nursing careers on hold to support their partners.

P.7 **"***I got married and moved up to Scotland because my partner was in the air force I did a wee bit of social care and I was on a nursing bank, so we did a lot of terminal care only because we moved around a bit, and for the next ten years we move around backwards and forwards between Germany".*

Participants 3 and 7 reflected on challenges with a military life, with travel and the instability of career/home life. Personal life often had its challenges for example deployment separation and the worry of disrupted family networks. There were also emotional challenges related especially when partners were on tours of duty.

Participant 3 tells how they lived the life of an officer while putting their own life on hold. Participant 3 recalls how they never really got used to it. It was all very regimented with no escape.

P.3 *"Comes from quite a working-class background, everybody's at home with their mums and dads. My partner was not a very grand person, being brought up on a council estate in Edinburgh, having done very well for himself, until later in life when became a pilot in the Royal Air Force. I just found it more and more difficult. I struggled with that sort of lifestyle. It only lasted for only twenty years … so not long. If I had my time again, I* would have *been more assertive I think earlier in the marriage, because you didn't have control over your life. As a partner of an officer, you didn't have any control over your home, where your children went to school, none of that so I found that bit difficult".*

Sub-themes

The two sub-themes that emerged under the theme nursing as a career choice are support networks (role models) and experiences of caring. The participants discuss the importance of family networks, but they also elaborate further and talk about how family members are important role models and have helped them foster a desire to enter the nursing profession, with tales and stories by family members of their own experiences of nursing. This went beyond parental influence and included siblings and peers.

Summary

A desire to enter the nursing profession was strongly supported in interviews by the participants as they recall early childhood experiences for example, tales and stories from parent or peers and others with first-hand experiences of looking after unwell family members. The career progression was evident with dual registration and post graduate qualifications. This career progression was seen across multiple clinical environments allowing them to break down traditional primary and secondary care barriers. These early career years also saw participants undertake additional personal travel where they undertook additional study and clinical practice out with the UK.

4.8 Applying for nursing posts on non-doctor islands

The next section of this chapter considers the factors that influenced participants to apply for nursing posts on non-doctor islands and their experience of working within the island's contexts. Participants recalled various factors that contributed to their decisions to apply for non-doctor island positions these included both personal and professional considerations and often a combination of both.

A small number of study participants actively sought nursing posts in remote and rural Scotland.

P.3 *"It's been a long-held wish to do something on the remote and rural side of nursing, a new experience for me. I'd been looking on the NHS Scotland website for some time, and a couple of jobs had come up in Orkney and I was going to go for the interview, but the timing wasn't right, and so when this job popped up it just seemed the right time".*

Other participants described how they looking to do something different both in their work and personal lives.

P.1 *"I'd got to be in my 50s in my previous job and I'd been doing the previous for seven years; I worked in a private hospital, and I was working doing the nurse-led pre-op assessments down there, and I thought to myself, I've been doing it for seven years, in my 50s, I thought I've either got to stick with this or make a move".*

For quite a significant number of participants the impetus for their move was their motivation for personal and professional change and moving to a remote and rural area of Scotland was seen as a way of realizing that change.

Participant 6 described their wish to alter their lifestyle, the desire to reduce the feelings of stress that they associated with city living and working in an Accident and Emergency Department. The solution was to move out of the city of London and the impetus for that change appeared to be initiated by a holiday in the North of Scotland.

P.6 "*I'd be working in London for 13/14 years at this point, and I'd come up for my mother's 60th birthday in 2010. She has a static caravan at Banff. I was sitting in the caravan looking outside at the sea and the water thinking why am I in London. When I can't afford to buy my own house. I'm stuck in a city with pollution, and I was fed up with London and fed up with A&E at that stage. A lifestyle change as well is what I wanted, I had really bad psoriasis at the time, and it was affecting my whole arm, so it was stress-related …it was just the right time for me I think".*

The motivation to move out of a city and away from a violent environment was further described by participant 2.

P.2 "I wanted a change and the violence around; well, they had started shooting people in our local pub and I just wanted out of it".

Similar to participant 6 others also cited quite significant work pressures, unrealistic job expectations, and a general dissatisfaction with their previous nursing roles.

P.1 "A bit different work environment to what I'd previously been doing, the previous job was hectic, you didn't leave at the end of the night – you escaped"

P.5 *"I felt back home where I was working was highly pressured, and it felt like I was work, work, work and just working to pay a mortgage".*

P.1I "I was desperate to leave the job I was currently in. It was in a very busy urban-type primary care practice. I was late home every single day and they were putting more and more and more onto us, and we weren't appreciated by either fellow staff or patients".

P.4 "I didn't like the 4 hours target it is the responsibility of the nurse in charge and not the individuals. The nurses fail so you spend all your time just trying to shove patients around the place".

For other participants, the decision to apply for a post on a non-doctor island was motivated by a more generally expressed desire to do something different.

P.5 *"It was just a change. I am always looking for something different to do".*

For one participant, a change in their personal life prompted their move.

P.10 *"My life started to go a bit pear-shaped; I was in the process of separating from my partner. I didn't realise it at the time, but I was starting to get in a rut, I needed a bit of a change".*

Participant 7 expressed the desire to have a more personal connection with patients.

P.7 *"I suddenly thought there has got to be more to life than this, I wanted something different, I wanted to maybe get back to knowing my patients, applied for the job and got it".*

While all the participants in the study had indicated their desire for change, either motivated by personal or professional reasons – and often as result of both, what was interesting and perhaps notable was the factors that prompted their decision to apply for posts. Participant 6 had made the decision when visiting family in the North of Scotland. Participant 9 also recalled how their decision to apply for a post was as a direct result of holidaying with a friend in the North of Scotland. The impromptu and unplanned visit to Orkney was timed with a job advert that was read whist on holiday. Taking the initiative, participant 9 followed through on the inquiry, met with a clinical service lead and was shown round the island. This trip subsequently led to a job application and subsequent appointment.

P.9 *"By absolute accident. We were going to go up Thurso and stay with friends so when we were up there…and we decided that we would go to Orkney for the day.*
So, in my wisdom and being very impromptu with things, I decided to give her a call, still on the boat and say, "I'm coming into Kirkwall and how far away are you, I'd love to know what you do in a day.". So… I went over to the islands, and I had lunch, which was lovely, and she took me around the island, into the surgery, into the school. It was a Saturday and I thanked her very much and away I went. My partners first words to me when I got off the boat was "That'll not be the last time you'll be on that island".

There was just such a glint in my your eye when I came back off the island when we went to the pub and you hardly uttered a stutter", which is no like me. Em, so I had this sort of going through my mind and what a fantastic role that would be because it just isn't directly, like my post in Glasgow was very directly within the surgery, not a lot of house calls. I thought wouldn't that be great to look at the bigger picture and look into more holistic care than anything else, but I very quickly forgot about it, I went back to work, and I got a phone call the following week from the lead nurse in the isles saying I heard you were over in isles on Saturday. I initially said, "Lord did I upset somebody, did I overstep the mark, I apologise if I did" and she said no, the girl that you met up with that's leaving phoned me on Monday morning and said I think I've got somebody that'd be suitable for the job".

Again, the unplanned nature of the job applications was highlighted by participants 1 and 4. They both recalled stumbling across the job adverts in nursing journals / bulletins

P1 *"I was just fed up. I had seen the job in the RCN magazine. It was just the right time, my partner wanted to retire, and a friend had come back from the Middle East and she said why don't you try going out to the Middle East, so I was looking in the Nursing Standard for the Middle East and of course they are at the back of the Nursing Standard, and hey presto, there was an advert for the non-doctor island position on the page. I applied I just thought it sounded a bit different"*

P.4 *"It was not my choice to move it was my partners. Having noticed a job in the RCN bulletin for a remote island nurse. My partner gave me the confidence to think outside the box with regards to working somewhere I've never worked before. What I used to find quite exciting, was a symbiotic thing".*

Participant 8 recalls a different account to why he applied for a position on a non-doctor island having returned to the UK from Africa with an unwell child. Not content with settling back in England participant 8 was actively looking for a new challenge and that prompted an application for a non-doctor island post.

P.8 *"We were forced to return by medical emergency. My youngest got sick and wasn't recovering from malaria…we got medi-vacted out. We didn't really want to. We ended up back in England, kind of at a loose end, kind of wanted a challenge…We*

tried to go back to work, back to normal life and to be honest, it was just too boring. We'd just been 3 years living in the Sahara Desert and riding camels Yeah and back in Derbyshire. And now back in Derbyshire. Wasn't quite the same really. We were looking for a new challenge".

What is evident from the account of the participants is this willingness to try something new. They all recall the personal reason why, but there is an element of spontaneity surrounding the aforementioned participants and a willingness to expand their clinical credibility and scope of practice to remote and rural settings.

Sub-themes

The sub-theme that emerged under the main theme of applying for nursing posts on non-doctor islands is a desire for a change and work / life balance. The demands placed on them across today's modern NHS included unrealistic clinical expectations, a general lack of awareness around their clinical workloads and unrealistic expectations placed upon them in delivery to service delivery. This was an impetus for them to explore new avenues in clinical practice that would allow a better work / life balance.

Summary

The move to non-doctor island localities was for both personal and professional reasons, and often a combination of both. Discontent with previous professional roles was evident and prompted their decision to look for alternative posts. Reasons for this discontent were variable however, challenges with significant work pressures, unrealistic expectations and the inability at times to deliver the level of care desired all featured. When discussing the personal reasons, concerns around a work / life balance, family commitments, unsafe communities and changes in life circumstances all influenced the decision to apply for non-doctor island posts.

4.9 Factor influencing retention to non-doctor islands.

Participants had spent between 1 year and 18 years living and working in non-doctor island. They discussed both their professional and personal lives on non- doctor islands including the joys and challenges they experienced. These factors also influenced decisions to remain on the non-doctor islands or to leave.

None of the participants had any direct connections with the non-doctor islands before taking up the post. It was, therefore, interesting to note that a sense of belonging and integration into the community was identified as an important aspect of their personal and professional lives. For 5 of the participants, this integration also extended to their married partners.

Participants described the friendliness of the communities they settled into, and the positive welcome received. There is also a sense of appreciation for the nurse from the island community for example with gifts of fresh produce for example eggs, meats vegetables etc.

P.1 *"Initially it was as I expected, the people were very friendly and welcoming, we were met with things like fresh crabs, fish, eggs and vegetables and stuff like that and everybody was very friendly getting to meet you. We got invited out to dinner with various people, we were made to feel part of the community".*

P.2 *"It's just the community spirit and, knowing, knowing people backwards really".*

P.4 *"I think I do feel part of the community. Nobody's going to tell you to whether you are or you're not. But the majority of things, community things and we go to church and those things we certainly do. Yeah, we do feel part of it. My partners very busy as a joiner and lots of people asking for work to do work and things. So, very busy".*

Feeling part of the community, contributing to the community and being accepted by the community were important factors that increased participants' sense of belonging and satisfaction with their personal lives.

P.9 *"There isn't a day goes past that somebody doesn't chap on my door. I go home at night and there are eggs, cheese, butter, at my front door and I don't know who's given me it. I'm trying to integrate with the youngsters as well so know when there are 2 or 3 youngsters go past on their bike they'll wave. That kind of thing, which makes me feel, really accepted. My partner been accepted in the community, although a quite a quiet person but quite unassuming as well at the same time".*

P.10 *"I do like the community spirit on the island, the way that people help each other out and they look out for each other, I just think that is lovely. I integrate with the island,*

I do, I do a lot of baking for things, so I've been welcomed by the island, and I've fitted in well".

It was evident that participants were respected and appreciated by the communities in which they live and work.

One of the most prominent themes in relation to their nursing roles was the importance of professional autonomy. Autonomy was mentioned by 8 of the participants as an important factor, followed by positive work-life balance highlighted by 6 of the participants and more general job satisfaction issues were also factors identified.

Descriptions of autonomous practice were expressed by the participants in a number of different ways. The ability to follow through the patient care journey was one of these examples.

P.2 *"I like autonomy and I like to get on with it. I quite enjoyed being able to follow-up patients care, the one thing about the islands is you see it from beginning to end".*

P.4 *"I liked that you come through the door, I know nothing about you. I've got to find that out. I've got to work out… Take you with me on this journey, where possible. It's a very autonomous role".*

A further example of the autonomous roles was closely linked to decision making and the ability to be at the centre of that process for their patient.

P.6 *"I like that autonomy, I liked going out and about and sort of like the freedom of going in, going into people's homes and the variation on what you're doing".*

P.6 *"I like being on my own … autonomous, I can do, you know I will decide what, if somebody comes in with a problem, although I'm not a prescriber, I can say to the patient this is what I need to do".*

One participant described discussed the important of clinical autonomy, compared to their previous roles.

P.11 "The autonomy and being left to make your own decision and care plans, we were kind of micromanaged before".

A further example of autonomous practice that participants described was their opportunity to feel that the care they were providing was person centred. Person-centred care was possible as nurses knew both their patients and families well and were able to spend time getting to know them. This opportunity to spend time with patients, to provide holistic care was identified as an important component of practice.

P.7 "I really like the mixture of the role in that I was still going to be able to be a Nurse Practitioner but then I would also have the time to see my patents, Autonomy is the old school nursing where you do know the people. You know their families, you know their hopes, their dreams, their wishes, and so you can spend more time with them".

P.10 "I like the fact that every day is different, that's what I've liked about general practice, is that you never know what's walking in your door, you know, it's quite different from working". The autonomy, holistic patient-centred care, the time to spend with patients, to integrate with them and their families. A patient will come in to get a blood pressure check and I can spend half an hour with them, and I can talk about the diet, the exercise, the lifestyle issues for some of them, I'm talking about their concerns about their granddaughter, or whatever else, so you get a much more rounded consultation".

P.8 "*You are seeing your patient from diagnosis to treatment to testing and finally intervention right through to them getting better. I have got really good continuity of care for example there are 300 people on my island. I know all of them. I know pretty much all of their medical histories without even having to switch on a computer and look it up, so if I get called out at 2 a.m. I know everything you need to know just by walking through their front door, which is unique".*

P.6 "I spend a lot more time with patients now. It's better I think, I know more about my patients, I know what I'm doing with them, I can plan, I can engage with them more".

What is also evident from participants is that they valued getting to know their patients and that this opportunity helped to improve the care and advice they provided.

The ability to practice autonomously also contributed to an increased sense of job satisfaction.

P.8 "*I think job satisfaction is massive because you are working on your own".*

One of the key challenges that emerged when participants had described their previous working lives were the stresses caused by a poor work life balance and a general dissatisfaction with their situations. As previously identified this dissatisfaction was often the motivating factor to seek a change work life change. For many of the participants improved work life balance on non-doctor island was identified as a positive outcome of their move.

P.5 "I think it was a work balance; I felt back home where I was working was highly pressured, and it felt like I was work, work, work and just working to pay a mortgage, just existing, so I wanted something that would give me a better sort of pace of life".

P.4 "I wasn't going for a lifestyle change. But I think you have to accept that it comes with the territory if you want to do a job like that. I understood what the lifestyle would be, and it certainly wasn't a barrier. It was one of the things that attracted me".

P.7 "I have a good work/life balance and is that supported by management or is that made by yourself and how you manage your caseload".

Participant 9 found balancing work life and personal life aided not only integration within the community, but also allowed helped in getting to know the community and the people they cared for – and this was identified as an advantage for them.

P.9 "I love the gym, there is also the gym on the island, so I've joined the gym. It allows me to get in contact with the young mums as well, and the younger people that are there. It's a great work/life balance. I would say that's the biggest plus for me".

Participant 8 described how they themselves and their partner participated in the activities that living on a non-doctor island offered and the way this had also contributed to positive work life balance.

P.8 *"I am quite a keen fisherman. I live by the side of a loch. I can catch wild brown trout in my back garden. My partner spins wool and makes things which allows more integration into the community setting. I am into photography, so I am part of the Aurora Photography group, I have a good work-life balance at the moment".*

P.10 *"I think I've got a very good work/life balance; my cats aren't very keen on me going away, but they are getting used to it.*

Although an improved work life balance was often preceded positively for some participants there was also a downside as roles between personal and work became blurred.

Participant 8 recalls the first few months on a non-doctor island.

P.8 *"It has been a pretty steep learning curve. One of the biggest challenges is maintaining the professional and personal balance in life".*

For participants 4 and 6 the change of lifestyle had prompted the decision to buy a house and to stay on the non- doctor islands.

P.4 *"I think I'd probably like to if I can, get a croft on the island I'll put an application for one".*

P.6 *"The lifestyle is what keeps me here, I mean I've bought my house, and I made the decision five years ago to buy a house, so I've pretty much set down my roots to stay here"*

Participants 4 and 6 now have connection to the islands in relation to property. Participant 5 married into the community and has a family which keeps them in post.

P.5 *"I'm married to a Shetlander, so it's kind of keeps me on the island, and there is only one nursing role, but I still, I think even if I wasn't married, I'd probably still stay in this role because I do like it".*

It is interesting to note that despite have no previous personal connection to the islands 3 of the participants have chosen to make the islands their full-time home and have brought property or married into the community.

Sub-themes

The three sub-themes encapsulating this stage of their life history were community acceptance, professional autonomy and work life balance. The acceptance within the community was of importance to the participants, not only to them as individuals but also to their partners and spouses. The discussion around acceptance was positive in that the island communities showed gratitude to the nurse in the way of gifts for example, eggs, lamb etc. The acceptance process was very much a two-way process with engagement not only for the community but also from the nurse in taking an interest within the community for example, being part of the community council, attending community events etc. This acceptance within the community has led some of the participants to become more fixed within the community with them buying property or marrying into the community. Thus, ultimately will contribute to their overall retention within the nursing post.

Clinical autonomy was another important factor in the retention of the participants this clinical autonomy lies at the heart of the nursing process and allows the participants to practice within their scope of clinical competence in deliverer holistic care to the island community. What makes this role unique is that you get increased continuity of care, that incorporates the wider family generations.

Summary

This section has explored the experiences of living and working on a non-doctor island from both a professional and personal perspectives. From a professional perspective, participants valued their professional autonomy, their ability to provide holistic and person-centred care throughout the patient journey. This, coupled with the importance of being accepted by their community and being part of the wider islands' community, was important to the participants and was perceived very positively. What is strongly supported by the data is that clinical autonomy, a balance between personal and professional life, and community acceptance are all factors that foster retention of non-doctor island nurses.

4.10 Challenges faced by non-doctor island nurses living and working.

This section presents challenges of living and working on a non-doctor island that were identified by the participants and whether these have impacted on their decision to remain as nurses working on non-doctor island and the overall impact of retention for nurses working on non-doctor islands. Broadly two themes emerged and related to professional work and personal lives that were important and often these two aspects impacted on each other.

In relation to professional work, three key sub-themes were identified, skills decline, professional isolation and lack of other health / social care services.

Different experiences were evident when participants spoke about their professional development and skills maintenance, with some identifying skill decay and others having more positive experiences of professional development opportunities. The prevalence of skill decay was noted by three of the participants, due to lack of skill exposure and reduced patient case load when compared to previous roles.

P.5 "*I think you can de-skill to a certain point, but you've just got to keep yourself thinking about certain things that might come through the door. I know with the palliative care patients there was a syringe driver involved, and of course, I hadn't done that for some time. I used to do that regularly, but it's just planning and getting yourself familiar with the equipment again. I hadn't done a PICC Line for ages, but I knew one was coming so I organised training for me and some of the other nurses from the other islands as well".*

P.6 "Some of my skills have dwindled; my Advanced Life Support has dwindled for example. I used to be an Advanced Life Support Instructor. I'm used to dealing with emergencies whereas long-term condition management I wasn't aware of. I've developed that now and I'm better at understanding the chronic needs of patients".

P.7 "I'm de-skilling a little bit with nurse practitioner role because I was seeing thirty patients a day doing a full clinical assessment, diagnosis, prescribing, dispensing etc., etc., I'm not doing that now".

Conversely participants also identified new skills they had developed as a result of their non-doctor island roles, including notably triage.

P.1 *"I like to go into the hospital because it allows me to work with other staff, and it's easier if you've met somebody to ask them information, information-sharing really".*

P.3 "*I learnt an awful lot about triaging on telephones, since moving the islands. You learn all this stuff and develop new skills, so I learnt loads about that, so I can triage on telephones like the back of my hand"*.

One participant noted more time for professional development than previously experienced.

P.11 "*I can do learnPro 'til it comes out my ears because I have time, in my last job staff weren't getting time to do their online study, so not only were they overtime at work then they were expected to do the learnPro at home"*.

Participant 8 was highly positive about their professional development and access to support.

P.8 *"I would not say that I have deskilled not the health boards are really hot on skills dent and professional development. We get tons of training. A lot of its mandatory".*

The challenges of needing to travel for development opportunities were also identified and the preference at times to have face to face learning rather than just on-line access to education.

P.7 "*We do get access to CPD in that they're offered, however, my biggest problem is the timing of them and because they tend to be on the mainland it's getting out to them on the ferry. It just doesn't fit, so you couldn't get in and out in a day. I do quite a bit of online stuff. However, sometimes it's nice to share again and be within a group".*

Professional and personal isolation was one of the challenges facing nurses who work on non-doctor islands and was identified by 5 of the participants in the study. It did not appear to be a participant had prepared for before taking up their roles.

Working in geographical isolation away from other health professionals could also be difficult and is in direct contrast to the benefits of autonomous work identified earlier. Professional isolation meant that joint decision making with other health professionals was difficult and participants did not always feel connected with their wider team.

P.3 *"Working in isolation you haven't got anybody there to bounce ideas off. I've always worked in teams; I found it a bit challenging working alone. There is often a lack of access, patient information especially when you needed it".*

P.5 "*Sometimes it's isolation you can sometimes feel a bit disjointed from the rest of the nurses. I think it's more in terms of, people have forgotten to include me for example with training and stuff although I am supposed to be part of the same team".*

P.7 *"You don't have another set of eyes next to you is what. I mean even when I was working autonomously within a GP practice if you got something you weren't too sure about you could always bounce it off somebody, and whilst you can still do that it is by 'phone call or it is an email it's just not the same as having someone standing next to you looking at the same presentation".*

Professional isolation also was also a concern as when participants faced dealing with emergency situations on their own. Notably, participants 2 and 11 cite lack of experience and preparation for these situations.

P.5 "*It is challenging when you are on your own you are on your own … and it can be quite scary when you've got somebody who's really, really sick and it's just you"*.

P.2 *"On-call scared me, only because of my lack of experience and knowledge of emergency If went out to an emergency and if I didn't have a clue what I was doing.*

P.11 *"I think the biggest fear I have is the emergency, and being able to cope with that, because I have nothing in my clinical background. I have no experience in emergency especially the out of hours periods.*

P.8 *" It's everybody's life is in your hands 24 hours a day and we've got no medical back up at all".*

The general lack of access to other health care and social services was also perceived to increase the burden of responsibility for patient care and additional workload on the sole health care providers. Participants noted how they met multiple roles when caring for some patients that would normally be spread across the wider health and social care team.

P.2 *"We have had no social input, when we did it was very difficult to get social care. Social Services relied on me to do a lot. So, you did a bit of nursing care and a bit of personal/social care a little bit of everything. I mean they're at the time can be one or two patients, others there can be about twelve elderly, which doesn't sound a lot, but on my own, it was quite intensive".*

P.5 "*I had a palliative care patient on my own for a considerable amount of time and certainly towards the end of life I was in and out every few hours, and for the last sort of few days, I didn't get much sleep at all, It's pretty much just me. And there were no social care works available to support me ether".*

In addition, to professional challenges participants identified more personal concerns about island living, these often overlapped and impacted on their professional work lives. Living and working within the community poses a number of challenges to the participants in relation to clinical boundaries between friendship and patients. As well as professional isolation, previously identified, personal isolation was also experienced by some of the participants. For one participant, the extent of isolation experienced was not what she expected. She described being cautious in her interaction with others on the islands and being aware of the confidential nature of her role.

P.4 "I didn't realise it was going to be so isolating at times. I didn't realise it was going to be that you couldn't have a friend. Of course, I can talk to my friends, I can face time my friends, that sort of thing but when you're having a cup of coffee with somebody a lot of the talk is about other people and of course, you have to be careful you can't relax about that. So, things aren't necessarily as relaxed as they could be".

The difficulties of living and working in small communities, the need to maintain confidentiality can exacerbate the sense of isolation.

P.1 *"It can be a difficult community to live in. I've become more isolated in my personal life because of how the people are because you hear, they talk about each other… … it's, you kind of have to be very careful about whom you speak to and what you say, and it just makes you feel very withdrawn".*

More generally, difficulty with coping with personal isolation which as noted previously participants were not always prepared for, resulted in other colleagues leaving their island posts. It was interesting that participant 8 suggested that to live and work on a non-doctor island needed particular personal attributes.

P.8 *"Isolation factor here is a real big issue. You asked me at the beginning reason why people leave, I'd say isolation is one of the biggies. I mean, I've had 3 different colleagues while I've been here…Over the 6 years. I'm kind hoping that the one I've got at the moment is going to stick because she's great and we get on really well…But the truth is you've got to be a certain type of personality and temperament to be able to stick it. Lots of people want to give it a go because it's obviously quite challenging. It's almost a bit of an adventure. And there are some massive advantages you know, work/life balance is fantastic".*

Another factor that was perhaps overlooked by the participants is the general lack of anonymity, which was exacerbated by them living and working within the community setting. Participants 2 discusses how this is part of the role of living and working in a non-doctor island.

P.2 *"They know exactly what you're doing when you're doing it. It didn't bother me. You have to understand island life. You have to be prepared for everybody to know your business and not worry about it and they don't mean it … they don't mean to know your business in a bad way. Some people take advantage, others don't but that's normal human nature I think".*

While for other participants for example 3 and 5 this seems to be more problematic in the sense that that you are always visible within the community setting and that some of the islands take advantage for this thus leading to a sense of entrapment as discussed by participant 7.

P.3 *"It feels the community has a hold on you, you're working and your daily life, definitely 100%, for example, someone will ask you a question on the ferry, about a prescription, even though they are going the health centre a bit bizarre".*

P.5 *"There are times when I feel owned by the community. The community used to pay for the nurse before the NHS. They see you as a nurse the whole time, they address you as 'nurse' not my name even when I'm out".*

P.7 *"You live in a goldfish bowl, and you have to be very aware that they're always fishing for information, and you've got to be tight with the confidentiality, and that yes they do … they do have 'expectations' of you …in that, you're supposed to be there all the time, however, my predecessor found this and I made a rule when I arrived that I was going to go off the island. That does work now because they're used to it if there was a clinical need to remain on the island I wouldn't come off".*

Due the locality of the islands, the participants undertake additional on call commitments 24/7, 365 days a year. Participants 1 and 3 describe the challenges on being on-call as the sole health care practitioner within the island community. This meant that it was difficult for them to switch off from work and the boundaries between work and personal life became blurred and a positive work life balance unrealistic.

Participant 6 discussed the importance of setting ground rules from the onset, this was of particular importance in ensuring and meeting expectations from within the community setting as well as that of the nurse's role.

P.6 *"I mean when I first started the post is set your ground rules early, and that's what I do nowadays is, I make sure that they know there are certain things that, you know, if I get somebody knocking at the door at like ten o'clock at night where I'm staying asking to arrange for a blood test the next day I say "no, come and see me tomorrow morning, we'll arrange a blood test" but I will not do it, you know, out-of-hours only and I reinforce that, if I get a 'phone call say "oh, can I speak to you about this?," I say "well, can it wait 'til tomorrow? or say if it's an emergency, and if it's not an emergency I say speak to me tomorrow, and I make sure they know what the ground rules are and limitations are".*

Participant 9 discusses the resilience of the wider island communities and the expectations of the nurses. Those islanders that are born and raised within the island communities were perceived to be more resilient in comparison to those who had moved to the island as participant 9 explains.

P.9 *"I would say people tend to be sick, sick before they approach you. I will say, and absolutely no disrespect meant at all, it's your English people that came onto the island that'll phone you at 3 a.m.". If I thought somebody was taking a loan of me and it was completely unnecessary that would have to be a different conversation altogether about what's appropriate and what's not appropriate but to be completely honest, I haven't come across that yet.*

P.11 *"The islanders don't take advantage no".*

The on-call commitment although part of the clinical role, does not facilitate a balanced work and social life with the nurses feeling trapped and unable to switch off from their clinical roles.

P.1 *"Because it's different really to switch your head off being at work when you're here, and when you're here I feel I'm at work 24/7. It's partially the on-call, but it's also that there isn't anywhere to go or anything to do that … you can't go say and socialise with somebody for a chit chat or whatever, or it's just difficult to get out of the work mind-set".*

P.2 *"I used to go to yoga, I joined a knitting group, all kinds of things, but I couldn't do anything like that here I felt I had to stay on the island, I didn't feel I could commit it's the on-call aspect I feel as though I cannot leave the island".*

P.3 *"For me, it was the first time I'd done on-call and I found that the fact that you were never off duty, it was 24/7 on-call, that quite difficult to balance really; I think there was an expectation that you just got on with your life and you get called out when you could, but no, I didn't have, I couldn't, if I was on duty I'm on duty, I'm being paid so I felt as though, you know, it was very, it was difficult in my head".*

Although participant 4 does not like the on-call provision, they understand its importance across the non-doctor islands and accepted it as part of their clinical role.

P.4 *"I am accessible to the island community 24 hours a day. To me it doesn't necessarily matter which telephone number they ring to get me, they are going to get me at the end of the day anyway. So, they might as well ring my home phone, you know what I mean? So, they don't necessarily have to go through the formal route, but they do understand that there is a distinction that when I am there that's what we do and when someone else is covering, that's what we do".*

The provision of 24/7 on call as well as a traditional working week is often manageable due to the small number on the caseloads. However, this can become problematic with out of hours calls and the expectation of clinical services the following day. The remaining 5 participants never commented on their overall feeling about the on-call commitment.

Sub-themes

The sub-themes emerging from this section are skill decline, professional isolation, lack of social service input, work life balance and anonymity. The discussions surrounding professional isolation were noted by a number of the participants. This isolation is especially prevalent during the out of hours periods when they felt more vulnerable. Although this is a rare occurrence, working on a non-doctor island does offer challenges to clinical practice that push individual scopes of clinical practice. Although genuine emergencies are rare across the non-doctor islands the community do take advantage of this service especially out with the 9-5 service delivery model. Rather than going via the correct channels where calls are triaged via NHS 24 or 111, they go directly to the nurses, this again fosters personal and professional isolation. One way to overcome this was the importance of setting rules. This allowed the participants to have time away from the clinical environment and allowed them to undertake hobbies and interests out with their professional responsibilities. This was an important aspect in retention, but also a way of striking a balanced working life within a community that relies on a 24/7 model of care.

Summary

In summary, this section has looked at the challenges of living and working on a non- doctor island. There are several challenges both professional and personal that contribute to overall satisfaction and subsequent retention within the role. From a professional perspective skill

decline, professional isolation, and lack of social care services input are key challenges faced. On a more personal level the lack of anonymity was also identified as an important factor and how this is exacerbated by being part of the community setting. The 24/7 on call commitments was problematic in that it did not facilitate a work / life balance and left them feeling exposed and vulnerable during the out of hours periods.

4.10 Factors contributing to nurses leaving

This final section will explore how participants view their future professional and personal lives. At the time, the interviews were conducted, participants' average length of non-doctor island employment was 9.5 years. The average age of the remaining participants was 58 years old. The youngest participant was in their early 40's and the oldest was 66. Three participants are actively looking to retire when financially able to do so. Six of the participants are currently stable in their post, but are reaching retirement age, while two are mid-career and have on average 20+ years before eligible for state retirement at 65.

P.1 *"I have thought about retirement and going back to stay with family, it all very much depends on my pension, since the pension goalposts have changed, I have to work longer".*

P.10 *"My plan will be to retire, but at the moment I can't afford to because as I now have another mortgage, I can't go in two weeks' time, as I had always thought I would".*

For one participant, the attraction of working on a non-doctor island postponed their retirement plans.

P.11 *"I would have retired, I would have taken early retirement ...no question, that's where I was going, if I had not left my previous job and seen this role, I had to follow my heart otherwise I would have retired definitely".*

For the remainder of the participants the future was uncertain, with 3 participants exploring the option of retirement. Participant 9 is looking at options for a managerial position within the nursing service, while the remaining 4 never disclosed their future plans.

P.9 *"It'll still be nursing. I have a kind of pact with a good friend of mine who is due to retire from her health centre in a couple of years. I know all the GPs and they've said when you're ready to come down, just give us a shout. I don't know about GP land and how things are going It needs to pan out a bit first, with the new contract".*

Participants 8 discusses how getting property has now meant that connections to this island have grounded them within the community.

P.8 *"If I wanted to leave, hypothetically I might be trying to leave right now, but it's actually really hard for me to leave because I don't want to move home because I have to move my house where if I lived somewhere different it would be quite easy. So, it's kind of a swing and a roundabout. I think this 2 on, 2 off model has definitely improved recruitment but it's made retention harder because it's too easy for people to leave again.*

Sub-themes

The main sub-theme for this final section is retirement. For many of the participants the currently post on non- doctor island will be their final nursing post before retiring. For some this was a final ambition to work across remote and rural practice while for others it was a slow wind down to retirement balancing working and personal life.

Summary

This final section has briefly explored the future plans of the nurses who are currently working and living on the non-doctor islands. Retirement was the main reason why the nurses will be leaving their post, with many of those interviewed coming up to retirement age. However, many have discussed retirement and used this opportunity of working on a non-doctor island as a stepping stone to retirement thus ultimately slowing down. For others, it is following their final nursing ambitions before finally retiring from their professional nursing role.

4.11 Summary

This chapter has identified themes and sub-themes that emerged from the interviews with the participants. To support a life historical methodology these findings have been ordered sequentially through the lives of the participants, thus allowing to see key life events that have influenced their overall career pathways and decisions, that has ultimately led them to working and living on non-doctor islands. There are two clear strands to the findings, those that incorporate childhood through to adulthood for example, early characteristics and those that are career focused for example, factors that influence recruitment and retention across the non-doctor islands.

What makes this study unique is the use of a life history in understanding each participant's individual journey at the same time as identifying some of the commonalities that they share across their life histories. Table 17 provides an overview of the themes and associated sub-themes from the thematic analysis.

Table 17: Research themes and sub-themes.

Theme	Sub-Theme
Early life experiences.	• Support networks • Experience of rural life • Independence • Leadership
Transitions through adolescence to adulthood.	• Support Networks • Independence • Outdoor hobbies/ sports
Nursing as a career choice.	• Support networks and role models • Experiences of caring
Applying for nursing posts on non-doctor islands.	• A desire for change • Work life balance
Factors influencing retention to non-doctor islands.	• Community acceptance • Autonomy

	• Work life balance
Challenges faced by non-doctor island nurses living and working.	• Skill decline • Professional isolation • Lack of social service input • Work life balance • Anonymity
Factors contributing to nurses leaving.	• Retirement

The following paragraphs will summarise the sub-themes identified from the interview.

Early Life Experiences:

Sub-themes: There are four sub-themes associated with the early life experiences of the participants, which are as follows.

Support Networks: The interviews identified that support networks are an important part of their childhood experiences. The participants recall mixed emotions when discussing support networks, with some having fond memories, while others recall more challenging times. However, what is evident is that individual support networks can be multi-faceted for example, direct family members i.e., mother, father and siblings, this also extends to the wider family i.e., aunties, uncles and cousins, and even extends to friends and peers. What was also evident from the interviews is that this support network underpins their childhood experiences and was articulated by participants in the context of a study about influences in working on non-doctor islands. Thus, it is not inconceivable to conclude that participants believed that their support networks influenced their career decisions. The

participants discuss the importance of this network in relation to their individuality and the development of characteristics for example, leadership and independence.

Experience of rural life

The rurality of growing up was varied across the participants with a mixture of very rural for example the Scottish Highlands, in comparison to the more semi-rural localities e.g., Cumbria. What was evident from the interviews is that rurality does contribute to their childhood experiences. One example noted was the ability to go and explore, thus the increased freedom associated with the more rural upbringing. What was also evident was the important link back to the previous sub-theme of support networks. It was evident from the interviews that rural communities have a sense of belonging, and safety thus allowing for individual support networks to develop out with direct family members. It was this expanded support network that also helped foster individual characteristics though their childhood and into adulthood lives.

Independence

Independence was a key characteristic. This was directly quoted by several of the participants as a key quality they felt stemmed from their childhood. Exploring this further the characteristic of independence correlates to participant support networks, where they recall a very free childhood where the ability to play, explore and make friends within the community setting. This independence was not isolated to just rural communities it also traversed those who had a semi-rural upbringing where they

discuss the importance of their childhood support networks.

Leadership

Leadership was an important quality that was influenced by childhood experiences. Leadership emerged from parental process and was evident within the home / social environments. Participants recall how the leadership qualities of their parents helped shape them individually with some positive outcomes, for example, fostering independence and resilience. However, there was also some negative connotations to parental leadership styles as highlighted by the participants. However, upon reflection these again helped foster a supportive and safe childhood.

<u>Transitions through adolescence to adulthood</u>:

Sub-themes

There are three sub-themes associated with the transition through adolescence to adulthood, which are as follows.

Support Networks

The support network was a common theme that traversed all the participants through their adolescent years. One noticeable difference is that this support seemed to tail off as the participants became more independent with many of them moving out with rural support networks and family circles to semi-rural / urban localities for primary / secondary education. Furthermore, a shift occurred that saw a move away from direct parental support to that of sibling, wider family members as well as peers with role models being an important factor during the early years.

Independence Increasing independence was a strong characteristic during the adolescent years with many of the participants attending educational settings out with their support networks. This move out with their traditional networks saw them increase their social networks for example, Girl Guides. A growth of independence was becoming evident as they recall looking out with the rural setting for increased stimulation. This shift saw them foster additional key characteristics for example resilience, time management and social inclusion. It is conceivable to conclude that as the participants transition through their adolescent years their overall reliance on their support networks dwindled off.

Outdoor hobbies/ sports There was an increase in social inclusion which mainly focused on sporting activities and hobbies (mainly outdoor team sports). For example, hockey, horse riding, sailing, where teamwork and integration and motivation are important aspects of overall success. It's at this point we see several of the participants succeed at their chosen sports with two achieving national accreditation and with many continuing these hobbies and interest into adulthood.

<u>Nursing as a career choice:</u>

Sub-themes: There are two sub-themes associated with the nursing as a career choice, which are as follows.

Support networks and role models. The support network has once again played a significant role when it came to career choice. Furthermore, what was also seen in relation was that of role models associated with this support network.

The participants interviewed discussed the importance of quality family time when younger, thus, telling stories and recalling experiences of working within health care settings. The interviews highlighted that role models i.e., direct parent, sibling and extended family member did play a significant importance in the overall decision process to enter the nursing profession. This was either from recalling past experiences or being directly connected with health care for example, nursing, medicine, paramedicine. It is conceivable at this point to conclude that support networks and the role models within the health care setting did contribute to the overall decision-making process when initially making these career choices.

Experiences of caring

Experiences of caring was the next sub-theme. The participants discussed the importance of direct first-hand experiences when it came to making career choices. Not all the participants had first-hand experience for health care, and this was not something at the time available within secondary educational settings. However, for those that had direct experiences they recall looking after direct family members- often palliative care, they saw a different side to the profession which has led them to follow a path into nursing. Based on this, it is possible to surmise that first-hand experience within the health care setting does play an important role influencing overall career choices.

Applying for nursing posts on non-doctor islands:

Sub-themes

There are two sub-themes associated applying for nursing posts on non-doctor islands which are as follows.

A desire for change

The desire for a change stemmed from their previous posts within the NHS before taking up the non-doctor island positions. The challenges faced within the NHS at this time traversed across both primary and secondary services with many feeling frustrated at the increased working patterns and the expectations of nurses to deliver care in settings that are overstretched, lacked resources, and at time violent. It is these additional pressures placed upon their clinical practice that has led them to look for new career pathways, which has ultimately led them to apply for the non-doctor island nursing positions across Northern Scotland.

Work life balance

The work life balance across the NHS was limited with many of the participates frustrated as identified in the sub-theme above. A strive for a work life balance was a key contributing factor for recruitment and retention that traversed all the participants. This strive balance was not only important for them directly but also their family and for some there mental and physical wellbeing. 'It is conceivable to conclude that at this point a work life balance is a key contributing factor to overall recruitment and retention across non-doctor islands.

Factors influencing retention to non-doctor islands:

Sub-themes

There are three sub-themes associated with the factors influencing retention to the non-doctor islands. These are as follows.

Community acceptance

The move to the non- doctor islands for some was a significant change in personal and profession lives. The move into a well-established community setting that traverses generations of family, that are often set into historic patterns can be daunting. Acceptance within these communities as an important aspect in the overall retention of the participants. The overall acceptance for themselves as well as their partner spouse and children were also an important aspect to retention. This gratitude of the island community was felt in several ways for example, providing meat, eggs and milk from their crofts. Often this was left on the doorstep of the nurse's accommodation.

Furthermore, this acceptance was a two-way process, although the nurses are part of the wider community, they are also expected to partake in community life for example, Sunday teas, Christmas parties etc.

Based on this, it is possible to surmise that community acceptance across the non-doctor island communities influenced their future working and personal and overall retention to the non- doctor islands.

Autonomy

Clinical autonomy was an important aspect in overall retention of the participants. The ability to make clinical decisions based on their own clinical judgements was an important aspect to their clinical role. What coincides with this is the ability to have continuity of care only for individuals but the wider family member. From a participant's perspective

therefore, clinical autonomy is an important aspect to overall retention to their clinical posts.

Work life balance

One of the key factors in the overall retention to the non-doctor islands was a work life balance. This led to stability and allowed the participants to feel that they can integrate wider into the community. For many this allowed them to buy property and raise their children and family. While for others marrying into the community was the next step in both their personal and professional career journey.

It is conceivable to conclude that confidentiality, autonomy and community acceptance are important factors that contribute to retention of nurses across the non-doctor islands.

Challenges faced by non-doctor island nurse living and working:

Sub-themes

There are five sub-themes that identify the challenges faced by non-doctor island nurses living and working. These are as follows.

Skill decline

The clinical competence and clinical skills varied within the participants. This variation was dependent on their clinical backgrounds and previous nursing experiences. What was found is that although clinical skills do decline over time, other clinical skills are learnt, for example long term condition management, emergency care etc. What was important to note at this point is that all the participants are aware of their clinical scope of practice and can upskill if needed to provide holistic patient care to the community setting. One example of this from the interview was palliative care, syringe drivers and PICC lines.

Professional isolation	Due to the locality and accessibility of the non-doctor islands professional isolation was also identified as a challenge associated with clinical practice. This focused on the unscheduled care aspect of the clinical role, where providing emergency care in the middle of the night often proved a challenge in relation to scopes of clinical practice and competence. Although this did not traverse all the participants, it was highlighted in the interview by those predominately surrounding primary care setting, their emergency care is often limited.
Lack of social service input	Again, the locality and accessibility of the non- doctor islands also contributed to the lack of additional social service input. What was evident from the findings is that social input was influenced by the island communities with many undertaking this role to support loves ones or the wider community itself. It was evident from the interviews that social input is scarce which ultimately leaves the nurse to pick up additional responsibility to daily care and support. Although this arguably is the role of the nurse, this does become problematic with the increase in caseload and can be exacerbated by the on-call provision.
Work life balance	It was discussing previously that work life balance was an important aspect in the recruitment and retention of the participants. However, getting the balance between clinical practice and personal lives is often challenging especially with the provision of 24 / 7 on call 365 days a year. Although this was accepted by many of the participants as part of their clinical roles and responsibility. It was felt by others

to be limiting in that you were never off duty, thus the ability to switch off never occurred. This led to them disengaging with hobbies and interests, and this leading to personal isolation.

Anonymity Being part of the community 24/7 provided a challenge for the participants especially with the lack of anonymity. This was exacerbated by the nurse / friend relationship which often became intertwined and often exacerbated by the lack of understanding of the nurse's role from a community. This lack of anonymity has led to personal isolation and thus contributes to the challenges of this unique role.

Based on this, it is possible to conclude that anonymity, work life balance, social input a professional and personal isolation and skill decline all influenced their future working lives on non-doctor islands.

Factors contributing to nurses leaving.

Sub-themes There is one sub-themes identified when it came to the factors contributing to nurses leaving. These are as follows.

Retirement The main contributing factor to nurses leaving the non-doctor islands at the time of the interviews was for retirement. For many the participants interviewed the non-doctor islands will be their final clinical posting of their nursing career. This for many has been an ambition to do something new, while for others it was a transition into retirement with the average age of the participants being 58 years old.

The following discussion chapter will look at the national and international literature and discuss the themes and sub-themes identified within this chapter Furthermore, this final chapter will answer the aims and objectives outlined in chapter one

Chapter 5 Discussion

5.1 Introduction

This final chapter will discuss the research findings presented in chapter five and consider them within the context of existing literature and policy. Each of the research outcomes will be discussed focusing on the themes and sub-themes that emerged from the data analysis.

5.2 Addressing the aims and objectives of this research

To understand the life history, career events that influence the trajectory of nurses who work on non-doctor islands across Northern Scotland.

Objective 1: To understand the career journey of nurses and what influences their decision-making process to work on non-doctor islands.

This first objective will be discussed in two parts. First, to understand the career journey of the study participants and second what influenced their decisions to work on non-doctor islands. There is no existing literature that specifically explores the career journey of non-doctor island nurses however, through the use of life history the participants in this study provided a unique insight into their early lives, and their nursing careers that ultimately led them to apply for posts on the non-doctor islands in the North of Scotland.

Reflecting on their early childhood experiences and demographics both similarities and differences emerged from their life stories. Ten of the participants were born and raised in the United Kingdom, only two participants described themselves as being of urban background with four describing themselves from a rural setting and five as semi-rural. One participant recalled her early childhood memories of being raised in Malaya. The participants openly talked about their childhood with mixed emotions. Most significant, was that none of the participants were born or grew up on the non-doctor islands they worked on, nor had they close family or friends on these islands. This was a unique finding from this research as previous research has found different results. For example, a Cochrane Review noted that recruitment and of health care professionals from a remote and rural background was key in overall retention of health care professionals to remote and rural practice (Hasson et al 2013). The majority of study participants had not previously visited the islands; however one participant took a day trip after being persuaded by a friend that it was a good idea to visit.

A study conducted by Mbemba et al (2016) explored the factors influencing recruitment and retention of health care workers in rural and remote areas in developed and developing countries. The study noted that a rural background, rural origins and rural lifestyle as well as personal factors contribute significantly to the overall recruitment and retention to remote and rural practice. Similarly, in an international study of general practitioners (GPs) findings show that living in a rural area for any period before the age of 18 years old increased the odds of practicing in a rural locality upon completion of undergraduate medical training (Ogden et al 2020). Furthermore, Ritchie et al (2013) highlights that in the international literature that there is compelling evidence that origins from a rural background has a positive correlation with health care professions choosing to live and work in rural areas. While it is important to note that the majority of participants in this study described themselves as coming from rural or semi-rural backgrounds, they had no direct connections with the non-doctor islands. A systematic review by MacKay et al (2021) found that a sense of connectedness was important with health care professionals wanting to return to their remote and rural roots. Similarly, Cosgrove et al (2018) identified within an international scoping review of social determinants that two types of nurses exist when it comes to remote and rural practice. Those who were 'going home' because of their family connections and attachment to the community and those for whom the rural living will 'become home', this latter group are those nurses who have followed a partner, spouse into rural practice (Cosgrove et al 2018). Therefore, whilst existing evidence strongly suggests that existing connections are important factors in remote and rural health care recruitment to remote and rural practice this was not evident in this study. While some participants described themselves as having a rural or semi- rural upbringing this finding also suggests that health care professionals may not need prior personal connections to remote and rural areas to be attracted to work in areas such as non-doctor islands.

When participants described their earlier years growing up, the importance of supportive networks during childhood was evident and descriptions of support networks varied but usually included direct family members i.e., mother, father and siblings, and the wider family circles i.e., grandparents and cousins. Furthermore, for those participants who lived in the more rural localities, local networks provided by the wider community was also significant for them. One participant describes their childhood as 'very free' and 'safe' with a further two participants discussing the importance of friendship. Furthermore, three participants talk about the importance of family and spending quality time together going for walks or spending time on the croft. These findings resonate with one Scottish study conducted by

Glendinning et al (2003) who that rural communities are seen as good places in bring up children, identifying a community of positive support, control, autonomy and attachment contributing to overall emotional wellbeing. As discussed further on in objective three, it is also significant that one of the positive factors that some participants enjoyed working and living on non-doctor islands was the close and supportive community networks they experienced. MacKay et al (2021) also noted that rural culture and a desire to immerse into the culture of remote and rural communities was noted to be a major aspect and motivational factor in retention of nurses.

Descriptions of early life experiences also tended to be underpinned by conditions that fostered both resilience and independence in participants, despite the variations in these experiences (Glenridding et al 2003). For example, the participant born in Malaya described how their relationship with both parents and their Amah as well as frequent relocations helped to foster independence. Three participants discussed how they felt that their individual characters emerged directly from parental practices. One participant described how their father instilled self-reliance, independence, confidence and leadership in them and their sibling. Another participant described how her strict upbringing and mothers' influence similarly fostered a sense of self-confidence. In one study, more effective nursing leaders were found to have personality traits of openness, extroversion and motivation to manage (Hansen et al 1995). Additionally, in one literature review particular traits and characteristics that have been shown to promote nurse leadership were openness, extroversion and motivation to manage (Cummings et al 2008) For other participants in the study, independence was strongly associated with their childhood and the ability to just go and play with relative freedom. One participant also noted that she enjoyed spending time alone as an adult and put this down to her early childhood experiences. Two participants were active in the Girl Guides and valued the independence that guiding activities helped to develop. Participants experience of independence growing up was a significant finding in this study. Furthermore, Marlinawati et al (2017) and Cvencek et al, (2016) note that independence is an important characteristic that promotes responsibility, confidence, respectfulness and self-management all of which migrate across the lifespan. Understanding whether personal traits affects leadership potential may be important and Spector (2006) classifies leadership in a number of ways, including the trait approach, which is concerned with personal traits that contribute to effective leadership. Similarly, this may also apply to rural health care as a study of midwives working in Scotland and New Zealand also highlighted the importance of

determination, commitment and resourcefulness as key characteristics of remote and rural midwives (Gilkison et al 2018).

All the participants completed their secondary education in the UK, five in England and six in Scotland. Four of the participants from a rural background had some distance to travel to their school and for two of the participants this meant living in a school hostel during the week, with weekends spent at home with family and for these participants this arrangement also increased their sense of independence. Five participants attended an all-girls education and offer mixed emotions from enjoyment to ambivalence to dissatisfaction, and while it may have been unusual that just about half the participants attended an all-girls school this did not appear to influence their career trajectories.

As the participants moved through adolescence and early adulthood it is noteworthy that the participants favoured outdoor and competitive sports and hobbies. In a cross-sectional study, Joen-Matre et al (2008) noted that children's physical activity was more prevalent in those rural students in comparison to the urban students. The finding from this study are similar in that ten of the participants enjoyed team sports for example hockey, canoeing, netball, athletics and sailing. Furthermore, two of the participants competed at a national level in diving and netball. Outdoor life is a given feature of living on an island in the North of Scotland, and as will be seen in the objectives that follow, eight participants described how they enjoyed outdoor pursuits and continue to do these well into later life for example badminton, swimming, sailing etc. A love of the outdoor environment and lifestyle may be an important factor for health care professionals working in remote and rural areas. For example, one participant discussed about how a change to remote and rural practice helped their overall health with a reduction in stress. Another three highlight that a change in lifestyle was a key factor in their recruitment to the non-doctor islands. Additionally, one participant described how they have a good work life balance. It can be concluded at this point that lifestyle was a key factor in their overall retention to the non- doctor islands. This finding was also noted by Mbemba et al (2016) who noted that a rural lifestyle was associated with recruitment and retention of health care professionals to rural practice.

Once the participants completed their secondary education eight of them selected nursing as their first career choice. Two followed a cadet entry route at the age of 16 and one participant became a nurse in the military route. Two participants had looked after unwell family members and one had previously worked in a residential care setting. For these participants,

this first-hand experience influenced their decision to pursue a career in nursing. The remaining two participants started careers in accountancy and radiography before changing their careers for nursing. All but one of the participants started nurse training before their 21st birthday. A systematic review conducted by Akosah-Twumasi et al (2018) identified six factors that influence career choices, these include personal interest, prior health care exposure, job availability, academic performance, perceived context of work, and social influences. Similarly, some of these factors were identified by study participants, for example personal interest and prior health career exposure and academic performance contributed directly to the career decisions to enter the nursing profession of the participants.

Upon completion of their initial nurse education the career history of participants was varied, however significantly, all participants gained multiple qualifications after registration and worked across diverse clinical settings, acquiring both additional academic and professional qualifications and clinical experience. Studies examining traits and characteristics of nursing leaders found that higher levels of education and experience led to increased leadership effectiveness (Cummings et al 2008) and participants in this study reflect these findings both in relation to education attainment and prior clinical experience. Nine participants were based in primary care settings across semi-rural / urban localities while the remaining three were based in secondary care services within an urban setting. What is interesting to note is that none of the participants had exposure to living or working on any of the UK islands, during their initial training or at any point in their career before taking up their non- doctor island posts. Kyle et al (2020) found that the international literature highlighted those rural origins and previous exposure during training as have a positive influence on recruitment and retention. Yet, in findings from this study, it is notable that only one participant had previous remote and rural health care experience in the North of Scotland.

Furthermore, Kyle et al (2020) found that pre-nursing clinical exposure helped to established pathways into nursing careers in remote and rural areas. Additionally, Holst (2020) found that remote and rural exposure during medical education increased the likelihood of later returning to remote and rural practice by an average of four times. In an Australian study student placement was to have a positive effect on the likelihood of nurses and allied health students working in a rural or remote location with 31.4% of respondents reported that they had worked in a remote or rural location after graduation (Campbell et al 2021). Therefore, while evidence does demonstrate that some previous exposure to remote and rural health care practice is important for attracting health care professionals, as can be seen from the

participants in this study, this is not always necessary suggesting, there is also opportunity to attract people who have not previously been exposed to remote and rural health care environments into non-doctor island posts.

Participants had quite varied nursing careers. It is noteworthy that two of the participants put their nursing careers on hold when they married partners who were in the armed services, and they lived in various parts of Europe. These participants recalled unpredictable times over the years with both undertaking temporary nursing jobs to maintain competence and their professional registration. Another two participants nursed abroad in Africa and Pakistan although this was only for short periods (<12 months). They recall bringing elements of this experience into their current roles on the non-doctor island. The remaining seven remained within the UK and became senior nurse managers or specialist nurses.

The circumstances that prompted participants to apply for their non-doctor island posts varied but seemed to be prompted by their need for new personal and professional challenges. The findings show that as well as a desire for change, the importance of achieving an improved work life balance was important with six participants noting this as prompting their applications for non- doctor island posts. Participants identified job stresses fuelled by unmanageable workloads, increasing patient demand, and their inability to provide holistic care leading to suboptimal care. Additionally, for some, loss of autonomous professional practice caused professional frustration. One participant described experiencing work-related sickness as a consequence of increased demands. Additionally, participants identified other personal life stresses, such as living in unsafe neighbourhoods and relationship breakups.

The circumstances participants described are also reflected in existing literature. With poor mental health being among the leading reasons for staff absence across Scotland, with 12 out of 14 health boards reporting anxiety, depression and psychiatric illness as the most common reasons for staff anxieties (Ford 2021). Similarly, Kyle et al (2016) found that nurses are living with physical health problems, working long hours with insufficient rest.

Mackay et al (2021) described professional and personal factors influencing a nurse's decision to work in remote and rural practice. Professional factors include generalist practice, advancing clinical practice, empowerment and autonomy. While the personal reasons included sense of belonging, rural culture, work life balance and job satisfaction. In addition to these findings one additional important factor for participants in this study was that the

move to a non-doctor island was a stepping stone to retirement, the average age of the participants in the study was 58 years and most of the participants were in the latter stages of their careers.

Although a change in direction was identified by the all the participants before applying for their non-doctor island posts it is interesting to note that they did not aspire to working in the Scottish islands specifically but simply wanted a change in career and lifestyle. When participants described their application route all but one of the participants discovered the job adverts by chance in the nursing press. For one participant word of mouth and a trip to the non- doctor island whilst on holiday prompted her job application. At the time of application, four nurses were employed in the Northwest of England, two from the central London, three from the south coast of England and two from central Scotland.

Summarising the finding from this first objective it was evident from the analysis that strong support networks that transition from early childhood to early adulthood were an important part of the life history of the participants, along with circumstances that helped to promote independence. The decision to move to a non-doctor island was facilitated by the desire for an improved work life balance, and for most participants this was their last post before retirement.

Objective 2: To understand the experiences of nurses who work on non-doctor islands.
Participants' accounts of living and working on non-doctor islands provided interesting insights about their personal and professional lives. The sub-themes that emerged in relation to the experiences of living and working on the non-doctor islands included, skill decline, professional isolation, lack of social service input, work life balance and anonymity. While each of these subthemes will each be discussed in turn, it is important to note that they are interconnected.

It was clear from participants' accounts that their nursing roles were generic rather than specialist and reflected patient and community health care needs. Similarly, in an Australian study practitioner are seen as multi skilled advanced practitioners with a more generalist approach to care delivery (Muirhead and Birks 2019). One participant described their role as a blend of district nursing with an element of practice nursing with each day offering variation. Areas of care delivery included: paediatrics, obstetrics, long term conditions, and first contact care for major and minor illness. Participant's description of their work is

broadly reflected in literature. Penz et al (2019) and Abelsen et al (2020) found that rural nurses typically are expected to work as generalists with extended scope of clinical practice, and that scope of practice and competence should be relevant and within the context of their working environment. Daly and Jackson (2020) also suggests that the scope of practice should vary according to the needs of the community and that the remote and rural nursing role is very much a generalist approach to prevention, primary care, rehabilitation and acute interventions. It may therefore be important to consider the requirement for wide ranging generalist nursing knowledge and skills when preparing nurses to work in non-doctor islands. A study of a remote and rural midwife by Gilkison et al (2018) noted that midwives have a unique skill set that is underpinned by developing a meaningful relationship, resourcefulness in the context of practice, preparedness and practical application. Its these four elements what was noted in the finding of this study in relation to clinical skills that underpin clinical delivery in on the non-doctor islands.

Due to the on-call commitment there was a need to provide emergency care that included emergency care, stabilisation and retrieval. Despite this variety of practice three participants identified concerns with skill decline. The importance of maintaining clinical competence was fully acknowledged by the participants, however this was not always possible either because of limited practice or access to some training. Importantly, Garside et al (2013) noted that the competence of health care professionals should be explored within a lens relevant to the context to their clinical work. The availability of continuing professional development was available to the participants using on-line platforms (distance learning), and 'off island' training for example, advanced life support (ALS) immediate life support (ILS) and British Association of Immediate Care (BASIC). Despite the perceived convenience of on-line education participants favored the more practical elements with face-to-face contact with their peers. For those nurses who had an acute, hospital care background, skill decline of acute skills was more of a concern than for those participants who had been in community practice. There are numerous terms associated with skill decline in the literature for example, skill loss, decay and decline. Maehle et al (2017) in a scoping review uses decay and defines this as the loss of trained skills and knowledge after a period of non-use. They go on to identify the importance of maintaining skills relating to emergency care irrespective of how often they are required and utilised, with particular settings having a higher risk of skill decay for example, the military and health care professions in remote and rural practice (Maehle et al 2017). In a study of remote and rural Midwives Gilkinson et al (2018) noted the importance

of hands-on training especially with skills for example, advanced life support was important in maintaining competence.

The importance of accessing continuing professional education opportunities was also closely linked to concerns of professional isolation. Abelsen et al (2020) describes how health care professionals working to deliver safe and effective health care across remote and rural settings require a broad range of skills that are supported by ongoing professionals education, training and competence. All participants spoke more generally about their continuing professional development. Three of the participants described how online learning activities helped them to meet their minimum education requirements but did little for their own personal and professional development. Limitations identified included training packages that did not change from year to year and at times problematic connectivity. The use of distance learning is often seen as the answer to supporting remote and rural learners. Advantages include the ability to study anywhere, anytime, cost effectiveness in saving travel and commuting time (Ferri et al 2020). In the study 'Effectiveness of distance learning strategies for continued professional development (CPD) for rural allied health practitioners' Berndt et al (2017) identified that continued professional development minimizes professional isolation, enhances service delivery and quality improvement, and supports staff in recruitment and retentions. While participants in this study accessed online education, it is also important to note that they valued face-to-face opportunities and the opportunity to meet with colleagues. Similarly, Adams et al (2019) noted that socialisation in the workplace creates a sense of belonging to the health care profession.

Adams et al (2019) suggests that health care professionals are completely unprepared for the breath of their scope of practice and the additional professional isolation in relation to remote and rural health sectors. Adams et al (2019) noted that several aspects contribute to professional isolation, these include physical distance from peers, separation from the learning environment, and finally the blurring of professional and personal boundaries. Abelsen et al (2020) identified that health professionals often travel to urban centres and undertake training that lacks relevance to their clinical roles. While evidence strongly suggests that online learning is identified as an accessible approach to support remote nurses, participants in this study favored a combination of online and face-to-face engagement and in particular this helped them to combat feelings of professional isolation. Ultimately, this factor may also contribute to staff retention.

Due to the nature of the non-doctor islands, there is an expectation that nurses provide an on-call service. The on-call commitment is over 24 hours (24/7) 365 days a year out with the traditional 09:00 17:00 working hours and includes weekends. Findings were mixed when participants described their work rotas. Two of the participants discussed on-call as being part of their role and they just got on with it and were happy for the community to contact them directly rather than going via the NHS 24 call service. Another three participants found the call system restrictive and a significant challenge in sustaining a work life balance. Two of the participants described their inability to switch off during this period, leading to no 'down time'. Three participants felt unable to undertake activities that took them off island or out with contactable range. This combination of factors left six of the participants feeling 'trapped' by the community to which they live and work.

There is minimum evidence that looks specifically at the role of on-call for nurses in remote and rural practice. In one study about specialist rural retention Allen et al (2020) notes that the on-call was a significant cause of job dissatisfaction and was a contributing factor to the decision to leave. A briefing paper published by the Scottish School of Primary Care Remote and rural general practice in Scotland (Douglas 2013) noted that challenges do exist across remote and rural settings including 24 hours on call, however these challenges were described as 'not better, not worse, just different'. While participants in this study had mixed feelings about their work rotas, the impact this had on individuals work life balance is nevertheless an important consideration and a significant finding of this study.

Challenges with personal isolation were also experienced. Two of the participants identified that isolation was a real issue for them; one discussed how they had seen a significant turnover of staff with three new members of staff in a six-year period and attributed this to isolation. One participant described isolation within the wider context of island dynamics, feeling unable to speak openly leading to social withdrawal. Another described how they never realised how isolating the non- doctor islands could be and also the difficulties around having and maintaining friendships.

Lack of anonymity was closely associated with personal isolation. This was identified by four of the participants as being problematic. One participant described the island 'as having hold of you even in your daily lives coming and going'. Another participant suggested that 'there are times when you feel owned by the community' One participant compared living and working on a non-doctor island as like living in a goldfish bowl 'where people are always

fishing around for information'. For one participant, the lack of anonymity did not cause any issues, suggesting that it was important to understand island life.

Lack of anonymity is a key theme in the literature experienced by health care professionals working in remote and rural areas. Mackay et al (2021) and Rohatinsky and Jahner (2016) discussed an imbalance between personal life and professional life and that remote and rural nurses are often stripped of their own anonymity, this often leaving them feeling as though they are living in a fishbowl. Miedema et al (2009) discussed in a study of physicians how difficult it can be to establish boundaries between private and personal life. Similarly, Daly and Jackson (2020) described how the remote nurse undertakes dual roles of nurse and community member. The relationship and communication networks in small communities often means that very little goes amiss without being seen by others and lack of anonymity intertwines with personal and professional lives. One example given by Daly and Jackson (2020) is the comparison between urban and rural nursing. Within the urban hospital setting the care providers knows the immediate family of the patients. However, in remote and rural settings the nurses are visible and are known to the wider community's immediate family and extended family. This community visibility as noted by Daly and Jackson (2020) was also noted within this study and proved a challenge to work life for some participants. Furthermore, Dale et al (2020) noted the importance of privacy and confidentiality and the importance to establish clear boundaries between private and work life. Campbell et al (2019) offers a contrasting view of anonymity, suggesting that nurses create complicated relationships with patients as part of their nursing assessments, they are also part of the wider community. However, Campbell (2018) noted that although privacy and confidentially may be big issues across remote and rural practice, it ultimately can be managed with close attention to settings, governance and communication.

The lack of direct care from social services and other organizations was identified as problematic. One participant described the nursing role as doing 'a little bit of everything' for example personal care as well as social care. Another described the lack of social care as "difficult, they seem to rely on us a lot". Other participants described not getting much sleep, being the sole professional for a palliative patient and providing both health and social care. These findings are not new and Abelsen et al (2020) noted that health care professionals often work in isolation without the accessibility to specialist resources or other allied health care professionals. Similarly the international literature identifies limited resources and a lack of

professional support creates ethical challenges that directly interfered with patient care and negatively affected the well-being of patients (Frezza and Beltren 2017).

In summary, the findings from this second objective shows that the skills needed to work on such islands cover both long term and acute care provision and thus are more generic in nature rather than specialist. Access to CPD is important to maintain skills and education should be accessible, relevant and include both on-line and face-to-face to help combat professional isolation.

One of the key challenges identified from this study was the on-call provision. Possibly, the model of 24-hour cover 365 days a year is one that is unsustainable long-term, ultimately affecting work life balance and opportunities for down time. This was further exacerbated by the lack of social support during times of increased workload i.e., palliative care.

The finding from this second objective add to the international and national literature is that although the challenges of skill decline, on call provision, lack of social input and personal and professional anonymity all contribute to the overall challenges of working and living on a non-doctor island. One of the key findings from this study is that the participants adaption to overcome these short-term challenges in order to sustain a work force that is suitably placed to manage the complexity of the non- doctor islands.

Objective 3: To understand the reasons nurses remain or leave their employment on non-doctor islands.

Objective three will be discussed in two parts. Firstly, the reasons why nurses remain in a non-doctor island post which include the sub-themes of community acceptance, professional autonomy and work life balance. The second part will consider why nurses leave non-doctor islands including retirement decisions.

A key finding that supported retention to the non-doctor islands was community acceptance of the non-doctor island nurses. Objective one identified that none of the participants had any connection to the non-doctor islands, a finding that is largely contradictory of existing evidence that suggests family and personal connections are a significant factor in recruitment and retention. Yet, in this study acceptance - that included a sense of belonging and integration into the community was important with five of the participants discussing how they had been accepted and that the non-doctor island communities appreciated their

presence, providing gifts of ‘crabs, fish, eggs, and vegetables and the occasional invitation to dinner’. Community acceptance also extended to partners and spouses. One participant discussed how their partner is a joiner and is always busy and had been welcomed into the wider community helping to support the wider infrastructure. Linked to community acceptance is social integration. For example, one participant discussed how the non-doctor island community all help each other and look after each other and that she felt welcomed into the island and did a lot of baking for island events. Another participant discussed how she attended the majority of island events and that she attended church on a regular basis.

The findings show that acceptance and social integration are an important aspect for settling into island life and helping to support decisions to remain in post and this finding is supported by existing evidence. It is notable that participants did make reference to a settling in period, one participant talked about needing time to understand the hierarchy of island life before she felt comfortable, while another described the first few months as a steep learning curve. Stutzman et al (2020) in an international study discussed the importance of the physicians and patient relationship and highlighted the relationship between the doctors and the patient helps overcome the harder aspects of working in remote and rural areas.

Similar findings were identified by Cosgrave et al (2019) with the importance of meeting people and the development of social networks as important aspect contributing to retention of health care professionals across remote and rural settings. The participants in this study also discussed the importance of close networks as they were growing up. Similarly, the importance of social interaction with others for example community engagement, fishing, photography, sailing, swimming and going the gym was noted by study participants. This engagement with personal interests and hobbies and the ability to make time to pursue interests is an important aspect in avoiding burnout (Stutzman et al 2020). Keane et al (2012) noted that community engagement and personal relationships was seen as a powerful motivator to retention and that attachment was an essential human process for successful adjustment to new working and living environments.

In an international framework developed across five countries, Sweden, Norway, Canada, Iceland and Scotland (Abelsen et al 2020), titled ‘plan, recruit and retain’ it is noted that family and spouse acceptance within the community was an important aspect in the retention of the participants. Additionally, Abelsen et al (2020) confirmed that a lack of work opportunities from the family/ spouse was a barrier to both recruitment and retention.

Similarly, in this study both the integration of family members into the island community and availability of work were of particular importance to participants.

In the previous objectives, a number of professional challenges associated with working on non-doctor islands was noted; these included on call systems, professional isolation and skill depreciation. Conversely, participants also enjoyed their professional autonomy working as non-doctor island nurses with eight participants noting this as a reason why they remained on the non-doctor islands. The participants described professional autonomy in a number of ways, including the freedom it brought to clinical practice, making independence clinical decisions, care planning and prescribing without being micromanaged. Participants also connected professional autonomy to holistic care provision; this included time to see patients and getting to know the wider family including their hopes and aspirations.

In a synthesis of 35 Australian and 21 American research studies, professional autonomy was identified as a key factor for retention across remote and rural practice (Mbemba et al 2016. Additionally, challenges in remote and rural practice, for example lack of support services, inclement weather, transportation logistics force nurses to take on greater decision-making responsibilities (Macleod et al 2017). Subsequently these nurses experience greater levels of professional autonomy and flexibility in how they interoperate boundaries of clinical practice, thus ultimately bring rewards to difficult challenges (MacKay et al 2021). This study also shows that professional autonomy could be both challenging and rewarding, prompting concerns about professional isolation and lack of other health and social care professionals whilst at the same time providing greater opportunity for autonomous practice.

An improved work life balance was identified as a significant factor for retention to the non-doctor islands. Six participants discussing how a work life balance was a positive outcome of their move to the island. One participant tells how she has an excellent work life balance and “It’s this lifestyle that keeps me here”. The finding from this study have identified that a work life balance is a fine balancing act between personal and professional demands when working and living on non-doctor island this balance between work life and personal life have already been discussed in previous objectives.

The second part of this objective was to understand the reason why nurses leave employment from their non-doctor island posts. At the time of interviews, the participants were in post for an average of 9.5 years and the main reason for leaving posts was retirement. Three of

the participants were planning for retirement and looking at ways to be financially secure before making that final decision. Furthermore, three participants noted a move to a non-doctor island saw them follow dreams and a better work life balance to ease them into retirement. The evidence of this transition to retirement is seen within the literature. Stockdale et al (2013) acknowledged that shift in employment to retirement is no longer a sudden abrupt life event, it is seen as a catalyst for change, to incorporate residential preferences, attributes to working patterns, lifestyle and marital relations, thus more as a behavioural change. The experiences of participants do reflect Stockdale et al (2013) findings in that the participants articulated the importance of a transition into retirement and used the move to a non- doctor island as a stepping stone to that phase of their lives.

The international literature goes some way in trying to answer why health care professional leave remote and rural practice. Cosgrave et al (2018) asserted that retention across Australia and other developed countries was influenced by three factors: workplace conditions, career advancement (CPD) and social and personal factors. While findings from this research noted similar influences, the most common reason for participants leaving their non-doctor island post is retirement. However, to what extent these three factors identified by Cosgrove et al (2018) influence the decision-making for retirement has not been identified within this research.

In summary, findings from the third objective identify that a work life balance that includes professional autonomy and community integration were important retention factors for participants. The key contributing factors for nursing turnover on the non- doctor islands at this time is retirement. This study was the first in the UK to explore the life history of nurses living and working on non- doctor islands in the North of Scotland. The life history provided a method from which participants perspectives of life events provided some context that may have influenced their decisions to work on non-doctor islands (De Chesnay 2016). Additionally, this is also the first study to specifically examine the work life of nurses working on non-doctor islands. Findings from this study are important to help inform health professional recruitment and retention strategies for these remote island communities.

5.3 Implications of research findings

The Islands (Scotland) Bill (2017) set out to provides a policy framework which aims to improve day-to-day outcomes for island communities in Scotland. This includes ‘island proofing’ requiring relevant authorities, including the majority of public bodies like health,

to have regard to island communities in carrying out their functions. It is of ongoing importance that fragile remote and rural communities, including non-doctor islands in Scotland continue to receive current and relevant health care to both sustain these fragile populations and enable them to flourish. Yet, recruitment and retention of health care professionals to non-doctor islands and other remote and rural Scottish areas remains challenging, a situation that has further been exacerbated due to the COVID pandemic. It is important therefore that policy makers and local health care providers have insight into factors influencing recruitment and retention and use available evidence to inform creative solutions for workforce provision and health care delivery.

This study makes a unique contribution to existing evidence in a number of ways. It is the first study to focus specifically on recruitment and retention of nurses to non-doctor islands in Scotland. This is important as existing evidence, both international and national normally focus on remote and rural localities, but not specifically on islands. Additionally, even within the Scottish islands culture and communities can vary significantly and what is applicable to one group of islands may not be so relevant for another island group. For example, it was interesting to note that island origin did not feature as highly in this study as a recruitment and retention factor as in previous research and it may be that origin is less important in non-doctor islands than other factors such as lifestyle and communities. The study has also used a life history methodology that was helpful for enabling participants to recollect key events in their lives which may have ultimately shaped their decision to work on non-doctor islands.

The following sets out key recommendations for policy, practice, and research specifically in relation to health care professionals living and working on non-doctor islands. The recommendations will also have wider relevance for other remote and rural communities.

- Develop recruitment strategies that have national and international appeal. Participants in this study came from different social and professional backgrounds from across the UK and did not have any previous connection to the islands. It is important that recruitment information has the widest reach possible using both professional press sources and social media. Furthermore, when considering recruitment strategies for non-doctor islands it may be helpful to highlight the key personal and professional attributes that may be viewed as favourable for potential candidates, as reported in this study. For example, emphasising the

opportunity to work autonomously and leading the planning and delivery of health care for the island communities.

- The second recommendation is to make these posts more attractive to a younger nursing workforce. This research has shown that non-doctor island posts are a stepping stone for retirement with the average age of the current nurses 58 years old. There are two perspectives here and both should be considered. While it is important to continue to attract the older age range of professionals, attracting younger people is equally important. This can be achieved by implementation of a remote and rural pathway. The finding from this research have shown the importance of continued professional development (CPD). This remote and rural pathway would provide a bespoke and nationally recognised qualification that is linked to career progression and is nationally (and internationally) recognised. This would see a rotational model being implemented that allows the nurse to rotate between primary and secondary care as well as the non-doctor islands. This will be linked to career progression and clinical competence and see nurses progress from band 5 to band 8 advanced nurse practitioners with the academic portfolio to match for example, non-medical prescribing, and masters level study. Furthermore, this proposed model will see health boards 'grow' their own sustainable workforce that meets the demands of remote and rural practice.

- Continued professional development (CPD) is an important aspect in retention to the non-doctor islands. Liking this with the previous suggestion of remote and rural pathways the current non-doctor island nurses have the opportunity to work across multi agency for example HMRC Search and Rescue, Coast Guard and the Scottish Ambulance Service. The development of a skills framework with monthly opportunity to develop and maintain competence in emergency skills, for example advanced life support, defibrillation, cannulation, intravenous drug administration which would go some way in supporting clinical competence and allow for the mutual understanding of their varied roles but also help elevate the fear of the on-call periods where they currently feel isolated, but will also help in supporting other services in understanding the unique and the skills available of the non-doctor island nurses.

- The relocation to a non-doctor island can be daunting for potential recruits. However, there is a lack of readily available information about working on the non-doctor islands as a health care professional provided as part of the recruitment process. With each island having its own unique infrastructure and challenges the opportunity for collaborative working between the health boards, local authority and the third sector would be advantageous. Allowing the opportunity for potential recruits to explore opportunities of employment for spouse or family as well as schooling and other basic needs for example shops, churches etc. It is further important to have a robust orientation plan in place for new practitioners, implementation of formal buddying system and a plan of ongoing support and professional development opportunities,

- A further recommendation would be to have a member of the community represented on the interview panel. This would allow for the candidate to ask questions pertinent to the individual islands that perhaps would have been unanswered. Additionally, a planned visit as part of the recruitment process to allow candidates to see each island first- hand and the challenges these bring would also be seen as advantageous.

- Working and living on a non-doctor island has the potential for job dissatisfaction and burnout especially at times of increased peak demands. What has been noted in the findings is that each non-doctor island has its own unique infrastructure. A recommendation from this study would be to incorporate key members of the island communities in the strategic planning of health care delivery, in that care services must be developed in the community, with the community involvements and services delivered for the community.

- Although the turnover of staff was relatively stable on the non-doctor islands at the time of the study, the finding has shown little in the way of contingency planning to address sickness, annual leave and maternity with some of the nurses reporting feeling trapped by the islands. A recommendation from this study would be to have a pool of nurses who have the relevant clinical experience, including retired nurses who and want occasion clinical work. This would allow for continuity of care as well as minimal interruption in service delivery in the

event of unexpected absence. It would also provide a break for those currently in post, thus mitigating feelings of entrapment which would again support work life balance.

- The final recommendation from this research would be to provide student placement experience as part of their undergraduate / post graduate education. The opportunity to study remote and rural nursing is limited with only a few Scottish universities provide island placements but none to non-doctor islands. The findings have shown the importance of clinical exposure to remote and rural settings in the overall recruitment and retention of health professionals. Universities who provide nurse education in these areas should provide theory on remote and rural nursing as well as offering the opportunity for placement nationally, for example the non-doctor islands. Additionally, placements could be provided for trainee advanced nurse practitioners This would provide a unique experience where true holistic, family orientated, and timely care is at the heart of modern nursing and medicine. This also links back to the first recommendation regarding recruitment.

5.4 Limitations of this study

There are several limitations associated with this study. First, it was conducted on a single workforce population i.e., nurses who work on non-doctor islands. It may also be helpful to include other health professionals for example physiotherapies, pharmacists and ambulance staff in the study however nurses are the health care professionals who provide a constant health care presence on these islands,

Second, this research was limited to Northern Scotland and therefore may not be representation of the wider United Kingdom.

The third limitation was the face-to-face interviews. This method was chosen to get a first-hand appreciation of the non- doctor islands and to understand some of the challenges of accessibility in getting on and off the non-doctor islands. However, this was a costly option and limited the sample size due to accessibility and availability of the participants. If this study were to be repeated then the use of remote technologies such as video conferencing

would be more advantageous in view of its cost effectiveness, ease of use and non-reliant of weather and transport, i.e., boats and aeroplanes.

The sample size was relatively small with only eleven participants and could be identified as a limitation. However, the total population of the non- doctor islands is nineteen, and eleven participants in this study represented 57% of that population. Vasileiou et al (2018) note that over recent years the emphasis has moved away from looking at pre- occupied sample sizes to more how these relate to the context of the overall study and relative design and research question. This small sample size allowed for a more in-depth and purposeful analysis that fundamentally underpinned this research.

5.5 Ethical Implications.

A detailed review of the ethical challenges prior to undertaking this study was discussed in chapter five. This study was completed with all the aforementioned ethical consideration taken into consideration. There were not ethical issues identified with pre / post data collection. All the participants who undertook the study were keen to share their life history and clinical experiences and provided and open accounts of their life history. The individual transcripts were sent back to the participants for them to review and comments and consent for their use in this research. Only one of these needed modifications at the request of the participant.

5.6 Conflicts of Interest

No conflict of interest was declared.

5.7 Funding

There was no additional funding used for this final project. However, funding was provided for the academic elements of the clinical doctorate. The following sources provided funding to support my academic journey.

- Royal College of Nursing Foundation grant
- Royal College of Nursing nurse's hardship grant
- The Worshipful Company of Barbers (Barber surgeons educational support grant)

Out with the above the remainder of the academic fees, travel costs was self-funded.

5.8 Research Dissemination.

The finding from the research will be disseminated in several ways. Stakeholder engagement will be the first primary source of dissemination. This will include direct feedback to each of the Scottish health boards that agreed to support this research i.e., NHS Orkney, NHS Shetland and NHS Highland. Findings will also be submitted for publication in the peer reviewed journal, European Journal of rural and Remote Health (See appendix seven). An abstract and summary of the research will be submitted to the faculty of remote, rural and humanitarian that affiliate with The Royal College of Surgeons Edinburgh for their annual conference.

5.9 Future Directions for Research

The finding from this research offers a foundation for further exploration of the unique role of non-doctor islands both nationally and internationally. This is the first study of its kind to use a life history methodology in understanding the factors that influence recruitment and retention to the non- doctor islands. The model of health care across non- doctor islands is unique and the notion of "one (health care) size fits all" does not apply here. More research is needed to further support the nurses who undertake this unique nursing role.

5.10 Personal Reflection

In chapter one I provided an overview of my life history exploring my own personal and professional reasons why I moved from Liverpool to Shetland. Although I had a good insight into my own motivational factors that influenced my decision making at that time, I felt it was important to understand the stories of other nurses who made similar decisions to relocate to the non-doctor islands. The motivation for undertaking this research was clear in that I wanted to understand why nurses went into remote and rural practice, specifically non-doctor island across Northern Scotland. I wanted to know what was the driving forces behind this move but like others I also felt it was important that evidence was needed to help recruit and retain health care professionals to these areas. As a nurse, I understood how much the community valued and needed good access to health care despite living remotely.

5.11 Summary

The use of a life history methodology has underpinned this study, thus provided a truly unique insight into the lives of the nurses who live and work on non-doctor islands. The

uniqueness of this methodology and the insight provided by the participants has brought new understanding of the nurses who work in non-doctor islands and their personal and professional lives. With the help of the participants from this study, sharing their own life histories this research has revealed what is important to them living and working on non-doctor islands, and their commitment to the island communities where they work.

References

Abelsen, B., Strasser, R., Heaney, D., Berggren, P., Sigurðsson, S., Brandstorp, H., Wakegijig, J., Forsling, N., Moody-Corbett, P. and Akearok, G.H. (2020) Plan, recruit, retain: a framework for local healthcare organizations to achieve a stable remote rural workforce. *Human Resources for Health,* 18 (1), pp. 1-10.

Adams, M.E., Lazarsfeld-Jensen, A. and Francis, K. (2019) The implications of isolation for remote industrial health workers. *Rural and Remote Health,* 19 (2), pp. 1-10.

Adams, W.C. (2015) Conducting semi-structured interviews. Handbook of Practical Programme Evaluations 4, pp 492-505

Adriansen, H.K. (2012) Timeline interviews: A tool for conducting life history research. *Qualitative Studies,* 3 (1), pp. 40-55.

Akosah-Twumasi, P., Emeto, T.I., Lindsay, D., Tsey, K. and Malau-Aduli, B.S. (2018) A systematic review of factors that influence youths career choices—the role of culture. *Frontiers in Education.* Frontiers, pp. 58.

Alderwick, H. and Dixon,J, (2019) The NHS Long Term Plan. BMJ (Clinical research Ed 364, PP.271-292.

Allen, P., May, J., Pegram, R. and Shires, L. (2020) 'It's mostly about the job' - putting the lens on specialist rural retention. *Rural and Remote Health,* 20 (1), pp. 5299.

Al-Yateem, N. (2012) The effect of interview recording on quality of data obtained: A methodological reflection. *Nurse Researcher,* 19 (4).

Arbon, P. (2004) Understanding experience in nursing. *Journal of Clinical Nursing,* 13 (2), pp. 150-157.

Archibald, D., Patterson, R., Haraldsdottir, E., Hazelwood, M., Fife, S. and Murray, S.A. (2016) Mapping the progress and impacts of public health approaches to palliative care: a scoping review protocol. *BMJ Open,* 6 (7), pp. e012058.

Arksey, H. and O'Malley, L., 2005. Scoping studies: towards a methodological framework. *International journal of social research methodology*, *8*(1), pp.19-32.

Arvinth, K. (2015) *International Business Times: United Kingdom Edition (UK),*

Atkinson, P., Coffey, A., Delamont, S., Lofland, J. and Lofland, L. (2001) *Handbook of ethnography.* Sage.

Atkinson, R. (1998) *The life story interview.* Sage Publications. London

Attride-Stirling, J. (2001) Thematic networks: an analytic tool for qualitative research. *Qualitative Research,* 1 (3), pp. 385-405.

Auer, K. and Carson, D. (2010) How can general practitioners establish 'place attachment' in Australia's Northern Territory? Adjustment trumps adaptation. *Rural and Remote Health,* 10 (4), pp. 1476.

Backman, K., Paasivaara, L. and Nikkonen, M. (2006) Biographical Research in Nursing Science—Two Studies as Examples of Method Application. *Vård i Norden,* 26 (1), pp. 9-14.

Bailey-Morrissey, C. and Race, R. (2019) The lived experiences of black women leaders: Barriers to progression. *Race, Education and Educational Leadership in England: An Integrated Analysis,* pp. 121.

Bakar, Noor Rahamah Hj Abu and Abdullah, M.Y.H. (2017) The life history approach: Fieldwork Experience, 5 (1).

Ballis Lal, B. (2007) Robert E. Park, Ernest W. Burgess, and Urban Social Research. *The Blackwell Encyclopaedia of Sociology*

Barrow, J.M., Brannan, G.D. and Khandhar, P.B. (2021) Research Ethics. *StatPearls.* Treasure Island (FL): StatPearls Publishing LLCJan.

Bashan, B. and Holsblat, R. (2017) Reflective journals as a research tool: The case of student teachers' development of teamwork. *Cogent Education,* 4 (1), pp. 1374234.

Bastian, H., Glasziou, P. and Chalmers, I. (2010) Seventy-five trials and eleven systematic reviews a day: how will we ever keep up? *PLoS Medicine,* 7 (9), pp. e1000326.

Becker, H.S. (1970) Sociological work: method and substance. New Brunswick.

Berger, R,J. (1995) Agency, structure and Jewish survival of the Holocaust. A life history study. The Sociological Quarterly, 36 (1), pp. 15-36

Berndt, A., Murray, C.M., Kennedy, K (2017) *Effectiveness of distance learning strategies for continuing professional development (CPD) for rural allied health practitioners: a systematic review.* British medical Council. Available: https://doi.org/10.1186/s12909-017-0949-5 .

Borracci, R., Arribalzaga, E.B., Couto, J.L., Dvorkin, M., Guerrero, R.A.A., Fernandez, C., Ferreira, L.N. and Cerezo, L. (2015) Factors affecting willingness to practice medicine in underserved areas: a survey of Argentine medical students.

Braun, V. and Clarke, V. (2006) Using thematic analysis in psychology. *Qualitative Research in Psychology,* 3 (2), pp. 77-101.

Braun, V. and Clarke, V. (2013) *Successful qualitative research: A practical guide for beginners.* sage.

Bremner, N. (2020) Time for timelines. The take home timeline as a tool for exploring complex life histories. International journal of Qualitative Methods.

Bruce, D. and Parry, B. (2015) Integrated care: a Scottish perspective. *London Journal of Primary Care,* 7 (3), pp. 44-48.

Bryman, A. (2016) *Social research methods.* Oxford university press.

Bushy, A. and Leipert, B.D. (2005) Factors that influence students in choosing rural nursing practice: a pilot study. *Rural and Remote Health,* 5 (2), pp. 387.

Bushy,A. and Baird-Crooks, K. (2000) Orientation to nursing in the rural community Angeline Bushy, with Katheryn, Bair-Cooks. (et al) Thousand Oakes, CA: London, Sage, 2000

Buykx, P., Humphreys, J., Wakerman, J. and Pashen, D. (2010) Systematic review of effective retention incentives for health workers in rural and remote areas: towards evidence-based policy. *Australian Journal of Rural Health,* 18 (3), pp. 102-109.

Caldwell, D.R. (2007) Bloodroot: Life stories of nurse practitioners in rural Appalachia. *Journal of Holistic Nursing,* 25 (2), pp. 73-79.

Cameron, P.J., Este, D.C. and Worthington, C.A. (2010) Physician retention in rural Alberta: Key community factors. *Canadian Journal of Public Health,* 101 (1), pp. 79-82.

Cameron, P., J., Este, D., C. and Worthington, C., A. (2012) Professional, personal and community: 3 domains of physician retention in rural communities. *Canadian Journal of Rural Medicine,* 17 (2), pp. 47-55.

Campbell, K.A., MacKinnon, K., Dobbins, M., Van Borek, N. and Jack, S.M. (2019) Weathering the rural reality: Delivery of the Nurse-Family Partnership home visitation program in rural British Columbia, Canada. *BMC Nursing,* 18 (1), pp. 1-14.

Campbell, N., Eley, D. and McAllister, L. (2013) What does personality tell us about working in the bush? Temperament and character traits of Australian remote allied health professionals. *Australian Journal of Rural Health,* 21 (5), pp. 240-248.

Campbell, N., Farthing, A., Lenthall, S., Moore, L., Anderson, J., Witt, S. and Rissel, C. (2021) Workplace locations of allied health and nursing graduates who undertook a placement in the Northern Territory of Australia from 2016 to 2019: An observational cohort study. *Australian Journal of Rural Health,* 29 (6), pp. 947-957.

Campbell, S. (2018) The bush telegraph: an overview of privacy and confidentiality concerns in rural and remote healthcare.

Campbell, D., Shepherd, I., McGrail, M., Kassell, L., Connolly, M., Williams, B. and Nestel, D. (2016) Procedural skills practice and training needs of doctors, nurses, midwives and paramedics in rural Victoria. *Advances in Medical Education and Practice,* 6, pp. 183-194.

Cleland, J., Johnston, P.W., Walker, L. and Needham, G. (2012) Attracting healthcare professionals to remote and rural medicine: Learning from doctors in training in the north of Scotland. *Medical Teacher,* 34 (7), pp. pp476.

Coffelt, T. (2017) Confidentiality and anonymity of participants.

Colaizzi, P. (1978) *Existential phenomenological alternatives for psychology.* New York: Oxford university press.

Colquhoun, H.L., Levac, D., O'Brien, K.K., Straus, S., Tricco, A.C., Perrier, L., Kastner, M. and Moher, D. (2014) Scoping reviews: time for clarity in definition, methods, and reporting. *Journal of Clinical Epidemiology*, 67 (12), pp. 1291-1294.

Conomos, A, M. Griffin, B, and Baunin, N. (2013) Attracting psychologists to practice in rural Australia. The role of work values and perceptions of the rural work environment. Australian Journal of Rural Health, 21 (2), PP. 105-111

Cosgrave, C. Malatzky, C and Gillespie, J. (2019) Social determinants of rural health workforce retention: a scoping review. International Journal of Environmental Research and Public Health, 16 (3), pp 314

Cosgrove, C. Maple, and Hussain, R. (2018) An explanation of turnover intention among early career nursing and allied health professionals working in rural and remote Australia-Findings fro a grounded theory study. Rural and Remote Health 18 (3)

Creswell, J. (2013) *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches (Creswell, Research Design: Qualitative, Quantitative, and Mixed Methods Approaches).* 4th ed. California: Sage Publications.

Creswell, J.W. and Creswell, J.D. (2017) *Research design: Qualitative, quantitative, and mixed methods approaches.* Sage publications.

Critical Appraisal Skills Programme (2018) CASP Systematic review checklist.

Crotty, M. (1998) Introduction: The research process. *The Foundations of Social Research: Meaning and Perspective in the Research Process*, pp. 1-17.

Cummings, G., Lee, H., MacGregor, T., Davey, M., Wong, C., Paul, L. and Stafford, E. (2008) Factors contributing to nursing leadership: a systematic review. *Journal of Health Services Research & Policy*, 13 (4), pp. 240-248.

Cvencek, D., Greenwald, A.G. and Meltzoff, A.N. (2016) Implicit measures for preschool children confirm self-esteem's role in maintaining a balanced identity. *Journal of Experimental Social Psychology,* 62, pp. 50-57.

Daly, J. and Jackson, D. (2020) *Contexts of nursing: An introduction.* Elsevier Health Sciences.

Daniels, Z.M., VanLeit, B.J., Skipper, B.J., Sanders, M.L. and Rhyne, R.L. (2007) Factors in Recruiting and Retaining Health Professionals for Rural Practice. *Journal of Rural Health,* 23 (1), pp. 62-71.

D'Antonio, P. Connolly, C. Wall, B.M. Whelan, JC. And Fairman, J. (2010) Histories of Nursing. The power and the possibilities. Nursing Outlook, 58 (4) pp 207-213

De Chesnay Mary (2015) *Nursing research using life history: qualitative designs and methods in nursing.* New York, New York: Springer Publishing Company.

Dejonckhee, M and Vaughn, LM (2019) Semi structured interviewing in primary care research: a balance of relationship and rigor. Family medicine and Community Health (2)

DeLyser, D. Herbert,S, Aitken, S. Crang, M. and McDewell, L (2009) The SAGE handbook of qualitative geography SAGE publications.

Denscombe, M. (2010) The Good Research Guide. 4th ed. Maidenhead.

Dolea, C., Stormont, L. and Braichet, J. (2010) Evaluated strategies to increase attraction and retention of health workers in remote and rural areas. *Bulletin of the World Health Organization,* 88 (5), pp. 379-385.

Doody, O. and Noonan, M. (2013) Preparing and conducting interviews to collect data. *Nurse Researcher,* 20 (5).

Dotson, M.J, Dave, D.S, Cazier, J.A. and McLeod, M.D. (2013) Nurse retention in rural united states: A cluster analytic approach. *International Journal of Healthcare Management,* 6 (3), pp. 184-191.

Douglas, J., M. (2013) *Dewar 2013, conference Report.* Dewar Group. Available: https://www.hebrideanconnections.com/subjects/61879

Dworkin, S, L. (2012) Sample size policy for Qualitative Studies using in depth interview.

Dywili, S., Bonner, A., Anderson, J. and O' Brien, L. (2012) Experience of overseas-trained health professionals in rural and remote areas of destination countries: A literature review. *Australian Journal of Rural Health,* 20 (4), pp. 175-184.

Eccles, J. (2011) Gendered educational and occupational choices: Applying the Eccles et al. model of achievement-related choices. *International Journal of Behavioral Development,* 35 (3), pp. 195-201.

Edwards, S., Da Silva, Ana L Sergio, Rapport, F.L., McKimm, J. and Williams, R. (2015) Recruitment of doctors to work in our hinterland': first results from the Swansea Graduate Entry into Medicine.

Eley, D.S., Synnott, R., Baker, P.G. and Chater, A.B. (2012) A decade of Australian Rural Clinical School graduates - where are they and why? *Rural and Remote Health,* 12 (1).

Elliott, V. (2018) Thinking about the coding process in qualitative data analysis. *The Qualitative Report,* 23 (11), pp. 2850-2861.

Ferri, F, Grifoni, P and Guzzo, T. (2020) Online learning and emergency remote teaching opportunities and challenges in emergency situations. Societies, 10 (4) pp 86

Fetlar Development LTD (2018) Fetlar, Fetlar Development LTD. Available https://www.fetlar.org/

Fisher, K.A. and Fraser, J.D. (2010) Rural health career pathways: research themes in recruitment and retention. *Australian Health Review,* 34 (3), pp. 292-296.

Ford, M. (2021) *Scottish nurses exhausted and many thinking about quitting.* Nursing Times. Available: https://www.nursingtimes.net/news/workforce/scottish-nurses-exhausted-and-many-thinking-about-quitting-finds-survey-13-05-2021/ .

Frezza, E. and Beltran, C. (2017) Ethical Nursing Conflicts in Rural Health. *J Epidemiology Public Health Rev,* 2 (1).

Garside, J.R. and Nhemachena, J.Z. (2013) A concept analysis of competence and its transition in nursing. *Nurse Education Today,* 33 (5), pp. 541-545.

Gati, I. and Saka, N. (2001) High school students' career-related decision-making difficulties. *Journal of Counseling & Development,* 79 (3), pp. 331-340.

Gerrish, K. and Lacey, A. (2010) *The research process in nursing.* John Wiley & Sons.

Gigha Heritage Trust (2021) The isle of Gigha. Gigha Heritage Trust. Available: http://www.gigha.org,uk

Gilburt, H. (2016) Supporting integration through new roles and working across boundaries. Kings Fund London.

Gilison, A. Rankin, J. Kensington, M, Daellenbach, R. Davies, L. Deery, R and Crother, S. (2018). A Woman's hand and a lions heart. Skills and attributes for rural midwifery practice in New Zealand and Scotland. Midwifery, 58, PP 109-116

Gillham, S. and Ristevski, E. (2007) Where do I go from here: We've got enough seniors? *Australian Journal of Rural Health,* 15 (5), pp. 313-320.

Glendinning, A., Nuttall, M., Hendry, L., Kloep, M. and Wood, S. (2003) Rural communities and well-being: a good place to grow up? *The Sociological Review,* 51 (1), pp. 129-156.

Goodridge, D and Marciniuk, D.(2016) Rural and remote care. Overcoming the challenges of distance. Chronic respiratory disease, 13 (2), pp 192-203

Goodson, I. (2001) The story of life history: Origins of the life history method in sociology. *Identity: An International Journal of Theory and Research,* 1 (2), pp. 129-142.

Grady, P.A. and Gough, L.L. (2014) Self-management: a comprehensive approach to management of chronic conditions. *American Journal of Public Health,* 104 (8), pp. e25-e31.

Gray, A. (2016) Advanced or advancing nursing practice: what is the future direction for nursing? *British Journal of Nursing,* 25 (1), pp. 8-13.

Great Britain. Dept. of Health (2006) *Our health, our care, our say: a new direction for community services.* London: Stationery Office.

Gubrium, J.F. and Holstein, J.A. (2001) *Handbook of interview research: Context and method.* Sage Publications.

Gubrium, J.F., Holstein, J.A., Marvasti, A.B. and McKinney, K.D. (2012) *The SAGE handbook of interview research: The complexity of the craft.* Sage Publications.

Guest, G. MacQueen, K. Namey, E (2011) *Applied Thematic Analysis.* 1st ed. London: SAGE Publications, Inc.

Halaas, G.W., Zink, T., Finstad, D., Bolin, K. and Center, B. (2008) Recruitment and retention of rural physicians: outcomes from the rural physician associate program of Minnesota. *The Journal of Rural Health,* 24 (4), pp. 345-352.

Hancock, C., Steinbach, A. Auerswald, C.L. Nesbitt, T.S. and Adler, S.R. (2009) Why doctors choose small towns: A developmental model of rural physician recruitment and retention. *Social Science and Medicine,* 69 (9), pp. 1368-1376.

Hansen, H.E., Woods, C.Q., Boyle, D.K., Bott, M.J. and Taunton, R.L. (1995) Nurse manager personal traits and leadership characteristics. *Nursing Administration Quarterly,* 19 (4), pp. 23-35.

Harker, D.Y. (2000) Nurses as Patients. *Unpublished Thesis, Victoria University of Wellington,* .

Harrison, B. (2009) *Life Story Research (SAGE Benchmarks in Social Research Methods)* . 1sr Edition ed. England: Sage.

Hasson, F., McKenna, H.P. and Keeney, S. (2013) A qualitative study exploring the impact of student nurses working part time as a health care assistant. *Nurse Education Today,* 33 (8), pp. 873-879.

Hay-Gibson, N.V. (2009) Interviews via VoIP: Benefits and disadvantages within a PhD study of SMEs. *Library and Information Research,* 33 (105), pp. 39-50.

Health Research Authority. (2017) UK policy framework for health and social care research.

Hegney, D., McCarthy, A., Rogers-Clark, C. and Gorman, D. (2002) Why nurses are attracted to rural and remote practice. *Australian Journal of Rural Health,* 10 (3), pp. 178-186.

Henry, L.R. and Hooker, R.S. (2007) Retention of physician assistants in rural health clinics. *Journal of Rural Health,* 23 (3), pp. 207-214.

Henry, L., R., Hooker, R., S. and Yates, K., L. (2011) The Role of Physician Assistants in Rural Health Care: A Systematic Review of the Literature. *Journal of Rural Health,* 27 (2), pp. 220-229.

Higgs, G. (1999) Investigating trends in rural health outcomes: a research agenda Geoforum, 30 (3), pp 203-221

Hj, N.R., Bakar, A. and Abdullah, M.Y.H. (2008) The life history approach: fieldwork experience. *E-Bangi,* 3 (1), pp. 9.

Holloway, I. and Freshwater, D. (2009) *Narrative research in nursing.* John Wiley & Sons.

Holloway, I. and Todres, L. (2003) The status of method: flexibility, consistency and coherence. *Qualitative Research,* 3 (3), pp. 345-357.

Holst, J. (2020) Increasing Rural Recruitment and Retention through Rural Exposure during Undergraduate Training: An Integrative Review. *International Journal of Environmental Research and Public Health,* 17 (17), pp. 6423.

Hong, Q.N. (2018) *Revision of the Mixed Methods Appraisal Tool (MMAT): A mixed methods study.* McGill University (Canada).

Howard, K.A. and Walsh, M.E. (2011) Children's conceptions of career choice and attainment: Model development. *Journal of Career Development,* 38 (3), pp. 256-271.

Howarth, K. (1998) *Oral history: A handbook.* Sutton Pub Limited.

Imison, C. and Bohmer, R. (2017) NHS and social care workforce: meeting our needs now and in the future. NHS England. London

Information Services Division (2015) *Workforce - Quarterly update of Staff in Post, Vacancies and Turnover*. NHS Scotland. Available: http://www.isdscotland.org/Health-Topics/Workforce/ .

Ingham-Broomfield, R. (2015) A nurses' guide to qualitative research. *Australian Journal of Advanced Nursing, the,* 32 (3), pp. 34-40.

Iranmanesh, S. (2012) Caring at the end of life: Iranian nurses' view and experiences. *Journal of Nursing Education and Practice,* 2 (2), pp. 9.

Isom, M. (2015) *Dispensing Doctors and Rural General Practice.* Socialist Health Association. Available: http://www.sochealth.co.uk/2015/02/27/dispensing-doctors-and-rural-general-practice/ .

Jack, K. and Smith, A. (2007) Promoting self-awareness in nurses to improve nursing practice. *Nursing Standard,* 21 (32).

Jamshed, S. (2014) Qualitative research methods- interviewing and Observations. Journal of Basic and Clinical pharmacy 5 (4), pp 87-88

Joens-Matre, R.R., Welk, G.J., Calabro, M.A., Russell, D.W., Nicklay, E. and Hensley, L.D. (2008) Rural–urban differences in physical activity, physical fitness, and overweight prevalence of children. *The Journal of Rural Health,* 24 (1), pp. 49-54.

Jones, A., Rahman, R.J. and Jiaqing, O. (2019) A crisis in the countryside-Barriers to nurse recruitment and retention in rural areas of high-income countries: A qualitative meta-analysis. *Journal of Rural Studies,* 72, pp. 153-163.

Jones, G.I., Alford, K.A., Russell, U.J. and Simmons, D. (2003) Removing the roadblocks to medical and health student training in rural hospitals in Victoria. *Australian Journal of Rural Health,* 11 (5), pp. 218-223.

Kakuru, D.M. and Paradza, G.G. (2007) Reflections on the use of the life history method in researching rural African women: field experiences from Uganda and Zimbabwe. 15 (2), pp. 287-297.

Keane, S., Lincoln, M. and Smith, T. (2012) Retention of allied health professionals in rural New South Wales: a thematic analysis of focus group discussions. *BMC Health Services Research,* 12 (1), pp. 1-11.

King, N. (2004) Using Templates in the Thematic Analysis of Text/ *Essential Guide to Qualitative Methods in Organizational Research,,* pp. 256.

King, N. and Horrocks, C. *Interviews in qualitative research.* London: SAGE, 2010.

K'Meyer, T.E. and Crothers, A.G. (2007) " If I see some of this in writing, I'm going to shoot you": reluctant narrators, taboo topics, and the ethical dilemmas of the oral historian. *The Oral History Review,* 34 (1), pp. 71-93.

Keoebishch, S.H, Rix, J and Holes, M. (2020) Recruitment and retention of healthcare professionals in rural Canada: A systemic review.

Kyle, R.G., Beattie, M. and Smith, A. (2020) Transition into remote and rural nurse education and careers: a qualitative study of student nurses. *Journal of Research in Nursing,* 25 (6-7), pp. 509-520.

Kyle, R.G., Neall, R.A. and Atherton, I.M. (2016) Prevalence of overweight and obesity among nurses in Scotland: A cross-sectional study using the Scottish Health Survey. *International Journal of Nursing Studies,* 53, pp. 126-133.

Lansford,M, Tierney, W (2019) *Life History Research.* Available: https://www.researchgate.net/publication/332555088_Life_History_Methods .

Lea, J. and Cruickshank, M.T. (2007) The experience of new graduate nurses in rural practice in New South Wales.

Lea, J. Cruickshank, M. Paliadelis, P. Parmenter, G. Sanderson, H, Thornberry, P. (2008) The lure of the bush: Do rural placements influence student nurses to seek employment in rural settings? *Collegian,* 15 (2), pp. 77-82.

Lea, J. and Cruickshank, M. (2005) Factors that influence the recruitment and retention of graduate nurses in rural health care facilities. *Collegian,* 12 (2), pp. 22-27.

Lea, J. and Cruickshank, M.T. (2007) The experience of new graduate nurses in rural practice in New South Wales. *Rural & Remote Health,* 7 (4), pp. 11p.

Lee, D.M. and Nichols, T. (2014) Physician recruitment and retention in rural and underserved areas. *International Journal of Health Care Quality Assurance,* 27 (7), pp. 642-652.

Levin, K.A. and Leyland, A.H. (2006) A comparison of health inequalities in urban and rural Scotland. *Social Science & Medicine,* 62 (6), pp. 1457-1464.

Lewis, D. (2008) Using life histories in social policy research: the case of third sector/public sector boundary crossing. *Journal of Social Policy,* 37 (4), pp. 559-578.

Liberati, A., Altman, D.G., Tetzlaff, J., Mulrow, C., Gøtzsche, P.C., Ioannidis, J.P., Clarke, M., Devereaux, P.J., Kleijnen, J. and Moher, D. (2009) The PRISMA statement for reporting systematic reviews and meta-analyses of studies that evaluate health care interventions: explanation and elaboration. *Journal of Clinical Epidemiology,* 62 (10), pp. e1-e34.

Lim, H. (2011) The life history interview: researching the dynamic identities of ethnic minority women in Britain. *Enquire,* 4, pp. 1-21.

MacKay, S.C., Smith, A., Kyle, R.G. and Beattie, M. (2021) What influences nurses' decisions to work in rural and remote settings? A systematic review and meta-synthesis of qualitative research. *Rural and Remote Health,* 21 (1), pp. 6335.

MacLeod, M.L., Stewart, N.J., Kulig, J.C., Anguish, P., Andrews, M.E., Banner, D., Garraway, L., Hanlon, N., Karunanayake, C. and Kilpatrick, K. (2017) Nurses who work in rural and remote communities in Canada: a national survey. *Human Resources for Health,* 15 (1), pp. 34.

Macvicar, R.N., P. (2013) *Supporting Remote and Rural Health Care.* Scotland: NHS Education for Scotland.

MacVicar, R. and Nicoll, P. (2013) NHS Education for Scotland: supporting remote and rural healthcare. *NES Board Paper August,* .

Maehle, V., Cooper, K. and Kirkpatrick, P. (2017) Absolute clinical skill decay in the medical, nursing and allied health professions: a scoping review protocol. *JBI Evidence Synthesis,* 15 (6), pp. 1522-1527.

Mansfield, C.D., Pasupathi, M. and McLean, K.C. (2015) Is narrating growth in stories of personal transgressions associated with increased well-being, self-compassion, and forgiveness of others? *Journal of Research in Personality,* 58, pp. 69-83.

Maresova. P. Javanmardi, Ez. Barakovic, S. Husic, J.B. Tomsone, S. Krejear,O. and Kuca, K. (2019) Consequences of chronic disease and other limitations associated with old age: a scoping review> BMC Public Hea;th 19 2 (4), pp284-296

Marlinawati, I.T., Salimo, H. and Murti, B. (2017) Effect of Play Group and Biopsychosocial Factors on the Independence Development of Preschool Children in Surakarta. *Journal of Maternal and Child Health,* 2 (4), pp. 284-296.

Matsumoto, M., Okayama, M., Inoue, K. and Kajii, E. (2005) Factors associated with rural doctors' intention to continue a rural career: a survey of 3072 doctors in Japan. *Australian Journal of Rural Health,* 13 (4), pp. 219-225.

Mbemba, G.I., Gagnon, M.P. and Hamelin-Brabant, L. (2016) Factors Influencing Recruitment and Retention of Healthcare Workers in Rural and Remote Areas in Developed and Developing Countries: An Overview. *Journal of Public Health in Africa,* 7 (2), pp. 565.

Mc Adams, D. (2010) *Personal narratives and the Life Story* Available: https://www.sesp.northwestern.edu/docs/publications/1698511162490a0d856d825.pdf .

McAdams, D.P. (2001) The psychology of life stories. *Review of General Psychology,* 5 (2), pp. 100.

McAdams, D.P. (2018) Narrative identity: What is it? What does it do? How do you measure it? *Imagination, Cognition and Personality,* 37 (3), pp. 359-372.

Medves, J., Edge, D.S., Bisonette, L. and Stansfield, K. (2015) Supporting rural nurses: Skills and knowledge to practice in Ontario, Canada. *Online Journal of Rural Nursing and Health Care,* 15 (1), pp. 7-41.

Miedema, B., Easley, J., Fortin, P., Hamilton, R. and Tatemichi, S. (2009) Crossing boundaries: family physicians' struggles to protect their private lives. *Canadian Family Physician Medecin De Famille Canadien,* 55 (3), pp. 286-287.e5.

Moher, D., Stewart, L. and Shekelle, P. *All in the Family: Systematic Reviews, Rapid Reviews, Scoping Reviews, Realist Reviews, and More.Syst Rev.2015; 4: 183,*

Moher, D., Shamseer, L., Clarke, M., Ghersi, D., Liberati, A., Petticrew, M., Shekelle, P. and Stewart, L.A. (2015) Preferred reporting items for systematic review and meta-analysis protocols (PRISMA-P) 2015 statement. *Systematic Reviews,* 4 (1), pp. 1.

Molinari, D.B., A. (2011) *The Rural Nurse. Transition to Practice.* 1st ed. America: Springer Publishing Company.

Morell, A.L., Kiem, S., Millsteed, M.A. and Pollice, A. (2014) Attraction, recruitment and distribution of health professionals in rural and remote Australia: early results of the Rural Health Professionals Program. *Human Resources for Health,* 12 (1), pp. 1-11.

Morse, J.M. Field,P,A (1995) *Qualitative Research Methods for Health Professionals.* 2nd ed. Thousand Oaks: Sage.

Muirhead, S. and Birks, M. (2019) Roles of rural and remote registered nurses in Australia: an integrative review. *Australian Journal of Advanced Nursing, the,* 37 (1), pp. 21-33.

Munn, Z., Stern, C., Aromataris, E., Lockwood, C. and Jordan, Z. (2018) What kind of systematic review should I conduct? A proposed typology and guidance for systematic reviewers in the medical and health sciences. *BMC Medical Research Methodology,* 18 (1), pp. 1-9.

Nasheeda, A., Abdullah, H.B., Krauss, S.E. and Ahmed, N.B. (2019) Transforming transcripts into stories: A multimethod approach to narrative analysis. *International Journal of Qualitative Methods,* 18, pp. 1609406919856797.

National Education for Scotland (2010) *Education and training for community nurses working in remote rural island context.* Remote and Rural Health care Education Alliance. Available: http://www.rrheal.scot.nhs.uk/media/152776/education%20and%20training%20for%20community%20nurses%20working%20in%20remote,%20r.pdf .

National Health Service England (2019) *The NHS Long Term Plan.* London: NHS England.

National Health Service Scotland (2010) *The Healthcare Quality Strategy for NHS Scotland.* 1. Edinburgh: Scottish Government.

National Records of Scotland (2013) *2011 Census: First results on population and household estimates for Scotland.* 2015. Edinburgh: National Records of Scotland.

Newman, K., Maylor, U. and Chansarkar, B. The nurse retention, quality of care and patient satisfaction chain. *International Journal of Health Care Quality Assurance Incorporating Leadership in Health Services,* 14 (2/3), pp. 57-68.

NHS Digital (2018) *Leavers by reason for leaving NHS staff groups and HSS region* Available: https://digital.nhs.uk/data-and-information/find-data-and-publications/supplementary-information/2018-supplementary- information-files/leavers-and-joiners/leavers-by-reason-for-leaving-staff-group-and-hee-region .

NHS Highlands (2014) *An Approach to Building Sustainability of Health and Care Services in Remote and Rural Areas.* Scotland: NHS Highlands. Available: http://www.nhshighland.scot.nhs.uk/OurAreas/ArgyllandBute/Documents/An_Approach_to_Building_Sustainability_of_Health_and_Care_Services_in_Remote_and_Rural_Areas_FINAL_redacted.pdf .

NHS Scotland (2008) *Delivering for Remote and Rural Health Care. The final report of the remote and rural workforce.* Scottish Government.

NHS Scotland (2019) *NHS Scotland Workforce Latest statistics at 31 March 2019.* 1. Edinburgh: Scottish Government.

Netherwood, A,K. (2020) An investigation into the career decision of teachers and their view on special education using life history approach,

Novak, J. (2017) Experiments in life writing: Introduction. Experiments in Life writing Springer, PP 1-36

Nowell, L.S., Norris, J.M., White, D.E. and Moules, N.J. (2017) Thematic analysis: Striving to meet the trustworthiness criteria. *International Journal of Qualitative Methods,* 16 (1), pp. 1609406917733847.

Nurses and Nurse Practitioners of BC (2018) *Enhancing remote and rural nursing practice* . 1. British Columbia: Nurses and Nurse Practitioners of British Columbia.

Ogden, J., Preston, S., Partanen, R.L., Ostini, R. and Coxeter, P. (2020) Recruiting and retaining general practitioners in rural practice: systematic review and meta-analysis of rural pipeline effects. *Medical Journal of Australia*, 213 (5), pp. 228-236.

Oltmann, S. (2016) Qualitative interviews: A methodological discussion of the interviewer and respondent contexts. *Forum Qualitative: Qualitative Social Research.*

Orkney Island Council (2014) Welcome to Orkney. Orkney islands council: Available: https://www/orkney.com/

Ortlipp, M. (2008) Keeping and using reflective journals in the qualitative research process. *The Qualitative Report*, 13 (4), pp. 695-705.

Paliadelis, P., Parmenter, G., Parker, V. and Higgins, I. (2012) The challenges confronting clinicians in rural acute care settings: a participatory research project.

Palinkas, L.A., Horwitz, S.M., Green, C.A., Wisdom, J.P., Duan, N. and Hoagwood, K. (2015) Purposeful sampling for qualitative data collection and analysis in mixed method implementation research. *Administration and Policy in Mental Health and Mental Health Services Research*, 42 (5), pp. 533-544.

Palmer, B., Appleby, J. and Spencer, J. (2019) *Rural health care A rapid review of the impact of rurality on the costs of delivering health care* . Nutsfield Trust. Available: https://www.nuffieldtrust.org.uk/files/2019-01/rural-health-care-report-web3.pdf .

Palmer, C. (2008) A theory of risk and resilience factors in military families. *Military Psychology*, 20 (3), pp. 205-217.

Papay Development Trust (2021) The isles of Papa Westray (Orkney) Papay Development Trust. Available: https://www.papawestray.co.uk

Pell, B, Williams, Phillips, R, Sanders, J. Edwrds, A, Choy, E and Grant, A (2020) Using visual timelines in telephone interviews. Reflections and lessons learned from the star family study. International journal of qualitative methods (19).

Penz, K, Stewart, N, Karunanayake, C.P. Kosteniuk, J.G. and MacLeod, M.L (2019) Competence and confidence in rural and remote nursing practice. A structural equation modelling analysis of national data. Journal of clinical nursing practice. International journal of Clinical Nursing 28 (9-10), pp 1664-1679

Perkins, D., Larsen, K., Lyle, D. and Burns, P. (2007) Securing and retaining a mental health workforce in Far Western New South Wales. *Australian Journal of Rural Health,* 15 (2), pp. 94-98.

Plummer, K. (2001) *Documents of life 2: An invitation to a critical humanism.* Sage.

Porfeli, E.J. and Lee, B. (2012) Career development during childhood and adolescence. *New Directions for Youth Development,* 2012 (134), pp. 11-22.

Promote Shetland (2015) *Bressay and Noss.* Promote Shetland. Available: http://www.shetland.org/plan/areas/bressay .

Punch, K.F. (2013) *Introduction to social research: Quantitative and qualitative approaches.* sage.

Queen's Nursing Institute. (2015) General practice nursing in the 21st Century.

Ramani, Rao, K.D. Ryan, M. Vujicic, M and Berman, P. (2013) For more than love or money: Attitudes of student and in-service health workers towards rural service in India. *Human Resources for Health,* 11 (1).

Ramani, S. Rao, K.D. Ryan, M. Vujicic, M. and Berman, P. (2013) For more than love or money: Attitudes of student and in-service health workers towards rural service in India. *Human Resources for Health,* 11 (1).

Ramvi, E. (2015) I am only a nurse: a biographical narrative study of a nurse's self-understanding and its implication for practice. *BMC Nursing,* 14 (1), pp. 1-9.

Rassay Development Trust (2018) *Welcome to the Isle of Rassay.* Rassay Development Trust 2021). Available: http://www.gigha.org.uk/ .

Ramvi, E. (2015) I am only a nurse: a biographical narrative study of a nurse's self-understanding and its implication for practice. *BMC Nursing,* 14 (1), pp. 1-9.

Renner, D.M., Westfall, J.M., Wilroy, L.A. and Ginde, A.A. (2010) *Rural and Remote Health,* 10 (4) Abstract only. Available from edswsc; EBSCOHost.

Richards, H.M., Farmer, J. and Selvaraj, S. (2005) Sustaining the rural primary healthcare workforce: survey of healthcare professionals in the Scottish Highlands. *Rural and Remote Health,* 5 (1), pp. 365.

Ritchie, J., Lewis, J., Nicholls, C.M. and Ormston, R. (2013) *Qualitative research practice: A guide for social science students and researchers.* sage.

Robertson, P.J. (2019) The casualties of transition: the health impact of NEET status and some approaches to managing it. *British Journal of Guidance & Counselling,* 47 (3), pp. 390-40

Rohatinsky, N. and Jahner, S. (2016) Supporting nurses' transition to rural healthcare environments through mentorship.

Royal College of Nursing (2015) *Healthy workplace, healthy you helping create the best working condition.* 1. London: Royal College of Nursing.

Royal College of Nursing (2021) *New analysis by the Royal College of Nursing Scotland shows that the shortfall in Registered Nurses in NHS Scotland has risen to a record high.* London: The Royal College of Nursing. Available: https://www.rcn.org.uk/news-and-events/news/scotland-nursing-shortfall-in-nhs-scotland-at-record-high-041121 [Accessed: 2/05/2022].

Royal College of Physicians (2013) Hospital workforce: fit for the future? Royal College of Physicians London .

Rubin, H.J. and Rubin, I.S. (2011) *Qualitative interviewing: The art of hearing data.* sage.

Ryan, F., Coughlan, M. and Cronin, P. (2009) Interviewing in qualitative research: The one-to-one interview. *International Journal of Therapy and Rehabilitation,* 16 (6), pp. 309-314.

Sandelowski, M. (2002) Reembodying qualitative inquiry. *Qualitative Health Research,* 12 (1), pp. 104-115.

Sangster, J. (1994) Telling our stories: feminist debates and the use of oral history. *Women's History Review,* 3 (1), pp. 5-28.

Sargeant, J., Allen, M. and Langille, D. (2004) Physician perceptions of the effect of telemedicine on rural retention and recruitment. *Journal of Telemedicine & Telecare,* 10 (2), pp. 89-93.

Scottish Government (2009) *Shifting the balance of care.* Edinburgh: Scottish Government.

Scottish Government (2012) *Integration of Adult Health and Social Care Bill.* 1. Edinburgh: Scottish Government.

Scottish Government (2013) *Scottish House Survey, Data Access.* Scottish Government. Available: http://www.scotland.gov.uk/Topics/Statistics/16002/SurveyOverview/ .

Scottish Government (2014) *Scotland's Age Demographics.* Scottish Government. Available: http://www.gov.scot/Topics/People/Equality/Equalities/DataGrid/Age/AgePopMig .

Scottish Government. (2014) Scottish Government urban rural classification.

Scottish Government (2015) *High Level Summary - Recent Trends.* Scottish Government. Available: http://www.nrscotland.gov.uk/files/statistics/high-level-summary/j11198/j1119801.htm .

Scottish Government (2016) *Changing models of Health and Social Care.* 1. Edinburgh: Scottish Government.

Islands Scotland's Bill Policy Memorandum (2017) Scottish Government.

Scottish Government (2018) *NHS Scotland Workforce Latest statistics at 31 March 20.* Information Services Division. Available: chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/viewer.html?pdfurl=https%3A%2F%2Fwww.isdscotland.org%2FHealth-Topics%2FWorkforce%2FPublications%2F2018-06-05%2F2018-06-05-Workforce-Report.pdf&clen=2297704&chunk=true .

Scottish Government (2020) *National Island plan Annual report 2020.* Scottish Government. Available: https://www.gov.scot/publications/national-islands-plan-annual-report-2020/pages/11/

Scottish Government, (2007) *Better Health, Better care: An action plan.* Edinburgh.: Scottish Government,

Scottish Government. (2011) *E-Health Strategy* Scotland.: The Scottish Executive.

Scottish Islander Federation (2018) *How can Scottish island communities support the delivery of health and social care services in their communities?* Scottish Islands Federation. Available: http://www.scottish-islands-federation.co.uk/wp-content/uploads/2018/11/S.I.F-Briefing-Paper-Health-Social-Care-in-Small-Island-Communities-template-draft-1.pdf .

Scottish Islands Federation (2010) *Scottish Islands Populations.* Scottish Islands Federation. Available: http://www.scottish-islands-federation.co.uk/population.htm .

Scottish public Health Observatory (2014) *Healthy life expectancy: urban rural classification.* Public Health Inflation for Scotland. Available: http://www.scotpho.org.uk/population-dynamics/healthy-life-expectancy/data/urban-rural-classification .

Sharma, G. (2017) Pros and cons of different sampling techniques.

Shaw, C.R. (2013) *The jack-roller: A delinquent boy's own story.* University of Chicago Press.

SHAW, B. (1980) Life History Writing in Anthropology: a Methodological Review. *Mankind,* 12 (3), pp. 226-234.

Shetland Islands Council (2015) *Shetland in Statistics.* Shetland Islands Council. Available: http://www.shetland.gov.uk/economic_development/documents/ShetlandInStatistics2013.pdf .

Sinatti, G. (2008) The Polish Peasant Revisited. Thomas and Znaniecki's Classic in the Light of Contemporary Transnational Migration Theory. Available: https://www.rivisteweb.it/doi/10.2383/27725.

Slagle, D.R. (2013) Recruitment and retention strategies for hospital laboratory personnel in urban and rural settings. *Clinical Laboratory Science : Journal of the American Society for Medical Technology,* 26 (1), pp. 10-14.

Smedley, A.M. (2008) Becoming and being a preceptor: A phenomenological study. *The Journal of Continuing Education in Nursing,* 39 (4), pp. 185-191.

Sosulski, M.R., Buchanan, N.T. and Donnell, C.M. (2010) Life history and narrative analysis: Feminist methodologies contextualizing Black women's experiences with severe mental illness. *Journal of Social .Welfare,* 37, pp. 29.

Spector, P.E. (2021) *Industrial and organizational psychology: Research and practice.* John Wiley & Sons.

Ssali, S., Theobald, S. and Hawkins, K. (2015) Life Histories: A Research Method to Capture People's Experiences of Health Systems in Post-Conflict Countries. *Health Systems Global Blog,*

Stewart, N.J., D'Arcy, C., Kosteniuk, J., Andrews, M.E., Morgan, D., Forbes, D., MacLeod, M.L., Kulig, J.C. and Pitblado, J.R. (2011) Moving on? Predictors of intent to leave among rural and remote RNs in Canada. *The Journal of Rural Health,* 27 (1), pp. 103-113.

Stockdale, A. and MacLeod, M. (2013) Pre-retirement age migration to remote rural areas. *Journal of Rural Studies,* 32, pp. 80-92.

Strasser, R. and Neusy, A. (2010) Context counts: training health workers in and for rural and remote areas. *Bulletin of the World Health Organization,* 88, pp. 777-782.

Stutzman, K., Ray Karpen, R., Naidoo, P., Toevs, S.E., Weidner, A., Baker, E. and Schmitz, D. (2020) Support for rural practice: female physicians and the life-career interface. *Rural and Remote Health,* 20 (1), pp. 5341.

Syahmar, I., Putera, I., Istatik, Y., Furqon, M.A. and Findyartini, A. (2015) Indonesian medical students' preferences associated with the intention toward rural practice.

Templier, M. and Paré, G. (2015) A framework for guiding and evaluating literature reviews. *Communications of the Association for Information Systems,* 37 (1), pp.

Templier, M. and Paré, G. (2015) A framework for guiding and evaluating literature reviews. *Communications of the Association for Information Systems,* 37 (1), pp. 6.

The Royal College of Nursing (2020) *Employment Survey 2019 Scotland.* 1. London: Royal College of Nursing.

The Scottish islander Federation (2020) *Island Statistics.* The Scottish Islands Federation. Available: https://www.scottish-islands-federation.co.uk/island-statistics/ .

Thorne, S. (2000) Data analysis in qualitative research. *Evidence-Based Nursing,* 3 (3), pp. 68-70.

Undiscovered Scotland (2000) *Shapinsay.* Undiscovered Scotland. Available: https://www.undiscoveredscotland.co.uk/shapinsay/shapinsay/index.html .

United Nations (2017) *Population density and urbanization.* United nations Statistical Devision. Available: https://unstats.un.org/unsd/demographic/sconcerns/densurb/densurbmethods.htm .

Van Teijlingen, E.R. and Hundley, V. (2001) The importance of pilot studies.

Vail, K. (2002) Same sex schools may still get a chance. *The Education Digest,* 68 (4), pp. 32.

Van Wijk, E. and Harrison, T. (2013) Managing ethical problems in qualitative research involving vulnerable populations, using a pilot study. *International Journal of Qualitative Methods,* 12 (1), pp. 570-586.

Vasileiou, K., Barnett, J., Thorpe, S. and Young, T. (2018) Characterizing and justifying sample size sufficiency in interview-based studies: systematic analysis of qualitative health research over a 15-year period. *BMC Medical Research Methodology,* 18 (1), pp. 1-18.

Veitch, C., Harte, J., Hays, R., Pashen, D. and Clark, S. (1999) Community participation in the recruitment and retention of rural doctors: methodological and logistical considerations. *Australian Journal of Rural Health,* 7 (4), pp. 206-211.

Viscomi, M., Larkins, S. and Gupta, T.S. (2013) Recruitment and retention of general practitioners in rural Canada and Australia: a review of the literature. *Canadian Journal of Rural Medicine,* (1), pp. 13.

Voit K. and Carson, D.B. (2012) Retaining older experienced nurses in the northern territory of Australia: A qualitative study exploring opportunities for post-retirement contributions. *Rural and Remote Health,* 12 (2).

Walker, J.H., DeWitt, D.E., Pallant, J.F. and Cunningham, C.E. (2012) Rural origin plus a rural clinical school placement is a significant predictor of medical students' intentions to practice rurally: a multi-university study. *Rural & Remote Health,* 12 (1), pp. 1-9.

Warburton, J., Moore, M. and Hodgkin, S.P. (2014) Extrinsic and intrinsic factors impacting on the retention of older rural healthcare workers in the north Victorian public sector: a qualitative study.

Weiss, R. (1999) Learning from strangers: the art and method of qualitative interview studies. 1994. *New York, NY, US: Free Press Google Scholar.*

Wheeler, D. (2019) *Welcome to Fair Isle.* Fair Isle Development Company. Available: https://www.fairisle.org.uk/ .

Wilson, N.W., Couper, I.D., De Vries, E., Reid, S., Fish, T. and Marais, B.J. (2009) A critical review of interventions to redress the inequitable distribution of healthcare professionals to rural and remote areas. *Rural and Remote Health,* 9 (2), pp. 1060.

World Health Organization (2006) *The world health report 2006: working together for health.* World Health Organization.

Young, J.C., Rose, D.C., Mumby, H.S., Benitez-Capistros, F., Derrick, C.J., Finch, T., Garcia, C., Home, C., Marwaha, E. and Morgans, C. (2018) A methodological guide to using and reporting on interviews in conservation science research. *Methods in Ecology and Evolution,* 9 (1), pp. 10-19.

Appendix 1: Non- Doctor Island synopsis

Shetland

The Shetland islands (Figure 3) lie in the subarctic archipelago situated in the North Atlantic. Its locality is two hundred and twenty-two miles from Bergan /Norway coast and two hundred and eleven miles from Aberdeen. Shetland has a population of approximately twenty-three thousand, two hundred people, increasing seasonally with tourism. Shetland is made up of over one hundred islands, of which only sixteen are populated (Shetlands Islands Council 2016). The five non-doctor islands include Bressay, Fetlar, Foula, Skerries and Fair Isle.

Each of the non-doctor island have similar characteristics. They are all only accessible via boat or aeroplane, and are reliant on external input for daily amenities i.e. fuel and groceries. They all have emergency services with local retained fire teams, HM coastguard volunteer rescue services and ambulance community responders. There is no provision for police within each island, but a central police service is based in the capital Lerwick and a community station on the Isle of Yell.

Some islands populations are more reliant on external services than others. Bressay is a prime example of a more accessible non-doctor island. Bressay lies one nautical mile off the Lerwick coastline. This makes accessibility to Bressay more amenable, with hourly ferry trips starting at 07:00 to 23:00 daily (weather permitting) and 01:00 on weekends (Shetlands Islands Council 2016). This accessibility allows for amenities to flow more easily and it allows for daily commute and social interaction into the Shetland capital Lerwick. Bressay has a vibrant community with an island shop, hotel bar / restaurant. There are a number of sites of special scientific interest for example, Isle of Noss where the first Shetland ponies originated In comparison, Foula is a less accessible non-doctor island. Foula is located thirty-eight miles from Lerwick. Foula does not have electrical supply twenty-four hours a day. There is currently an infrastructure to provide wind power, but the island currently relies on battery reserves and a limited usage i.e., the electrical supply is limited to 07:00 to 23:00 and turned off at night. There are currently minimal amenities; however, there is a primary school, chapel and island postal service (Promote Shetland 2021)

Skerries is another of the non-doctor island and lies twenty-four miles from Lerwick. It has more of an infrastructure than Foula with a primary school, fish farm and island shop. Nonetheless, accessibility can be an issue with two connecting inter island ferries and two hours sailing time. Skerries has intermittent electrical supply, which is generator produced and with a daily limited usage (Promote Shetland 2021).

Fair Isle is arguably one of Shetland's most beautiful islands, owned by the National Trust of Scotland. Fair Isle lies forty kilometres south-west of Sumburgh Head, which is the most southern point in Shetland. Fair Isle is leading the way in pioneering projects in wildlife tourism with state-of-the-art ornithological observatory. However, Fair Isle is better known for its daily reporting on the shipping forecasts. Fair Isle is also well known for its famous knit wear, with much of the island's income generated from increased tourism from visiting cruise ships and bird enthusiasts (Wheeler 2019).

Fetlar is the final non-doctor island within the remit of NHS Shetland health board. Fetlar is better known locally as the garden of Shetland and is located South of Unst and to the East of Yell. Its infrastructure is similar to the other island communities; it has an island shop / café and museum dedicated to Sir William Watson who was the founding contributor to antiseptic surgery (Fetlar Development LTD 2018).

Orkney Islands

The Orkney islands lie ten miles off the coast from Caithness in the North of Scotland. The overall population is 22,700 distributed over 20 inhabited islands. Orkney has a similar infrastructure to that of Shetland in that the island population undertake multiple roles and tasks to support the islands' sustainability, for example, postal services, maintenance and Coastguard. Despite this community resilience the islands remain reliant on external support for example for fuel, food and consumables. These islands, unlike Shetland, are served well by external consumer supply companies for example, Amazon, eBay etc (Orkney Island Council 2014).

The non-doctor islands in this study will include, Eday, Flotta, Rousay, Pappa Westray, North Ronaldsay and Shapinsay. These are all the non-doctor islands of Orkney. Eday is at the centre of Orkney's North Isles and eight miles in length. Eday is accessible by a daily ferry service, as well as a weekly flight to London airports. The island hosts a number of bed and breakfast accommodation, hostels and bike hire facilities even though tourism is a relatively

small part in the economy of the island. The main industry is agriculture and local authority employment across community services (VisitScotland.org 2021)

The island of Flotta, hosts one of the UK's biggest oil terminals and produces 10% of the British oil production. This facility makes Flotta one of the most accessible non-doctor islands across Orkney. Although the main economy of the island is oil production, it still has a community postal service, shop and primary school facilities, thus allowing for local government employment (VisitScotland.org 2021).

Papa Westray is one of the smallest islands in Orkney and known to the local population as Papay. Papa Westray lies twenty miles north of Kirkwall (Orkneys capital). Over the past decade Pappa Westray has been rejuvenated with the rebuilding of many derelict houses. In 2001 the island only had thirty residences. Today, farming is still one of the types of employment, and is often combined with fishing, arts and tourism. However, Pappa Westray is world famous for having the shortest commercial flight of two minutes to its sister island Westray (Papay Development Trust 2021).

North Ronaldsay is one of Orkney's most northern islands and is known for its seaweed eating sheep. It also hosts a bird observatory for spotting various migrating birds as well as a local shop, pub and cafe. The island boasts unique features for example, an iron age settlement and the tallest land-based lighthouse in Britain.

Shapinsay is twenty-nine square kilometres, thus making it the eighth largest island within Orkney and relatively accessible with a twenty-five-minute ferry crossing from Kirkwall. The island's coastline and cliffs provide natural homes for a vast variety of wildlife including harriers, gulls and arctic terns, thus making it popular for bird watching. The island also offers visitors the opportunity to stay in the Balfour Castle, which has become a non-members hotel (Undiscovered Scotland 2000).

Rousay is the final non-doctor island and is the largest of three islands in close proximity. Rousay has acres of oven moorland, steep hills and cliffs and is steeped in ancient Egyptian sites. It has the same amenities as the other non- doctor islands in relation including a local pub, restaurant and a well-stocked local shop.

Scottish Highlands

The Highlands are the most Northern part of mainland Scotland. The non-doctor islands that fall under the remit of NHS Highland lie to the Northwest and share similar characteristics to the non-doctor islands in NHS Shetland and NHS Orkney. The two non-doctor islands that are explored in this study are Rassay and Gigha. These are the only non-doctor islands for NHS Highland.

Rassay is one of the Inner Hebridean Islands. Located east of Rassay is the Scottish mainland and to the West, is the Isle of Skye. Rassay is similar to other islands in that the primary employment is tourism. Many islanders work for the ferry service, crofting and fishing and or commuting to work on Skye. Furthermore, the island has one hotel bed and breakfast accommodation and more recently a distillery. The island remains steeped in Scottish traditions, with the closing of amenities on a Sunday with no public services or playgrounds (Rassay Development Trust 2021).

Gigha is the final non-doctor island explored in this study. Gigha is the most southerly and arguably one of the most beautiful of the Hebridean Islands. Gigha is situated three miles west of the Kintyre peninsula and is less than a three-hour drive from the City of Glasgow. Being this close to a major city makes Gigha different from all the other non-doctor islands. In 2002 the islands had increased in strength with a growing population and community buyout. Gigha's employment is dependent on livestock farming, tourism and fishing (Gigha Heritage Trust 2018).

The above description highlights commonalities between the non-doctor islands that are included in this study, namely accessibility and rurality. Nonetheless, each island also has unique characteristics such as infrastructure, traditions and reliability on external influences. Table 4 gives a brief summary of each of the non-doctor islands. In particular, the table shows the level of health care provision in each island. It shows for instance, time and distance to additional secondary care provisions and means to transportation for sick and vulnerable patients in the event of medical instability.

The following table provides a synopsis of the Non doctor islands and locality to secondary care services

Non- Doctor Island	Island Size	Health Board	Current Population (2011 Figures)	Nearest Hospital with A&E Facilities	Linked General Practice	Time to Nearest Hospital *	Distance to nearest hospital (Miles)
Bressay	20.05 km^2	NHS Shetland	450	Gilbert Bain	Lerwick Health Centre	10 Minutes, via boat and car	3
Fair isle	7.68 km^2	NHS Shetland	54	Gilbert Bain	Levenwick Health Centre	4 hours via boat and car	50.1
Fetlar	40.78 km^2	NHS Shetland	65	Gilbert Bain	Yell Health Centre	2.5 Hours via boat and car	56
Foula	12.65 km^2	NHS Shetland	15	Gilbert Bain	Walls Health Centre	2 hours via boat and car	46
Skerries	4 km^2	NHS Shetland	16	Gilbert Bain	Whalsay Surgery	2 Hours via boat and car	39.7
Eday	27.45 km^2	NHS Orkney	130	Balfour Hospital	Orchards Practice	2 hours via boat and car	23.2
Flotta	8.76 km^2	NHS Orkney	80	Balfour Hospital	Stronmess Health Centre	1.20 Hours via boat and car	17.6
North Ronaldsay	9.6 km^2	NHS Orkney	72	Balfour Hospital	Heilendi Practice	3. 30 hours via boat	36.4
Pappa Westray	9.18 km^2	NHS Orkney	90	Balfour Hospital	Orchards Practice	2.37 Via boat and car	29.2

Rousay	48.6 km^2	NHS Orkney	271	Balfour Hospital	Dounby Surgery	90 Minutes and boat	24.0
Shapinsay	29.48 km^2	NHS Orkney	320	Balfour Hospital	Shapinsay	55 Minutes via boat	8.2
Gigha	13.95 km^2	NHS Highlands	163	Arran War Memorial Hospital	Muasdale Surgery	2.40 Via boat and car	46.6
Rassay	62.31 km^2	NHS Highlands	200	MacKinnon Memorial Hospital	Portree Medical Practice	1.20 Via boat and car	17.4
* The above times have been estimated using www.google.co.uk/maps. and www.nhs24.com/findlocal.							

NHS Shetland has six full time nurses that live and work on the non-doctor islands. All posts are substantial, with relief capacity built in to cover annual leave, sickness and mandatory training. Hence, this equates to six nurses for five islands. These nurses work full time in clinical practice, covering daily clinics for routine tests, investigations and chronic disease management, as well as providing on call commitment during the out of hours periods. NHS Shetland provides subsidised accommodation i.e., house or bungalow and clinic facilities, which are usually attached in the form of a portable cabin or purpose-built pods. All amenities are financially supported by the health board, for example broadband, vehicle, fuel and electricity. The nurses are expected to live and work in the communities and provide a service twenty-four hours a day seven days a week. They are only permitted off the islands for agreed periods, for example annual leave, mandatory training or sickness. All personal items for example clothes, grocery shopping must be either sourced from external companies for example, Amazon or eBay, or via online shopping via Tesco online, or locally from the island shops.

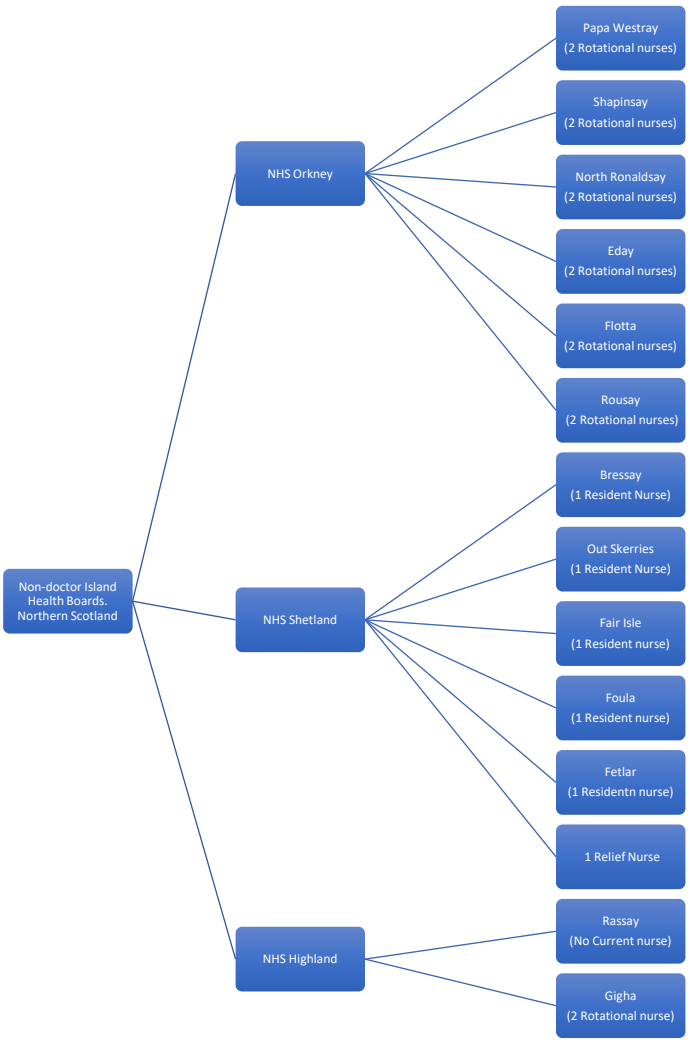
In comparison, NHS Orkney offer a two-weekly rotational model. Nurses again receive all the relevant amenities described above, however, rather than living fulltime in the communities they rotate every two weeks. There are currently six non-doctor islands, thus, there is a 12-strong nursing team. Each island has designated nurses who work opposite patterns to allow for time off. There is no need for relief capacity unless sickness becomes problematic. The advantage of this rotational model is that it allows for time out with the island setting, and although while on duty nurses are on call twenty-four seven, they have a period of down time, unlike NHS Shetland's model.

At the time of writing this paragraph NHS Highland had not filled the substantive post for Raasay. However, from reading the literature and speaking directly with the community council they are currently looking for a designated substantive nursing post. Raasay had previously a rotational model consisting of two nurses. Raasay has similar amenities to the other health boards in respect of accommodation, fuel, amenities etc. as well as twenty-four hours, seven days a week on- call provision.

The nursing post on Gigha is similar to the other non-doctor islands with a resident nurse undertaking nurse led clinics and providing an out of hours on call provision. At the time of writing this thesis, information relating to Gigha was limited. However, it is believed that this non – doctor island also has a rotational nursing model.

The evidence to support a rotational model is evident and will be discussed further in this thesis. However, one challenge that is evident is that of locality. NHS Orkney and NHS Highland have more freedom and accessibility to staffing pools and resources due to their accessibility to mainland Scotland. In comparison, NHS Shetland is limited by its overall accessibility only via boat or aeroplane and at much further distance than Orkney and thus having a significant limitation to its overall workforce and availability or resources.

The diagram below gives an overview of each non-doctor island and the number of nurses allocated to each island health board areas.



Appendix 2: Example of critical appraisal using the CASP tool.

www.casp-uk.net
info@casp-uk.net
Summertown Pavilion, Middle Way Oxford OX2 7LG

CASP Checklist: 10 questions to help you make sense of a Qualitative

How to use this appraisal tool: Three broad issues need to be considered when appraising a qualitative study:

- Are the results of the study valid? (Section A)
- What are the results? (Section B)
- Will the results help (Section C)

The 10 questions on the following pages are designed to help you think about these issues systematically. The first two questions are screening questions and can be answered quickly. If the answer to both is "yes", it is worth proceeding with the remaining questions. There is some degree of overlap between the questions, you are asked to record a "yes", "no" or "can't tell" to most of the questions. A number of italicised prompts are given after each question. These are designed to remind you why the question is important. Record your reasons for your answers in the spaces provided.

About: These checklists were designed to be used as educational pedagogic tools, as part of a workshop setting, therefore we do not suggest a scoring system. The core CASP checklists (randomised controlled trial & systematic review) were based on JAMA 'Users' guides to the medical literature 1994 (adapted from Guyatt GH, Sackett DL, and Cook DJ), and piloted withhealth care practitioners.

For each new checklist, a group of experts were assembled to develop and pilot the checklist and the workshop format with which it would be used. Over the years overall adjustments have been made to the format, but a recent survey of checklist users reiterated that the basic format continues to be useful and appropriate.

Referencing: we recommend using the Harvard style citation, i.e.: *Critical Appraisal Skills Programme (2018). CASP (insert name of checklist i.e. Qualitative) Checklist. [online] Availableat: URL. Accessed: Date Accessed.*

CASP
Critical Appraisal Skills Programme

Paper for appraisal and reference: Physician Retention in Rural Alberta:

Section A: Are the results valid?

1. Was there a clear statement of the aims ofthe research?

Yes	✔
Can't Tell	
No	

HINT: Consider
- what was the goal of the research?
- why it was thought important
- its relevance

Comments: The objectives of the study where clear outlined in the abstract and opening sentences of the paper. It was clear from the outset that a case study approach will be used to explore physician retention factors and strategies employed by rural communities.

2. Is a qualitative methodology

Yes	✔
Can't Tell	
NO	

HINT: Consider
- If the research seeks to interpret or illuminate the actions and/or subjective experiences of research participants

Comments: A qualitative case study was used underpin this research with the use of interview as a method of primary data collection.

Is it worth continuing?

3. Was the research design appropriate to address the aims of theresearch?

Yes	✔
Can't Tell	
No	

HINT: Consider
- If the researcher has justified the research design (e.g. have they discussed how they decided which method to use)

Comments: The use of a case study was the primary method of data collection was felt appropriate and answered the aims and objectivesoutline within this study.

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4. Was the recruitment strategy appropriate tothe aims of the research?

Yes	✔
Can't Tell	
No	

HINT: Consider
- If the researcher has explained how the participants were selected
- If they explained why the participantsthey selected were the most appropriate to provide access to the type of knowledge sought by the study
- If there are any discussions around recruitment (e.g. why some people

Comments: The study used variation sampling. Data was also used from RPAP database to identify communities that fitted the study criteria. How they recruited physicians from this point is vague, but enough information is provided to justify the appropriate sample.

5. Was the data collected ina way that addressed the research issue?

Yes	✔
Can't Tell	
No	

HINT: Consider
- If the setting for the data collection were justified
- If it is clear how data were collected (e.g.focus group, semi-structured interview etc.)
- If the researcher has justified the method chosen
- If the researcher has made the methods explicit.
- If methods were modified during the study. If so, has the researcher explained how and why
- If the form of data is clear (e.g. tape recordings, video material, notes etc.)
- If the researcher has discussed saturation of data

Comments: The data was collected using individual interviews, document reviews and personalobservations. This allowed for various methods to be employed to mitigate potentialresearch bias. An interview guide was also produced consisting of approximately 20 questions. Although the interview guide was not presented in the research paperit does talk about how this was linked to

CASP
Critical Appraisal Skills Programme

6. Has the relationship between researcher andparticipants been adequately

Yes	✔
Can't Tell	
No	

HINT: Consider

- If the researcher critically examined their own role, potential bias and influence during (a) formulation of the research questions (b) data collection, including sample recruitment and choice of location
- How the researcher responded toevents during the study and whether they considered the implications of any changes in the research design

Comments: The researcher discussed the relevance of research bias and how one of the researches was unable to collect the data

Section B: What are the results?

7. Have ethical issues beentaken into

Yes	✔
Can't Tell	
No	

HINT: Consider

- If there are sufficient details of how the research was explained to participants forthe reader to assess whether ethical standards were maintained
- If the researcher has discussed informed consent or confidentiality or issuesraised by the study (e.g. issues around informed consent)

Comments: Ethical approval for this research was undertaken with the agreement from each community setting as well as the Calgary conjoint health research ethics board. Furthermore confidentiality of the participants was also discussed in the paper.

CASP
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8. Was the data analysissufficiently

Yes	✔
Can't Tell	
No	

HINT: Consider
- If there is an in-depth description of the analysis process
- If thematic analysis is used. If so, is it clearhow the categories/themes were derived from the data
- Whether the researcher explains how the data presented were selected from the original sample to demonstrate the analysis process
- If sufficient data are presented to support the findings
- To what extent contradictory data are taken into account?

Comments: All the interviews where recorded and transcribed. Verified transcripts wee uploaded into ATLAS to be coded and stored. The data analysis used matrices based on the work of Miles and Hubermans 'stacking comparable cases' as well as cognitive mapping.

9. Is there a clear statementof findings?

Yes	✔
Can't Tell	
No	

HINT: Consider whether
- If the findings are explicit
- If there is adequate discussion of the evidence both for and against the researcher's arguments
- If the researcher has discussed the credibility of their findings (e.g. triangulation, respondent validation, more than one analyst)
- If the findings are discussed in relation to

Comments: The finding where aligned to theses from the interviews to include appreciation, connection, active support and physical recreational assets. The finding from the study do coincide with the aims and objectives outlined at the onset.

CASP
Critical Appraisal Skills Programme

Section C: Will the results help locally?

10. How valuable is theresearch?

Yes ✔

HINT: Consider

- If the researcher discusses thecontribution the study makes to existing knowledge or understanding (e.g. do they consider the findings in relation to currentpractice or policy, or relevant research- based literature
- If they identify new areas where research is necessary
- If the researchers have discussed whetheror how the findings can be transferred toother populations or considered other ways the research may be used

Comments: The research does identify several limitations in relation to generalizable beyond the initial case studies. Furthermore there is talk about data triangulation as a corrective tactic to enhance trustworthiness of the data.

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Participant Information Sheet

Thank you for taking time to read this participation information sheet. I am looking for your help. I currently live and work in Shetland and transverse across both Scottish Ambulance Service and NHS Shetland as a Nurse / Student paramedic. I am in the final stages of my clinical doctorate with the University of Stirling looking at recruitment and retention of nurses who work across non-doctor islands. Hence why you have received this information. Can I ask to please take 5 minutes to read the information below. If you would like to partake in the study that would be fantastic. If you have any question in relation to the study, please contact me on the details below. Many thanks Chris

Frequently asked questions

Study title:
The Life Trajectory of Community Nurses who Work on Non-Doctor Islands across Scotland.

Purpose of the study.
The aim of the study is to underpin the work carried out by community nurses on remote and rural islands across Scotland, thus exploring what influences nurses' decisions to work on non-doctor islands and identifying factors, influences, attraction and retention.

Why me?
You have been chosen to partake in the study because you currently work or previously worked as a registered nurse on a non-doctor island within Scotland.

Do I have to take part?
No. There is no obligation to take part in this study. If you need clarity surrounding any aspect of this research, please contact me using the details below. If you decide to take part, but later change your mind, withdrawal from this study will be upheld. It will not have detrimental impact on your current employment or further employment.

What is involved?
You will be asked to take part in a face-to-face interview. This will be at a location, date and time of your choice. The interview length varies from one person to the next, but will be no longer than three hours this includes breaks at hourly intervals. With your permission, this interview will be recorded using a Dictaphone. This data will then be transcribed and used in this study. The interview will be flexible and will explore certain aspects of your lived experiences, both from the current day and throughout your career. You will be asked questions in relation to your personal life, personal aspirations and career pathway.

Is there any harm if I participate in this research?
As part of the interview process you will be asked about your personal life going back a number of years. If you find any of this process anxiety provoking, you may ask to terminate the interview at any time. If necessary, you might also wish to seek support from your Occupational Health Service or your GP.

What are the benefits to the participant?
The life trajectory of community nurses is little understood across Scotland's remote and rural settings. The information you provide will contribute to the wider literature, thus supporting recruitment and retention of nursing staff. The information will also provide a framework that supports current clinical practice. You will also have the opportunity to obtain a copy of the transcripts, thus allowing for a personal representation of your lived experiences.

What happens to my information?
The information you provide will remain anonymous and stored on an NHS computer system. Once all the data has been collated and analysed, a final thesis will be produced and submitted to the University of Stirling as part of my clinical doctorate. This will also be submitted for publication in academic journals. The recorded and written data will then be destroyed as per the policy of the University of Stirling.

What about confidentiality?
The information provided will remain confidential, although this cannot be guaranteed due to the small scale of the study and the relatively small localities across Scotland. Once the data has been transcribed, further consent will be sought from you. This second consent will allow you to review that data, thus giving you the opportunity to add, remove or change elements as you deem appropriate. All your individual characteristics and locality will be removed prior to publication.

Every effort will be made when storing personal information. All the written evidence will be stored in a locked cupboard where access will be limited to the principal researcher. The electronic data will be stored on a University of Stirling encrypted computer, access to which will be limited to the primary researcher.

What about ethics?
This study has been locally approved by the relevant health boards and has been certified by the University of Stirling Ethics committee.

Thank you for your consideration.

Contact details:

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Appendix 4: Pre-and post-consent forms.

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CONSENT FORM

Title of Project: **The Life Trajectory of Community Nurses who Work on Non-Doctor Islands across Scotland.**
Name of Researcher: Mr Christopher Rice

1. I confirm that I have read the information sheet dated..... (version.....) for the above study. I have had the opportunity to consider the information and ask questions and have had these answered satisfactorily. ☐

2. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason and without my medical care or legal rights being affected. ☐

3. I understand that the information collected about me will be used to support other research in the future and may be shared anonymously with other researchers. ☐

4. I agree to have the interview audio recorded. ☐

5. I agree to take part in the above study. ☐

_____	_____	_____
Name of participant	Date	Signature
_____	_____	_____
Person taking consent	Date	Signature

DISSEMINATION CONSENT FORM

The Life Trajectory of Community Nurses who Work on Non-Doctor Islands across Scotland.

Researcher: **Christopher Rice RN, BSc (Hons), MSc**

It is the responsibility of the researcher to use and disseminate the information reasonably. Now that you have completed your interview, you have the opportunity to provide me with additional feedback on how you would like your data to be disseminated.

Please read the statements below and initial which you feel to be relevant.

Please initial box

1. The information may be disseminated with no details changed. ☐

2. The information may be disseminated. However, it is my wish that the following specific pieces of data are not shared without first making alterations to protect my identity: ☐

Please Specify:

_____

_____

_____

_____	_____	_____
Name of participant	**Date**	**Signature**
_____	_____	_____
Person taking consent	**Date**	**Sign**

Appendix 5: Example of the themes and codes generated from the data

Codes	Description	References Examples (Abstracts)
Early Childhood Memories	Participants description of their childhood experiences, friendships and relationships.	I have a big circle of friends, I always had friends, and I've never been shy at sort of you know, going and making friends and getting myself. I had a couple o' cousins who were a similar age, so they were like my brother's growing up kind of thing, we used to spend all our time together [so we were like a small little family?
Disadvantages of NDI Roles	Current dislikes about current clinical role (NDI)	For me it was the first time I'd done on-call and I found that, the fact that you were never off duty, it was 24/7 on-call, that quite difficult to balance really; I think there was an expectation that you just got on with your life and you get called out when you could, but no, I didn't have, I couldn't, if I was on duty I'm on duty, I'm being paid so I felt as though, you know, it was very, it was difficult in my head
Secondary Education	Secondary education, Likes, Dislikes	I can't remember much, I just know, maths was never my thing, I loved English ... and history and stuff, but never to an extent that I think, I enjoyed them and still do, you know, generally a wide general knowledge, but I can't say that anything at school fired me up to be thinking oh, I need to do this now, this is where I'm going to go
Educational Pathway	Previous educational pathway undertaken, BSc, MSc etc	I did my Specialist Practitioner District Nursing Degree, and then I did a Cert Ed in Post-Compulsory Education, and then a few years trundled by, and I've always enjoyed learning, I really enjoy getting the buzz from that. I also got onto the Post-grad Certificate in Long-term Conditions, and then from that did a couple of modules at Degree level because I didn't know anything about the conditions I was looking after, then did the V300 Prescribing was my Masters, so I did a couple more modules of that, a dissertation, and finished Advanced Practitioner …
Family Connection to Health	Family connection to allied health professions	My mum was from a crofting family in Sutherland and then went down to Glasgow, trained as a nurse, did her first part midwifery the war was on so she then went out as an army nurse to Italy and then India, and then because she was a theatre nurse, she ended up running a small hospital up in Kashmir with the British army.

Codes	Description	References Examples (Abstracts)
Family Links to Rural Practice	Does the participants have links to remote and rural practice?	The only remote and rural family connection was my granny lived on the west coast of Scotland and it was very, very remote, so I kind of knew, and I think Orkney's less remote than that
Hobbies and Interests	Hobbies and interests from childhood into adulthood	I love crafts; knitting, quite happy on my own, my own company, absolutely not a problem, so yeah, I love walking, staring out of windows, I can do that for many hours, yeah
Reasons to apply for NDI posts	What factors influences decision to apply for new clinical roles	It's been a long-held wish to do something on the remote side of nursing, totally new experience for me. It was the right time for me, it sounded like the right sort of job and I thought I had the right qualifications, so I thought if I don't do it now I'll never do it
Advantages of NDI Working	What influences your decision to remain in remote and rural practice	I love the fact that I can holistically spend half an hour with a patient instead of the ten-minute consultation, rushing out the door and thinking oh, I must remember to write that up later etc., I love this autonomous, holistic patient-centred care, the time to spend with patients, to integrate with them and their families.
Working history AED, DN, Other	Identification of the participants nursing careers	I've always worked in district general hospitals. I had always A&E as my love. I've done some management stuff, board management, one thing and another but the unpredictability of A&E and the thinking on your feet and the pulling all your knowledge and resources together is what I used to find quite exciting
Exposure to remote and rural practice	Does the participant have previous exposure to remote and rural practice as part of their education, childhood etc	The only time I was when I did my degree, we had to do a two week placement somewhere, and I went up and worked in Lanark, which was very rural
CPD developmental within the NDI	Scope of CDP opportunities across the NDIs	I think you can de-skill to a certain point but you've just got to keep yourself thinking about certain things that might come through the door that you don't, you're not doing regularly and then it's planning

Codes	Description	References Examples (Abstracts)
context		as well, I know with the palliative there was a syringe driver involved, and of course I hadn’t done that for some time, I used to do that regularly, but it's just planning and getting yourself, I hadn’t done a PIC Line for ages but I knew one was coming so I organised training for me and some of the girls from the other islands as well

Appendix 6: Ethical approval documents

Ethical agreements removed before submission to STORE to comply with GDPR.

Appendix 7: Draft Submission for publication.

An investigation into the recruitment and retention factors of nurses who work across Northern Scotland's remotest island communities using a life history methodology.

Christopher Rice. Senior Lecture / ACP Programme Lead. Edge Hill University

Professor Emerita Annetta Smith University of Highland and Islands

Professor Gill Hubbard University of Highland and Islands

Introduction

In 2012 the integration of adult health and social care bill was introduced in Scotland [35] and focused on the re-shaping of clinical practice by merging health and social care services including the pooling of resources and staff.[34] This combined with the Quality Strategy identified the need for equitable access to high quality health care services for all patients regardless of personal characteristics such as gender, ethnicity, geographic location or socio-economic status[29] This had a direct impact on how care was delivered across remote and rural practice for example, co-located community nursing teams, increased use of telecare and telehealth to deliver care, increased anticipatory care and increased specialist care pathways[33] However, what was truly needed was a nursing workforce that was diverse and could meet the everyday holistic needs of patients.[32]

The Scottish Government[33] and Arvinth[3] noted that people are living longer, healthier lives with an increased life expectancy and this trajectory is set to continue until at least 2030 with the number of people over 65 years of age increasing from 0.93 million to 1.47 million over the current decade. A shift is occurring from acute illness towards long-term term stability of conditions for example, heart disease, diabetes and cancers, with the prevalence of long-term conditions increasing with age. The Scottish Government[33] confirmed that people with long term illness are twice as likely to be admitted into secondary care for longer, thus accounting for over 60% of hospital bed usage. The burden of long-term illness can lead to increasing loss of independence. For many older people this has restrictions on daily living and therefore quality of life and their inability to maintain independence with activities of daily living.

Remote and rural practice has unique challenges not routinely found in every day clinical settings. There are several island communities that offer unique challenges when it comes to the delivery of health care. These islands are in Northern Scotland and are known as non-doctor islands with nurses providing the first point of care for residents living on these islands. The table below outlined each NDI as per there responsible health board.

Table 1 Locality of each non-doctor island as per health board

NHS Shetland	NHS Orkney	NHS Highland
Bressay	Flotta	Gigha
Fair Isle	North Ronaldsay	Rassay
Fetlar	Pappa Westray	
Foula	Rousay	
Skerries (Housay, Bruray)	Shapinsay	
	Eday	

There are several models of how these islands provide health care, from rotational models to full time residency. The nurses on NDI provide a wide range of health care interventions clinical responsibility, including for example routine tests, investigations and chronic disease management, as well as providing on call commitment during the out of hours periods.

The nurses are expected to live and work in the communities and provide a service twenty-four hours a day seven days a week. Accessibility to these islands dependent on the weather and access on and off islands is only available via boat or aeroplane making delivery of health care on these is lands unique and challenging.

Literature Review

The UK literature referring to the recruitment and retention of health care professionals across rural Scotland UK is limited: with only three articles were studied in Scotland[36, 31, 7] that looked national at the factors that influence recruitment and retention of health care professionals across Scotland's remote and rural settings. However, the international literature has been more extensive in capturing the factors that influence recruitment and retention of health care professionals within the remote and rural settings. It is evident form the literature that both recruitment factors and retention factors are inextricably linked in a cylindrical model.[6]

The international literature identified three common factors that influenced recruitment and retention of health care professionals to remote and rural practice these include: rural upbringing, educational factors and lifestyle[19, 24, 28, 17, 37]. Exposure to remote and rural practice during under and post grad educational was a common theme that emerged from the literature. Lea and Cruickshank [24] found that undergraduate nurses who had experience of rural nursing practice during their graduate education, were more likely to follow a remote and rural pathway post-graduation. Lea and Cruickshank[24] surveyed final year degree nursing students and noted that many respondents felt that their final clinical placement into remote and rural practice had provided them with an insight into a different nursing career and lifestyle that they would have never routinely been exposed. Similarly, Dolea[11] in a literature review found that a rotational model as part of the undergraduate nurse education accompanied by educational preparation creates more interest in remote and rural working and subsequent aid recruitment to remote and rural practice. Jones[21] identified the importance between a student's positive and negative clinical experience and their decision to practice in a rural setting. The collaboration between a remote and rural placement with academic activities was an important element in student happiness and thus their desire to return to rural practice.

Lifestyle was a further factor that emerged from the literature [18, 25,14.] Bushy and Baird-Crooks[5] highlight that personal and professional lifestyle factors contribute to the recruitment of nurses. The personal reasons included small town lifestyle, love of nature, less crime good quality of life and a good place to raise children. The professional reason included, varied clinical exposure, family practice and continuity of care. Bushy and Baird-Crooks[5] looked at the work life balance of community nurses and found that remote and rural practice was defined by the context to which they actively engage, both within the professional and social contact (belonging) in which they work and live. Lee and Nichols[25] identified that participants in their study positively noted a 'sense of place' and 'self-actualization'. Hancock[17] found a sense of self-actualization when it came to health care professionals who are motivated by a desire to live happy and satisfying lives. Similarly, Fisher and Fraser[14] noted that the enjoyment of rural lifestyle or 'sense of place' included supportive networks, a sense of belonging and ease of childcare are also key contributing factors when it comes to lifestyle choices and overall recruitment and retention of health care professionals to remote and rural practice. It is evident from the international literature that lifestyle incorporating a sense of community, security and work life balance all contribute to the overall recruitment and retention of health care professionals to remote and rural practice.

While the international literature is helpful for informing the more positive factors that support recruitment and retention of health care practitioners to remote and rural areas there is currently no existing evidence base that has investigated recruitment and retention of nurses to non-doctor islands in Scotland. The generation of this information is important in understanding the uniqueness of the non-doctor island as well as the factors that influence overall recruitment and retention to these island nursing posts.

Aims of the study

To understand the life history, career events that influence the trajectory of nurses who work on non-doctor islands across Northern Scotland.

Study Objectives

- To understand the career journey of nurses and what influences their decision-making process to work on non-doctor islands.
- To understand the experiences of nurses who work on non-doctor islands.
- To understand the reasons nurses, remain or leave their employment on non-doctor islands.

Sample

The total number of study participants was 11 and all had direct experience of working and living on non-doctor islands across Scotland. In the interests of anonymity, no further details about participants current or previous employees, gender, age can be reported.

Method

The study used a life history methodology to explore the life history and careers of the nurses who live and work on the NDI's. Life history is perfectly suited to the nursing profession, as nurses have always valued personal stories thus improving their understanding of their own lives and that of patients[10]. Data was collected using semi- structured interviews using an interview guide that was developed to facilitate participants life stories including factors that may have influenced their decisions to love and work on NDIs. The interview guide was then piloted to ensure consistency and to remove duplication or any questions that are ethically challenging. The data was transcribed into Nvivo and a thematic analysis was used to identify factors that emerged from participants life history.

Ethical Approval

Ethical approval was sought and agreed by each health board (NHS Shetland, Orkney and Highlands). Agreement was also sought from the University of Stirling ethical committee Ref No: NRS17/224971

Findings

Findings from the analysis of the data were arranged into 3 key themes and subthemes. These included: childhood experiences thus understanding the importance of support networks from an early age. The factors that influence recruitment for example lifestyle and professional autonomy, and the final theme to emerge was that of retention, i.e. community acceptance, work life balance and continuity of care.

The findings show commonality with the national and international literature for example lifestyle. The themes emerged from the finding include the importance of early childhood experiences and support networks, the development of social networks and interest in outdoor and sports. We also see nursing as a primary career choice for over three quarters of the participants with all remaining in the NHS and progressing the nursing career ladder. The move to an NDI was the next phase in the life history of the participants and for many this was undertaken towards the end of their career for several personal and professional reasons. Personal reasons identified where a desire for something new, work life balance and a slow wind down to retirement. In contrast, the professional reasons included health issues, increased pressures in their current role, a reduced work life balance and unrealistic expectations.

The move to the NDI's was new to all the participants with non-having family connections to the islands. One of the key drivers identified was the importance of acceptance not only for them but also their partner and family. Another significant finding was the importance of lifestyle and the ability to balance working life and personal life, although at times this was problematic the participants recall a work life balance, this went very much hand in hand with clinical autonomy and the ability to manage their own case load and provide timely holistic patient care that was consistent and incorporate the wider family. Factors influencing recruitment include, clinical autonomy, lifestyle and associated work life balance. These factors also influenced retention additionally community acceptance was also an important consideration for retention.

Discussion.

Reflecting on their early childhood experiences. The participants openly talked about their childhood with mixed emotions. Most significant, was that none of the participants were born or grew up on the NDI's they worked on, nor had they close family or friends on these islands. This finding was different to previous evidence that found that rural background, rural origins and rural lifestyle as well as personal factors contribute significantly to the overall recruitment and retention to remote and rural practice[27,17,37] Therefore, whilst existing evidence strongly suggests that existing connections are important factors in remote and rural health care recruitment to remote and rural practice this was not evident in this study.

As the participants moved through adolescence and early adulthood it is noteworthy that the participants favoured outdoor and competitive sports and hobbies. Outdoor life is a given feature of living on an island in the North of Scotland. A love of the outdoor environment and lifestyle may be an important factor for health care professionals working in remote and rural areas. This finding was also noted by Mbemba[37] in that a rural lifestyle was associated with recruitment and retention of health care professionals to rural practice. It can be concluded at this point that lifestyle was a key factor in their over all retention to the NDI's.

Upon completion of their initial nurse education the career history of participants was varied, however significantly, all participants gained multiple qualifications after registration and worked across diverse clinical settings, acquiring both additional academic and professional qualifications and clinical experience. Kyle[22] noted the international literature highlighted that rural origins and previous exposure during training have a positive influence on recruitment and retention. Additionally, Holst[20] found that remote and rural exposure during medical education increased the likelihood of later returning to remote and rural practice by an average four times.

Mackay[26] described professional and personal reasons why nurses choose to work in remote and rural practice. Professional factors include generalist practice, advancing clinical practice, empowerment and autonomy. While the personal reasons included sense of belonging, rural culture, work life balance and job satisfaction. In addition to these findings one additional important factor for participants in this study was that the move to a non-doctor island was a stepping stone to retirement, the average age of the participants in the study was 58 years and most of the participants were in the latter stages of their careers.

It was clear from participants accounts that their nursing roles on the NDI's are more generic rather than specialist and reflected patient and community health care needs. Penz[30] and Abelsen[1] found that remote and rural nurses typically are expected to work as generalist's with extended scope of clinical practice, and that scope of practice and competence should be relevant and within the context of their working environment. Daly and Jackson[9] also suggests that the scope of practice should vary according to the needs of the community and that the remote and rural nursing role is very much generalist approach to prevention, primary care, rehabilitation and acute interventions. It may therefore be important to consider the requirement for wide ranging generalist nursing knowledge and skills when preparing nurses to work in non-doctor islands. A study of remote and rural midwives noted that midwives have a unique skill set that is underpinned by developing a meaningful relationship, resourcefulness in the context of practice, preparedness and practical application[16].

Despite the generalist approach to care delivery participants identified concerns with skill decline. The importance of maintaining clinical competence was fully acknowledged by the participants however this was not always possible either because of limited practice or access to some training. The importance of accessing continuing professional education opportunities was also closely linked to concerns of professional isolation. Abelsen[1] describes how health care professionals working to deliver safe and effective health care across remote and rural settings require a broad range of skills that are supported by ongoing professionals education, training and competence. All participants spoke more generally about their continuing professional development describing how online learning activities helped them to meet their minimum education requirements, but did little for their own personal and professional development. Limitations identified included training packages that did not change from year to year and at times problematic connectivity. The use of distance learning is often seen as the answer to supporting remote and rural learners. Advantages include the ability to study anywhere, anytime, cost effectiveness in saving travel and commuting time[13]. Berndt[4] identified that CPD minimizes professional isolation, enhances service delivery and quality improvement, and supports staff in recruitment and retentions. While participants in this study accessed online education, it is also important to note that they valued face to face opportunities and the opportunity to meet with colleagues. Similarly, Adams[2] noted that socialisation in the workplace creates a sense of belonging to the health care profession.

Due to the nature of the NDI's there is an expectation that nurses provide an on-call service. The on-call commitment is over 24 hours (24/7) 365 days a year out with the traditional 09:00 17:00 working hours and includes weekends. Findings were mixed when participants described their work rotas. Douglas[12] noted that challenges do exist across remote and rural settings including 24 hours on call, however these challenges were described as 'not better, not worse, just different'. While participants in this study had mixed feelings about their work rotas, the impact this had on individuals work life balance is nevertheless an important consideration and a significant finding of this study. An improved work life balance was identified as a significant factor for retention to the non- doctor islands. The finding from this study have identified that a work life balance is a fine balancing act between personal and professional demands when working and living on NDI's

The international literature goes some way in trying to answer why health care professional leave remote and rural practice. Cosgrave[8] asserted that retention across Australia and other developed countries was influenced by three factors; workplace conditions, career advancement (CPD) and social and personal factors. While findings from this research noted similar influences the most common reason for participants leaving their NDI's post is retirement.

Limitations of this study

There are several limitations associated with this research. First, it was conducted on a single workforce population i.e. nurses who work on NDI's. It may also be helpful to include other health professionals in the study. Second, this research was limited to Northern Scotland and therefore may not be represented of the wider United Kingdom.

The final limitation was the face to face interviews. This method was chosen to get a first-hand appreciation of the NDI's and to understand some of the challenges of accessibility. However, this was a costly option and limited the sample size due to accessibility and availability of the participants. If this study was to be repeated then the use of remote technologies such as video conferencing would be more advantageous

Summary

The use of a life history methodology has underpinned this study thus provided a truly unique insight into the lives of the nurse who live and work on non-doctor islands. With the help of the participants from this study, sharing their own life histories this research has been able to ascertain what is important to them living and working on non- doctor islands.

References

(1) Abelsen B, Strasser R, Heaney D, Berggren P, Sigurðsson S, Brandstorp H, et al. Plan, recruit, retain: a framework for local health care organizations to achieve a stable remote rural workforce. Human resources for health 2020;18(1):1-10.

(2) Adams ME, Lazarsfeld-Jensen A, Francis K. The implications of isolation for remote industrial health workers. Rural and remote health 2019;19(2):1-10.

(3) Arvinth K. Global life expectancy climbs but health problems also on the rise. International Business Times: United Kingdom Edition (UK) 2015 08/27.

(4) Berndt, A., Murray, C.M., Kennedy, K. Effectiveness of distance learning strategies for continuing professional development (CPD) for rural allied health practitioners: a systematic review. 2017; Available at: https://doi.org/10.1186/s12909-017-0949-5. Accessed 21/10, 2021.

(5) Bushy A, Baird-Crooks K. Orientation to nursing in the rural community / Angeline Bushy, with Kathryn Baird-Crooks... [et al.], Thousand Oaks, CA ; London : Sage, 2000; 2000.

(6) Cleland J, Johnston PW, Walker L, Needham G. Attracting health care professionals to remote and rural medicine: Learning from doctors in training in the north of Scotland. Med Teach Medical Teacher. Jul2012, Vol. 34 Issue 7, pe476-e482. 7p.; 2012-07-01;34(7):e476.

(7) Cosgrave C, Maple M, Hussain R. An explanation of turnover intention among early-career nursing and allied health professionals working in rural and remote Australia-findings from a grounded theory study. Rural & Remote Health 2018;18(3).

(8) Daly J, Jackson D. Contexts of nursing: An introduction. Elsevier Health Sciences; 2020.

(9) De Chesnay Mary. Nursing research using life history: qualitative designs and methods in nursing. New York, New York: Springer Publishing Company; 2015.

(10) Dolea C, Stormont L, Braichet J. Evaluated strategies to increase attraction and retention of health workers in remote and rural areas. Bull World Health Organ 2010 05;88(5):379-385.

(11) Douglas J, Mercer S. Remote and rural General Practice in Scotland: descriptors and.

(12) Ferri F, Grifoni P, Guzzo T. Online learning and emergency remote teaching: Opportunities and challenges in emergency situations. Societies 2020;10(4):86.

(13) Fisher KA, Fraser JD. Rural health career pathways: research themes in recruitment and retention. Australian Health Review 2010;34(3):292-296.

(14) Ford M. Men in nursing: Tipping the gender balance. Nursing Times 2019;115(3):8-9.

(15) Gilkison A, Rankin J, Kensington M, Daellenbach R, Davies L, Deery R, et al. A woman's hand and a lion's heart: Skills and attributes for rural midwifery practice in New Zealand and Scotland. Midwifery 2018;58:109-116.

(16) Hancock C, Steinbach A, Nesbitt TS, Adler SR, Auerswald CL. Why doctors choose small towns: a developmental model of rural physician recruitment and retention. Soc Sci Med 2009;69(9):1368-1376.

(17) Hegney D, McCarthy A, Rogers-Clark C, Gorman D. Retaining rural and remote area nurses: The Queensland, Australia experience. JONA: The Journal of Nursing Administration 2002b;32(3):128-135.

(18) Hegney D, McCarthy A, Rogers-Clark C, Gorman D. Why nurses are attracted to rural and remote practice. Aust J Rural Health 2002a 06;10(3):178-186.

(19) Holst J. Increasing Rural Recruitment and Retention through Rural Exposure during Undergraduate Training: An Integrative Review. International Journal of Environmental Research and Public Health 2020;17(17):6423.

(20) Jones GI, Alford KA, Russell UJ, Simmons D. Removing the roadblocks to medical and health student training in rural hospitals in Victoria. Australian J Rural Health 2003 10;11(5):218-223.

(21) Kyle RG, Beattie M, Smith A. Transition into remote and rural nurse education and careers: a qualitative study of student nurses. Journal of Research in Nursing 2020;25(6-7):509-520.

(22) Lea J, Cruickshank MT. The experience of new graduate nurses in rural practice in New South Wales. 2007.

(23) Lea J, Cruickshank M. Factors that influence the recruitment and retention of graduate nurses in rural health care facilities. Collegian 2005 04;12(2):22-27.

(24) Lee DM, Nichols T. Physician recruitment and retention in rural and underserved areas. Int J Health Care Qual Assur 2014;27(7):642-652.

(25) MacKay SC, Smith A, Kyle RG, Beattie M. What influences nurses' decisions to work in rural and remote settings? A systematic review and meta-synthesis of qualitative research. Rural Remote Health 2021 Mar;21(1):6335.

(26) Mbemba GI, Gagnon MP, Hamelin-Brabant L. Factors Influencing Recruitment and Retention of Health care Workers in Rural and Remote Areas in Developed and Developing Countries: An Overview. J Public Health Afr 2016 Dec 31;7(2):565.

(27) Molinari DB, A. The Rural Nurse. Transition to Practice. 1st ed. America: Springer Publishing Company; 2011.

(28) National Health Service Scotland. The Health care Quality Strategy for NHS Scotland. 2010;1.

(29) Penz KL, Stewart NJ, Karunanayake CP, Kosteniuk JG, MacLeod ML. Competence and confidence in rural and remote nursing practice: A structural equation modelling analysis of national data. J Clin Nurs 2019;28(9-10):1664-1679.

(30) Richards HM, Farmer J, Selvaraj S. Sustaining the rural primary health care workforce: survey of health care professionals in the Scottish Highlands. Rural and remote health electronic resource] 2005 / 01 / 01 /;5(1):365.

(31) Royal College of Nursing. Healthy workplace, healthy you helping create the best working condition. 2015;1.

(32) Scottish Government. Changing models of Health and Social Care. 2016;1.

(33) Scottish Government. Integration of Adult Health and Social Care. 2013.

(34) Scottish Government. Integration of Adult Health and Social Care Bill. 2012;1.

(35) Smedley AM. Becoming and being a preceptor: A phenomenological study. The Journal of Continuing Education in Nursing 2008;39(4):185-191.

(36) Syahmar I, Putera I, Istatik Y, Furqon MA, Findyartini A. Indonesian medical students' preferences associated with the intention toward rural practice.

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