A study to gain insights into

Why there is a shortage of Registrars in the Medical Directorate of a Non Dublin Academic Teaching Hospital

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Abstract

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The retention of high quality NCHD's is essential for the reform of the Irish Health Services and a critical component of hospital performance and quality patient care (Humphries, 2015). This research topic relates to the academic area of Talent Management which recognises that the success of any health service is dependent on "the appropriate number of specialist, who possess the required skills and competencies to deliver high quality and safe care, and whose training is matched to the model of healthcare delivery in Ireland regardless of location" (HSE, 2015; Humphries, 2015).The economic downturn had a significant impact on both individual doctor's working lives and retention in Ireland which has impacted hospitals around the country. This study found "the acquisition and transfer of knowledge and skills for the purpose of career development" (Guth et al, 2008 p. 830). However, it also found that if external factors are not present dissatisfaction will occur which has will impact filling vacant posts.

The researcher conducted a semi-structured focus group and a semi-structured interview with a Consultant Physician in order to gain insight into what attracted them to the hospital and what influenced their decision to stay or leave. The overall result showed that working conditions, career progression and mobility were key factors in the retention of doctors. A two tiered training system of training and non-training posts was a key factor in intention to leave.

The main factors that influenced doctors staying were work life balance, remuneration and completing Membership of the Royal College of Surgeon in Ireland exams which would make them eligible for Higher Specialist Training.

The consultant outlined that "retention was an issue at national level and attraction was an issue at local level". Further he outlined that a lot of factors relation to the retention of doctors "were out of our control", however, for the ones that were within our control he recommended reviewing working condition in the form of twelve hour rosters.

Submission of Thesis and Dissertation

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Research Students Declaration Form

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(a) I declare that the work has been composed by myself.

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Date: 30th August 2017

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Table of Content

CHAPTER ONE

Introduction

Ireland has the largest amount of medical graduates and the fourth highest amount of trained doctors to supply the Irish health services in the Organisation for Economic Co-operation and Development (OECD) (OECD, 2015). Currently there are 20,473 non-consultant hospital doctors (NCHD) employed in the Irish health services demonstrating a rise of 47% since 1993 (MCI, 2016). This represents largescale investment in the Irish Health Services during the economic boom whereby the health budget quadrupled between 1997 and 2007, (Department of Health, 2010; Burke and Pentony, 2011). Furthermore additional NCHDs were funded to meet legislative requirements and compliance under the European Working Time Directive (EWTD) (Hanly, 2003). To meet the demand for doctors in Ireland international graduate recruitment more than doubled between 2000 and 2008 meaning that Ireland is the second highest recipient of IMG in the OECD, (OECD, 2015; Tyrrell et al., 2016: MCI, 2016).

In 2008 Ireland's health services suffered significantly as a result of the global economic crisis. With 2.3 billion euro cut from the health services budget the medical workforce faced a reduction in pay of up to 30% and a recruitment embargo under the Financial Emergency Measures in Public Interest (Government of Ireland, 2009). A high court case followed initiated by Non-Consultant Hospital Doctors claiming breach of contract for non-payment of allowances. Further consequences of cutbacks, which were evident in the system by 2010, were longer waiting times for patients and unfilled vacant medical posts (Burke et al., 2014, IMO, 2013).

Against the backdrop of extremely challenging economic and fiscal conditions the Minister for Health in 2012 launched a strategic framework setting out reform for future health (Department of Health, 2011). The strategy recognised that the success of any health service in providing high quality patient centred care is dependent on the availability of trained doctors with the necessary skills and competencies (Humphries et al., 2015). As a result a strategic working group comprising of representatives from the Department of Health (DOH), Health Service Executive and Consultant representatives was established to engage with key stakeholders to develop a retention strategy to stop the outward migration of Irish Medical Graduates. Key stakeholders consisted of trainee doctors, health union representative bodies and the Irish College of General Practitioners.

The recommendations from this group became known as the MacCraith report named after its chairman Prof. Brian MacCraith President of Dublin City University.

Views expressed by Trainee NCHDs highlighted difficulties with recruitment and retention resulting from dissatisfaction with flexible working arrangements, lack of resources for clinical roles and an unsupportive culture from HSE management (Macraith, 2016). Furthermore, trainees highlighted dissatisfaction with the lack of promotional opportunities due to a shortage of Consultant posts. Additionally, they felt singled out unfairly during the economic downturn due to a 30% reduction for new entrant consultants recruited after October, 2012 (DEPR, 2013). With pay and working conditions featuring strongly, this report echoes findings from throughout the literature review that job dissatisfaction is a source of intention to leave the organisation (Nazim, 2008). Additionally, lack of opportunities for career development and advancement are strong contributors to employee dissatisfaction which impacts engagement and performance (Gunnigal et al., 2006).

However, despite the implementation of a number of recommendations this report has fallen short of expectations as there has been no positive impact on doctors in their day to day working lives (MacCraith, 2016). Working conditions and lack of career progression are still cited as reasons for emigration of Irish medical graduates. (MCI, 2016). Nonetheless, the Department of Health continues to cite the implementation of the remaining recommendation as a solution to rebuilding and reforming the health services (Health Statement of Strategy 2016 – 2019).

Arguably the recommendations that have been implemented in the past have not been sufficient to retain Irish medical graduates. Evidence from the Medical Council of Ireland shows that 35% of Irish medical graduates between the ages of 20 and 24 years intend to emigrate in the future because of better working conditions and career opportunities (MCI, 2015). In order to fill the vacant positions that graduates leave behind, Ireland has become the second highest dependency on internationally trained medical graduates (IMG) in the OECD (MCI, 2016; OECD, 2015) which is second to New Zealand who has 44% (Gauld, 2015). IMG represents 37.9 % of the Irish Non-Consultant Hospital Doctors (NCHD) workforce, 13.2% of whom are European Union (EU) citizens while the remaining 24.6% come from non EU countries including: Eastern Mediterranean (15.1%): Africa (5.5%); South East Asia (2.5%); Western Pacific (.9%) and the Americas (.6%). This demonstrates that Ireland is attracting and recruiting a significant amount of doctors from abroad, however, on the other hand represents

a large scale retention crisis as Ireland is failing to retain Irish trained medical graduates (IMO, 2013).

The aim of this research is to investigate why there is a shortage of Registrars in the Medical Directorate of a Non Dublin Academic Teaching Hospital. This research topic relates to the academic area of Talent Management which recognises that the success of any health service is dependent on "the appropriate number of specialist, who possess the required skills and competencies to deliver high quality and safe care, and whose training is matched to the model of healthcare delivery in Ireland regardless of location" (HSE, 2015; Humphries, 2015).

CHPATER TWO

2.0 LITERATURE REVIEW

The literature review will focus on reviewing the relevant theories and concepts of doctor retention and turnover and the impact this has on retaining Medical Registrars in a Non Dublin Academic Teaching Hospital. The literature review will begin by focussing on the concept of turnover and retention

2.1 Role of Medical Registrar

Registrars are (NCHD's) who practice under the supervision of a Consultant. (Grant and Goddard, 2012 p. 12) consider the role of the Medical Registrar to be the most difficult in the hospital. This is because they are "charged with leading the acute intake of all medical patients to the hospital when on-call, being the referring doctor for the entire hospital, a general practice helpline, counsellor for distressed relatives and gatekeeper of the medical assessment unit"

The career pathway of Medical Registrars start with a one year internship which allows them to be placed onto the general division of the Medical Council of Ireland (MCI) which is the regulatory body of the medical profession. Subsequently, Registrars take up a two year Basic Training Scheme (BTS) post recruited by the Royal College of Physicians of Ireland (RCPI) which allows them to compete for Higher Specialist Training (HST). Gaining access to the HST scheme is highly competitive with limited places going to Irish and European graduates first under European employment law and then the remaining to non EU nationals. Training takes approximately 4-6 years and usually entails travelling abroad for a 1 – 2 year fellowship. Registrars on HST are referred to as Specialist Registrars (SpR's) and rotate between hospitals every 12 to 24 months. This is in order to gain sufficient patient exposure and training experience to qualify them to become a consultant. Affiliated RCPI Consultant Trainers provide trainees with guidance and mentorship throughout their training.

Conversely, registrars who do not qualify for HST are recruited directly by each hospital to posts known as non-training or service posts. These doctors do not have a predetermined career path laid down by the RCPI. These doctors may apply to the Medical Council to have their experience ratified as equivalent to specialist training, however, many remain on the general register of the Medical Council and do not qualify for a consultant post under the Health Service Executive (HSE) guidelines. Overall, this represents a mismatched two tiered system of postgraduate training for medical registrars. Mitchel et al., (2013) argue that non-training posts are a source of inefficiency and poor quality training. Moreover, MCI (2016) intelligence survey highlights that 76.8% of International Medical Graduates fill these non-training posts and subsequently are not in formal training posts under the governance of the Royal College of Physicians.

Although SpR's are transient they cannot be eliminated from this study as they represent succession planning for future consultant posts. Even though there is a higher ratio of SpR's to consultant posts in Ireland there are currently 370 vacant consultant posts. This represents 15% of all consultant posts in Ireland. (Gilligan, 2017 p. 1) argues that one can only conclude "Ireland is an unattractive place to be a senior medical specialist". This has resulted in one hundred and twenty eight doctors working as consultants in Ireland who are not properly specialist trained (Wall, 2017).

Therefore, as the competition for newly qualified consultants increases it is important to obtain the perceptions and opinions of all Medical Registrars regardless of their training status. As a result this will influence attracting and retaining high quality registrars to staff the hospital which is a critical component of quality patient care.

From the literature two concepts have emerged as key factors for academic discussion in relation to staff shortages; retention and turnover. It is recommended by Maertz and Campion (1998) that these two concepts should be studied together. The next sections will outline the concept and theory behind these topics and how they influence this study.

2.2 Retention

In literature the concept of retention refers to the number of employees who stay in an organisation and an organisation's capacity to keep them (Philip, 2003). Similarly, (Dey, 2009, p. 45) defines retention as "a management initiative through company policies to create a high degree of employee satisfaction with the ultimate motive of retaining employees". According to (Sinha and Sinha, 2012 p. 146) retention is a complex concept with no single recipe for keeping employees with a company. As evident in the introduction retention of high quality NCHD's is essential for the reform of the Irish Health Services and a critical component of hospital performance and quality patient care. Findings by the MCI reported that retention is driven by perception of quality of learning environment, wellbeing, experience of bullying or harassment (MCI, 2016). Studies by Onah and Anikwe (2016) have also indicated that retention is driven by several key factors which ought to be managed congruently. They are organizational culture, communication, strategy, pay and benefits, flexible work schedule and career development systems. Equally, NCHD's personally reported difficulties in the areas of flexible working, lack of resources, unsupportive culture and lack of promotional opportunities due to a shortage of consultant posts in relation to recruitment and retention (MacCraith, 2016). Employee retention is an essential element of talent management which ensures "the appropriate number of specialist, who possess the required skills and competencies to deliver high quality and safe care, and whose training is matched to the model of healthcare delivery in Ireland regardless of location" (HSE, 2015).

2.3 Turnover

Employee turnover is defined as an employee's decision to leave the organisation (Nazim, 2008). In a general context Griffeth and Hom (2000) outline three dimensions of turnover which has implications for an organisations retention strategy. Firstly voluntary turnover is an employee's intention to exit an organisation due to factors such as job dissatisfaction. Conversely, involuntary turnover may be initiated by the organisation due to poor job performance. Secondly, unavoidable turnover occurs for reasons that an organisation may not be able to influence such as health, on the other hand, avoidable turnover results due to perceived better opportunities in another organisation (El-Ramly, 2012). Finally, not all turnover is equal, depending on the nature of the separation turnover can be either functional or dysfunctional Parker et al., (2011). Dysfunctional turnover occurs when high performing employees leave the organisation impacting negatively on performance (Dey, 2009).

(Griffeth and Hom 2010) argue that turnover maybe worthwhile in order to make way for new talent to rise to the top. Likewise, (Jelfs et al., 2014 p. 346) states that "staff turnover is a natural and necessary process in all health care organisations". This is true in relation to SpR's as they leave voluntary to move along a carefully planned career pathway. However, their counterparts in non-training posts may experience involuntary turnover due to non-renewal of contracts. Although they may leave voluntarily due to job dissatisfaction or to pursue better training in another hospital or another country. In this case this leads to avoidable turnover (Simon et al., 2010). In this case turnover of talented non-trainees is considered dysfunctional resulting in the indirect costs of work disruptions and loss of knowledge which is a significant issue for the hospital (Allen et al., 2010).

Evidence of direct costs of turnover in the HSE is well publicised as filling vacant posts with agency doctors cost the health budget two hundred million euro for the first half of 2016 (Broughan, 2016). Notwithstanding the cost of vacant posts the impact on staff morale and reputation of the hospital is less quantifiable.

Overall the concept of turnover is complex and multifaceted with different employees representing different values to the organisation, therefore resulting in different strategic measures in order to reduce turnover (Allen et al., 2010). Furthermore, Anvari et al., (2013) retaining high quality doctors impacts attracting high quality people in the future. However, as the number of non-training posts in the hospital far outweighs training posts it is vital that all talented registrars are treated equally regardless of their training status.

2.4 Model of Turnover

Holtom et al., (2008) outlines that turnover research today originates from March and Simon, (1958) Theory of Equilibrium. This model proposes job satisfaction and perceived job alternatives as determinants of turnover. Turnover research was progressed by Lee and Mitchell, (1999) by introducing the Voluntary Unfolding Model which evaluated the psychological decision making process in leaving rather than the source. The model outlines that there are four steps to be taken in the decision to leave. This model was used to support a study by Donnelly and Quirin (2006) on voluntary leavers. The study found that 91% of voluntary leavers identified that a particular jarring event contributed to their decision to leave. According to Becker and Cropanzano, (2011), a jarring event known as a shock is the first step of the unfolding model. The second step involves a plan of action known as a script. The third path is image violation which is a mismatch between individual values and goal attainment with organisational goals. Finally, path four is initiated by job dissatisfaction whereby an employee will leave with no job alternative. This model has implications for doctors in non-training posts as job satisfaction has been associated with intentions to leave and can be viewed as a shock event which sets the decision to leave in motion.

However, literature has critically assessed the voluntary model as focusing on the permanent ending of the relationship between leavers and the organisation. Shipp et al., (2014) argue that an employee who quits may return in the future and uses the analogy of a "Boomerang" for rehires and "Alumni" for those who do not return. Shipp et al., (2014) concludes that Boomerangs are more likely to return as they left earlier in their tenure (path one or two) where job satisfaction was not an issue. Conversely “Alumni” left at path four where job dissatisfaction was a factor so therefore the return of Alumni was negative. Either way staying in touch with employees who leave provide a valuable network for potential recruitment.

The Voluntary Unfolding Model

The Unfolding Model Paths

Attribute	*Path 1*	*Path 2*	*Path 3*	*Path 4A*	*Path 4B*
Initiating Event	Shock	Shock	Shock	Job Dissatisfaction	Job Dissatisfaction
Script/Plan	Yes	No	No	No	No
Image Violation	Irrelevant	Yes	Yes	Yes	Yes
Relative Job Dissatisfaction	Irrelevant	Irrelevant	Yes	Yes	Yes
Alternative Search	No	No	Yes	No	Yes
Offer or Likely to Offer	No	No	Yes	No	Yes
Time	Very Short	Short	Long	Medium	Long

Source: Lee and Mitchell Model of Turnover (1999) p. 451

2.5 The Development of Turnover Theories

The voluntary turnover theory has relevance to this study as the literature shows that job satisfaction and intention to leave are inter-related. Jiang (2015) states that in order to understand the unpredictability of staff turnover one must understand the theory surrounding it. This section will focus on the theories that are relevant to this study.

2.6 Economic Theory

Economic theory considers turnover in terms of supply and demand which are external forces to the organisation (Maertz and Champion, 2001). One common ground that all research conducted has agreed on is that global demand for doctors far outweighs supply with a talent shortage of 4.3 million doctors predicted worldwide by 2020 (Scheffler, 2008).

2.7 Psychological Theory

Psychological models examine "how personal characteristics, perceptions and attitudes towards work shape employees responses to the workplace, leading to certain behavioural outcomes" (Burns, 2015 p. 15).

2.7.1 Motivation

Motivation suggests that the environment influences employee's behaviour in relation to intention to leave. According to (Pinder, 1998 p. 11) work motivation is defined as "a set of energetic forces that originates both within as well as beyond an individual's being, to initiate work-related behaviour, and to determine its form, direction, intensity and duration". Maslow's Hierarchy of Needs Theory is depicted by a pyramid and determines that every individuals has five sets of goals referred to as basic needs. They are physiological, security, love, esteem and self-actualisation. This theory has been employed by academics in the area of retention and turnover and has implications for the management of employees.

A study of allied health care professionals in a rural setting in New South Wales used Maslow's Hierarchy of Needs to form a quantitative survey (Stagnitti et al., 2006). Results show that workers satisfied their basic needs for security through an orientation programme at the start of a new job, a clear job description of tasks to be performed, management support, work life balance and a career pathway. As a result this led to their social or belonging need being met which positively related to intention to stay. Moreover, the study found that younger workers were more likely to leave after a shorter period as their needs were not being met. By providing adequate induction, career guidance and education hospital management can meet the needs of

medical doctors to ensure that they reach their potential during their time at the hospital. Similar to Stagnitti et al. (2006), Hancock et al. (2009) employed Maslow's theory in a study of doctors working in a rural setting and found that "sense of place, community participation and familiarity" were reasons for doctors returning to work in their place of birth (p.1368).

2.7.2 Job Satisfaction

According to (Dolea, 2005) job satisfaction is a multifaceted construct that includes motivators which are internal values and hygiene factors which are external values. In comparison to Maslow's theory the seminal work of Herzberg (1966) identified the independent relationship between motivation and job satisfaction. Sutherland et al., (2004) outlined that in order to understand turnover one must look at the causes. This can be viewed from a theoretical perspective in terms of job satisfaction which is an individual's emotional response to current job conditions (Alshallah, 2004). Similarly, (Filho, 2016 p. 2) outlines how factors that influence satisfaction are found internally and include "psychological attributes of the job relating to nature, ability and recognition". On the other hand factors which lead to dissatisfaction are extrinsic to the job and include "pay, working conditions and hours of work". Thus we can see that although external variables do not motivate they must be present in the workplace to make employees satisfied.

Blevin, (2013) employed the theory of Motivation in considering the importance of job satisfaction in relation to providing quality patient care. Similar to Blevin (2013), Humphries et al., (2015) employed Herzberg's theory in a recent study to examine hygiene factors that have contributed to medical doctor's decision to leave the country. The survey concluded that extrinsic factors such as poor working conditions, inadequate training and low wages as reasons for emigration. As doctors had already emigrated, intrinsic factors were vindicated by motivators in the destination country including improved working condition and better support in training and research and from senior medical staff. This is supported by Hayes et al., (2015) who outlines that excessive workloads low pay and long working hours were among various reasons for doctor's intention to leave hospitals in Ireland. The challenge for organisations is to increase job satisfaction by focussing on motivators which will increase motivation and intention to stay. Furthermore, factors contributed these factors to sources of stressors in the environment for Specialist Registrars and Medical Consultants. As job stress is found to be a significant factor in voluntary turnover the next section will look at stress

2.7.3 Stress

Hayes et al., (2015) conducted a Delphi Qualitative Study which identified 10 top stressors among SpRs which impacts negatively on job satisfaction and intention to stay. In summary, stressors included staff shortages, contractual issues, work-life balance, lack of resources to implement the EWTD, poor perception in the media and patient demands. The stressors identified permit the focus on direct and indirect influences of turnover. This allows for the development of strategic actions which will inform management's processes and policies leading to increased job satisfaction and reduced turnover. These stressors can be viewed in accordance with the Model of Voluntary Turnover whereby stressors are "shocks" in the environment which can initiate the decision to leave. These shocks are within the control of management to rectify and by doing so may rebuild the trust between management and NCHD's which has suffered over the last number of year (Siebert et al., 2015). Limitations exist in the work carried out by Hayes et al., (2015) in relation to stressors because only SpRs were surveyed. By doing so the study excluded doctors in non-training posts who may have experienced different stressors as a result of their training status and tenure. Humphries et al, (2013) carried out a qualitative study to assess the thoughts and feelings of IMG who came to Ireland in search of postgraduate training and career progression. Findings included "limited career opportunities, stalled career progression and the perception of filling posts which Irish graduates did not want" (p.). This can be viewed in terms of person organisation fit which will be discussed in the next section. Moreover, trainees supported in achieving long term career goals report higher wellbeing, better quality of life and better health and consequently are less likely to leave (MCI, 2016).

2.8 Person-Environment Fit Model

Person environment fit implies congruence between individual variables such as needs or values and both individual and organisation outcomes for example higher performance and higher satisfaction (Latham and Pinder, 2005). Theoretically, P-E fit implies that a mismatch between the individual and the environmental characteristics could initiate a shock event and thus intention to leave. For example if an employee's knowledge, expertise and talents are not utilised achieving success would be difficult and dissatisfaction could induce turnover intention. (Chuang et al., 2016 p.), state that P-E is multidimensional as "individuals are nested in multiple aspects of an environment". Firstly Person-Job Fit (P-J Fit) refers to knowledge, skills and ability and is grounded in the education and experience of the individual (Christen and Wright, 2011). If misaligned this could potentially cause stress to the individual which would lead to poor performance. In the same line (Maynard and Parfyonova, 2013 p. 435) used this model and found that employees value work that utilizes their skills and also found that over qualification was linked to future actual turnover behaviour. Secondly, Person Organisation Fit is (P-O fit) acknowledge the fit between an individual and their organisation in relation to values and goals which can result in job satisfaction. Research from the literature review has shown the emergence of a mismatched two tiered system of postgraduate medical education which is not only a source of inefficiency and poor quality training but also a source of dissatisfaction for medical doctors (Mitchel et al. 2013).

2.9 Non-Training Posts

Although all doctors are in training and are responsible as member of the Medical Council to maintain their professional development many doctors are in formal supervised training posts which come under the governance of the postgraduate training colleges. Investigation, by the MCI (2016), intelligence highlights that 76.8% of IMG are not in recognised training schemes. According to Siar (2013) this is a double edged sword as lack of career progression represents deskilling for the IMG and loss of talent for the receiving country. This can be viewed in terms of person job fit whereby the employee's knowledge, skills and ability are not being progressed. This is a potential cause of stress as the employee is dissatisfied with the work environment, he is powerless to change the situation and hence has no other recourse than to leave for a better environment. This can be viewed in terms of the Voluntary Model of Turnover whereby dissatisfaction leads to the psychological decision to leave which subsequently initiates a plan. Conversely, where career progression is supported morale and commitment increases which impacts positively on intention to stay (CIPD, 2011). Furthermore, where basic needs are not met through career progression intention to leave is high. Finding show that trainees who were indecisive about their career path and had high intentions to leave Ireland (MCI, 2016). Additionally, trainees who were indecisive about their career rated their learning environments, quality of life and well-being less favourable than trainees who were secure in their career intentions. The challenge for management is to implement strategies which enable employees to fully achieve their goals by providing rewards including career development, learning and autonomy.

2.10 Previous studies on retention of Medical Doctors

It has to be noted from the outset that migration of Irish doctors is not a new phenomenon. Historically Mejia, (1978) stated that there were less Irish doctors living in Ireland than in foreign countries. Furthermore, back as far as 1993 34% of all doctors in Ireland were from non EU countries which represents 4% less than today (MCI, 2016). What has changed, however, is failure to retain Irish trained doctors has led to the over-reliance on IMG in order to deliver a safe quality health care system (Bidwell, et al, 2013).

Doctors are competing on the global stage with a highly valuable commodity in their professional qualification (Marchal et al., 2003). (Eastwood, 2005 p.1893) portrayed this movement as a "Medical Carousel" of mobile doctors in search of the best "standard of training, more attractive salaries and working conditions, and a higher standard of living". However, Brugha et al., (2016) found that almost fifty per cent of doctors who migrated to Ireland had intentions to migrate onwards because of lack of career progression opportunities for them in Ireland.

The Irish Medical Organisation (IMO) has consistently argued that Ireland has a retention issue rather than a recruitment issue (IMO, 2011). Similarly Humphries (2013) argue that emphasis has been placed on replacing health workers rather than changing their conditions which they are dissatisfied with. It is without doubt that there is an urgent need to focus on the retention of Irish Medical Graduates who are instrumental in delivering the highest quality and standard of health care to patients (Sohag et al., 2012; MCI 2015; Hayes, 2015).

Similar to Humphries et al., (2013), Bruce-Brand et al., (2012) conducted a study of Irish trained doctors who had emigrated. The study found lack of training and career opportunities, clearly define career pathways, environmental factors such as long work hours and work related stress and wage cuts were also determinants of turnover. In turn this argument was previously portrayed by Connell (2008) and generates the idea that the economic downturn of 2008 brought about a new carousel of doctors from developed countries in search of higher salaries that they had become accustomed to during the boom time.

This is supported by (Gauld et al., 2015 p.1.) who conducted a survey to understand the reasons why doctors left the National Health Services in England for New Zealand and found work place and funding pressure in the NHS as reasons for leaving the UK. Although, Bruce et al., (2012); utilized a qualitative approach it is limited as it focussed on the extrinsic factors as reasons for job dissatisfaction and emigration. Kelleher et al., (2013) concurred with the extrinsic factors, however further identified internal psychological attributes of the job which left doctors feeling undervalued and demoralised. These were mitigated by environmental factors in the country of emigration which gave them a "degree of autonomy and responsibility, an opportunity to enhance their ability and skills in order to reach their full potential. This can be viewed in terms of job environment fit.

The next section will look at the theory of Knowledge Workers in an attempt to explore and understand why there is a shortage Medical Registrars in a NDATH. Therefore this represents the gap for this research to be conducted within a NDATH.

2.11 Knowledge Workers

Donnelly (2009) suggests that characteristics of a doctor which include being well educated, highly qualified and mobile are consistent with Knowledge Workers (KW). This term was first used by Drucker (1974) to describe employees who carry knowledge as a powerful resource which they, rather than the organisation, own. In the same line (Guth et al, 2008 p. 830) states that highly skilled workers are motivated by the "acquisition and transfer of knowledge and skills" for the purpose of career development. (Koslowsky et al., 2012) outline that Knowledge Workers take control of their own career development and employability which is achieved through self-awareness and communicating sufficiently with fellow workers. Moreover, Johnson (2014) compare hospitals to "Knowledge Hubs" where the medical profession are trained, carry out research and improve the health of patients.

From a Person-Environment fit perspective KW have substantially different expectations of their employer than ordinary workers in terms of how they are managed (Edgar et al., 2015). Further, in a study of KW Edgar et al, (2015) highlight the pivotal role of front line managers in their performance and state that building trust and rapport with KW's is difficult but essential. What is more, Siebert et al., (2015) argue that trust has suffered in recent years due to the economic crash and reduced job security and because organisations are unable to provide guaranteed old style relational contacts. Van Langeveld (2013) argues that this can be viewed in terms of Self Determination Theory which posits that KW's are intrinsically motivated. Further, KW flourish when three psychological factors are present namely, autonomy, relatedness and competence. A study carried out by Hirschler, (2013) found that the need for autonomy and competence have the most powerful influence on intrinsic motivation. Strategic actions include high quality appraisal, personal development and other human resource management techniques.

Although, Drucker, (1998) outlines that KW are motivated more by intrinsic challenges of the work rather than financial gain. Wada et al., (2009) found that income fairness had a negative impact on doctors in Japan between private and public hospitals. Furthermore, this is in keeping with Hertzberg's motivation theory whereby absence of a motivator leads to dissatisfaction.

(Kelloway and Barling, 2000 P. 13) state that KW's relationship with management "reflects KW's belief that management is sufficiently skilled to justify employees' confidence in their actions". Hayes et al, (2015) observed that there is a poor view of management among SpR and questions if "the poor view of the quality of management a true reflection of the poor performance of a manager or representative of poor understanding among specialist trainees of the demands and constraints under which managers operate" Traditionally, Friedson (1970) argued that managements' responsibility was to ensure the dominant profession (physicians) had the resources and facilities to carry out their role. It was further identified that physicians held the power and were loyal to their profession rather than bureaucratic control (p. 6). Moreover, (De Burca, 2003 p. 38) outlined that Health systems are "difficult, complex and challenging to manage". Furthermore, Burke et al., (2014) states that since the economic downturn in 2008 there has been increased hospital activity with a lot less money. Further, findings show that the system can no longer do more with less and doctors are now at breaking point and doing less with less (Burke et al., 2014; Duddy, 2017).

Lee-Kelley et al., (2007) cites Senge (1959) Learning Organisation Model as a way to increase worker empowerment, autonomy and self-determination which impacts positively on job satisfaction. Developing a culture of learning by introducing new skills and ways of viewing the organisation must be developed in order to retain Knowledge Workers. According to Garvin (1993) the learning organisation is an innovative model where employees continuously learn and develop in order to obtain their goals. Senges model includes five elements; personal mastery; a commitment to life-long learning, shared vision; a commitment to long vision, shared mental model; creates an openness to change, team learning; a process of bringing the team together to attain goals and system thinking; is the ability to see the big picture and coming together to make change happen. (Nelson and McCann, 2010) states that this can be achieved through a strategically proactive Human Resource unit that creates a learning culture that encourages collaboration, teamwork and respect for people.

The next section will discuss the psychological contract and the changes brought about as a result of health care reform and changes to career paths.

2.12 Psychological Contract

Malik and Khalid (2016) argue that changes to the employee and employer relationship represents a breach in the psychological contract. This is described by (Rousseau, 1989) as the evaluation of the reciprocal relationship among rights, duties, responsibilities and obligations of the employee as well as the employer. Furthermore, studies demonstrate a correlation between breach of psychological contract and engagement which impacts negatively on retention (Malik and Khalid, 2016).

Although New Public Management (NPM) has attempted to improve state efficiency by placing private business practices into public services it has impacted negatively on the working lives of doctors, (IPA, 2014). It is evident that this new imperative has impacted doctor's job satisfaction by decreasing medical autonomy through increased regulation, guidelines and accountability therefore eroding their control over their professional lives (Edwards et al., 2016). Furthermore, (McGowan et al., 2013 p.3) argue "that greater acuity among patient population has placed a heavier and more challenging workload on hospital doctors". This is evident in the promise of Health Care Reform (2012 – 2015) which states that the need for change is related to "meeting patient's expectations, budgets and waiting lists".

A further change to the psychological contract has been identified by Biemann et al., (2012) who outlines how career systems in recent years have given way to the concept of the "free agent". Employees are now responsible for managing their own boundary-less career as opposed to the "organisational man" who spent many years in one company. This concept has implications on turnover as previously careers involved "structured and relatively predictable sequence of interrelated jobs, usually with increasing prestige over time" (McDonald et al., 2005 p.4). However, a study of career mobility of four generation of professionals i.e. matures (1946); baby boomers (1946 – 1964); generation X (1965 – 1979); and Millennials (1980 plus), Lyons et al., (2015) found that significant changes were found in job mobility with the youngest professionals being the most mobile. However, findings suggest that there has not been a significant shift in career patterns of older generations with the traditional career are flourishing. It could be argued that these findings coincide with those of the MCI report which as stated in the introduction of this study show that doctors up to the age of 24 years are most likely to emigrate. Further, implications for workforce planners indicate that managers should consider the upward mobility of young workers by implementing more rotations and

partnerships with other organisations. These rotations are already evident in specialist training whereby trainees rotate on a 12 month basis and finally go on an international rotation for up to two years at a time.

2.13 International Data:

Health Workforce Australia (2014) has identified that (IMG) are "the most flexible means of meeting short term supply gaps and distributional issues relating to the medical workforce". Similarly, evidence shows that Australia is the second most preferred destination for Irish medical graduates with the United Kingdom first and Canada third (MCI, 2016). Australian retention initiatives from policy makers are starting to positively impact the labour market reducing the need for IMG. These include increasing supply of domestic medical students and implementing tax incentives for doctors who stay after graduation.

Similar to Australia, New Zealand has increased its domestic supply to labour markets by increasing the number of medical graduates and decreasing the supply of IMG through increasing regulations (Gauld et al., 2015). The regularisation of credentials is a "powerful tool" for setting standards for entry into professions and ensuring quality patient care (Cheng et al., 2012). However, (Basran and Li, 1998; Cheng et al. 2012) argue that this may not be the case as IMG credentials are often devalued and certification becomes a barrier to professional practice. Evidence by the OECD, (2016) has found a mismatch of 75% between skill of health workers and requirement for the job. On the other hand, OECD (2016) also raises the issue of skills recognition for the IMG where 50% of doctors were found to be under-skilled for some of the tasks that they had to perform. This has implications for person job fit as misalignment of knowledge, skills and ability could result in firstly having an adverse effect on quality of patient care and secondly causing stress to the individual and poor performance.

The United Kingdom (UK) have responded to the problem of non-training posts by changing immigration policy allowing IMG to be recruited to training posts only, (Tyrrell et al, 2016). Despite Ireland signing up to the WHO code of practice for the protection of developing countries and their doctors, filling non-training post with IMG represents inequality as they are being treated less favourably than domestic trained graduates (WHO, 4.4). Edge and Hoffman (2013), conducted a questionnaire to participants in the four large English speaking countries, UK, America, Canada and Australia who concluded that there is very little awareness of the Code.

2.1.4 Attracting doctors back

Despite Ireland increasing medical graduate admission to Irish colleges by more than 50% since 2006 this has not resulted in self-sufficiency in specialist medical training. To date the HSE still face significant recruitment challenges (Gilligan, P. 2017). Humphries et al., (2015) reported that the longer doctors stay abroad the less likely they are to return. In order to attract doctors back to Ireland and compete with working conditions and career opportunities in destination countries the HSE must improve working conditions. Additionally, it is necessary to increase the number of consultant posts in the system in order deliver a Consultant led service to patients rather than a consultant driven service (Hanly, 2003). This would increase the number of training posts in order to meet the demand of the consultant led service. This will alleviate the over reliance on NCHD's ensuring sufficient support and more opportunities for development and promotion.

2.1.5 Literature Conclusion

There is a gap in the literature examining why there is a shortage of doctors in a NDATH.

The literature review has sought to provide the context for this proposed study. Retention of doctors has been subject to a lot of attention both in the media and by academics who relate it poor working conditions, emigration of doctors and underperformance of the Health Services.

This study has integrated the model of voluntary turnover with the concept of retention and turnover by using economic and psychological theory. This is in order to understand what attracts a doctor to join the hospital, why they stay and the reason they leave.

Literature has shown that doctors are highly mobile and combined with their training and education are highly sought after globally. This has created a medical carousel of doctors moving around the world in search of a better standard of training and living conditions (Eastwood, 2005). Literature has shown that Irish doctors are part of this carousel too with the UK and Australia their country of choice.

There is strong evidence in the Irish literature of a two tiered system of registrar training, those on training schemes and those who are not on a scheme. Those who are not on the training scheme have limited career progression. From this the theory of motivation and job satisfaction are critical to the study of doctors in relation to turnover and retention. Irish literature focuses on the external factors of job satisfaction in terms of working conditions and organisational factors. Evidence shows that doctors on training schemes are more

satisfied with their working conditions than their counterparts who are not (MCI, 2016). This implies that SpRs voluntarily leave the hospital in order to fulfil intrinsic needs which is "the acquisition and transfer of knowledge and skills for the purpose of career development" (Guth et al, 2008 p. 830). This can be viewed in terms of Drucker's theory on Knowledge Workers.

This highlights the gap in the literature. Most Irish Literature focuses on the extrinsic factor of job satisfaction with one study specifically identifying the stressors (Hayes, 2015). There has been little study on the intrinsic factors that lead to job satisfaction. By using Drucker's theory this study explores the characteristics of doctors in terms of knowledge workers and highlights that acquisition of knowledge and career progression are the variables to job satisfaction and turnover which can also be termed mobility (Drucker, 1974).

Although, the literature on KW has shown that doctors are motivated by intrinsic factors it also shows that if external factors are not present dissatisfaction will occur. From this it is evident that external factors such as working conditions are critical in order to ensure job satisfaction and retention of medical registrars. The literature also highlights the pivotal role of management in KW performance and the changes that have been brought to the psychological contract over the last 10 years.

Chapter Three – Research Question

From the literature presented it is clear that shortage of doctors is a problem to the delivery of safe health care. The overall aim of this research is to investigate why there is a shortage of NCHD at Registrar level in the Medical Directorate of a NDATH. The analysis and findings of this research will aim to add to the Irish Literature based on the topic of retention and doctors within the Medical Profession. Alongside this, recommendations for how to potentially attract and retain medical Registrars within the environment of a NDATH. In order to achieve the aim of the study, it is essential to establish objectives which are evident below:

The key aim of this study is to investigate and explore why there is a shortage of Non-Consultant Hospital Doctors (NCHD's) at Registrar level in the Medical Directive of an acute Non Dublin Academic Hospital. This will be addressed by considering the relevant objectives.

Objective 1: To establish Medical Registrars views on their intention to leave or stay in the hospital

Objective 2: To identify the factors influencing registrars reasons for staying and leaving

Objective 3: Investigate the factors influencing career progression

Objective 4: To establish a consultant's view on retention and turnover in a NDATH

Chapter Four: Methodology

4.1 Introduction

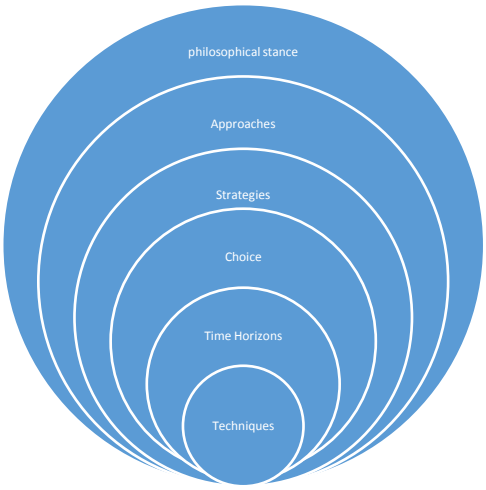
The Literature Review has discussed, compared and evaluated a substantial amount of secondary data in the form of relevant literature from experts in the field of retention. The purpose of this chapter is to outline and explain the approach taken to the research and to provide an understanding of how the research was collected and presented. This study will attempt to determine if the results support the findings in the literature by exploring whether there is a link between motivation, job satisfaction and career progression and intention to leave.

This chapter outlines the methodology adopted in this research project. The purpose of this chapter is to identify how the researcher defined research, outline the research stages, compare alternative frameworks in order to formulate a research strategy. This will detail the approach taken to understand, collect and present the research obtained in support of this dissertation. Secondly, it will justify the paradigms used to fully investigate the philosophical positioning and alternative methodologies chosen to construct a Research Design. This will aim to fully investigate alternative methodologies and decide between Qualitative, Quantitative and mixed method approaches. This will be justified and critiqued and a clear understanding of the importance of a robust approach to undertaking the study. The ethical consideration framing the research and the limitation of the research will be discussed. Additionally, the sampling technique research instrument and procedure for data collection and analysis will be clearly articulated.

4.1 The Research Process

For the purpose of this research the "Research Onion" will be used as a road map to design a method to address the objectives of this research (Saunders et al., 2012), (Figure 1). This approach represents logical stages that must be adopted to formulate an effective and efficient method. Defining the philosophical stance enables the researcher to establish the research approach. In turn this allows the researcher to embrace a research strategy that will determine the plan of action in order to answer the research question. Finally, the time horizon the research will be conducted in. This approach is supported by (Opie et al., 2004; Wheeldon and Ahlberg, 2011), who defines methodology as a "design, strategy or plan of action to gather and analyse data which should form a discussion as to the philosophical nature of knowledge and how this is framed through your research". However, (Creswell, 2012 p. 47) argues that the "initial plan cannot be tightly prescribed" due to the fact that the plan may change once the researcher starts to gather the data from the participants. This is supported by Crotty, (1998) who breaks down research in a more simplistic manner of four interconnected elements which serves as a useful approach to looking at social research methods such as the question posed by the Researcher. They are the theory of knowledge, the philosophical stance, plan of action and the technique employed.

Figure 1.



Source: The Onion Approach. Source: Saunders et al., (2012).

4.2 Research Philosophy

The following section will seek to justify the paradigms used to fully investigate the philosophical positioning of this research.

According to (Saunders et al., 2012 p. 132) research philosophy "relates to the development of knowledge and the nature of that knowledge". This is achieved through a systematic and methodical process of inquiry and investigation grounded in three research philosophy components namely; epistemology, ontology and axiology (Collis and Hussey, 2013). Epistemology is the area concerned with the nature of acceptable knowledge in a field of study also known as the "world view". The fundamental epistemological question is "whether this view can and should be studied according to the same principles and ethos as the natural sciences" (Saunders et al., 2009, p.112).

Ontology is concerned with the nature of reality and focuses on what exists. This raises the question to how the researcher interprets and understands reality (Lincoln and Guba, 2000). From a philosophical perspective ontology can be either subjective as the interaction is with human beings or objective as the interaction is with objects (Usher, 1996). Kehily, (2012) uses the analogy of a house and outlines if ontology is the foundations epistemology is the rising walls. We can only construct how knowledge is acquired (epistemology) if we build on what is out there to know (ontology).

Finally, axiology examines personal judgement about the values of the Researcher which gives the research credibility (Heron & Reason, 1997). As a result this demonstrates the objectives and value of the research which can ultimately influence change.

4.3 Research Paradigm

The positioning of the research is steered by the amalgamation of all three philosophical components which determines the orientations of the researcher. Creswell (2003) describes this stage as the research paradigm which is the personal beliefs, perceptions and assumptions of the researcher. This is evident in the research phenomena being examined where, philosophically, the researcher makes choices to inform the best method to be adopted in order to answer the research question driving the study. Collis and Hussey (2013) describes the two core paradigms as either positivist or interpretivist.

Ontologically, the positivist views social reality as external and objective by epistemologically using numerical methods and statistical technique such as questionnaires or surveys. Axiologically the Researcher remains separate from the research to measure social phenomena in a value-free way (Anderson, 2013). Conversely, ontologically the Interpretivist's viewpoint of the world is subjective and acknowledges individuals perceptions of the world. Epistemologically the Researcher tries to assess this reality by qualitative methods such as interviews or observations. Axiologically, the Researcher is value bound and cannot be separated from the research (Scotland, 2012).

4.3.1 Paradigm Wars

"Paradigm Wars" have raged between the two approaches with one dismissing the strength of the other (Guba & Lincoln, 1994). (Miles and Huberman, 1994 p. 100) argues that to a practical pragmatist "all this is mumbo jumbo and does not get the job done". Based on this assumption a "third way" or "middle way" was identified, namely pragmatism. This was to ensure congruency. As a result, it can be determined that there may be more than one method needed to answer a particular part of the research question. This allows the strength of one approach of "what works" to offset the limitation of the other allowing the Researcher to use a mixed method approach to answers the question (Doyle et al., 2009).

4.4 Research Approach

Peeling away the layers of the Research Onion reveals a further consideration in the research process which is the Researcher's approach to theory. According to (Abbott and McKinley, 2013, p. 22) "theory is the basic block of social science helping to structure the ways in which we view how and why things work together". Furthermore it is noted that "theory links concepts". As a result, researchers can build theories consisting of "constructs linked together by propositions that have an underlying coherent logic and related assumptions" (Davis and Bingham, 2009 p. 481). These two approaches to research are inductive and deductive.

A deductive approach is grounded in the epistemology of science which involves developing theories that can be tested and drives knowledge of individual phenomena from universal laws (Yin, 2014). The deductive approach can be classified as a positivist approach and the method of data collection is quantitative (Bryman, 2008). The Researcher is detached from the phenomena being studied enabling generalisation of findings through a large sample size (Saunders et al., 2009). Conversely, the inductive approach is grounded in the epistemology of social science which involves developing theory from observations of a limited number of events where conclusions are drawn. Researchers using an inductive approach are concerned with the context of events, therefore, a small sample of subjects may be more appropriate. The inductive approach can be classified as interpretivist and uses qualitative methods.

The philosophies discussed above assist in developing the strategy for the method of data collection; this can be categorised as Qualitative, Quantitative or Mixed Method approaches to research. These approaches will be discussed in the next section

4.4.1 Quantitative Method

Quantitative research is usually deductive in nature and ordinarily focuses on the compilation of numerical data (Saunders et al., 2009). Quantitative research philosophically underpins positivism and assumes that there is only one objective reality. In turn this is grounded in theories that can be tested and explained (Quinnlan, 2011). There is strong evidence in the literature review of a dominant positivist paradigm favouring Quantitative data collection in job retention and turnover research for medical doctors (O'Cathain et al., 2004). For example, Gouda, (2015) conducted an online cross sectional survey to ascertain the emigration intention of Irish medical students. A response rate of 37% was lower than a similar UK study which a posted questionnaire to medical students. Despite the use of surveys and questionnaires poor response rates from medical doctors are well documented leading to limitations including non-

respondent bias and increased risk of invalidity (Bell, 2007; Scott et al., 2011; Yarger et al., 2013).

4.3.2 Limitations of Quantitative Method

According to Saunders, (2009) objectivity should not always be relied upon as subjectivity and interpretation that Qualitative Research brings has its advantages. Additionally, response rates to questionnaires or surveys can be low from the medical profession thereby introducing non-respondent bias (Scott, 2011). Furthermore, data collected through quantitative methods such as questionnaires make it impossible to clarify participant's responses and gain a deeper understanding of the findings. However, attempts have been made to reduce this limitation of quantitative research by adding open ended questions to questionnaires or surveys resulting in quasi qualitative data. (O'Caithin et al., 2004) argues that this too has its limitations due to a short response space that does not qualify for the conceptual richness obtained from qualitative research. (Goldacre et al., 2003) used open ended questions in a quantitative survey of all medical doctors who qualified from any United Kingdom medical school over a seven year period. This was to ascertain career intentions and views on their training and work. As a result, a significant theme emerged consisting of a negative image in the media of medical doctors which resulted in low morale and future career intentions of high school students. Low morale is consistent with job dissatisfaction and intention to leave (Mosadeghrad et al., 2008). While this study shows there is undoubtedly an advantage to the use of open ended questions, there is a dilemma whether or not this data should be analysed quantitatively or qualitatively (O'Caithin et al., 2004).

4.4.3 Qualitative Research Methods

Qualitative methods rely on non-scientific research methods which underpins the interpretivist view of the world. This involves an inductive approach which works from the ground up seeking to understand individual's perception and experience of the environment in which they operate (Guba & Lincoln, 1994; Scotland, 2012).

4.4.4 Limitations of Qualitative Research Methods

Denzin and Lincoln, (2013) states that qualitative "data collected is too influenced by external cultural and political factors and therefore provides a humanistic soft scientific commentary". As a result this data is unsuitable for those who legislate for social policy.

4.4.5 Mixed Method

According to (Creswell et al., 2011) by employing two or more research techniques this off sets the disadvantages of using individual approaches. Mixed methods gain the advantages of combining both methods in order to give a more diverse set of sources. This view is supported by (Anderson, 2009) and (Creswell et al., 2012) who further state that a mixed method approach can provide a more a more thorough analysis of results and findings.

Creswell, (2012) identified four main approaches of mixed method research. Firstly, convergent parallel mixed methods allow the researcher to bring together qualitative and quantitative research designed to carry out a comprehensive analysis. Secondly, explanatory sequential mixed method approach allows the researcher to carry out and analyse quantitative research before using the results as a starting point for qualitative. Marchal et al., (2012) argue that this method risks placing qualitative data into the "positive box" by trying to quantitatively verify the data found. Notwithstanding, this quantitative data presented in strategic reports provide useful statistical data on doctor retention and turnover (MCI), (NDTP) (MacCraith) (IMO). Thirdly, exploratory sequential mixed methods starts by conducting qualitative research to explore participant's views and subsequently uses this information to build research "qualitative research findings can enhance quantitative survey data by placing the latter into real social contexts and enhancing understanding of relevant social processes". This was evident in the National Survey on health and wellbeing of doctors where a Delphi process obtained a detailed description of work stressors (Hayes et al., 2015). Finally, transformative mixed methods is an advanced matrix for research collection and analysis drawing on social justice or power for the perspective within the design and have standardised characteristics.

4.3.6 Rationale for Research Approach for this study

The Researcher followed the following steps in making the decision to utilise qualitative method approach. This was to enable the researcher to explore the opinions and perceptions of participants in an attempt to identify and extract common themes.

Firstly, the researcher considered the ontological perspective of the research and determined that it was subjectivism as it considers that "social phenomena developed in social contexts and that individuals and groups create, in part, their own reality" (Quinlan, 2011, p. 96). This is relevant to this study as the researcher seeks to understand why medical registrars are attracted to this hospital. The study also seeks to understand their experience of working in the hospital which leads to their decision to stay or leave.

Secondly, the researcher considered the epistemological perspective of the research and determined that this study is grounded in the paradigm of interpretivist. This is because it acknowledges the medical registrar's perceptions and opinions of the world. Medical registrars are seen in terms of social actors by the researcher who seeks to understand their view of the world they live in (Saunders, 2009).

Thirdly, axiologically the researcher will take an empathetic position in the approach to the research. The researcher values the role of the medical registrar in the hospital setting as they play a vital role in the safe delivery of patient care. Finally, an inductive approach was taken because the researcher sought to collect and analyse data in order to build and develop theories.

Furthermore, qualitative methods of research can result in strategy development and policy implementation. This is achieved by interpreting the views of key stakeholders through describing the environment in which policies will be implemented. (Anderson C. 2010; Carlsen, 2011). As a result there is potential to develop an understanding between doctors and key decision makers in order to influence changes to work structures and systems (Watt et al., 2008). Overall, (Holloway et al., 2016 p. 12) states that "qualitative researchers adopt a person-centred and holistic perspective which helps develop an understanding of human experience".

4.5 Research Strategy

The research strategy sets out a plan of action which links the philosophy and subsequent choice of methods to collect and analyse data in order to answer the research question and objectives (Denzin et al., 2008; Saunders et al., 2012). For example, Guest et al., (2013) outlines that qualitative studies can be phenomenology, ethnography, inductive thematic analysis, grounded theory and case study. Thematic analysis consists of analysing and interpreting data and identify themes which is one of the most common qualitative data analysis methods employed in the social sciences (Guest et al., 2013). Further, Thematic analysis facilitated a flexible approach to the exploration and interpretation of the data. Thematic Analysis has been has been selected for this study.

Although grounded theory is a type of applied inductive thematic analysis it was not selected as it requires exhaustive comparisons between small units of texts and it can be quite time consuming. A general inductive thematic analysis gave the researcher flexibility not available in grounded theory or other strategies. Similarly, ethnography as a strategy which tracks both groups and individuals in their natural setting, typically for long periods, was not used. This was considered inappropriate for ethical reasons as it would involve contact with patients which would be considered high risk.

4.6 Research Design

The research design of this study is Qualitative. Qualitative methods facilitate the aim of this research which is to investigate and explore why there is a shortage of Non-Consultant Hospital Doctors (NCHD's) at Registrar level in the Medical Directive of Non-Dublin Academic Hospitals. The Researcher used the themes which emerged from the literature review to conduct a focus group. Two focus groups were conducted in order to reach saturation. The data from the focus group was then organised inductively by categorising themes using thematic analysis (Creswell, 2012).

A further stage of analysis took place involving presenting the main findings from the literature and the focus groups to a Consultant who is a practicing physician and also involved with the selection of trainees with one of the main colleges. This ensured a practical contribution by subjecting the findings from the focus group to scrutiny. This helped to assess relevance and

practicality of the study. The two data collection methods will be discussed in relation to this study.

4.6.1 Focus Group

According to (Wilkinson, 2004; Onwuegbuzie et al., 2009) a focus group is "a qualitative research technique set about collecting qualitative data through face to face interaction and discussion with a small informal group around a predetermined topic or set of issues raised by the Researcher". The focus group was used because it allowed for informal discussion to take place in a safe non-judgemental environment (Krueger et al., 2014). This allows the Researcher to understand and explore the everyday discussion. This interaction is the "Hall Mark" of the research methodology making it unique and less easily accessible by any other qualitative methods (Kitzenger, 1995). Sagoe (2012) outlines that no other research method can tap into everyday communication such as arguing, joking and teasing as a way of stimulating thinking and discussion in order to generate ideas on their values and beliefs. Furthermore, it was more beneficial as it achieved a small scale insightful single method study rather than a large-scale study that may not be finished in the time scale allocated for the study. This is a view supported by (Greenbaum, 1998; Holloway et al., 2016) who further states that novice researchers tend to be overambitious resulting in research not being complete or failing to produce any new insight into the topic. Questions for the focus group were based on themes which emerged from the literature review.

4.6.2 Limitation of Focus Groups

Sagoe (2012) states that there are two limitations to the focus group namely the basic nature of the group discussion and the Moderator. Although synergy is one of the strengths of the focus group, it can also contribute to its weakness as interaction and communication can result in more critical comments than those that are found in individual interviews. (Carlsen et al., 2011) states that "focus group interactions may encourage participants to exaggerate their views in a negative direction and furthermore use the group as a platform for complaining about unjust practices". Furthermore, dominant participants may sway less vocal members of the focus group leading to bias which results in statements that are in line with group norms (Kitzenger, 1995; Greenbaum, 1998; Wong, 2008; Sagoe, 2012;)

The role of the researcher is to recruit for the group, which may be difficult to assemble, so therefore it is necessary to over recruit in the event that participants do not turn up. According to (Onwuegbuzie et al., 2009) the ideal number of candidates is between 6 and 9, however, a

mini focus group can be conducted with as little as 3 or 4. The researcher must also act as the moderator which may be difficult as it takes experience to control the group by actively encouraging participants to get involved (Sagoe, 2012).

4.6.3 Interviews

It is acknowledged from the literature review that the preferred qualitative data collection method is interviews either structured or semi-structured (Berg et al., 2004; Marshall et al., 2014). There are three types of research interviews: unstructured, semi-structured and structured, (Naoum, 2007). The type of question used determines the classification of the interview. Closed questions which involve a specific set of questions results in a structured interview. Open-ended questions allows the interviewees to expand the direction of the interview resulting in an unstructured interview. A semi structured interview combine a mix of open ended question and closed ended questions. In particular the use of semi structured interviews provide a flexible guide by using open ended questions which allows the interviewer to vary the questions slightly between participants and probe interesting responses (Pope et al., 2002; Quinlan 2011). Furthermore, Fern et al., (1992) identifies that more ideas are generated from one to one interviews than any other form of qualitative research. The questions for the interviews with the policy maker have been informed by the data collected from the focus group. Open ended questions formed the basis for the interview which gave the Researcher the opportunity to collect detailed information and be in control of the interview process. Limitation of interviews that can be identified for each type of interview structure is that it is time consuming both in the process and in transcribing and can allow for bias by the researcher when interpreting the data.

4.6.4 Using data from Quantitative Survey

Although quantitative methods cannot reach aspects of complex behaviours, attitudes and interactions this large body of information creates a basis for further research to be conducted (Pope & Mays, 1995, p. 44). This is a view supported by (Bowling, 2014 p. 2) who notes that "qualitative research findings can enhance quantitative survey data by placing the latter into real social contexts and enhancing understanding of relevant social processes". From this the recently conducted Medical Council of Ireland (MCI) survey "Your Training Counts", issued to all registered doctors, provided strong findings on career intentions, retention and emigration plans (MCI, 2015). As a result this research will use the findings from the survey to

complement and support the findings from the focus groups therefore leading to more holistic research (Holloway, 2016).

Focus Group Questions

1. What brought you to this Hospital
2. What might make you or your colleagues leave this hospital
3. What specific things about your job make you want to stay working here
4. How important is continuous professional development to you
5. Would you leave your job to pursue a better career path
6. Would you recommend the hospital to a friend

Interview Questions

1. What does retention mean to you?
2. What are your views on the teaching and training that Medical Registrars receive in the Hospital
3. How do you feel about non-training posts versus training posts
4. What are your views on the working environment of medical registrars

4.7 Research sample

Convenience sampling was used as the researcher needed access to individuals working in the organisation. The sample size was small approximately thirty. Qualitative research is better for sample size as it increases the chances of gaining more participants to the study (Krueger, 2000; Holloway, 2016). Participants were recruited through an invitation via email to all medical registrars in the NDATH and was entirely voluntary. Recruitment criteria for the focus groups required that the participants were registrars from the Medical Division the hospital that they all worked in. Participants for the study were purposefully selected as they represent a speciality which is plagued with a shortage of registrars which impacts on their daily working lives. Furthermore, vacant posts are filled with agency doctors which are costly to the hospital. Both focus groups were held in a private room in the main hospital. All participants knew each other. As the focus group took place during lunch time a light lunch was provided.

4.8 Data Analysis

For the focus groups the interviews were recorded with the permission of the participants using a Dictaphone. The length of each focus group varied between forty five minutes and one hour. For the semi structured interview the researcher took manual notes. The length of time was 1 hour. Interview questions were based on research objectives and an analysis of the relevant literature (Becker et al., 2011).

The strategy identified for this study is thematic analysis which consists of analysing and interpreting data and identify themes (Guest et al., 2011). Furthermore, thematic analysis is one of the most common qualitative data analysis methods employed in the social sciences (Guest et al., 2013). Thematic analysis facilitated a flexible approach to the exploration and interpretation of the data. This resulted in four major themes as follows: recruitment, career progression, mobility, working conditions and retention.

Braun and Clarke (2006 p. 87) identify logical stages to thematic analysis. Phase one, the researcher familiarises themselves with the data by transcribing the focus group recording and the notes from the semi-structured interview. Secondly, the researcher generated codes for each theme by drafting a spreadsheet and coding all the relevant data. Thirdly the researcher searches for themes. 16 themes were initially found in the data. Fourthly the researcher reviewed all the themes which narrowed them down into four overarching themes. Finally, a table was set up in excel which allowed the quotes from the focus group to be entered under each heading. The themes were subsequently used to form part of the questions used in the semi-structured interview with the consultant.

4.9 Quality Validity and Reliability

One area that both qualitative and quantitative research share with each other is a commitment to the rigorous collection of high quality data and honest reporting (Grudens et al., 2004). The challenge to the researcher in this study is to produce research whereby the evidence and conclusion can stand up to close scrutiny of the scientific canons of inquiry i.e. validity and reliability (Saunders et al., 2012). In order to ensure validity and reliability for the focus group a participant volunteered to read the transcript of the meeting. As the tape was transcribed directly word for word there were very few changes.

(Mays and Pope, 2000) suggest the researcher ask the following three questions to determine whether the conclusions of a qualitative study are valid:

- How well does this analysis explain why people behave in the way they do?
- How comprehensible would this explanation be to a thoughtful participant in the setting?
- How well does the explanation cohere with what we already know?

4.10 Time Horizons

This study is a cross sectional study as it was an observational study which collected and analysed data from a population in a specific point in time (Mann, 2003)

4.11 Ethical Considerations:

The ethics submission for this study was considered low risk because the purpose was to study the perceptions of everyday working lives rather than patients or clinical action. The anonymity of the participant and interviewee were ensured by applying a code to the interview and participant's names. Consent was obtained from each participant prior to the interview with full details for the proposed research provided by email. Participants were given a guarantee that no information in relation to their response would be given to management. All documents and cassette tapes will be held by the Researcher and not released to a third party. The email sent to the participants inviting them to the focus group had a covering explanation identifying the researcher and the purpose of the research. Participation was voluntary.

4.12 Limitations

Although the focus group produced some excellent data, the inexperience of the researcher in the role of mediator resulted in questions not being probed further. Also the researcher felt that one of the focus groups were conscious that the researcher was from the HR department and may not have answered the questions totally honestly.

It is acknowledged by the researcher that the sample size of participants are not guaranteed to be representative of all registrars in both training and non-training posts and maybe biased towards one set. This is a limitation of qualitative research and in particular a focus groups whereby participants are invited to attend. The researcher was not sure who would turn up on the on the day. The use of individual semi-structured interviews may have resulted in the researcher targeting an equal number of both medical registrars in training and non-training posts. Despite this limitation, it is one of few studies which combine both training and non-training registrars from the same hospital. This identified common themes which can potentially influence local retention policies.

Due to time constraints and the work schedule of both the researcher and policy maker it was not possible to interview them. This has left some unanswered questions in relation to the reason why there are non-training posts in the system. Also it has resulted in the loss of an opportunity to explore possible solutions to ensuring that highly qualified IMG gain access to SpR schemes. Further research is needed in this area.

Chapter Five

5.0 Introduction

The aim of this chapter is to present the findings of the research undertaken within a NDATH. This was achieved through conducting two semi structured focus groups with medical registrars and one semi structured interview with a consultant physician in the senior role of decision maker and policy maker. The focus group questions were developed to reflect the research aims and objectives and analysis of relevant literature. Emerging themes from the focus groups formed the research questions for the semi structured interview. The following sections outline the main themes and subthemes emerging from analysis of the interview transcripts.

The overall aim of the research aim is to gain insight into the reasons why there are a shortage of registrars in the Medical Director of a NDATH. The research objectives are to establish medical registrars' views on their intention to leave or stay and identify the factors that influence this decision.

Thematic Analysis provided four key overarching themes as follows:

- Theme 1 Career progression for medical registrars
- Theme 2 Mobility
- Theme 3 Retention
- Theme 4 Working Conditions

This section will present the key findings under each thematic heading. Reference will be made to the relevant literature.

5.1 Theme 1 Career Progression

The participants were first asked what brought them to work in the NDATH. Most Registrars said that they came because a family member or a friend recommended the hospital to them. While others had worked previously in the hospital as a more junior grade and returned to take up a more senior post. "I was an Intern here and I did my SHO training here so I suppose I was comfortable with the hospital and felt that it would be a good fit for me".

Findings echo those of the Person-Environment Fit Model which implies a match between the needs and values of the individual and the environment which results in higher performance (Latham and Pinder, 2005). For the participants who had previously worked at a lower grade taking up a posts represents career progression albeit in a non-training post. "Where career progression is supported morale and commitment increases which impacts positively on intention to stay" (CIPD, 2011).

However, there was quite a large degree of variety in participants reported perception of career progression. One of the main negative impacts on career progression is the ability to obtain a specialist registrar post. This results in many registrars working in non-training or service posts indefinitely. Some participants in training posts expressed the view that not having an EU passport limited their chances of getting onto a training scheme. This feeling of unfairness was summed up by one contributor as "*if you don't have an EU passport you are at the bottom of the pile"*.

These findings can be related to regulation of immigration policy by the United Kingdom whereby only IMG can only be recruited to training posts thereby matching skills to the requirement of the job. The literature views this in terms of person job fit which suggests if misaligned this could potentially cause stress to the individual which would lead to poor performance (Christensen and Wright, 2011).

Other participants said that it was "*who you know*" and "*the speciality you were in*" that gave you the greatest advantage. There was also a strong sense that if you worked in a particular part of Ireland you had a greater chance of getting the scheme "*Doctors from Hospital x always got a place*". There was a feeling that by applying to schemes that had fewer applicants gave you a better chance of securing a place regardless of your nationality. "*There is a lot of shortages on X scheme now a days, it is also a good profession"*.

Another participant felt that it was merit based on the criteria of having relevant exams. "I don't have any contacts, but, I am sure that I will get my exams and I will reach the eligibility criteria". For other participants they had not thought about specialist training as they had not completed the relevant exams. "I haven't thought about specialist training yet until I finish my Membership of the Royal College of Ireland (MRCPI) exams".

Thus there was a strong sense from medical registrars that career progression is dependent on a number of variables including who you know, where you work, the training scheme you apply for and completion of MRCPI exams. A number of registrars were happy to continue to work in the hospital regardless of their chance of getting on a scheme.

From the literature there is evidence of a two tiered mismatched system of postgraduate education between training and non-training posts which is a cause of dissatisfaction among medical doctors (Mitchel et al., 2013).

5.1.1 Compatibility with Irish System

Participants described how they were dissatisfied that their training and experience from their home country was not compatible with the Irish training system. This leads to a lack of career progression, uncertainty about the future and disillusionment when they come to Ireland. "It is very demoralising for people who have put a lot of work in abroad to come here and it is like nothing".

A participant described how they had completed their exams in their home country which made them eligible for the specialist register of the Medical Council of Ireland. As they were already on the specialist register they were eligible to apply for a consultant post, however, as they had not completed their specialist training in Ireland their experience was not actually sufficient to make them, generally suitable for the post.

Another participant explained that the Irish system is very different than many European countries. "It is a system that you cannot compare to the rest of Europe". Irish trained Medical Registrars treat every medical patient and are qualified in both a speciality and general internal medicine. "We are a Jack of all trades". "My specialist colleagues outside Ireland are horrified, because they never have to carry a stroke bleep or deal with a seizure, Specialist Registrars only have to work with their specialty". A participant who moved from mainland Europe said "There is a lot of things that I have not seen here". "In my Department my consultants know a lot about everything and sometimes we do not have enough time to learn".

Another participant found that they were not working in the speciality that they trained and feared that they would become deskilled if they did not get back into it.

As highlighted above the literature highlights a mismatched two tiered system which impacts person organisation fit and person job fit. However, it does not highlight a mismatched third tier which is incompatibility of IMG health care system with the Irish health care system. This may result in a jarring event taking place which could initiate a shock resulting in voluntary turnover (Donnelly and Querin, 2006). Results from the literature show that a thorough orientation is necessary for new members of staff in order to satisfy their need for security which is a basic need on Maslow's hierarchy of needs (Stagnitti et al., 2006)

A participant who is a SpR felt that more exposure to other specialties during the year rotation would be more beneficial. "It is a very good place to do your general medicine training. You get very practical experience than in a tertiary hospital". This participant had concern for fellow colleagues who could not access specialist training schemes. "I think the career path for non-trainees people is difficult. The system does not take into account training from abroad. For example, there are people who worked in France and have all the experience, but, they have to start from scratch when they arrive here".

Many participants interjected expressed the view that moving around hospitals had a negative impact on their professional experience as they could not build up a rapport with other staff in the hospital. "In my hospital at home you know that when you have a problem who to ask and they know who you are and trust you and how you work".

These findings support the literature that job satisfaction, motivation and career progression are factors in retention of doctors.

5.1.2 Eligibility criteria

Education training and teaching sessions were available, but difficult to attend because of the work load. "The main difficulty attending is that there is nobody available to cover you service while you are away". Some doctors felt that being unable to bring in food or drink to teaching sessions affected their attendance especially when training sessions took place at lunch time.

5.2 Theme 2: Mobility.

One of the main characteristics of career progression is moving from hospital to hospital or from country to country. Some participants had moved to Ireland from the Americas, Asia, Eastern Europe and Central Europe and had different perceptions of moving between hospitals in Ireland.

These finding support the literature regarding the concept of a Medical Carousel of mobile doctors who come in search of the "best standard of training, more attractive salaries and working conditions" (Guth et al., 2008 p. 830).

Once participants arrived in Ireland they had a different perception of internal mobility between hospitals.

One participant was concerned that *"Everyone is moving all the time and it is hard to quantify the reasons why*".

Another participant argued that moving to a different hospital was related to career progression. *"Leaving the Hospital is just to progress, to gain more training in the hope of getting SpR scheme".* This is confirmed by one participant who is leaving to go to a DATH. "*I am going to a DATH to work in X. speciality to gain more training and experience in the hope of getting a place on a scheme*".

Another participant expressed that they did not have big ambitions to move and wanted to work in a fixed team. "*If I have something to learn and a consultant to teach me then I will move, but, just not because of a bigger hospital*".

Ireland's training was compared to the UK which involves moving around a number of hospitals. However, hospitals in the UK are all within the same deanery which involves moving less and travelling a shorter distance. An Irish trainee explained that Ireland is too small to have specialties and is heavily reliant on trainees to cover the service. "If we weren't moving around everybody would be in a Dublin Academic Teaching Hospital". There was a strong sense among the group that if you stay in the one place you will not get on. *"You need to get to know more people as there is not just one person on the interview panel for SpR schemes".*

The literature views doctors who move for the purpose of career progression as Knowledge Worker. KW take control of their own career development and employability (Koslowsky et al., 2012).

5.3 Theme 3: Retention

Participants described the reason why they stay in a NDATH as prioritising family. "I have everything that I want here, for my kids, for my family, for myself and my career profession as well". There was a strong sense among some participants that these doctors were being left out from a career point of view because they did not move to other hospitals. It was also felt that they were putting their career on hold. Some participants stated that "*Doctors who stay in a NDATH for more than one year are putting their careers on hold and prioritising their family*".

It was further stated that doctors who decide to stay in the hospital because they have children have an opportunity to leave when their children change from primary to secondary school so that their education is not disrupted. "*Non EU doctors who are leaving Ireland are either going home or moving to another country because their children are in between primary and secondary school".*

Participants related that staying around long enough in a NDATH may result in career progression, but this is not guaranteed. "*If you stay in the same place you may be bumped up to be a consultant eventually*". Another participant described salary as the reason for remaining as a Registrar in the same hospital. *"Some doctors don't mind being Registrar all their lives because in comparison to their home country they earn ten times more so it does not matter if they do not move".*

This supports the findings in the literature which shows that workers satisfy their need for security through a sense of "community, participation and community" (Hancock et al., 2006 p. 1)

5.4 Theme 4 Working Conditions

Many participants felt that the hospital was a good place to work *"basically it is a job, medicine is medicine it is difficult when you are on-call at night because it is busy and the following day when you are post call you have a lot of patients to look after".*

Participants described a very good working environment in the Department they work in. This is linked to the support they receive from their consultants and the nursing staff. *"I think it is the best Department in the hospital, they are very supportive here".*

5.4.1 On-call

Other participants reacted as they felt that on call at night was a difficult time for them. Participants discussed the lack of support at night and considered this an issue. *"Obviously you have your Consultant to go to, but you just need another specialty registrar just to say yes that is the story that is the case like a Neurology on call Registrar".* Another participant reacted and outlined how they contact a registrar in the necessary speciality from another hospital and don't find any difficulty in that approach. They further outlined how other DATH had only one Registrar on call at night and this hospital had two. Another participant felt that they had enough experience to deal a situation and therefore it was not a problem for them *"I am 33 years of age and by now I have enough experience to make a decision on my own at night or to decide to wait until the morning".* However, they did acknowledge that *"it is daunting for a new registrar to the system where they do not have the experience to say yes this is fine it is not going to be a problem until the morning".* Another participant felt unsupported on their first night as registrar on call. Some of the participants outlined that they did not leave the hospital after their shift ended due to workload. *"More often than not do we leave after our shift as there are so many patients to be admitted".*

5.4.2 Rosters

Many participants felt that it was a good place to work and would recommend the hospital to a friend. There was one issue however, the on call roster. "*If you ask someone if they recommend a place the first thing they will ask is how frequent is the call and are you told far in advance when you are on call. Participants related the lack of notice for rosters which impacted on work life balance. "Not being able to plan your life is crazy".*

It is evident in the literature in relation to Hertzberg's hygiene factor that if extrinsic factors such as good working conditions are not present they lead to job dissatisfaction and intention to leave (Humphries, 2015).

5.5 Further stage of analysis – assessment of findings from Consultant

The methodology chapter outlined that as part of the qualitative research approach a Consultant would be interviewed. This involved presenting the main findings from the literature review and the themes from the semi-structured focus groups. This was in order to assess the relevance and practicality of the study. As the interview was semi structured the questions did not take the same sequence as the focus group.

5.5.1 Theme 4: Retention

The Consultant believed that retention is an issue at national level and attraction is the issue at local level. The consultant stated that "*the wrong question is being asked here, it is not is there a retention issue it should be is there an attraction issue. There are two levels to this problem, national and local. At local level the issue is about attracting the highest quality doctors in order to provide the best patient care and at a national level it is necessary to retain a sufficient supply of doctors to staff our hospitals*".

5.5.2 Theme 1: Career Progression

There was a general acceptance by IMG that it is difficult to obtain a place on the Specialist Training Schemes. There was a strong sense from these medical registrars that career progression is dependent on a number of variables including who you know, where you work, the training scheme you apply for and completion of MRCPI exams.

The consultant refuted these issues and outlined that "*there are factors out of the control of the hospital*" including;

One of the challenge for the hospital is legislation and the economic factor of supply and demand. The consultant stated that "*The challenge of European legislation dictates that European doctors are offered places on training schemes above their counterparts from Non EU countries. For example if there are eight places on a Specialist Scheme and a Non EU doctor is number six he cannot be appointed if there are other EU doctors on the panel after him. For example the number of places on x scheme is not sufficient because of the number of EU applicants received*". *EU doctors are taking their pick*".

The consultant also stated that labour markets are dictating the availability of doctors. "Our hands are tied because of the market place. Currently there is a short supply of doctors in the

system to choose from and demand is high. Working conditions are perceived to be poor and this is taking them out of the country".

This is evident in the literature as demand far outweighs supply of medical doctors worldwide (WHO, 2006).

The nationally agreed contract between government and NCHD's cannot be changed. Hospitals cannot renegotiate contracts or change any term or condition that would entice a registrar to work in a NDATH. Most NCHD's want to live in Dublin and the commute from the city is costly and time consuming. "Our hands are tied because of the nationally agreed contract between the government and the NCHD's. "*We are unable to pay doctors beyond the terms and conditions of the contract. Like give them a weighting for living outside Dublin like they do in London*".

Consultant led teaching for Membership exams is evident in the hospital, however, the consultant outlined that it is poorly attended. "*Teaching is provided, but it is ad-hoc with few doctors turning up".*

5.5.2.1 Career progression: Change to structure of training

The consultant described that a further factor outside the control of the NDATH is the change to training. "It is becoming more difficult to fill BST schemes and General Practitioner (GP) schemes. Doctors are taking time out after their intern year because they have more choice. They feel what is the rush? In my day it would be career suicide if you did not go straight into the BST after the Intern year. You could forget about getting a HST in Ireland after you returned. Nowadays more choices exist after the Intern year".

5.5.2.2 Career progression Change to Commitment

The factors raised in the literature in relation to change to the psychological contract were highlighted to the consultant. The consultant extended the findings and raised a very significant factor about commitment to the vocation had also changed. "It is a different generation and there is less need to be as committed as the previous generation. Today NCHDs have a better work life balance than consultants had in previous generations".

The Consultant stated that young doctors today want to balance their life and their job. They no longer want to spend long hours working. "When I came to a NDATH as an NCHD it was

because I was from the area, part of the community, I had a vocation, doctors no longer have a vocation". "The golden age of being a doctor is gone".

The changes outlined above can be viewed in terms of the psychological contract and the concept of the free agent who change jobs (Biemann et al., 2012). This is especially true for younger junior doctors known as millennials who are more mobile than their older counterparts (Lyons et al., 2015).

5.5.2.3 Career progression: Non-Training posts

The literature Review highlighted that there are not enough trainers in the system to increase the number of training posts. "This is not the case, there is an oversupply of trainers willing and ready to take up the opportunity to mentor trainees. The RCPI approve the number of training posts so that is out of our hands".

The consultant refuted claims that there was a shortage of trainers as the reasons for there being not enough training posts in the system.

5.5.3 Theme 3: Retention

Doctors are prepared to stay in the one place for a number of years for family reasons.

The consultant outlined that "IMG are earning more money than they would at home so they are happy to stay here. However, it was felt that some of the turnover was functional whereby contracts were not extended. "For training purposes it is essential that doctors get as much training as possible and this entails moving to different hospital. One year is a sufficient amount of time to be spent in one hospital before moving on".

There is a problem that doctors who have not completed their training can become consultants eventually. "No qualification – No consultant. It is not good practice to have doctors working as consultants who are not on the specialist register of the Medical Council of Ireland".

The consultant supported claims that doctors should not become a consultant unless they have been through the proper training.

5.5.3.1 Retention: Vacant Posts

Vacant posts are currently being filled by agency locums at present costing the hospital millions of euro per year. "This is a short term solution to a long term problem, long term planning needed to ensure continuity of patient care".

Many doctors have opted for the agency doctor route whereby they are not attached to any hospital. "There is a lot of money to be earned through agency work".

5.5.4. Theme 4: Working Conditions

It is essential to create an environment that will attract doctors back from abroad. The consultant outlined that there are two levels; organisational and personal. "The hospital need to create the right working conditions to retain doctors, create better standards for example 12 hour shifts instead of the current 24 hour shift system. This will be much more beneficial for the team and in the end the patient will benefit most".

For example NDATH is comparable to Western Australia. All doctors want to go to Sydney but there are few vacancies there. "Even though our doctors cannot go to Sydney, Perth is still a better option for them than Ireland. Perth hospitals have better working conditions, proper practices, they target our SHO's and place them on a career path"

"*Where we want to get to at a local level is that registrars are willing to travel because the consultants are worth travelling for. Systems need to be put in place to support doctors and ensure that they have the proper facilities to enable them to carry out their role*"

It has been identified that there is a three tiered system of training i.e. Specialist, non-training posts and EU specialist trainees in the system.

"*There are actually four tiers of training as there are doctors who have completed their training prior to 2007 in their own country who are not eligible to apply for any Specialist schemes. These doctors are in limbo. All doctors are treated equally in the hospital regardless of their status*".

This further reiterates literatures finding that regulations are preventing doctors from progressing in their career. Regulations have been set by the Medical Council of Ireland that no doctor who qualified before 2005 are eligible to apply for a specialist scheme. Literature claims that regulations are there to ensure quality patient care (Cheng et al., 2012).

5.6 Recommendations

The consultant made recommendations for doctors who come from abroad in order that they fit in with the Irish system;

"The college need to implement a programme for these doctor when they arrive in the country"
"A remediation programme should be provided also if one is needed"

A solution to the problem of training schemes could be solved by introducing the UK Locum Appointment Training (LAT) post. Many doctors who do not get onto the SpR schemes in Ireland opt to go to the UK. The LAT scheme "allows for time spent in non-training posts to be accredited".

"Ireland is losing a lot of good registrars to the UK. We are a stepping stone to the UK because we have a similar system here, non EU doctors have a better chance of getting onto a training scheme over there".

5.7 Further investigation

The consultant raised the issue of Brexit which may be an opportunity for Ireland as Irish doctors will no longer have open access to the UK. This would have to be investigated further.

The concept of millennials and medical doctors would have to be researched further. A longitudinal tracking study would be beneficial.

This study also uncovered an unexpected finding which is the issue of specialist qualified EU doctors who are eligible for consultants posts but do not have the necessary experience of the Irish Health System. A recommendation for future research is to gain an insight into the training needs of these doctors on arrival to the country.

I wish to acknowledge the hard work of all doctors at the NDATH in which I work. While the medical registrars identified that working conditions are a key factor in job satisfaction and intention to leave doctors were satisfied with the experience and staff of the hospital. In particular the nursing staff were acknowledge as a great support. Thus it would be beneficial to further investigate the impact of voluntary turnover on the relationships with staff members.

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Chapter 6 Discussion

The literature shows a strong correlation between training, career progression and voluntary turnover and quality patient care. Chapter five presented the themes identified through conducting two semi-structured focus groups and one semi-structured interviews and matched them to their position in the literature.

The themes from the findings including

- Career Progressions
- Mobility
- Retention
- Working Conditions

These themes derived from data gained from two semi structured focus groups and one semi structured interview. The questions were formed from the objectives of this study which are:

Objective 1: To establish Medical Registrars views on their intention to leave or stay in a NDATH

Objective 2: To identify the factors influencing registrars reasons for staying and leaving.

Objective 3: Investigate the factors influencing career progression

Objective 4: To establish a consultant's view on retention and turnover in a NDATH

The purpose of this study was to gain insights into the factors that influence why there is a shortage of registrars in the Medical Directorate of a NDATH. So why is there a shortage of registrars in a Medical Directorate of a NDATH?

As outlined initially retention of high quality NCHD's is essential for the reform of the Irish Health Services and a critical component of hospital performance and quality patient care (Humphries, 2015). This was substantiated by the medical registrars and consultant who took part in the study and who confirmed that retention of medical registrars is an issue but it runs much deeper. There are a number of dichotomies in the literature and findings which have a bearing on doctor retention which ultimately leading to a decision on "should I stay or should I go", "training and non-training posts", "intrinsic and extrinsic factors" and "local and national" which are factors in the of retention of medical doctors.

This chapter will provide a summary of the results of the findings in relation to the research objectives.

At the outset the literature review highlighted that doctors are highly educated and mobile with a professional qualification that is highly sought after. The literature review conclusion determined that intrinsic factors of knowledge acquisition and career progression were key factors in doctor turnover. Although intrinsic factors such as the training experience in the hospital was excellent. These factors were mitigated by extrinsic factors of working conditions such as rosters and oncall. The consultant interviewed wisely said that the hospital does not have a retention problem it has an attraction problem. This has been as view also taken by the IMO for many years "Ireland has an attraction problem not a retention problem" (IMO, 2013). This can also be viewed in terms of the Voluntary Turnover Model whereby dissatisfaction with rosters and on-call at night time could be viewed as a shock in the system which could ultimately lead to the psychological decision to leave (Hayes et al., 2015;Donnelly and Quirin (2006)

Career progression was also closely associated with intention to leave. Turnover of doctors is a natural progression ((Jelfs et al., 2014). For specialist registrars this was to enable them to complete their training and gain experience in order to become a qualified consultant. For doctors on non-training schemes moving was to establish a network with other consultants in the area they wished to specialise in. This move was seen as an effort to increase their chances of gaining a place on the Specialist Registrar Scheme. This leaves posts vacant every six to twelve months in order to be filled again. Increasing training posts would give the hospital a steady supply of high quality doctors which would make the hospital an attractive place to work for more junior doctors.

Intention to stay short term was also associated with training and career progression. For doctors in non-training posts registrar posts it constituted career progression. It also provided an opportunity for some registrars to gain valuable experience in a small busy hospital. It also provided an opportunity to complete MRCPI exams in order to gain access to scheme.

Registrars who wished to stay long term for family reasons, generally not ambitious and pay was better than their home country. "I have everything that I want here, for my kids, for my family, for myself and my career profession as well". Factors contributing to staying were associated with a supportive team including consultant and nursing staff. This can be viewed

in terms of Maslow's Motivation theory of Hierarch of Needs whereby their security needs were met (Hancock et al. 2009)

From these findings it is evident that there are a number of tiers of post graduate training taking place in the hospital; training posts, non-training posts, EU specialist qualified and finally the consultant raised the fact that only doctors from Australia, New Zealand, Malaysia, Sudan and South Africa with an internship after 2006 and Pakistan after 2008 can enter training jobs or specialisations" (Zia, W 2015) "*These doctors are in limbo".* This can be viewed in terms of the theory of person job fit. The following are the tiers of training that are evident in the Irish system

1. Training post - Specialist Registrar
2. Non-Training post – filling service posts
    a. Studying for exams to become eligible for specialist training scheme
    b. Satisfied to stay long term for work life balance / happy and salary
3. EU specialist qualified – eligible for consultant post but does not have experience of Irish system
4. Pre-2006 / 2008 eligibility for IMG

These tiers are a challenge to management in terms of motivation and job satisfaction. As stated in the literature review doctors who are in training posts are more satisfied than doctors who are not. As these doctors are already mobile as some have travelled from Asia, Americas, Central Europe and Eastern Europe to take up posts they can equally embark onto the medical carousel again and leave for another country.

As the consultant stated in the semi-structured interviews. There are a lot of issued out of the control of the hospital. These were considered in terms of factors at a national level. One key factor for example is number of approved training posts that are impacting at a local level.

However, there are factors within the control of the hospital which could have an impact on the working lives of doctors. These include reducing onerous rosters to a two hour shift. It is an opportunity for management to build trust with doctors.

Recommendation

By developing a culture of learning in terms of Senge, (1959) learning organisation would be a key factor in ensuring that doctors are motivated by the "acquisition and transfer of knowledge and skills" for the purpose of career development (Guth et al, 2008 p. 830). The Learning Organisation Model is one of innovation and where employee continuously learn and

develop in order to obtain their personal goals (Garvin 1993) . This can be achieved through the establishment of a Postgraduate Department to co-ordinate the teaching and training of all doctors in the hospital. This would provide a platform for all doctors in training to develop their career pathways as they compete for Higher Specialist Training. The Postgraduate Department would also be responsible for setting up an alumni database to maintain links with all doctors who move through the hospital

Reference

Allen, D.G., Bryant, P.C. and Vardaman, J.M., 2010. Retaining talent: Replacing misconceptions with evidence-based strategies. The Academy of Management Perspectives, 24(2), pp.48-64.

Alshallah, S., 2004. Job satisfaction and motivation: how do we inspire employees? *Radiology management*, *26*(2), pp.47-51.

Anderson, C., 2010. Presenting and evaluating qualitative research. American journal of pharmaceutical education, 74(8), p.141.

Anderson, V. (2013) Research Methods in Human Resource Management; Investigating a Business Issue. London: CIPD

Anvari, R., JianFu, Z. and Chermahini, S.H., 2014. Effective strategy for solving voluntary turnover problem among employees. Procedia-Social and Behavioural Sciences, 129, pp.186-190.

Basran, G.S. and Li, Z., 1998. Devaluation of foreign credentials as perceived by visible minority professional immigrants. *Canadian ethnic studies*, *30*(3), p.7.

Becker, W.J. and Cropanzano, R., 2011. Dynamic aspects of voluntary turnover: An integrated approach to curvilinearity in the performance–turnover relationship. Journal of Applied Psychology, 96(2), p.233.

Bell, J., 2007. The trouble with questionnaires. Research methods in educational leadership and management, 2, pp.224-236.

Bidwell, P., Humphries, N., Dicker, P., Thomas, S., Normand, C. and Brugha, R., 2013. The national and international implications of a decade of doctor migration in the Irish context. *Health policy*, *110*(1), pp.29-38

Biemann, T., Zacher, H. and Feldman, D.C., 2012. Career patterns: A twenty-year panel study. Journal of Vocational Behaviour, 81(2), pp.159-170.

Berg, B.L., Lune, H. and Lune, H., 2004. Qualitative research methods for the social sciences (Vol. 5). Boston, MA: Pearson.

Bowling, A., 2014. Research methods in health: investigating health and health services. McGraw-Hill Education (UK).

Brugha, R., McAleese, S., Dicker, P., Tyrrell, E., Thomas, S., Normand, C. and Humphries, N., 2016. Passing through–reasons why migrant doctors in Ireland plan to stay, return home or migrate onwards to new destination countries. Human Resources for Health, 14(1), p.35.

Bruce-Brand, R., Broderick, J., Ong, J. and O'Byrne, J., 2012. Diagnosing the doctors' departure: survey on sources of dissatisfaction among Irish junior doctors. Irish medical journal.

Bryman, A. (2008). Social Research Methods. Oxford: Oxford University Press

Burke, S., Thomas, S., Barry, S. and Keegan, C., 2014. Indicators of health system coverage and activity in Ireland during the economic crisis 2008–2014–From 'more with less' to 'less with less'. Health Policy, 117(3), pp.275-278.

Burke, S. and Pentony, S., 2011. Eliminating health inequalities: a matter of life and death.

Burns, K. (2009) *Job retention and turnover: a study of child protection and welfare social workers in Ireland.* PhD thesis.

Blevin, A. (2013) *An Exploration of Medical Oncologists' job satisfaction,* PhD thesis.

Broughan, T. (2016). "The HSE spend nearly 200 million euro on agency staff in seven months" *The Journal.ie*

http://www.thejournal.ie/hse-spent-nearly-200-million-3015114-Oct2016/

Carlsen, B. and Glenton, C., 2011. What about N? A methodological study of sample-size reporting in focus group studies. BMC medical research methodology, 11(1), p.26.

Chalinkonda, L, (2013) "*Royal College of Surgeons in Ireland Student Medical Journal* 6(1) 93-8

Cheng, L., Spaling, M. and Song, X., 2013. Barriers and facilitators to professional licensure and certification testing in Canada: Perspectives of Internationally Educated Professionals. *Journal of international migration and integration*, *14*(4), pp.733-750.

Christensen, R.K. and Wright, B.E., 2011. The effects of public service motivation on job choice decisions: Disentangling the contributions of person-organization fit and person-job fit. *Journal of Public Administration Research and Theory*, *21*(4), pp.723-743.

Chuang, A., Shen, C.T. and Judge, T.A., 2016. Development of a multidimensional instrument of person–environment fit: The Perceived Person–Environment Fit Scale (PPEFS). Applied Psychology, 65(1), pp.66-98.

CIPD 2011, Managing Careers for Organisational Capabilities.

Clarke, V. and Braun, V., 2014. Thematic analysis. In *Encyclopedia of critical psychology* (pp. 1947-1952). Springer New York.

Collis, J. and Hussey, R., 2013. Business research: A practical guide for undergraduate and postgraduate students. Palgrave Macmillan.

Connell, J. ed., 2008. The international migration of health workers. Routledge.

Creswell, J. W., (2003). Research Design, Qualitative, Quantitative and Mixed Methods

Approaches. Secoond ed. Thousand Oaks, London, New Delhi: SAGE Publications.

Creswell, J.W., Klassen, A.C., Plano Clark, V.L. and Smith, K.C., 2011. Best practices for mixed methods research in the health sciences. Bethesda (Maryland): National Institutes of Health, pp.2094-2103.

Creswell, J.W., 2012. Qualitative inquiry and research design: Choosing among five approaches. Sage publications.

Crotty, M. (1998). The Foundations of Social Research: Meaning and Perspective in the Research Process. London: Sage.

de Burca, S., 2003. *The nature of internal mediator and moderator influences in a healthcare system in transition* (Doctoral dissertation).

Denzin, N.K. and Lincoln, Y.S., 2008. Strategies of qualitative inquiry (Vol. 2). Sage.

for health, 14(1), p.75.

Department of Health. Report of the expert group on resource allocation and financing in the health sector. Dublin: Department of Health and Children; 2010.

Department of Health (2011) *statement of strategy 2011 - 2014*

http://health.gov.ie/wp-content/uploads/2014/03/Statement_of_Strategy_2011-2014.pdf (Accessed 10th March 2017)

Department of Health (2016) *statement of strategy 2016 - 2019*

http://health.gov.ie/about-us/statement-of-strategy-2016-2019/ (Accessed 10th March, 2017)

Dey, S. (2009) 'Employee Retention - A Key to Organizational Growth', Globsyn Management Journal, 3(1), 45-49

Dolea, C. and Adams, O., 2005. Motivation of health care workers-review of theories and empirical evidence.

Donnelly, R., 2009. Career behaviour in the knowledge economy: Experiences and perceptions of career mobility among management and IT consultants in the UK and the USA. Journal of Vocational Behaviour, 75(3), pp.319-328.

Donnelly, D.P. and Quirin, J.J., 2006. An extension of Lee and Mitchell's unfolding model of voluntary turnosver. Journal of Organizational Behavior, 27(1), pp.59-77.

Doyle, L., Brady, A.M. and Byrne, G., 2009. An overview of mixed methods research. Journal of Research in Nursing, 14(2), pp.175-185.

Drucker, P., F. (1974), Management: Tasks, Responsibilities, Practices.

Duddy, J., (2017) “IMO President calls for health system changes with immediate effect”, *Irish Medical News*, 18 January 2017 p 1, 4, 5.

Eastwood, J.B., Conroy, R.E., Naicker, S., West, P.A., Tutt, R.C. and Plange-Rhule, J., 2005. Loss of health professionals from sub-Saharan Africa: the pivotal role of the UK. The Lancet, 365(9474), pp.1893-1900.

Edge, J.S. and Hoffman, S.J., 2013. Empirical impact evaluation of the WHO global code of practice on the international recruitment of health personnel in Australia, Canada, UK and USA. *Globalization and health*, *9*(1), p.60.

Edwards, N., Kornacki, M.J. and Silversin, J., 2002. Unhappy doctors: what are the causes and what can be done?. *BMJ: British Medical Journal*, *324*(7341), p.835.

El-Ramly, Y., 2012. Keep the best and brightest. *Journal of Accountancy*, *213*(4), p.18.

Fern, E.F., 1982. The use of focus groups for idea generation: the effects of group size, acquaintanceship, and moderator on response quantity and quality. Journal of marketing Research, pp.1-13.

Garvin, D.A., 1993. Building a learning organization. Harvard business review, 71(4), pp.78-91.

Gauld, R. and Horsburgh, S., 2015. What motivates doctors to leave the UK NHS for a "life in the sun" in New Zealand; and, once there, why don't they stay?. *Human resources for health*, *13*(1), p.75.

Government of Ireland (2009) Financial Emergencies Measures in Public Interest Act. Dublin: Stationary Office (Section 7(1).

Gouda, P., Kitt, K., Evans, D.S., Goggin, D., McGrath, D., Last, J., Hennessy, M., Arnett, R., O'Flynn, S., Dunne, F. and O'Donovan, D., 2015. Push and stay factors affecting Irish medical student migration intentions. Irish Journal of Medical Science (1971-), pp.1-7.

Grant, P. and Goddard, A., 2012. The role of the medical registrar. *Clinical medicine*, *12*(1), pp.12-13.

Greenbaum, T.L., 1998. The handbook for focus group research. Sage.

Griffeth, R.W., Hom, P.W. and Gaertner, S., 2000. A meta-analysis of antecedents and correlates of employee turnover: Update, moderator tests, and research implications for the next millennium. *Journal of management*, *26*(3), pp.463-488.

Grudens-Schuck, N., Allen, B.L. and Larson, K., 2004. Methodology brief: focus group fundamentals.

Guba, E.G. and Lincoln, Y.S., 1994. Competing paradigms in qualitative research. Handbook of qualitative research, 2(163-194), p.105.

Gunnigal, P., Heraty, N., and Morley, M. J. (2006) Human Resource Management in Ireland. 3 rd ed. Dublin: Gill and Macmillan.

Goldacre, M.J., Evans, J. and Lambert, T.W., 2003. Media criticism of doctors: review of UK junior doctors' concerns raised in surveys. BMJ, 326(7390), pp.629-630.

Guest, G., MacQueen, K.M. and Namey, E.E., 2011. Applied thematic analysis. Sage

Guth, J. and Gill, B., 2008. Motivations in East–West doctoral mobility: Revisiting the question of brain drain. Journal of Ethnic and Migration Studies, 34(5), pp.825-841.

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

Hanly, D (2003) Report of the National Task Force on Medical Staffing. Dublin: DOHC

Hayes, B., Fitzgerald, D., Doherty, S. and Walsh, G., 2015. Quality care, public perception and quick-fix service management: a Delphi study on stressors of hospital doctors in Ireland. *BMJ open*, *5*(12), p.e009564.

Health Workforce Australia (2014): Australia future health workforce – Doctors: Available at https://www.health.gov.au/internet/main/publishing.nsf/Content/F3F2910B39DF55FDCA257D94007862F9/%24File/AFHW%20-%20Doctors%20report.pdf

Health Service Executive (2010), NCHD Contract. Dublin: HSE.

Health Service Executive (2015), Health Services People Strategy 2015 - 2018

https://hse.ie/eng/staff/Resources/hrstrategiesreports/peoplestrategy201518.html (Accessed 1 February 2017)

Heron, J. and Reason, P., 1997. A participatory inquiry paradigm. *Qualitative inquiry*, *3*(3), pp.274-29

Herzberg, F.I., 1966. Work and the nature of man.

Holloway, I. and Galvin, K., 2016. Qualitative research in nursing and healthcare. John Wiley & Sons.

Holtom, B., Mitchell, T., Lee, T. and Eberly, M. (2008) 'Chapter 5: Turnover and Retention Research: A Glance at the Past, a Closer Review of the Present, and a Venture into the Future', Academy Of Management Annals, 2, 231-274

Humphries, N., Tyrrell, E., McAleese, S., Bidwell, P., Thomas, S., Normand, C. and Brugha, R., 2013. A cycle of brain gain, waste and drain-a qualitative study of non-EU migrant doctors in Ireland. Human resources for health, 11(1), p.63.

Humphries, N., McAleese, S., Matthews, A. and Brugha, R., 2015. 'Emigration is a matter of self-preservation. The working conditions... are killing us slowly': qualitative insights into health professional emigration from Ireland. Human resources for health, 13(1), p.35

Hirschler, T., 2013. Supporting intrinsic motivation of knowledge workers within teams: Distributed leadership and a climate for informal learning as social conditions for facilitating competence and relatedness satisfaction (Master's thesis, University of Twente).

Irish Medical Organisation (2011), *Submission to Oireachtas Joint Committee on Health and Children: Non Consultant Hospital Doctors.*

http://www.oireachtas.ie/parliament/oireachtasbusiness/committees_list/about/31stdail/health-and-children/submissionsandpresentations/view2011/ reference:31\H&C\06\B\2011\124 (Accessed 28 August 2017)

Gilligan, P. 2017. *Recruitment Challenges of the Health Services*. Irish Medical Times on line. Available at *https://www.imt.ie/news/recruitment-challenge-for-the-health-service-21-04-2017/* accessed on 5th August 2017.

Institute of Public Administration (2014) 'Public Sector Reform in Ireland: Views and Experiences from Senior Executives' [Online]. Institute of Public Administration. Available from:

https://www.ipa.ie/_fileUpload/Documents/PublicSectorReform_LocalGovViews.pdf (Accessed 1 June 2017) strategies in health-care organizations. *Health professional mobility in a changing Europe*, p.345.

Institute of Public Administration (2013) "Fit for purpose?: Progress report on public service reform Online. Institute of public administration available from

https://www.ipa.ie/_fileUpload/Documents/Fit_For_Purpose_Pp9_June2013.pdf (Accessed 26th July 2017)

Johnston, A., 2014. Rigour in research: theory in the research approach. European Business Review, 26(3), pp.206-217.

Jelfs, E., Knapp, M., Giepmans, P. and Wijga, P., 2014. Creating good workplaces: retention

Jiang, R., 2015. A novel risk metric for staff turnover in a software project based on information entropy. Entropy, 17(5), pp.2834-2852.

Understanding and Applying Research Design, Abbott and McKinley Book fix

Kelloway, E.K. and Barling, J., 2000. Knowledge work as organizational behavior. International journal of management reviews, 2(3), pp.287-304

Kitzinger, J., 1995. Qualitative research. Introducing focus groups. *BMJ: British medical journal*, *311*(7000), p.299.

Koslowsky, M., Weisberg, J., Yaniv, E. and Zaitman-Speiser, I., 2012. Ease of movement and sector affiliation as moderators of the organizational and career commitment: Turnover intentions link. International Journal of Manpower, 33(7), pp.822-839.

Kelleher, E. and Brugha, R., 2013. NCHD emigration crisis and the need for consultant-de

Kehily, D., 2012. Mixed Method Collaboration in the Build Environment. Livered care.

Krueger, R.A. and Casey, M.A., 2014. Focus groups: A practical guide for applied research. Sage publications.

Latham, G.P. and Pinder, C.C., 2005. Work motivation theory and research at the dawn of the twenty-first century. *Annu. Rev. Psychol.*, *56*, pp.485-516.

Lee, T.W., Mitchell, T.R., Holtom, B.C., McDaneil, L.S. and Hill, J.W., 1999. The unfolding model of voluntary turnover: A replication and extension. Academy of Management journal, 42(4), pp.450-462.

Lee-Kelley, L., Blackman, D.A. and Hurst, J.P., 2007. An exploration of the relationship between learning organisations and the retention of knowledge workers. The learning organization, 14(3), pp.204-221.

van Langevelde, S., Kessels, J.W.M. and Endedijk, M.D., 2013. *Supporting intrinsic motivation of knowledge workers within teams* (Doctoral dissertation, Master's thesis, Enschede: University of Twente).

Lincoln, Y. S., & Guba, E. G. (2000). Paradigmatic Controversies, Contradictions, and Emerging Confluences. In N. K. Denzin, & Y. S. Lincoln, Handbook of Qualitative Research (2nd ed., pp.163-188). Thousand Oaks California: Sage.

Lyons, S.T., Schweitzer, L. and Ng, E.S., 2015. How have careers changed? An investigation of changing career patterns across four generations. *Journal of Managerial Psychology*, *30*(1), pp.8-21.

MacCraith, B. (2016), *Strategic Review of Medical Training and Career Structure Fourth Progress Report*, 2016. Dublin: DoH.

http://health.gov.ie/wp-content/uploads/2016/12/IMG.-Fourth-Report.-Jan.-July.-2016.-No.-21.-2016.-November-25.-IMG.21.pdf (Accessed 28 August 2017)

Maertz, C. P., Jr., and Campion, M.A. (1998) 'Twenty-five years of voluntary turnover research: A review and critique', International Review of Industrial and Organizational Psychology, 13, 49–81.

Maslow, A.H., 1943. A theory of human motivation. *Psychological review*, *50*(4), p.370.

Mann, C.J., 2003. Observational research methods. Research design II: cohort, cross sectional, and case-control studies. *Emergency medicine journal*, *20*(1), pp.54-60.

March, S.T. and Niederman, F., 2012. The future of the information systems discipline: a response to Walsham. Journal of Information Technology, 27(2), p.96.

March, J.G. and Simon, H.A., 1958. Organizations.

Maynard, D.C., Thorsteinson, T.J. and Parfyonova, N.M., 2006. Reasons for working part-time: Subgroup differences in job attitudes and turnover intentions. *Career Development International*, *11*(2), pp.145-162.

Medical Council of Ireland (2014), Your Training Counts. Dublin.

http://www.medicalcouncil.ie/News-and-Publications/Reports/Your-Training-Counts-Trainee-Retention-and-Career-Intentions.pdf (accessed 9 January 2017)

Medical Council of Ireland (2015), Your Training Counts, Dublin

http://www.medicalcouncil.ie/News-and-Publications/Reports/Your-Training-Counts-2015-pdf-.pdf

Medical Council of Ireland (2016), Medical Workforce Intelligence Report.

http://www.medicalcouncil.ie/News-and-Publications/Reports/Medical-Workforce-Intelligence-Report-2016-.html

Mejia, A., 1978. Migration of physicians and nurses: a worldwide picture. International journal of epidemiology, 7(3), pp.207-215.

Meyer, J.B., Kaplan, D. and Charum, J., 2001. Scientific nomadism and the new geopolitics of knowledge. International Social Science Journal, 53(168), pp.309-321.

Mitchell, R., Milford, W.J., Bonning, M., Markwell, A. and Roberts-Thomson, R., 2013. Unaccredited registrar positions in Australian public hospitals: is it time for a rethink?. *Australian Health Review*, *37*(4), pp.409-411.

Mobley W. H., Griffeth R., Hand H. and Meglino B. (1979). A review and conceptual analysis of the employee turnover process, Psychological Bulletin, 86: 493-522.

Moreland, R.L., 1996. Lewin's legacy for small-groups research. Systemic Practice and Action Research, 9(1), pp.7-26.

Malik, S.Z. and Khalid, N., 2016. Psychological Contract Breach, Work Engagement and Turnover intentions: Evidence from Banking Industry in Pakistan. *Pakistan Economic and Social Review*, *54*(1), p.37.

Marchal, B. and Kegels, G., 2003. Health workforce imbalances in times of globalization: brain drain or professional mobility? *The International Journal of Health Planning and Management*, *18*(S1).

Marshall, C. and Rossman, G.B., 2014. Designing qualitative research. Sage publications.

Mays, N. and Pope, C., 2000. Assessing quality in qualitative research. BMJ: British Medical Journal, 320(7226), p.50.

Mays, N. and Pope, C., 1995. Rigour and qualitative research. BMJ: British Medical Journal, 311(6997), p.109.

Merriam, S.B. and Tisdell, E.J., 2015. Qualitative research: A guide to design and implementation. John Wiley & Sons.

McCarthy, J., 2012. Reflections on Business Research: Working Backwards, Forwards, Sideways.

McGowan, Y., Humphries, N., Burke, H., Conry, M. and Morgan, K., 2013. Through doctors' eyes: a qualitative study of hospital doctor perspectives on their working conditions. British journal of health psychology, 18(4), pp.874-891.

Miles, M.B. and Huberman, A.M., 1994. Qualitative data analysis: An expanded sourcebook. Sage.

Misra-Hebert, A.D., Kay, R. and Stoller, J.K., 2004. A review of physician turnover: rates, causes, and consequences. American Journal of Medical Quality, 19(2), pp.56-66.

Mitchell, T.R., Holtom, B.C. and Lee, T.W., 2001. How to keep your best employees: Developing an effective retention policy. The Academy of Management Executive, 15(4), pp.96-108.

Morrel, K., Loan-Clarke, J. and Wilkinson, A. (2001) 'Unweaving Leaving: The Use of Models in the Management of Employee Turnover', International Journal of Management Reviews, 3(3), pp. 219-244

Mosadeghrad, A.M., Ferlie, E. and Rosenberg, D., 2008. A study of the relationship between job satisfaction, organizational commitment and turnover intention among hospital employees. Health services management research, 21(4), pp.211-227.

Murphy, E., Dingwall, R., Greatbatch, D., Parker, S. and Watson, P., 1998. Qualitative research methods in health technology assessment: a review of the literature.

McDonald, P., Brown, K. and Bradley, L., 2005. Have traditional career paths given way to protean ones? Evidence from senior managers in the Australian public sector. Career Development International, 10(2), pp.109-129.

Naoum, S. G., (2007). Dissertation Research & Writing for Construction Students. Second ed. Oxford: Butterworth-Heinemann

Nelson, K. and McCann, J.E., 2010. Designing for knowledge worker retention & organization performance. Journal of Management

Nazim, A. (2008) 'Factors affecting overall job satisfaction and turnover intention',

Journal of Managerial Sciences, 2(2), 239-252.

Indicators, O.E.C.D., 2015. Health at a Glance 2011. *OECD Indicators*, *OECD Publishing, Paris. DOI: https://doi. org/10.1787/health_glance-2015-en. Accessed February*, *15*, p.2016.

Focus on, O.E.C.D., 2016. Health Workforce Policies in O.E.C.D. Countries.

Accessed on 01 July 2017: https://www.oecd.org/health/health-systems/Health-workforce-policies-in-oecd-countries-Policy-brief.pdf

Ongori, H., 2007. A review of the literature on employee turnover.

Oyelere, R.U., 2007. Brain drain, waste or gain? What we know about the Kenyan case. Journal of Global Initiatives, 2(2), pp.113-129.

Phillips, J. J. and O'Connell, A. O. (2003) Managing Employee Retention: A Strategic

Accountability Approach, Burlington, Elsevier. and Marketing Research, 3, p.1.

O'Cathain, A. and Thomas, K.J., 2004. "Any other comments?" Open questions on questionnaires–a bane or a bonus to research? *BMC medical research methodology*, *4*(1), p.25.

Onah, F.O. and Anikwe, O.S., 2016. The Task of Attraction and Retention of Academic Staff in Nigeria Universities. Journal of Management and Strategy, 7(2), p.9.

Onwuegbuzie, A.J., Dickinson, W.B., Leech, N.L. and Zoran, A.G., 2009. A qualitative framework for collecting and analyzing data in focus group research. International journal of qualitative methods, 8(3), pp.1-21.

Opie, C. and Sikes, P.J., 2004. Doing educational research. Sage.

Paice, E., Rutter, H., Wetherell, M., Winder, B. and McManus, I.C., 2002. Stressful incidents, stress and coping strategies in the pre-registration house officer year. Medical education, 36(1), pp.56-65

Pinder, C.C., 2014. Work motivation in organizational behavior. Psychology Press.

Pope, Catherine, Paul van Royen, and Richard Baker. "Qualitative methods in research on healthcare quality." Quality and Safety in Health Care 11, no. 2 (2002): 148-152.

Parker, R., Nouri, H. and Hayes, A. (2011) 'Distributive Justice, Promotion Instrumentality, and Turnover Intentions in Public Accounting Firms', Behavioural Research in Accounting, 23(2), 169-186

Quinlan, C (2011) Business Research Methods, 1st ed. Hampshire: South Western Cengage Learning

Rabiee, F., 2004. Focus-group interview and data analysis. Proceedings of the nutrition society, 63(04), pp.655-660.

Rosta, J., Nylenna, M. and Aasland, O.G., 2009. Job satisfaction among hospital doctors in Norway and Germany. A comparative study on national samples. Scandinavian Journal of Social Medicine, 37(5), pp.503-508.

Rousseau, D.M., 1989. Psychological and implied contracts in organizations. *Employee responsibilities and rights journal*, *2*(2), pp.121-139.

Rowe, A.K., de Savigny, D., Lanata, C.F. and Victora, C.G., 2005. How can we achieve and maintain high-quality performance of health workers in low-resource settings? The Lancet, 366(9490), pp.1026-1035.

Rudestam, K.E. and Newton, R.R., 2014. Surviving your dissertation: A comprehensive guide to content and process. Sage Publications.

Sagoe, D., 2012. Precincts and prospects in the use of focus groups in social and behavioral science research. The Qualitative Report, 17(15), p.1.

Samuel, M.O. and Chipunza, C., 2013. Attrition and retention of senior academics at institutions of higher learning in South Africa: The strategies, complexities and realities. Journal of Social Science, 35(2), pp.97-109.

Saunders, M.N., Lewis, P., Thornhill, A., 2016. Research methods for business students, Seventh edition. Pearson Education India.

Saunders, M.N. Lewis, P., Thornhill, A., 2012. Research methods for business students, 6/e. Pearson Education India.

Saunders, M., Lewis, P., & Thornhill, A. (2009). Research Methods for Business Students (5th ed.).

Essex: Pearson Custom Publishing.

Savage, M., Savage, M. and Barlow, J., 1995. Property, bureaucracy and culture: Middle-class formation in contemporary Britain. Psychology Press.

Scheffler, R.M., Liu, J.X., Kinfu, Y. and Dal Poz, M.R., 2008. Forecasting the global shortage of physicians: an economic-and needs-based approach. *Bulletin of the World Health Organization*, *86*(7), pp.516-523B.

Scotland, J., 2012. Exploring the philosophical underpinnings of research: Relating ontology and epistemology to the methodology and methods of the scientific, interpretive, and critical research paradigms. English Language Teaching, 5(9), p.9.

Scott, A., Jeon, S.H., Joyce, C.M., Humphreys, J.S., Kalb, G., Witt, J. and Leahy, A., 2011. A randomised trial and economic evaluation of the effect of response mode on response rate, response bias, and item non-response in a survey of doctors. BMC medical research methodology, 11(1), p.126.

Shipp, A.J., Furst-Holloway, S., Harris, T.B. and Rosen, B., 2014. Gone today but here tomorrow: Extending the unfolding model of turnover to consider boomerang employees. Personnel Psychology, 67(2), pp.421-462.

Siar, S.V., 2013. From highly skilled to low skilled: revisiting the deskilling of migrant labor (No. 2013-30). PIDS Discussion Paper Series.

Siebert, S., Martin, G., Bozic, B. and Docherty, I., 2015. Looking 'beyond the factory gates': Towards more pluralist and radical approaches to intra-organizational trust research. Organization Studies, p.0170840615580010.

Siegrist, J., 1996. Adverse health effects of high-effort/low-reward conditions. Journal of occupational health psychology, 1(1), p.27.

Singer, S.J., Gaba, D.M., Geppert, J.J., Sinaiko, A.D., Howard, S.K.S. and Park, K.C., 2003. The culture of safety: results of an organization-wide survey in 15 California hospitals. Quality and safety in health care, 12(2), pp.112-118.

Simon M, Müller BH, Hasselhorn HM (2010). Leaving the organization or the profession: a multilevel analysis of nurses' intentions. Journal of Advanced Nursing, 66(3):616-626.

Sinha, C. and Sinha, R., 2012. Factors affecting employee retention: A comparative analysis of two organizations from heavy engineering industry. European journal of business and management, 4(3), pp.145-162.

Soemantri, D., Herrera, C. and Riquelme, A., 2010. Measuring the educational environment in health professions studies: a systematic review. *Medical teacher*, *32*(12), pp.947-952.

Sohag, A.A., Memon, S. and Rao, M.H., 2012. A comparative study on factors causing job dissatisfaction among serving doctors at teaching hospitals of Hyderabad, Pakistan.

Stagnitti, K., Schoo, A., Dunbar, J. and Reid, C., 2006. An exploration of issues of management and intention to stay: allied health professionals in South West Victoria, Australia. Journal of Allied Health, 35(4), pp.226-232.

Sutherland, M. and Jordaan, W., 2004. Factors affecting the retention of knowledge workers. SA Journal of Human Resource Management, 2(2), pp.55-64.

Tyrrell, E., Keegan, C., Humphries, N., McAleese, S., Thomas, S., Normand, C. and Brugha, R., 2016. Predictors of career progression and obstacles and opportunities for non-EU hospital doctors to undertake postgraduate training in Ireland. *Human resources for health*, *14*(1), p.23.

Usher, R., 1996. A critique of the neglected epistemological assumptions of educational research. Understanding educational research, pp.9-32.

Yarger, J.B., James, T.A., Ashikaga, T., Hayanga, A.J., Takyi, V., Lum, Y., Kaiser, H. and Mammen, J., 2013. Characteristics in response rates for surveys administered to surgery residents. Surgery, 154(1), pp.38-45.

Watt, I., Nettleton, S. and Burrows, R., 2008. The views of doctors on their working lives: a qualitative study. Journal of the Royal Society of Medicine, 101(12), pp.592-597.

Walshe, C.E., Caress, A.L., Chew-Graham, C. and Todd, C.J., 2004. Case studies: A research strategy appropriate for palliative care?. Palliative Medicine, 18(8), pp.677-684.

Wheeldon, J. and Ahlberg, M.K., 2011. Visualizing social science research: Maps, methods, & meaning. Sage.

Wilkinson, S., 2004. 10 Focus Group Research. Qualitative research: Theory, method and practice, pp.177-199.

Wong LP. Focus group discussion: a tool for health and medical research. Singapore Med J. 2008 Mar 1;49(3):256-60.

World Health Organization, 2010. *Increasing access to health workers in remote and rural areas through improved retention: global policy recommendations*. World Health Organization.

Wall, J.., (2017) "Hospitals hiring doctors without specialist skill", *Irish Times*, 20th July, 2017.

https://www.irishtimes.com/news/health/hospitals-hiring-doctors-without-specialist-skill-say-consultants-1.3082865 accessed July 20th 2017.

Yin, R. K. (2014). Case Study Research: Design and Methods. Thousand Oaks California: Sage Publications Inc.

Appendix 1