Abstract

Background

International evidence suggests that clinical research nurses can have a dual role incorporating both clinical care and research responsibilities. This duality of role often assists in meeting the clinical care and research needs of the participants and can contribute to the credibility of the clinical research nurse role. Conversely, it can also lead to feelings of confusion and role conflict as clinical research nurse's time is divided.

Aim

To identify and explore experiences of clinical and research roles among clinical research nurses. This emerged as a theme in a wider research project exploring clinical research nurses' experiences of working with clinical nurses.

Methods

Following an Interpretative Phenomenological Analysis approach, ten clinical research nurses participated in face-to-to face semi structured interviews. Transcribed data were analysed and a number of themes emerged. Duality of role was one of these.

Findings

Findings indicated that if clinical research nurses fulfil a dual role, this can assist in care provision, research delivery and in building positive relationships with clinical nurses. However, there were also instances when a dual role led to clinical nurses questioning the value of research and to issues with competing demands of clinical care and research. These experiences had an important impact on some of the clinical research nurses and led to reflection on the value of their role.

Conclusions

This study identifies new understandings of a dual role of the clinical research nurse. The findings will inform the preparation and practice of this group of nurses, whilst also leading to a deeper understanding of the clinical research nurse's role in care and research delivery. It will also contribute to a wider appreciation of organisational factors and social interactions that impact on health care research.

Keywords

Clinical Research Nursing, Clinical Research Nurse, Dual, Duality, Role, Professional Relationships

Introduction

There has been an enduring understanding that clinical practice should be founded on sound research-based evidence; thus facilitating the provision of high quality patient care (Sackett 1998, Deutschman and Neligan 2010). However, for this to be realised, clinical research should be conducted in an optimal environment, where researchers and clinicians work closely towards a common goal (Gerrish and Lacey 2010). This is especially important during times of international pandemic and endemic health challenges **when resources are particularly stretched**. To this end, clinical research nurses (CRNs) provide important support for clinical research, but their role also incorporates a number of other areas, including the provision of clinical care **that is outside the scope of research participation** (Johnson and Stevenson 2010, Lawton et al 2012, Kunhunny and Salmon 2017). **All registered nurses play a crucial role in providing person-centred care (Nursing and Midwifery Council 2018) and in**

this context, CRNs are often involved in clinical care as a consequence of the contact they have with patients. This could include answering clinical questions or assisting with clinical care. This has been described as the 'dual' role of the CRN (Larkin et al 2017). This duality is seen as a key element of the CRN role, facilitating involvement in overall care provision, patient advocacy and the integration of research and practice in the clinical setting (Nagel, Gender and Bonner 2010, Larkin et al 2017)**.** However, it can lead to a position where time for research is compromised. Accordingly, evidence indicates that many CRNs report a positive working environment with an embedded research culture (Smith et al 2015, Tillet 2015), whilst others report conflicted allegiances or stress related to a dual clinical and clinical research role (Nagel, Gender and Bonner 2010, Larkin et al 2017). Following this divergence of evidence, the aim of this article is to identify and explore experiences of duality among clinical research nurses.

The findings in this article were elicited from a wider study exploring the experiences of CRNs in their working relationships with clinical nurses. **Although not directly asked about clinical working, during the course of this overarching study, the vast majority of the CRNs (9 out of 10) discussed their experience of undertaking such a dual role.** These experiences will form the basis for this article.

Methodology

This article explores partial findings from a wider study examining the relationship between the clinical research nurse and clinical nursing colleagues. This wider study used a qualitative interpretative phenomenological analysis (IPA) approach which

allowed themes to be elicited from the data, offering a more comprehensive understanding of the nature of the CRN role (Saks and Allsop 2007, Silverman 2016).

IPA was chosen as it allowed an intensive examination of individual CRN's experiences and how they make sense of these (Smith, Flowers and Larkin 2009). Furthermore, it recognises the pivotal role of the researcher by acknowledging the impact they have in interpreting the personal experiences of the participants (Pringle et al 2011). **The data analysis process followed in this study is detailed in box 1. This approach follows the process promoted by pre-eminent authorities in this methodology (Smith, Flowers and Larkin 2009).**

Although interpretation of experience might introduce bias, this is also deemed to be a particular strength of IPA; providing a path to illuminate the participant's experiences (Smith, Flowers and Larkin 2009). However, bias is a potential difficulty with all research (Bryman 2008). The researcher (an academic with a long-standing interest in Clinical Research Nursing) utilised a number of techniques to minimise this; the use of reflection and critical friends combined with a reflexive approach assisted in this. Consequently, there was a clear audit trail, which detailed initial data through to generation of super-ordinate themes (Pringle et al 2011, Smith 2011).

Sampling

Most proponents of IPA endorse the recruitment of a homogenous sample to ensure that the research findings are meaningful (Brocki and Wearden 2006, Smith, Flowers and Larkin 2009, Pringle et al 2011, Smith 2011). This was achieved by ensuring that all participants were active CRNs (that is, CRNs that were actively involved in recruitment and delivery of clinical research projects/clinical trials). As some CRNs

work independently with one principal investigator and others work with a number of investigators, some degree of heterogeneity was included. Indeed, Pringle et al (2011) suggested that the effectiveness of IPA might be compromised if the sample is too specific or unique. Subsequently, limited heterogeneity also broadened the scope of the research, whilst reflecting some of the breadth of the settings and experiences that CRNs have, both nationally and internationally. Though IPA does not seek to be comparative or representative, commonalities can be useful to a wider audience (Smith, Flowers and Larkin 2009).

Using a purposive sampling approach, participants were sought who were most likely to answer the research questions (Smith, Flowers and Larkin 2009, Robson and McCartan 2016). Purposive sampling assisted in ensuring that the participants had the experience that was required to answer the research question and also allowed selection of nurses who work independently and others who work in a team (Bryman 2008). Following this process, **ten** clinical research nurses were recruited. **Of the ten participants, eight were female, and two male, seven worked in research teams with other research nurses, whilst three worked more independently. All were either National Health Service band 6 (senior staff nurse level) or 7 nurses (charge nurse level), or University equivalents. Three of the ten participants worked in the same unit. All worked in large teaching hospitals.** The study was given ethical approval by Queen Margaret University. In accordance with this, written informed consent was obtained from all participants in advance of their interview and participants were allocated a number following a non-chronological system to maintain anonymity.

Data collection

Brocki and Wearden (2006) and Smith, Flowers and Larkin (2009) suggest that a number of data collection methods can be used in IPA, including focus groups, observational notes and diaries. However, the most frequently used method is semi structured interviews. These were utilised in this study as they allowed for the participants to explore their experiences, whilst providing a framework for discussion (Hanson, Balmer and Giardino 2011).

In IPA the semi structured approach is often incorporated into an overall interview schedule (detailing questions) that allows the participant to answer key open questions, but also be invited to be more analytical (Brocki and Wearden 2006, Smith Flowers and Larkin 2009). This approach was used to provide a flexible structure for the interviews. Following review of the literature the questions used are detailed in table 1. **The interviews were conducted throughout 2018.**

Following the questions detailed in table 1, participants in the wider study were not specifically asked about dual/clinical aspects of their role. Subsequently, if this was explored in the interviews, it was at the participant's own instigation and was not directly prompted by any of the questions posed by the interviewer. Interview data were recorded on an electronic recording device and were transcribed by the researcher. Any pauses, emphases, laughs or other changes in tone were noted to assist in linguistic analysis (Finlay 1999).

Findings

Of the ten participants, nine discussed that they undertake clinical duties in their CRN role, though the rationale for this varied between participants. The findings from these participants appeared to indicate that dual clinical and clinical research roles either

had a positive, neutral or negative impact on their experience. These will be explored in this section under the three headings of positive, neutral and negative perspectives.

As a context for this exploration, all of the CRNs expressed an understanding that, despite a universal appreciation of the importance of research, they clearly understood **their professional responsibility for patients**, the primary importance of clinical care and the need for it to be prioritised in a demanding environment. They also indicated that they understood the pressures that clinical staff face. **This also reflected a patient-centred approach. Three examples of this are:**

P1 "I've always said. Your clinical care comes first. Research is second. The staff know that. I have said that. I can do what I need to do later."

P2 "I always think I am a nurse first, so I help and then my research becomes second to that."

P8 "on the whole, I would say, you are looking after patients. That is fair enough and if I was in that role that's how I would see it as well. Your patient is key. Clinical needs always come first"

Positive perspectives

Six of the participants highlighted how assisting with clinical care could have positive outcomes in terms of supporting patient care and building positive relationships with the clinical nursing team.

The general context for a dual role appeared to be related the CRNs wish to help with clinical care and, importantly for some, to be seen to be help. For most, this also had an element of quid pro quo, or by way of explicitly or implicitly building up feelings of

goodwill with the clinical nurses. In this light, participants 5 and 8 very much viewed clinical and clinical research work as forming a symbiotic relationship.

P5 “We are here to support you with the research patient, but they are also clinical patients. Helping and supporting. This is important, so that the clinical team feel supported by the research team and vice versa because we work together, especially in clinical research so that we have a good relationship.”

“I said “Can we take some blood for you?” “Shall I do an extra copy for you?” So, really working and helping in parallel. If we can, we are happy to help.”

P8 “You are trying to do your best, tell me what to do…if I can do anything. You know, letting them know that you wanna (sic) help.”

Participants 6 and 7 also indicated that when they undertook clinical duties, it was often directly related to responsibilities that they had for the research studies that were being undertaken. In this way, participant 6 explained that there could be multiple benefits in these actions.

P6 “But equally, you can be helpful, when you can. Say for example, you are taking off a set of bloods from someone, you ask if you can do any bloods for them, at the same time. Not only helpful for the patient, but it might also sweeten the deal, for clinical colleagues.”

Whilst participant 7 articulated a desire to be helpful to clinical staff.

P7 “Another thing that I do is make myself useful. If blood needs taken, if a cannula needs to go in, if someone needs taken to the toilet, then, um, I’m there. I can do it, that’s not a problem.”

Participant 3 expressed that helping is sometimes initiated because the CRNs are part of the larger team. However, they also indicated that an additional effect could be to help to build positive relationships with the clinical nurses.

P3 "Sometimes you do think, it would be really good for me to go and do something for this patient because it would help the nurse out and ingratiate me, but that's not the driving factor, because often you are just doing it as part of that. We very much try to see that we are all part of the same team"

Participant 3 also indicated that by undertaking some clinical duties, it may help to strengthen the feeling that CRNs are part of the team.

P3 "They know that we will, you know, and if the unit is busy, like it is at the moment, we are quite happy to go in and help by, you know, toileting patients or giving treatments, or to make up antibiotics, or whatever. We recognise that we are all working together in the department. So, we will do that, because we are part of the team."

Whilst Participant 2 also noted that this approach was particularly useful in terms of building positive relationships.

P2 "It is really important, in that situation. If you can do something that the clinical team could do…that is to everyone's advantage [pause] it really helps with relationship building, for obvious reasons. That frees them up to do something else."

These examples demonstrate some of the ways in which a CRN can utilise a clinical component of their role to contribute to patient care and confirm how this can be mutually beneficial for clinical nurses and the CRN colleagues.

Neutral perspectives

In addition to positive thoughts on the dual role, some of the participants also offered more **neutral** perspectives on this.

Participant 5 noted that they were happy to help out with clinical care, but they were cognisant of the potential impact that this might have on their time to devote to research duties.

P5 "One day they [the clinical nurses] were asking for help and I was there, they would ask *me* to help. This is very useful. Anything you can do to help the clinical team, because they are very busy…We do not want to add to the clinical staff workload, but at the same time you want to do research."

Furthermore, participant 9 noted that conducting clinical duties may have been related to their own feelings of guilt.

P9 "Well, I think I had worked there long enough that I could survey the department and knew how bad it was and if it did look like clinically it was becoming unsafe, I would go to speak to my line mangers and say "I think I really DO need to go and help". Emm, just probably for my own guilt."

But participant 9 also expressed that this was not something that could be assured of. This was because they were aware that clinical care wasn't their primary responsibility and by helping out their ability to undertake clinical research responsibilities could be compromised.

P9 "I didn't want to get into the habit of that, because I was being paid to do another job, so you had to be quite strong and say "No" unless it was close to being [a significant event]."

Following on from the awareness of how busy the unit was, participants 4 and 6 indicated that undertaking clinical duties could be related to this.

P4 "Sometimes we also try to help out. You know if ward is really horrendous we will ask if we can help out, but we don't…it is something that we have spoken about and I think people would be willing to go and do. We do act as a pair of eyes if the nurse needs to nip off for something."

P6 "Someone just asked "Can you help me up to the loo?" and I did…If someone needs help getting back into bed. Right, Ok, let's go. Cos I'm certainly not going to go and tell someone, who is already stretched, if I have the capacity, I've got the time. I don't think it's just good PR, it's just that you are a nurse, and you are used to doing that."

Unlike the positive experiences explored in the previous section, these examples demonstrate that CRNs considerations for undertaking clinical duties might be more nuanced. They also indicate how dual aspects of the CRN role might be connected with feelings of guilt, whilst also highlighting that some CRNs are aware that undertaking clinical duties could impinge on their research workload.

Negative perspectives

Lastly, some of the participants indicated that assisting with clinical care might be associated with more negative consequences.

Participant 9 indicated that a dual role could have more negative outcomes as some clinical nurses seemed to express that helping with clinical care should be a priority, as it was perceived that there were no time pressures associated with their clinical research workload.

P9 “Most people were supportive and curious, but there are a few characters that, especially if they don’t understand the role of a research nurse, or have no idea what you do, or what you are doing and didn’t really have any interest, then they would be thinking “You should be helping us, because you can do your job whenever”, that was quite difficult”

Interestingly, a perception that CRNs did not undertake clinical care could be conflated with not being a nurse anymore or an opinion that it was not ‘real’ nursing. An example of this was discussed by participant 10.

P10 “However, outside of work, when I talked to other nurses and physios, there was a definite attitude that I was turning my back on the profession. That I was somehow too posh to wash…, about being elitist…there was this feeling that I was turning my back on being a nurse and, yeah, what was wrong with just helping people, being a nurse, washing a patient, being in a ward.”

Additionally, Participant 6 appeared to equate helping out directly to more recognisable ‘nursing’ duties. Thereby, potentially, indicating that the CRN role could not be described as such. This was a recurring theme in some of the discussions, with the concept of the CRN role sometimes not being perceived as a ‘real’ nursing role.

P6 “I think particularly because they don’t just see us walking about with the age old thing about walking around with a clipboard, not really doing anything, so we *will* do nursing things.”

This was particularly acute for participant 10 as they had not worked clinically prior to becoming a research nurse. As a consequence of this, they themselves questioned whether they were a ‘real’ nurse.

P10 "I am kind of OK with it, because I have never been a 'real' nurse…Most of my friends who are research nurses, had a time when they were clinical and they have that duality of experience, so I didn't go from one to another, like I have always been in research any time I have been nursing. So, as I said earlier, at the beginning of my career I was acutely aware of my lack of clinical skills."

Though, after participant 10 had considered this, they concluded "of course I am a real nurse".

The examples described above detail more negative perspectives; be it either in terms of a perception that the work of the CRN, or that the CRN role itself, was undervalued. These perceptions were also expressed by some of the CRNs themselves.

The excerpts from the interviews serve to demonstrate some of the experiences that CRNs have had relating to a dual role. They have ranged for the positive, to more neutral (or considered) to perceptions that were more negative in nature.

Discussion

The findings of this research indicate that, to a greater or lesser degree, CRNs may have a clinical component to their role **out with the remit of research delivery**. This may be dependent on a team approach in the clinical area, their experience in the unit, their desire to build a positive relationship with clinical staff or their own level of overall nursing experience. However, almost all (nine out of ten) of the participants indicated that they undertake clinical duties as part of their role, thereby demonstrating elements of duality previously described by Nagel, Gender & Bonner (2010) and Larkin et al (2017).

The evidence to date suggests that a dual role in this context can be complementary, or contradictory. Martin et al (2013), Coughlin (2014) and Kulkarni (2014) all indicate that a positive team culture can empower staff and help to foster a close working environment. This was certainly evident in this study. To achieve positive research outcomes, efforts can be made to develop and maintain a constructive relationship between clinical research nurses and clinical nurses (Wrigley and Humphreys 2010, Hemingway and Storey 2013, Tillett 2015, Smith et al 2015). This has been particularly acute over the last year, as positive research cultures have developed and perceptions of CRNs have improved (Maxton, Darbyshire and Thompson 2020). **This may be due to research staff being redeployed or to a growing appreciation of the importance of research in vaccine development.** However, Poston and Buescher (2010) identified that CRNs need to strike a balance between clinical and research care, whilst Lawton et al (2012) indicated that research staff may attempt to address potential role conflict by undertaking clinical care and research. This was reflected in this study. Hemingway and Storey (2013) also acknowledged the complexities of this situation as they referred to the overlap between the clinical nurse and the CRN. Consequently, Lawton et al (2012) proposed that more research should be conducted on organisational and personal features that impact on research delivery. **It may also be the case that this reflects a wider discussion of how research is embedded in the clinical setting and valued by clinical nurses.**

An additional consideration is that CRNs undertaking clinical duties could also have wider consequences, as patients may be more likely to become confused as to what is clinical care and what is research; potentially leading to a therapeutic misconception where the patient believes that the research **is** the clinical care, thus making truly informed consent potentially more difficult to obtain (Appelbaum, Roth and Lidz 1982,

McCormick 2018). **However, this is a scenario that medical colleagues have managed for many years. This could either mean that patients have been confused about how research and clinical care dovetail, or that it is not an issue. Either way, further study of this topic would allow for greater clarity.**

Nevertheless, the findings of this research do diverge from a previous study on this topic, as Stobbart (2012) indicated that CRNs may inhabit a liminal state in their role; resulting in feelings of being on the 'threshold' of the clinical areas that they access as part of the studies that they are involved in. Liminality in professional environments can be detrimental to optimal working by enhancing a feeling of isolation, increasing stress, contributing to a lack of power and reducing ability to obtain organisational support that could be beneficial (Borg and Soderlund 2015). However, the findings from this study reflect that CRNs could exhibit elements of duality, by inhabiting a dual state; concurrently working as a CRN and a member of the clinical team. Though, this could be in an attempted to overcome the liminal state that Stobbart proposes. Subsequently, the findings from this study and Stobbart's could indicate that CRNs can simultaneously inhabit a liminal and dual role state in the clinical areas that they work in. **This further demonstrates the potential complexities of providing clinical and research care, whilst occupying a transient position in the clinical area.**

Additionally, one of the reasons that the CRN may have attempted to inhabit a dual role was the perception, expressed by a number of the participants, that they are not 'real' nurses. This was particularly important for some as it impacted on their perception of self. The feelings that CRNs may not be real nurses does not appear to be unique, with some international studies describing similar findings (Bell 2009, Jones

2017, Tinkler et al 2018, Hernon, Dalton and Dowling 2019), whilst others describe a lack of recognition of the role as being associated with diminished value of the CRN (Roberts et al 2006, Rickard et al 2007, Rickard et al 2011, Roberts et al 2011, Catania et al 2011, Eastwood et al 2012). However, Janzen et al (2013) questions whether the concept of a 'real' nurse is even relevant to nursing practice; suggesting that it is a "composite, socially constructed mirage that has become mediated and portrayed by history, culture, and sociality" (page 172). Nonetheless, this is a perception that remains in the clinical research nursing community (Tinkler et al 2018).

In this study duality was largely expressed via participation in, or helping out with, clinical duties. Some of these may be as part of research procedures (for example taking clinical blood samples whilst taking blood for research purposes), but others may be caring responsibilities that have no direct benefit to the research itself. The benefit of this has been recognised in the literature (Johnson and Stevenson 2010, Lawton et al 2012, Kunhunny and Salmon 2017). This may be done for many reasons; it could improve patient care, help to convey team working, re-affirm the nursing status of the CRN and also help to build a collaborative relationship with the clinical nurses (Jones 2017). In this context, many participants hoped that that helpfulness was reciprocated, thus representing an approach that encourages a quid pro quo arrangement with the nurses. Paley (2014) stated that this type of social psychology is important to build relationships between nurses.

An important consideration is that this study was conducted before the COVID pandemic. This has undoubtedly raised awareness of the role of CRNs with their work being commended in national COVID briefings, by media outlets and in the nursing literature (Iles-Smith 2020, Jones, Iles-Smith and Wells 2020, Maxton, Darbyshire and

Thompson 2020, Menzies et al 2020). Additionally, it has led to a re-evaluation of research more widely (Toh and Hoff 2020). This also led to the BBC featuring a report of a student nurse's experience in a clinical research environment https://www.bbc.co.uk/news/av/health-53451153 . It is hoped that these developments will assist in enhancing the reputation of CRNs and aid in their integration into clinical teams.

Conclusion

The aim of this paper was to identify and explore experiences of duality among clinical research nurses. The study indicated that many CRNs have developed a dual role in order to assist in conducting the research that they involved in. This can have a positive impact, but may conversely also contribute to a perception that clinical research is of diminished value.

The study also indicated that CRNs may have varying reasons for engaging in clinical work. These might be because of a desire to assist with clinical care, because they work in a cohesive team or that the CRN would like to build positive relationships with the clinical nurses. Regardless, it does appear to represent a relatively under-reported facet of the CRN role.

These findings reflect a complex picture where a variety of drivers are leading CRNs to contribute to clinical care. As a result, the study can inform the preparation and practice of this group of nurses, whilst also leading a deeper understanding of the CRN's role in care and research delivery. It will also contribute to a wider appreciation of organisational factors and social interactions that impact on health care research in the post pandemic world. **Additionally, as CRNs experiences are often mirrored elsewhere in the world (Roberts et al 2011, Larkin et al 2017), it is envisaged that**

the findings of this study will resonate out with the setting that the study was conducted.

The preparation and support of clinical research nurses is of huge importance and it is sincerely hoped that the findings from this study, and the growing body of literature related to this group of nurses, will assist in this process.

Key points

- **Clinical Research Nurse (CRNs) have an important clinical aspect to their role**
- **Subsequently,** CRNs **could be described as having** a dual **clinical and research** role. **This is a** positive **position as it** helps to facilitate close working relationships
- At other times **this dual role could** be detrimental to the core work of the CRN or perpetuate feelings that clinical research nursing is a departure from essential elements of nursing
- **CRNs should consider the interface between the provision of clinical care and research participation and be aware of the implications of this for their practice.**

Limitations – The research was solely conducted in Scotland. This could influence the transferability of the findings. However, following examination of the national and international literature, there is a convergence of experiences that would indicate that these findings might be applicable elsewhere. The study also only included CRNs. The perspective of clinical nurses **and patients themselves** could also be examined to provide a more balanced understanding of this topic.

Ethical Permissions

Ethical approval was granted by Queen Margaret University Ethics Committee. All participants consented to participate in the interview and being audio recorded.

References

Appelbaum PS, Roth LH and Lidz C (1982) The therapeutic misconception: informed consent in psychiatric research *International Journal of Law in Psychiatry* 5 (3-4): 319-329

Bell J (2009) Towards clarification of the role or research nurses in New Zealand: a literature review *Nursing Praxis in New Zealand* March 1, 2009

Borg E and Soderlund J (2015) Liminality competence: an interpretative study of mobile project workers' conception of liminality at work *Management Learning* 46 (3): 260-279

Brocki JM and Weaden AJ (2006) A critical evaluation of the use if interpretative phenomenological analysis (IPA) in Health Psychology *Psychology and Health* 21 (1): 87-108

Bryman A (2008) *Social Research Methods* 3rd edition Oxford: Oxford University Press

Catania C (2012) Clinical Trial Nurse's role in safety reporting *Nursing Forum* 47 (1): 18-26

Coughlin D (2014) Focusing on the fundamentals of effective communication within an organisation *Effective Executive* 17 (1): 28-39

Deutschman CS and Neligan PJ (2010) *Evidence-based practice of critical care* Philadelphia: Elsevier

Finlay L (1999) Applying Phenomenology in research: Problems, Principles and Practice *British Journal of Occupational Therapy* 62 (7): 299-306

Gerrish K and Lacey A (2010) *Research and Development in Nursing* IN Gerrish K and Lacey A (2010) *The Research Process in Nursing* Chichester: Wiley Blackwell

Hanson JL, Balmer DF and Giardino AP (2011) Qualitative Research Methods for medical educators *Academic Pediatrics* 11 (5): 375-386

Hemingway B and Storey C (2013) Role of the clinical research nurse in tissue viability *Nursing Standard* 27 (24): 62-68

Hernon O, Dalton R and Dowling M (2019) Clinical research nurses' expectations and realities of their role: A qualitative evidence synthesis *Journal of Clinical Nursing* 29: 667-683

Iles-Smith H (2020) How research nurses and midwives are supporting Covid-19 clinical trials *Nursing Times* 116 (11): 2-22

Janzen KJ, Melrose S, Gordon K and Miller J (2013) "RN Means Real Nurse": Perceptions of Being a "Real" Nurse in a Post-LPN–BN Bridging Program *Nursing Forum* 48 (3): 165-173

Johnson S and Stevenson K (2010) Nursing research or research nursing? Two separate terms, two separate careers *Nurse Researcher* 17 (3): 32-40

Jones H (2017) *Exploring the experience of Clinical Research Nurses working within acute NHS trusts and determining the most effective way to structure the workforce: A mixed methods study* PhD Thesis, King's College, London

Jones H, Iles-Smith H and Wells M (2020) Clinical research nurses and midwives – a key workforce in the coronavirus pandemic *Nursing Times* 30th April 2020

Kulkarni K (2014) NHS Leaders note: Organisational culture is key *British Medical Journal 349* 1

Kunhunny S and Salmon D (2017) The evolving professional identity of the clinical research nurse *Journal of Clinical Nursing* 26: 5121-5132

Larkin ME, Beardslee B, Cagliero E, Griffith CA, Milaszewski K, Mugford MT, Myerson JT, Ni W, Perry DJ, Winkler S and Witte E (2017) Ethical Challenges experienced by clinical research nurses *Nursing Ethics* March 1, 1-3

Lawton J, Jenkins N, Darbyshire J, Farmer A, Holman A and Hallowell N (2012) Understanding the outcomes of multi-centre clinical trials: A qualitative study of health professional experiences and views *Social Science and Medicine* 74: 574-581

Martin GP, Sutton E, Willars J and Dixon-Woods M (2013) Frameworks for change in healthcare organisations: A formative evaluation of the NHS Change Model *Health Services Management* 26 (2-3): 65-75

Maxton F, Darbyshire P and Thompson DR (2020) Research nurses rising to the challenges of COVID-19 *Journal of Clinical Nursing* 30 (5-6): e13-e15

Menzies J, Owens S, Read N, Fox S, Tooke and Winmill H (2020) Challenges and opportunities for research nursing and nursing research on paediatric intensive care. *Nursing in Critical Care 25* 321–323.

McCormick JB (2018) How Should a Research Ethicist Combat False Beliefs and Therapeutic Misconception Risk in Biomedical Research? *AMA Journal of Ethics* 20 (11): E1100-1106

Nagel K, Gender J and Bonner A (2010) Delineating the Role of a Cohort of Clinical Research Nurses in a Pediatric Cooperative Clinical Trials Group *Oncology Nursing Forum* 37 (3): E180-E185

Nursing and Midwifery Council (2018) *Future Nurse: Standards of proficiency for registered nurses* London: Nursing and Midwifery Council

Paley J (2014) Cognition and the compassion deficit: the social psychology of helping behaviour in nursing *Nursing Philosophy* 15 (4): 274-287

Poston RD and Buescher CR (2010) The essential role of the clinical research nurse *Urological nursing* 30 (1): 55- 77

Pringle J, Drummond J, McLafferty E and Hendry C (2011) Interpretative phenomenological analysis: a discussion and critique *Nurse Researcher* 18 (3): 20-24

Rickard CM, Roberts BL, Foote J and McGrail MR (2007) Job satisfaction and importance for intensive care unit research coordinators: results from binational survey *Journal of Clinical Nursing* 16: 1640-1650

Rickard CM, Williams G, Ray-Barruel G, Armit L, Luke H and Duffy P (2011) Towards improved organisational support for nurses working in research roles in the clinical setting: A mixed method investigation *Collegian* 18: 165-176

Roberts B, Rickard C, Foote J and McGrail M (2006) The best and worst aspects of the ICU research coordinator role *Nursing in Critical Care* 11 (30): 128-135

Roberts B, Eastwood GM, Raunow H, Howe B and Rickard CM (2011) The intensive care research coordinator position in Australia and New Zealand: Self-perception of professional development priorities and “best” and “worst” aspects of the position. A cross-sectional web-based study *Intensive and Critical Care Nursing 27* 129-137

Robson C and McCartan K (2016) *Real world research* Chichester: John Wiley and Sons

Sackett DL (1998) Evidence-Based Medicine *SPINE* 23 (10): 1085-1086

Saks M and Allsop J (2007) *Researching Health* Los Angeles: Sage

Silverman D (2016) *Introducing Qualitative Research* IN Silverman D (2016) *Qualitative Research* Los Angeles: Sage

Smith JA (2011) Evaluating the contribution of interpretative phenomenological analysis *Health Psychology Review* 5 (1): 9-27

Smith JA, Flowers P and Larkin M (2009) *Interpretative phenomenological analysis: Theory, Method and Research* Los Angeles: Sage

Smith OM, Dale C, Mehta S, Pinto R and Rose L (2015) Nurse Research experiences and attitudes toward the conduct of intensive care research: a questionnaire study *Critical Care Medicine* 44 (1): 153-161

Stobbart L (2012) *Living apart, together – conducting clinical research in an acute care setting: an ethnographic study* Presentation at RCN Research Conference Glasgow

Tillet J (2015) Nursing responsibilities and research *Journal of perinatal and neonatal nursing* 29 (1): 3-4

Tinkler L, Smith V, Yiannakou Y and Robinson L (2018) Professional identity and the clinical research nurse: A qualitative study exploring issues having an impact on participant recruitment in research *Journal of Advanced Nursing* 74 (2): 318-328

Toh C and Hoff WV (2020) *Building back better research post covid-19* BMJ Opinion 26th August 2020

Wrigley MJ and Humphries C (2010) Why nurses need to be engaged with clinical research *British Journal of Cardiac Nursing* 5 (12): 606-607

Table 1 – Questions used in the interviews

- *What is it like to be 'you' in this job?*
- *Can you describe your experiences of facilitating research in a clinical setting?*
- *What are your experiences of interactions with clinical nurses?*
- *What do you think about these experiences?*

Box 1 – Data analysis process

- Close, line-by-line analysis of the experiential claims, concerns and understandings of each participant.
- The identification of the emergent patterns within this experiential material, emphasising both convergence and divergence, commonality and nuance, usually first for single cases, and the subsequently across multiple cases
- The development of dialogue between the researchers, their coded data, and their psychological knowledge, about what it might mean for participants to have these concerns, in this context, leading in turn to the development of a more interpretative account.
- The development of a structure, frame or gestalt which illustrates the relationships between themes.
- The organisation of all of this material in a format which allows for analysed data to be traced right through the process, from initial comments on the

transcript, through initial clustering and thematic development, into the final structure of themes.

- The use of supervision, collaboration, or audit to help test and develop the coherence and plausibility of the interpretation.
- The development of a full narrative, evidenced by a detailed commentary on data extracts, which takes the reader through this interpretation, usually theme by theme, and is often supported by some form of visual guide (a simple structure, diagram or table).
- Reflection on one's own perceptions, conceptions and processes.

Smith, Flowers and Larkin 2009 pages 78-80)