

Trinity College Dublin

A QUALITATIVE DESCRIPTIVE STUDY INVESTIGATING NURSES' EXPERIENCES
WITH DRUG ROUND TABARDS IN COMMUNITY HOSPITALS

A Dissertation Submitted To

The School Of Nursing And Midwifery,
In Partial Fulfilment For The Degree Of
Master In Science In Gerontological Nursing

By

Judie Cabanero

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Declaration

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ABSTRACT

BACKGROUND AND JUSTIFICATION: Nurses are duty-bound to protect their clients in all aspects of their care. In the subject of patient safety, Medication Error (ME) remains a major issue nurses are facing today, while interruptions and distractions have been mentioned to be contributors to ME. In 2014, the use of red tabard during medication round was first introduced and singly used as a measure to counter interruptions in selected community hospitals here in the North-West of Ireland. A mandate has emerged for an investigation of the drug round tabard as a single countermeasure to interruptions and distractions to establish its effectiveness among other strategies. An in-depth exploration of nurses' experiences with the drug round tabard was also necessary because of the vital role nurses play in medication management and safety. Moreover, due to ME's startling statistics, here in Ireland and worldwide and because of the growing older population, the value of investigating medication safety measures for this group of clients is fundamental.

AIM AND OBJECTIVES: The research aim is to explore nurses' experiences with drug round tabard when dispensing medication to the older person. The researcher is interested in, among others, exploring the views and opinions, investigating awareness, and identifying issues that led to nurses' satisfaction or dissatisfaction with the drug round tabard initiative.

METHODS: Qualitative Descriptive Design using a semi-structured once off interview was employed to explore nurses' experiences with the drug round tabard. The accessible population of eight registered nurses were recruited from two Community Hospitals in North-West of Ireland who specialises in the care of the older people. Location A has 5 (approximately 60%) out of 9 respondents, while location B has 3 (approximately 17%) out of 18 nurses who responded to the invitation. Ethics Committee Chair's approval from the University and the Health Board involved were obtained before the recruitment process commenced. Interviews were recorded in an audio recorder and transcribed verbatim following informed consent acquired from the participants. All collected data were analysed simultaneously using theme analysis adopted from Braun and Clarke (2006).

FINDINGS AND IMPLICATION: The themes in this research are presented as a narrative that describes the participants' experiences with the drug round tabard which are grouped into three main themes: (1) awareness of safe medication practice, (2) organisational or external challenges encountered, and the final theme which describes the participants' responses to the new initiative. The findings support the fundamental assumption that interruptions and distractions can be minimised, if not eliminated, with the utilisation of countermeasures during medication administration. Nurses recognise that there are external factors which challenge the implementation of the drug round tabard initiative. However, these challenges can be managed by addressing these issues. The healthcare institution should provide an environment conducive to the implementation of this intervention.

CONCLUSION

The nurses in this study are aware of the importance of safe medication administration task and hold the issue of MEs with great respect. Despite the challenges, the nurse-respondents are all satisfied with the whole concept of the drug round tabard initiative as an effective countermeasure to interruptions and distractions.

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*This humble work is a sign of my love
to my children:*

Jude Nathaniel

Noah Julian

Elijah Nathaniel

CHAPTER 1.0
INTRODUCTION

Nurses vowed to protect all clients in all aspects of their care, as stipulated in their professional oath. Thus, patient safety is a primary concern a nurse must work hard against the complexities of health care delivery. Medication Error (ME) remains a major issue on the subject of patient safety nurses are facing today. Interruptions and distractions have been mentioned to be contributors to these errors.

Based on the available literature, the earliest interest on the association of interruptions or distractions to medication administration emerged in 2003, when Pape found out that interventions such as signage and checklist are proven effective in reducing interruptions or distractions during Medication Administration (MA) in a quasi-experimental study. Following Pape's (2003) findings, more interests on the same subject started to surface. As a result, various measures were introduced to counter the effect of interruptions and distractions during MA. However, Raban and Westbrook (2014) after doing a systematic review of ten studies, claimed that evidence of the effectiveness of interventions to significantly reduce interruptions are weak and that evidence of their effectiveness to reduce Medication Administration Errors (MAEs) are very limited. Hayes and colleagues (2015) argue that the effectiveness of these interruption countermeasures were difficult to establish due to clustering of interventions most nurses adapt in a single period. Debates on the efficiency of these measures still exist, but one thing is sure, that further studies are needed to better understand the complex relationship between interruptions and MEs to support intervention designs in today's healthcare organisations.

In 2014, the use of red tabard during medication round was first introduced and singly used as a measure to counter interruptions in selected community hospitals here in the North-West of Ireland. There are a limited number of studies in Europe (including Ireland) investigating the efficacy of the drug round tabard, and even less for this particular group of clients. Thus, the researcher believes a clear mandate has emerged for an in-depth exploration of the nurses' experiences with the drug round tabard because of the vital role nurses play in medication management and safety. As far as the researcher is aware of, this research study is the first evaluation of the drug round tabard's effectiveness conducted in age-related healthcare institutions here in North-West of Ireland.

As a consequence of this exploration, a description of nurses experiences with the drug round tabard initiative should emerge. Through nurses' narrative of this phenomenon presumably illuminate the drug round tabard's effectiveness as a specific intervention, indicating possibilities for practice improvement and further research. Due to MEs startling statistics, both here in Ireland and worldwide (Leufer and Clery-Holforth, 2013), the value of investigating medication safety measures for this group of clients is fundamental.

The main question for this research study is " what are nurses experiences with the drug round tabard?". The researcher is interested in, among others, exploring the views and opinions, investigating awareness, and identifying issues that led to nurses' satisfaction or dissatisfaction with the drug round tabard initiative.

This chapter presents a brief background of why the phenomenon of the drug round tabard initiative is worth exploring. The ensuing chapters will demonstrate the details of the research process. Chapter two will provide a discussion of the main topics associated with the phenomenon of interest by exploring available literature which contribute to the growing knowledge of the effectiveness of drug round tabard as it relates to safe medication practice. Chapter three will illustrate the system of methods employed in this research study. Chapters four and five will focus on the research findings and relate them to previous research. The research implications, recommendations, limitations and dissemination will all appear in the concluding chapter.

1.1 Definition of Key Terms:

- **Interruptions**

Conceptual Definition: an event which leads a person to remove their attention fully but temporarily from a primary, or current, task to another task, and then move their attention back to the main task; used interchangeably with distractions in this study.

- **Medication Administration**

Conceptual Definition: the act of preparing, giving and evaluating prescription and non-prescription drugs.

- **Drug Round Tabard**

Operational Definition: Apron or tabard worn by a nurse responsible for dispensing medication with the inscription: "Do Not Disturb. Drug Round In Progress" during the entire medication round.

CHAPTER 2.0
LITERATURE REVIEW

2.1 INTRODUCTION

The main purpose of this literature review was to explore literature about the use of a drug round tabard in minimising or preventing interruptions and distractions during medication administration. A scoping strategy was employed to search for literature for this study. Databases and specialist websites used were as follows: Cumulative Index to Nursing and Allied Health Literature (CINAHL), PubMed, Science Direct, Google and Google Scholar. The term 'drug round tabard', with searching restrictions to past ten years and Irish sources only were used during the initial phase of the search. However, these limitations produced very few results, so the necessity to broaden searches to include non-Ireland literature was applied to capture a wider perspective on the topic. Consequently, search results rose to 332 from CINAHL, PubMed and Science Direct combined, while, a total of 8,670 from Google/ Google Scholar accessed in January 2016. During the second phase, those initial search results were filtered, reviewed and filtered down further to scope out studies which investigated drug round tabard specifically. As a result, there were only six published studies who fell into the criteria. However, in January 2017, searching "drug round tabard" produced more results, thus an additional published study needs inclusion. Section 2.6 will discuss these studies and Appendix 1 provides a summary. It was also necessary to exclude some articles such as blogs or commentaries when surfing the web because they are unsupported and unreliable literature, as recommended by Ely & Scott (2007).

Searching for drug round tabard literature necessitates the need to use related terms such as medication management, interruptions and distractions, medication rounds and medication errors. The emergent themes included: nurses' role in medication management, medication errors, the impact of interruptions and distractions to medication administration, practices or strategies to reduce medication errors, and drug round tabard. Subsequent sections discuss these themes.

2.2 NURSES' ROLE IN MEDICATION MANAGEMENT

In Ireland, medication management is a regulated activity under the Health Act of 2007, and the Health Information and Quality Authority (HIQA) came in reinforcement that all registered nurses have a duty to protect the residents against risks and danger associated with medication management (2009). Moreover, An Bord Altranais (2000, p.6) state that 'in determining his/her scope of practice the nurse and midwife must make a judgement as to whether he/she is competent to carry out a particular role or function'. To assist nurses and midwives in understanding their roles and responsibilities in medication management, An Bord Altranais (ABA) (2007) has prepared guidelines. These guidelines enable nurses and midwives to reflect on the key areas associated with medication management and the related principles and thus support the effective, safe and ethical practice.

In a time-motion study conducted by Keohane *et al.* (2008) performed in a 735- bed tertiary academic medical centre in the USA, examining the proportion of time devoted to various

patient-care activities, found out that medication administration is among one of the most frequent activities performed by nurses. Consequently, Henneman *et al.* (2010) hypothesised that nurses are in a key position to identify, break and correct errors before they affect patients. In summary, nurses play a vital role in medication management and safety, a role that is inherent to nursing profession (Smeulers *et al.*, 2014).

2.3 MEDICATION ERRORS

The National Medicines Information Centre (2001) define medication errors as preventable events that may cause or lead to inappropriate medication use or patient harm while the medication is in the control of the health care professional or patient. They also theorised that ME is the most common type of error affecting patient safety and is the most common preventable cause of adverse events. Furthermore, an American Researcher named Pape (2003) gave a more accurate definition, stating that medication administration errors occur when violating one or more of the seven rights of medication administration such as right patient, right drug, right dose, right time, right route, right reason and right documentation.

As recognised worldwide, medication administration is a universal nursing task. According to Bates *et al.* (1997) that errors in medical management cause between 44,000 to 98,000 deaths each year in American Hospitals, and the cost of adverse drug events is approximately \$5.6 million in a seven hundred bedded hospital. Leufer and Clery-Holford (2013) found that available data in the United Kingdom suggests that error and hazard in patient care are no lower than in the US. Unfortunately, the startling statistics is no different here in Ireland. State Claim Agency's report mentioned that an alarming 6,882 medication errors were committed in the year 2010 (Leufer and Clery-Holforth, 2013).

There are many theories in the literature as to what causes Medication Errors (Carlton and Blegen, 2006). One theory is that nurses were responsible for 86% of all Medication Error interceptions, regardless of the origin as cited by Leape *et al.* (1995). However, author Jones (2009) believed that there are underlying factors that make the busy ward conducive to errors such as distractions and time pressures as influencing nurse's ability to administer medications correctly. Pape (2001) also highlighted these environmental factors in her article.

2.4 IMPACTS OF INTERRUPTIONS AND DISTRACTIONS TO MEDICATION ADMINISTRATION

As described by Sanderson and Grundgeiger (2014), an interruption occurs when an event leads a person to remove their attention fully but temporarily from a primary, or current, task to another task, and then move their attention back to the main task. On the other hand, distraction occurs when a person's attention leads to partial diversion from a primary task to another task but performance on the main task is not entirely suspended.

In an experimental study conducted by American researchers Drews and Musters (2015) about the relationship between individual differences in working memory capacity and

interrupted task performance, found that interruptions contribute to performance breakdowns, but well-designed systems can minimise the impact. However, a relevant experimental study in the UK and Canada Hodgetts *et al.* (2015) found that even with a support system automating some part of a task, multifaceted tasks of risk assessments and dynamic decision making are still vulnerable to interruptions.

Stratton *et al.* (2004) surveyed nurses, of which a finding emerged that work interruptions appear among the most prominent of the system-related factors. In similar studies conducted by Healey *et al.* (2006) and Beyea (2007) have demonstrated that interruptions to the workflow of healthcare professionals are very common and that it is normal for hospitals to be an environment susceptible to interruptions. An earlier published study by Pape (2001) agreed that the medication administration process is error-prone because of the many environmental and workload issues faced by nurses such as distractions and time pressures.

Studies on interruptions continue to grow in recent years. Moreover, so is the correlation of interruptions and distractions to Medication Errors has become stronger. However, Ratwani (2014) who studied interruptions for over a decade, admitted that our understanding of interruptions in healthcare is still in its infancy due to the challenges in the diversity of clinical environments and the importance of interruptions in some care settings.

To assist researchers in investigating interruptions in healthcare, Mc Curdie *et al.* (2017) authored the Dual Perspective Method. They emphasised that to achieve more sustainable and appropriate interventions, is to examine interruption from more than one perspective. Through Dual Perspectives Methods, as authored by Mc Curdie and colleagues (2017), they were able to capture the conflict on nurses' work boundaries and the reality that interruptions are encouraged to carry out treatment in a responsible way. However, such approach could also seize contradictory versions of an interruption event from a wide variety of work roles.

2.5 PRACTICES/ STRATEGIES TO REDUCE MEDICATION ADMINISTRATION ERRORS

Medication Error, indeed, is a worrying issue in healthcare as it directly affects patient safety. In response, many practices have emerged to increase the safety of medication administration process. This section discusses the interruption counter practices found in the literature reviewed.

In efforts to address the issues on interruptions, various strategies emerged to counter the incidence of MAEs in the clinical area. These practices include e-learning, medication education, protocols and visual reminders, double checking, dedicated medication nurses, interruption protection, and electronic systems (Hodgkinson *et al.* 2006). The use of satellite pharmacies and unit-based pharmacists were also adopted as this strategy improved safety

by reducing floor-stock which is a potential source of medication error (Kane-Gill & Weber, 2006).

The 'No Interruption Zone' (NIZ) was recommended by Anthony *et al.* (2010) as a strategy by the Institute for Safe Medicated Practices, a non-profit North American Organisation dedicated to the prevention of medication errors. The NIZ stems from the aviation industry's "Sterile Cockpit Rule". This adherence to the sterile cockpit rule minimises distractions during critical periods of flight operations and improves airline safety. Pape (2003) also favours the application of airline safety to medication administration, requiring nurses to adhere strictly and solely to the task at hand, utilising a strict medication safety list with visual reminders for accuracy to enhance the safe implementation of this role.

2.6 DRUG ROUND TABARD

Geller (2000) pointed out that symbols and signage are influential in our society because signs can give us warnings of impending danger before the fact and can be used as safety reminders to direct behaviour. The UK National Health Service (NHS, 2007) endorses the wearing of visual signs during the medication round in the form of brightly coloured tabards, vest or sashes. A nurse responsible for dispensing medication wears a drug round tabard with the inscription: "Do Not Disturb. Drug Round In Progress" during the entire medication round. This final chapter will talk about the evidence collected regarding the use of drug round tabards as a specific measure to reduce interruptions and distractions.

Literature shows that hospitals in different countries have adopted the practice of wearing tabards or vests during medication round. In the USA, where the earliest study held, a quasi-experimental research conducted by Pape (2003) explored the effectiveness of interventions in reducing distractions and interruptions during medication administration, found and that interventions such as signage and protocol checklist are proven effective. However, Sanderson and Grundgeiger (2014) critiqued the said study as Pape failed to explain how interventions affect interruption rate and that there was no basis for further generalisation. Hayes and colleagues (2015) also criticised Pape's work as the impact of each intervention was unclear and that no night duty or weekend observations collected.

In 2010, Scott *et al.* from the United Kingdom, studied the effectiveness of drug round tabard using a tick box questionnaire and used National Health Service Grampian's Datix incident reporting system. NHS Grampian, one of the ten principal Health Boards in Scotland, is using Datix patient safety software to manage incident reporting, complaints, claims, request for information, safety alert and risk. As a result, the average number of interruptions reduced from 6 to 5, and a slight reduction in the number of incidents noted over the five-week period (Scott *et al.*, 2010). In the same year, Relihan and colleagues conducted the first Irish study on interruptions and distractions during medication administration. They introduced a set of interventions, which include drug round tabard, to a 59- bed medical unit in an acute teaching hospital here in Ireland. They employed a pre

and post intervention observational study which identified ten sources of interruptions and that those sources impacted the effectiveness of the interventions. An interesting revelation they found was nurses themselves were the overall most significant source of interruptions. Similar to the UK study, Relihan *et al.* (2010), noted an overall decrease in interruptions post-intervention. However, Hayes, *et al.* (2015) examined their work and pointed out that Relihan and colleagues failed to identify the individual impact of each intervention.

In 2012, Tomietto *et al.* finalised a four-year period study on effects of hospital-based, multi-intervention programme aimed at reducing medication round interruptions. Similar to that of Relihan and colleagues' (2010), interesting results revealed that interruptions from patients reduced while interruptions from staff members increased (Tomietto *et al.*, 2012).

The attention to drug round tabard has further increased in 2014. A mixed method study proved that significant reductions in interruptions and MAEs were achieved after the introduction of the tabard in a Dutch university hospital (Verweij *et al.*, 2014). In the same year, Uko-Udom (2014) used a mixed study after introducing the use of red drug round tabards and checklist to a long-term facility for the older people here in Ireland and found the same favourable result.

In contrast, Raban and Westbrook (2014) found weak evidence of the effectiveness of interventions to significantly reduce interruption rates and very limited evidence of efficacy to reduce MAEs after a systematic review of ten studies conducted in North America and Europe. In a similar way, Sanderson and Grundgeiger (2014) did a systematic review of methods used by different researchers who studied interruptions and distractions in healthcare. They came up with a proposal that future researchers should seek ways to achieve more generalisable results to arrive at an understanding of the role of interruptions and distractions play in healthcare. Hayes and colleagues (2015) also reviewed 19 studies which investigated interruptions and distractions on medication administration. Only 5 of those 19 have investigated different strategies aimed at reducing or eliminating interruptions and distractions. Their main criticism was, the majority of the five studies failed to identify the impact of each intervention, whether one is more efficient than the other. They recommend maintaining care when considering any of the interventions without further research.

Among the studies presented, the need to conduct further descriptive studies proved to be of relevance as it will assist researchers in achieving a better understanding of the work interruptions characteristics that is deficient from the literature reviewed. See Appendix 1 for literature review summary of studies as discussed above.

2.7 CONCLUSION

This chapter provided a discussion of the main issues associated with safe medication administration and factors contributing to medication errors. The main objective of this

literature review was to explore the relevant literature and to contribute to the growing knowledge of the effectiveness of drug round tabard as a specific measure in reducing interruptions and distractions during nurses' medication administration.

The literature review has identified interruptions and distractions in the work environment as significant factors to medication administration errors. Studies show that the use of various strategies to reduce interruptions and distractions during medication administration were proven effective. However, due to clustering of interventions, the individual effectiveness of these interventions remain unclear. This gap in the literature directed the researcher to investigate the efficiency of the drug round tabard in Community Hospitals. Nurses, being the key players in medication administration, are the best source of information for this drug round tabard investigation. Thus, the main research question: What are nurses' experiences with the drug round tabard?

The next chapter presents the methodology employed in this research study.

CHAPTER 3.0
RESEARCH METHODOLOGY

3.1 Introduction:

Methodology in research according to Cronin and colleagues (2015) refers to the philosophical overview of research divided into approaches that describe how to undertake the research study. The previous chapter provided a summary and synopsis of literature to assist in understanding why the phenomenon of interest is worth exploring. The literature review indicated that there is a need to further investigate the individual strategies responsible for decreasing interruption rates during medication administration (Hayes *et al.*, 2015).

This chapter presents the details of the system of methods employed by the researcher in the exploration of nurses' experiences with the drug round tabard when dispensing medication to the older person. This chapter contains the aims and objectives, the underlying concepts and theories of the chosen methods, the research methods, analysis, rigour, and ethical considerations.

3.2 Research Question

What are nurses' experiences with the use of a drug round tabard?

3.3 Research Aim and Objectives

The research aim is to explore nurses' experiences with drug round tabard when dispensing medication to the older person.

The objectives of the study are:

- To explore nurses' views and opinions on the use of the drug round tabard by gaining insights on their experiences with it.
- To investigate nurses' awareness of the purpose of the use of drug round tabard and its connection with minimising interruptions and distractions during medication administration.
- To identify issues that led to nurses' satisfaction or dissatisfaction on drug round tabard use which may have implications for future practice and research.

3.4 Research Design:

The main question for this research study is " what are nurses experiences with the drug round tabard?". The researcher is interested in, among others, exploring the views and opinions, investigating awareness, and identifying issues that led to nurses' satisfaction or dissatisfaction with the drug round tabard initiative. The most appropriate method of research to answer the question presented is the qualitative descriptive approach because it is most suitable for exploring human experiences.

Research Design provides a plan for answering research problems according to LoBiondo-Wood and Haber (1998). It is a plan that describes how, when and where to collect data and analyse these data (Parahoo, 2006). However, Parahoo (2006) further explained that design is beyond stipulating the steps and actions to be taken, as it also reflects the thinking, beliefs and strategies of the researcher. Thus, the selection of research design depends on the researcher's expertise, the topic of inquiry, the study purpose, and the intention to generalise the findings (Grove et al., 2013).

3.4.1 Quantitative Vs. Qualitative

Many scholars have identified quantitative and qualitative as the two main approaches to conducting research. The basic distinctions between quantitative and qualitative rest in their different philosophical assumptions which sequentially direct the data collection and analysis process. However, both approaches can lead to solid theory construction as a result.

According to Henwood and Pidgeon (1993), the popular image that quantitative deals with numbers and qualitative research deals with description is too simplistic and unhelpful. Burns and Grove (2005) defined *Quantitative Research* as a formal, objective, systematic process in which numerical data are used to obtain information about the world. It is where relationships between concepts or variables are measured objectively (Parahoo, 2006), controlled or taken away from its natural environment, and then analysed to identify statistical possibilities and the certainty of a specific outcome (Duffy, 1985). Quantitative research is reductionist, deterministic and deductive (Parahoo, 2006). The methods are pre-determined, structured, standardised and inflexible (Burns and Grove, 2005; Parahoo, 2006).

The philosophical assumptions of quantitative research are to be built around positivist paradigm utilising deductive reasoning. Deductive reasoning moves from the general to the specific (LoBiondo-Wood and Haber, 1998). Quantitative research uses deductive approach since researchers examine if variables are connected or if one variable causes change in another (Parahoo, 2006).

On the other hand, *Qualitative Research* focuses on words because the main purpose is to describe or theorise. The assumptions associated with qualitative research are the quest for reasons rather than causes; the objective is generally to decipher why things happen and to strive to understand the interpretation and disposition of people. Qualitative research is a method of investigating the depth, affluence and intricacy integral in phenomena. Therefore, qualitative research is well suited to study the human experience, as articulated by LoBiondo-Wood and Haber (1998). Their articulation was from Lincoln's (1992) earlier statement that qualitative methods focus on the whole of human experience and the meaning attributed by individual living that experience, which consequently leads to greater understanding and deeper insight into complex behaviours than what derives from direct

measures of perceptions. Qualitative approaches are inductive, interactive and holistic (Parahoo, 2006).

In healthcare research, qualitative methods are helpful when evaluating interventions and services. It can provide data on the effectiveness of tools and interventions which health professionals use (Parahoo, 2006). Thus, a qualitative inductive approach is believed to be the most suitable method to explore the experiences of nurses with the drug round tabard. The next section explains the specific qualitative approach used in this research study.

3.4.2 Qualitative Descriptive Study

There are different approaches to qualitative research, but the methodology utilised for this research study was qualitative descriptive because it is most suitable for exploring human experiences which are the primary concern of this study and it facilitates a very rich description of the data. Qualitative descriptive (Cronin *et al.*, 2015) is also known as exploratory-descriptive (Grove *et al.*, 2013), or descriptive/exploratory survey (LoBiondo-Wood, 1998). Annells (2007) commented that qualitative descriptive is a primary methodology for nurse researchers at present. According to Cronin and colleagues (2015), the *qualitative descriptive study* is aimed at defining or exploring a phenomenon, problem or issue and can contain a wide scope of questions relating to people's experiences, knowledge, attitudes, feelings, perceptions and views. They further explained that qualitative descriptive studies are not guided by a specific philosophical or theoretical orientation in the same way as ethnography or grounded theory, but they are rather more flexible philosophically and theoretically (Cronin *et al.*, 2015).

The philosophical assumptions of qualitative descriptive research are in the interpretivist paradigm. Most researchers come with a concept in mind, of what they want to know to direct their work (Cronin *et al.*, 2015), and this researcher is no different. The paradigm or set of beliefs peculiar to this research belongs to interpretivism. *Interpretivists* or other scholars named them as constructivists, believe that human being's reality constructs from experiences and interactions with a social world. Thus they investigate to understand the outlook of the person experiencing it (Cronin *et al.*, 2015). Interpretivism has its weak points. Dudovskiy (2016) explained the disadvantages in interpretivism are its subjective nature and the tendency for bias by the researcher and whose primary data cannot be generalised as a consequence. However, primary data generated from interpretivism studies are with a high level of validity due to trustworthiness and honesty (Dudovskiy, J., 2016).

In selected community hospitals in the north-west of Ireland, nurses adopted the initiative to wear the drug round tabard to counter issues of interruptions during medication administration. The researcher felt strongly that nurses' perceptions and experiences are important areas to study because they are the population who experience the phenomenon.

3.4.3. Discussion of Framework

There was no specific framework that this research can utilise based on the literature reviewed. The conceptual framework for interruptions authored by Brixey (2009) is designed to identify different types of interruptions that occur during an observed healthcare protocol, which is not suitable for this kind of research. Brixey (2014) admitted that further study required in the framing and representation of interruption. In a descriptive study of an under-researched phenomenon, the theoretical framework may be tentative or non-existent (Burns and Grove, 2009).

This research study employed an inductive approach which is helpful when existing concepts or theories are inadequate and do not reflect people's experience (Parahoo, 2006). The researcher believes that inductive approach will allow ideas to arise from listening and from examining and re-examining own ideas on the subject.

3.5 Role of the Researcher

In a qualitative study, the researcher is an instrument of data collection and analysis (Parahoo, 2006). As with the subjective nature of qualitative research, the researcher must establish a trusting relationship with the participants and must adopt a non-judgemental attitude in their approach to the study. Thus it is important for the researcher to undertake a critical reflection in their approach (Cronin *et al.*, 2015).

This researcher did not have access to any of the staff nurses' personal data, until after each participant gave their informed written consent to address issues of confidentiality, thus minimising the selection bias in this research (Redsell and Cheater, 2001).

Being a nurse and a researcher is an advantage in a way that the participants became instantly comfortable due to similar nursing background. However, the nurse- researcher role also posed a challenge due to investigator's experience with the drug round tabard. It is not easy for the researcher to "*bracket*" own assumptions and beliefs. According to Tufford and Newman (2010), *bracketing* is a method used in qualitative research to manage preconceptions that may influence the research process. The researcher acknowledges that bracketing is a difficult task because of the need to set aside own judgement and preconceptions. The methods of bracketing used by the researcher in this study include: writing memos or field notes throughout the data collection and analysis as a way of reflecting own engagement with the data. Also, use of reflexive journal as means of surfacing own preconceptions before the conduct of the study (Tufford and Newman, 2010).

The semi-structured interviews have been carried out as a social interaction between the researcher and the nurse participant and addressed the research question, "what are nurses' experiences with the drug round tabard?"

3.6 Sampling Method

Sampling is the system of choosing representative units of a population for study in a research investigation (LoBiondo-Wood and Haber, 1998). Sampling has two categories, *probability sampling* where the selection of elements are through random methods and *non-probability sampling* which involves non-random selection. Probability sampling is more regarded between the two as its emphasis is on representation and generalisation. However, random selection does not always indicate representativeness (Parahoo, 2006).

According to Morse and Field (1996), the qualitative sampling principles are *appropriateness* and *adequacy*. *Appropriateness* derived from the identification and utilisation of the participants who can best inform the research according to the academic requirements of the study. *Adequacy* which means that there is sufficient data to produce a full and rich description of the phenomenon. In a qualitative descriptive study, which this research study employ, the selection of the sample has to include only those who can provide a thick description of a phenomenon, problem or issue (Grove *et al.*, 2013). The way to do it is by choosing the subjects who are considered to be typical of the population; this is also known as purposive sampling (LoBiondo-Wood and Haber, 1998).

In this research study, an accessible population was used, which is a characteristic of purposive and non-probability sampling. However, due to time constraints, the decision to use convenience sampling was also made. When the ideal is not achievable, researchers have to use alternative methods of sample selection (Cronin *et al.*, 2015).

The commencement of sampling process is by the identification of the target population. A *target population* is composed of individuals to whom the researcher would like to make generalisations and who meet the sampling criteria. Sampling criteria or eligibility requirements are used to select the sample from a collection of all possible units (LoBiondo-Wood and Haber, 1998). For this research study, the target population would include all registered nurses who are practising the drug round tabard initiative and who are working in community hospitals here in Ireland. Often it is not feasible to pursue the target population because of time, money and personnel but with *accessible population*, who are individuals that meet the criteria are used because of their availability. For this research study, the accessible population include all registered nurses who are practising the drug round tabard initiative and who are working in two community hospitals in North-West of Ireland. Once the accessible population was determined becomes the population of interest where the data collection can potentially take place.

According to Holloway and Wheeler (2002), qualitative studies utilises small sample size (4-50 samples) due to a huge number of generated data, which is in contrast to quantitative studies which are using big sample size. Small sample size if used in quantitative studies, would likely yield to insignificant results (Parahoo, 2006). Sample size is not the starting

point in qualitative research, the purpose of the sample determines the number of participants (Parahoo, 2006).

Data saturation occurs when no new knowledge arise from additional sampling (Morse, 2000), however, most scholars would agree that it is hard to achieve (Cronin *et al.*, 2015). In this research study, the researcher did not hear new information during the 8th interview. Therefore data saturation is achieved. Within the time frame, a total of eight interviews conducted and data generated from these interviews were analysed. The two nursing facilities, in which data collection took place, have a combined total of 27 nurses excluding two nurse-matrons/person-in-charge. The participants were recruited following permission to conduct the study was granted. Table 1 illustrates the demographics of the participants and the interpretation of the results found in chapter 5.

Table 1. Demographics

Demographics	Staff Nurses in Location A	Staff Nurses in Location B
Gender	Female 5/5	Female 3/3
Age Group	20-29 = 1/5 40-49 = 1/5 50-59 = 2/5 60-65 = 1/5	30-39 = 1/3 50-59 = 2/3
Years of Nursing Registration	6 -10 yrs = 1/5 21-25 = 1/5 26-30 = 1/5 30-35 = 1/5 36-40 = 1/5	10-15 = 1/3 26-30 = 1/3 30-35 = 1/3
Years of Employment in Area	1- 5 yrs = 1/5 11-15 = 1/5 16-20 = 3/5	6 -10 = 1/3 16-20 = 2/3
Type of Ward/Unit • Long Term Care • Short Stay Care	5/5	3/3
Nurse Qualifications • Degree Specialist Qualifications (Post Reg.) • Diploma in Palliative Care	5/5	3/3 1/3
Country of Nursing Education	Ireland = 2/5 Philippines = 2/5 India = 1/5	Ireland = 3/3

3.6.1 Inclusion and Exclusion Criteria

Table 2. Inclusion and Exclusion Criteria

Inclusion	Exclusion
Staff Nurses who work in older people services (e.g. Community Hospital)	Staff Nurses who only used the drug round tabard once.
Staff Nurses who have worn the tabard when performing medication administration task.	
Staff Nurses who have used the drug round tabard more than once since its implementation.	
Staff Nurses who have given their written consent to participate in the study.	

Inclusion criteria are characteristics of a subject or element which qualifies to be part of the target population (Grove *et al.*, 2013). Those who possess the characteristics mentioned above were eligible for inclusion in this research so that their experience with the drug round tabard when dispensing medication to an older person is explored. Community hospitals are government institutions which cater to the care of the older people whose influence to the implementation of this new initiative was of interest to the researcher.

On the other hand, *exclusion criteria* are characteristics of the target population who will be omitted as distinguished by the investigator (Cronin *et al.*, 2015). Those people are excluded due to the nature of this research, as it concerns with the experiences of nurses who are wearing the drug round tabard when dispensing medication to an older person. Those people were unable to provide a real insight into the phenomenon of interest. This exclusion criterion is a content of the Participant Information Leaflet (Appendix 9). During the participant recruitment, the researcher disqualified a staff nurse from partaking in the study as she only wore the drug round tabard once.

3.7 Recruitment and Access

It is imperative that nurses should not conduct qualitative research in the unit which they are working to, first avoid role confusion, as a researcher and as an employee, and second and greatest issue is the possibility of obstruction on data analysis due to familiarity with the setting (Morse and Field, 1996). The researcher currently works in older people services and practices the drug round tabard initiative.

The setting for this research study is the two Community Hospitals in the North-West of Ireland with age-related care units. To gain access to the two sites, the researcher wrote to the appropriate Director of Nursing (DON) (Appendix 6) with an accompanying copy of the Participant Information Letter (Appendix 9) which outlines the recruitment and procedure, a covering letter (Appendix 8), consent form (Appendix 10), and finally a copy of the interview schedule (Appendix 11). The researcher forwarded all the above documents to each of the proposed sites to request permission to visit the appropriate nursing units.

Both Community Hospitals, location A & B, granted the permission to conduct the study following the researcher's research proposal presentation to the Health Board Research Ethics Committee they belonged and this research study gained chairman's approval (Appendix 4).

Following approval, the researcher contacted the appropriate DON. The DON of each site then named the gatekeepers, who were members of the administration staff. A letter sent to the gatekeepers (Appendix 7) seeking assistance with the distribution of Participant Information Leaflets (Appendix 9) and covering letters (Appendix 8). The researcher visited the sites and gave copies of the documents mentioned above for the appointed gatekeeper to distribute.

Subsequently, Participant Information Leaflet (Appendix 9) and Cover Letter (Appendix 8) were made available in the ward for nurses to read and reflect as distributed by the appointed gatekeeper. The Participant Information Leaflet contained the following key information: the title of the study, background, aim and objectives, inclusion and exclusion criteria, procedures, benefit and adverse outcomes. It also included contact details of the researcher. In addition to the leaflet, a Cover Letter was written to invite nurses to partake in the study formally. Location A has 5 (approximately 60%) out of 9 respondents, while location B has 3 (approximately 17%) out of 18 nurses who responded to the invitation.

3.8 Data Collection

Data collection is the accurate, systematic gathering of information relevant to the study purpose which may be collected through various means such as observations, interviews, videotape or written descriptions by participants (Grove *et al.*, 2013). This qualitative research utilised a once off, face-to-face, semi-structured individual interviews. This

approach is suitable for describing and exploring a phenomenon, and it provides the means of turning the information supplied during the interviews that can be analysed and interpreted.

Semi- structured interview chosen for this research study because the researcher can use a predetermined list of statements which offers flexibility in the phrasing and order of the questions (Parahoo, 2006). The researcher has own experience with the drug round tabard in her nursing practice, and as what Morse and Field (1996) suggested that semi-structured interview is appropriate when the interviewer has the knowledge on the phenomenon of interest but cannot predict answers. The data collection tool is called Interview Schedule (Appendix 11) which will appear in the next section.

Following a briefing of the procedure from the researcher, the appointed gatekeepers of each site distributed the appropriate number of copies of Participant Information Leaflets (Appendix 9) and Cover Letters (Appendix 8) to the wards. The documents mentioned earlier contain researcher's contact information and instruction that the researcher is providing participants with a minimum of seven days to reflect.

The actual data collection took place between January to February 2017, and each interview is lasting at an average of 33 minutes and seventy-five seconds (Table 2). All participating nurses received an Information Leaflet and Cover Letter, explaining the purpose of the interview, the guarantee of anonymity and the possible withdrawal from participation before data analysis phase. The researcher reassured the participants that the aim of the study was to obtain their personal experiences with the drug round tabard when dispensing medication to their clients. With the participants' consent, the interviews were recorded in an audio recorder (dictaphone) and transcribed verbatim. The researcher offered the participants a copy of the transcript. However, none of the participants asked for one.

3.8.1 Interview Schedule

The interview schedule (Appendix 11) is a data collection tool in which participants can create their responses instead of selecting from multiple-choice answers and also features the flexibility to 'probe' which is used to seek clarifications (Parahoo, 2006). The list of statements in the interview schedule is based on literature by Grol and Wensing (2004), and Grol and Grimshaw (2003) and the literature discussed in chapter 2. Morse and Field (1996) recommended, to prepare statements with probes or additional questions designed to obtain additional information during the interview.

The interview schedule has three main parts: introduction, statements, and conclusion. The topic list is consist of 8 statements in total with three probes in some statements which will appear below.

First statement: *In your words, describe the previous medication administration practice in your clinical area before the red tabard was introduced.* The statement focuses on nurses'

experience before the introduction of the new initiative. It allows the participant to recall and compare the previous and present medication administration practice thereby facilitates giving of first insight.

Second statement: *Can you describe your awareness on the purpose of wearing the drug round tabard?* This statement is based on the literature by Grol and Wensing (2004) which stated that awareness of the professional could be a promoter or barrier for change. This statement allows the participant to reflect on her understanding of the reason why the drug round tabard is worn.

Third statement: *Can you tell me your initial experience with the red tabard during medication rounds. Probe: How was this experience important to you?* Grol & Wensing (2004) proposed a ten- step model for inducing change in professional behaviours. The 8th step is about confirming the value of change which is indicated by the professional's first experience, whether positive or negative. The researcher believes that exploring participant's initial experience is essential as it could explain her acceptance of the new initiative. The probe clarifies any responses, positive or negative, received by the participant.

Fourth statement: *What type of responses have you encountered when wearing the red tabard? Probe: Are these responses common?* This statement was based on previous studies by Tomietto *et al.* (2012) and Smeulers *et al.* (2014) which featured responses from the patients, non-nursing staff and public. The probe clarifies whether the responses are common or not.

Fifth statement: *In your opinion, is wearing of the red tabard accepted in your clinical area?* This statement is related to the previous statement and also derived from two studies mentioned. This statement allows participants to reflect on the overall response to the new initiative.

Sixth statement: *In your opinion, does wearing of the red tabard reduces interruptions and distractions during medication rounds?* This statement is vital as it facilitates self-reflection on the efficiency of the drug round tabard in reducing interruptions and distractions. This statement is based on previous studies by Tomietto *et al.* (2012) and Smeulers *et al.* (2014).

Seventh statement: *Can you describe the challenges you encountered when wearing the red tabard during medication round. Probe: Can these challenges be overcome?* This statement is based on the literature by Grol and Grimshaw (2003) who mentioned that obstacles to change in practice could occur at different stages in the healthcare system (Grol and Grimshaw, 2003). Also, findings from previous studies suggest that there are challenges associated with the implementation of the interruption countermeasures. The probe permits the participant to suggest solutions.

Eight statement: *As your overall opinion, are you satisfied or dissatisfied with the use of drug round tabard?* Please explain why. This final statement offers a wrap-up of the participants' overall experience with the drug round tabard. It allows reflection as it specifically asks participant's satisfaction or dissatisfaction on the whole concept of the drug round tabard initiative. The question opens the opportunity for participants to contemplate and bring further issues they could relate.

In the concluding part, the researcher provides a brief summary of the interview which offers a chance for the participants to validate the content of the interview.

3.8.2 Setting

There were five Community Hospitals in North-West of Ireland who were selected to implement the drug round tabard initiative, however, due to travel considerations to these locations necessitates the researcher to choose the accessible two from the five sites. The accessible population are all the registered nurses working in two healthcare settings identified as location A and B. Thus; the inclusion criteria consist of all the registered nurses working in the age-related care units in these two community hospitals in the north-west of Ireland.

Conducting the study in more than one location facilitates comparison in the way the drug round tabard was practised in different care settings and provides an opportunity to look for similarities and differences in the outcome of care.

Location A is a community nursing home located in a rural area in the North- West of Ireland. The two- storey home was originally built as a workhouse in the 1800s but became a dedicated older person's centre for over ten years. It can accommodate 22 residents requiring long-term or continuing care. It currently employs a skill mix of staff which comprise of 9 Staff Nurses and a Nurse-In-Charge along with support staff members.

Location A has a combined nursing office and medication room where medications are stored in locked cabinets, and prepared for in a medication trolley for administration by the nurses. A Medical Officer visits the nursing unit at least once weekly, or when necessary, and prescribe the medication through a paper-based system, then faxed or sent to the local chemist for dispense of medication to the nursing unit. Medication supply were all transferred to individual boxes or containers which labelled with patient's name as per medical officer's prescription. All prescriptions and administrations recorded in a paper-based medication administration file or Kardex. Each nurse has designated patients for whom she prepares and administers medications. Nurses were supplied of one red apron, of plastic and heavy material with the inscription: Do not Disturb. Drug Round In Progress. There can only be one nurse dispensing medication at a single time due mainly to the staffing level. The nurses who do not perform the medication administration task are obliged to do bedside care along with care staff members.

Location B is a Community Hospital situated on the outskirts of a town in the North-West of Ireland. The two-storey hospital was built in the late 70s which can accommodate 29 residents requiring palliative, respite, convalescence, rehabilitation, assessment and long-term or continuing care. It currently employs a skill mix of staff which comprise of 18 Staff Nurses, a Director Of Nursing, support staff members and other health professionals.

Location B has a pharmacy room where medications stored in locked cabinets; a room to keep the medicine trolleys; and a dedicated medication room for preparation of medicines by the nurses. A Medical Officer visits the hospital once weekly, or when necessary, and prescribe the medication through a paper-based system, then faxed or sent to the local chemist for dispense of medication to the nursing units. Medication supply were all transferred to patients' individual baskets. All prescriptions and administrations recorded in a paper-based medication administration file or Kardex. Each nurse has designated patients for whom she prepares and administers medications. Nurses were supplied of two red aprons, of jersey-like soft material with the inscription: Do not Disturb Drug Round In Progress. During medication rounds, two allocated medication nurses dispense medication to each area (female and male wards) wearing the tabard or apron. The nurses who do not perform the medication administration task are obliged to do bedside care along with care staff members.

3.8.3 Pilot Study

A pilot study is commonly defined as a smaller version of the proposed study that is conducted for the purpose of refining the methodology (Grove *et al.*, 2003). According to Grove *et al.* (2013), a pilot study or interview is beneficial in identifying problems that can occur during data collection and allows the researcher to develop strategies to manage these identified problems, i.e., are participants available, how much time is required (Appendix 2), what are the costs incurred (Appendix 3).

In this research study, the pilot interviews were conducted with the help of the researcher's two nurse-colleagues. The two nurse-colleagues were verbally invited to partake in the pilot interviews which they cordially accepted. Both participants received a copy of the Participant Information Leaflets (Appendix 9) which outlines the background, aims/objectives and procedure of the study. It took at least five days from the day they were first contacted for the participants to communicate the date, time and place of the interview. It became immediately clear to the researcher that arranging the schedule for participant's interview will be one of the challenges. Both participants have opted to schedule their individual interviews during their days off and have it done outside their workplace.

The pre-arranged interviews were conducted at a neutral venue as the researcher was aware that there might be distractions during the interview if it is in either participants' or investigator's place. During the interview, each participant was asked to sign the consent

form (Appendix 10). The interview performed with the Interview Schedule (Appendix 11) as a guide. The audio recorder was placed discreetly during participant A's interview to avoid distractions. However, the recorded voice turned out to be in a bad quality. This issue was corrected during participant B's interview. Also, the researcher was not taking notes during participant A's interview which causes a distraction. The researcher realised that note taking is suitable after the interview as a corrective measure from the first interview experience. The average interview lasted 40 minutes (Table 3). Both participants did not express any difficulties with regards to answering the statements or list of topics.

Following the pilot interview, the researcher was able to evaluate the appropriateness of the research question, interview technique and the trustworthiness of the interview schedule. Thus, the researcher believes that the interview schedule (Appendix 11) is capable of collecting rich data that could describe the nurses' experiences with the drug round tabard.

Table 3. Pilot Interview

Participant	Length of Interview	Audio Recorder placed discreetly?	Note taking during the interview
A	45 mins.	yes	yes
B	35 mins.	no	no

3.8.4 Equipment

According to Morse and Field (1996), research equipment is a valuable investment because data quality during interviews is dependent on clear recordings. An equipment failure may result in lost data so the researcher must select carefully (Morse and Field, 1996). The equipment used to collect data for this research study is the dictaphone which is a lightweight and portable audio recorder. The said device was checked before the commencement of each interview (Morse and Field, 1996). Upon participant's permission to conduct the interview, the dictaphone was utilised to record the actual interview. The equipment is placed near both the researcher and the participant to capture the conversation clearly. No note-taking was done during the interview as it was found to be distracting the participant, a reflection transpired from the pilot interview. Each participant was assigned a pseudonym to protect their identity and address issues on confidentiality who consented to the interview. Any data, audio-recorded at an interview and subsequently transcribed (Appendices 12 & 13) onto a USB, was protected by the researcher under the Data Protection Act (1988).

3.8.5 Field notes

Field notes may be used to supplement an audio-recorded interview as the audio-recorder does not illustrate the physical setting, the impressions or the non-verbal cues in an observed interaction (Morse and Field, 1996). Field notes are the notes made during and immediately following the observations (Grove *et al.*, 2013). The researcher's goal is to capture the experiences of the participants and to describe the community to which they belong (Morse and Field, 1996). The researcher wrote up field notes only after few hours of each interview, which transpired following reflection from the pilot interview as taking notes was distracting the participant. The participant's pseudonym, interview date and duration or length of the interview recorded on these field notes, which have been kept safely to ensure participants' confidentiality. Field notes helped the researcher to complement the experiences of each participant (Appendix 14). After each interview, a backup file was created and stored in USB in case of loss or damage of the original recording, and locked in a cabinet for up to thirteen months. Any data, audio-recorded at an interview and subsequently transcribed onto a USB, were password-protected for reasons of confidentiality under the Data Protection Act (1988).

3.9 Data Analysis

Data analysis is a process undertaken by researchers to make sense of the data and to provide an answer to the research question and in ways how data have been collected (Cronin *et al.*, 2015). In this study, data collection was in the form of audio recordings, diary and field notes. Unlike the partly objective nature of quantitative studies, qualitative data analysis is to some extent subjective, as described by Parahoo (2006). However, strategies have been developed to allow other researchers to follow and validate their method. All data collected from interviews were included in the data analysis as all participants possess the qualities of a good interviewee. Therefore no interview was set aside (Morse and Field, 1996). Data analysis in this research were adapted from the work of Braun and Clarke (2006) who emphasised that thematic approach can create an insightful analysis that answers the specific research question.

3.9.1 Theme Analysis

Braun and Clarke (2006) define thematic analysis as a method used to identify, analyse and report patterns (themes) within data. There are different approaches to thematic analysis, and for this research, the theoretical position was that of an essentialist or realist framework as it reports experiences, meanings and the reality of the participants (Braun and Clarke, 2006). Furthermore, an inductive approach was chosen as most appropriate as it welcomes unexpected themes to surface.

Braun and Clarke's thematic analysis is consist of six phases (Table 4), which is similar to that of Newell & Burnard (2011) and it includes the following:

Table 4. Phases of Thematic Analysis (Adapted from Braun & Clarke, 2006)

PHASES OF THEMATIC ANALYSIS
<ol style="list-style-type: none"> 1. Familiarising with the data. 2. Generating initial codes. 3. Searching for themes. 4. Reviewing themes. 5. Defining and naming themes. 6. Producing the report.

Phase 1 is familiarising with the data which involve the transcription of verbal data (Appendices 13,14), repeated reading of the transcripts and re-listening to the audio recording to immerse in the data and for accuracy. The researcher transcribed the data for this study which allows a more thorough understanding of the data collected. All data were saved in Microsoft Excel file which permits easy management of large data.

Phase 2 is producing an initial list of ideas or codes that appear interesting. There was a total of 187 original codes (repetitions, similar meanings present) generated, which were recorded in a separate column matching the participant's individual transcript.

Table 5. Coding Sample

Data Extract	Coded For
<i>"Well, your nursing colleagues always would've been aware that when you're doing the medications, unless it was absolutely necessary , do not interrupt. Because as you know, interruptions you know can go on to, lead to error. And, I suppose the Red Apron would have also create such an awareness with non-nursing as well. You know from the secretaries to everybody within the ward." (Ellaine: 43-47)</i>	<ul style="list-style-type: none"> • Awareness of the importance of task from nurse colleagues. • Cooperation from nurse colleagues to not interrupt. • Self-awareness on the association of interruptions to medication errors. • The tabard as a tool in creating awareness to non-nursing staff.

Phase 3 is searching for themes which involve collating the long list coded data then clustering them, by assigned colours, into potential themes (Appendix 16). There were 5 clusters produced during this phase and culminated with a collection of candidate themes and sub-themes which include: before tabard was introduced; responses on drug round tabard; challenges encountered; personal considerations; and nurses behaviour/ response. These candidate themes and sub-themes were placed in the column next to the codes.

Phase 4 is reviewing the candidate themes which includes the refinement of themes. There were candidate themes that did not fit into the first category, thus reworking with the theme was necessary (Figure 1). The thematic map (Figure 2.) helped the researcher organise the themes meaningfully.

Phase 5 is defining and naming themes, which began when the researcher was satisfied with the thematic map of the data, then the final themes were defined. After 'define and 'refine', the final themes (Appendix 16) were: nurses' awareness of safe medication practice; nurses' description of external or organisational or external challenges; and nurses' response to the new initiative, all with corresponding sub-themes.

Phase 6 is producing the report which involves the final analysis and write-up which this dissertation demonstrates.

Finally, Figure 1 clearly illustrates that the phases of thematic analysis are rather more recursive, than linear where movement is back and forth (Braun and Clarke, 2006).

Figure 1. Thematic Analysis

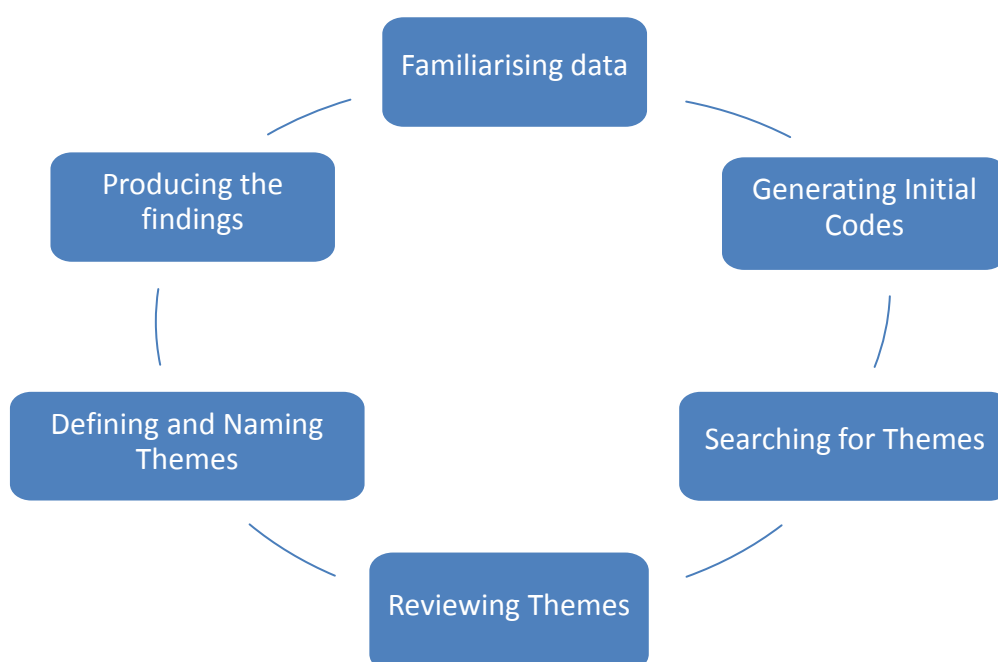


Figure 2. Thematic Map

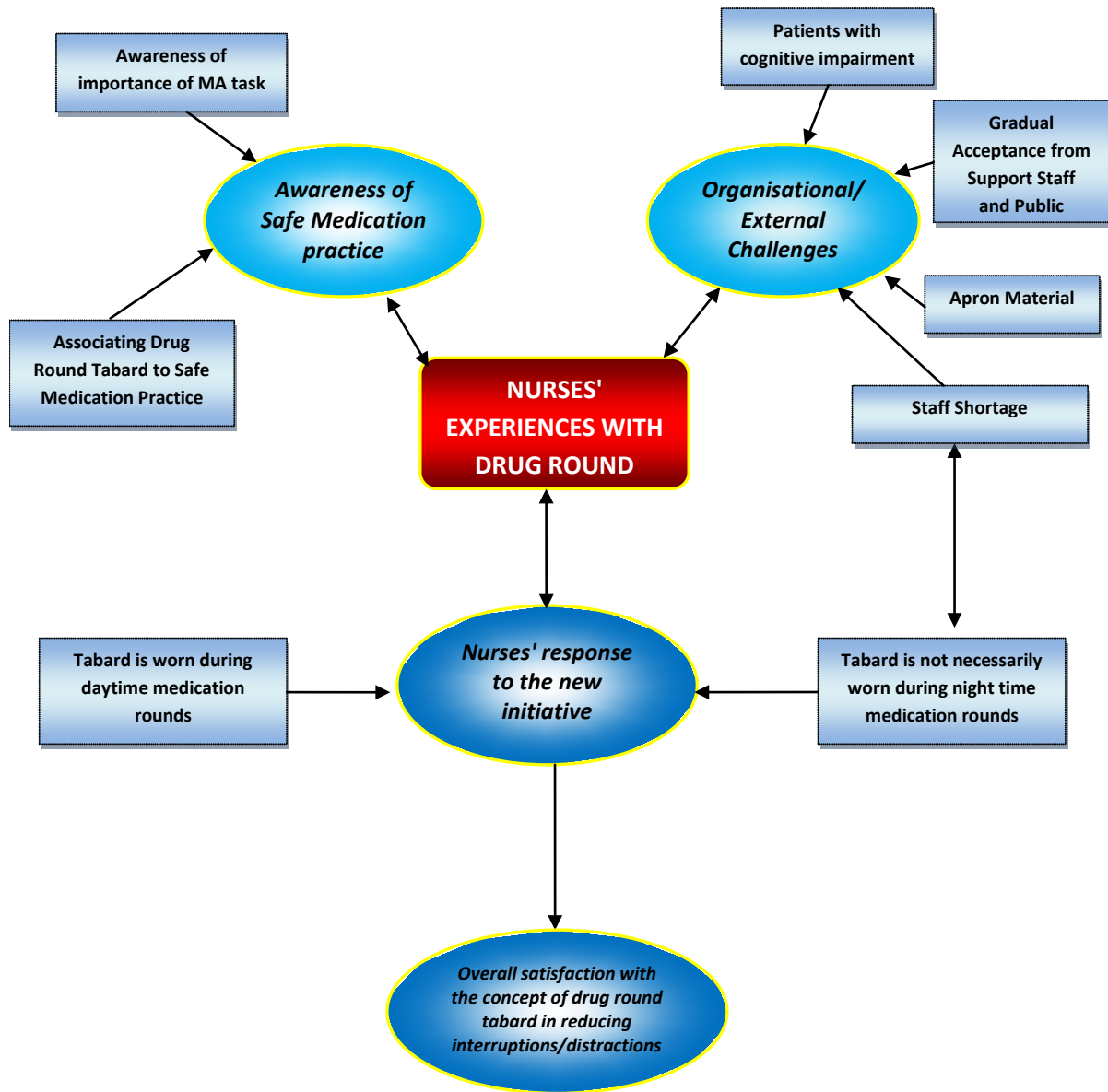


Table 6. Theme Clusters

Codes	Theme Clusters
Acknowledging the importance of medication administration task.	<i>Awareness of safe medication practice</i>
Associating drug round tabard to safe medication practice.	
Patients with Cognitive Impairment (e.g. Dementia)	<i>Organisational or external challenges</i>
Gradual acceptance from Support Staff and Public	
Discomfort with the Apron	
Staff Shortage	
Tabard is mostly worn during daytime medication rounds.	<i>Response to the new initiative</i>
Tabard is not necessarily worn during night time medication rounds.	
Overall satisfaction with the concept of drug round tabard in reducing interruptions/distractions.	

3.10 Quality in Research/ Rigour

Rigour is defined as striving for excellence in research by way of discipline, adherence to detail, and strict accuracy (Grove *et al.*, 2013). In qualitative research, the word trustworthiness is applied to rigour which can be challenging due to the very contextual and subjective nature of the inquiry (Cronin *et al.*, 2015). There are different ways to establish trustworthiness in qualitative studies and the most common approach used by researchers is grounded on Guba and Lincoln's (1981) criteria which are: credibility, dependability, transferability and confirmability.

3.10.1 Credibility

Credibility refers to the truth value in describing the perspectives of the participants (Lincoln and Guba, 1985). Credibility is related to internal validity in empirical research whose assumption is that there can only be one fact to be measured (Morse and Field, 1996). However, qualitative studies acknowledge the existence of various facts thus researcher's

task is to communicate participants' accounts as accurate as possible (Morse and Field, 1996). Credibility was established by participant's validation of their statements through the researcher's summary during the final part of the actual interview (Appendices 12 & 13) and researcher's return to the participants to ratify that themes developed from the interviews are nurses' true experiences of the drug round tabard initiative (Appendix 18).

3.10.2 Dependability

Dependability is involved with the stability of data over time and conditions (Cronin *et al.*, 2015). Dependability was achieved with the researcher's detailed description of the data collection and data analysis. The sufficient detail in the original data transcript (Appendices 12 & 13) permits others to arrive at conclusions similar to that of the researcher (Lincoln and Guba, 1985).

3.10.3 Transferability

Transferability or fittingness is the extent to which the findings of a qualitative study can be of use to other populations or settings similar to those in study (Parahoo, 2006). Other scholars also call it as Consistency. Quantitative research's concern is whether an instrument will produce sane measurement over time, but qualitative research's emphasis is on the uniqueness of the human experience (Morse and Field, 1996). This criterion was achieved when the research findings were given to a nursing colleague to read. This nurse is employed in a hospital specialising care for the older people and works as a senior staff nurse and whom herself have used the drug round tabard in the clinical area. She stated that the findings of this research study also represent her experience of the drug round tabard initiative (Appendix 19).

3.10.4 Confirmability

Confirmability pertains to the accuracy, relevance and meaning of the data in an interpretivism/ constructivism study (Cronin *et al.*, 2015). Confirmability was achieved by the researcher's leaving a clear trail which is commonly called 'audit trail'. The audit trail is in the form of a diary and field notes (Appendices 15,16) which document decisions, choices and insights which will permit an external auditor (Appendix 19) to review these documents (Morse and Field, 1996; Cronin *et al.*, 2015).

3.11 Ethical Considerations

According to Nursing and Midwifery Board of Ireland (formerly An Board Altranais), it is the obligation of the researcher to be abreast of the ethical research principles and the protection of the rights of all those involved in the research (An Board Altranais, 2000). In this research study, ethical approval was not considered necessary by the Health Board Ethics Committee, and Trinity College Dublin's School of Nursing and Midwifery Research

Ethical Committee, rather awarded chairman's approval (Appendices 2 & 3) from both committees.

Following the approval, the Directors of Nursing from two Community Hospitals were informed in writing (Appendix 6). Gatekeepers were named and contacted who distributed the Participant Information Leaflets (Appendix 9) and Cover Letters (Appendix 8) in the nursing units for nurses to read and reflect. The Participant Information Leaflets are means used by the researcher to advertise the research study to the potential participants.

Outlined below are the actions taken by the researcher about the ethical principles identified by the Nursing and Midwifery Board of Ireland. These principles are stipulated in the professional guidance for the Ethical Conduct in Research (NMBI, 2014), which include respect for persons/autonomy, beneficence, non-maleficence, justice/fairness, veracity, fidelity and confidentiality.

Table 7. Ethical Principles

Ethical Principles	Meaning/ Description	Actions taken
<i>Autonomy/ Respect for Persons</i>	Respects individual as a person who can make a decision for himself.	<ul style="list-style-type: none"> • The participants were given full freedom to participate or not in the study, as what stipulated in the invitation/ cover letters (Appendix 8) and Participant Information Leaflets (Appendix 9), then in the consent form (Appendix 10) where participants declared that their participation is without prejudice to their legal and ethical rights. • Each participant received a Participant Information Leaflet which contained information describing the nature of the study, including the likely risks and benefits. • Each participant declared in the informed consent their right to withdraw at any time without consequences. • All participants were encouraged to arrange the scheduled interview (time and place) at their convenience as emphasised in the Invitation/Cover Letter.

<i>Beneficence</i>	Beneficence means “to do good” and positively help a person.	<ul style="list-style-type: none"> • The research findings will contribute to the body of knowledge specifically in gerontological nursing in Ireland. • With the growing population of the older people, there is a need to provide evidence-based practice for safe medication administration for this specific type of clients. • The research benefit was outlined in the Participant Information Leaflet which all participants received.
<i>Non-Maleficence</i>	Participants right not to be harmed.	<ul style="list-style-type: none"> • The potential adverse outcomes were outlined in the Participant Information Leaflet which all participants received. The research has no identified risk/harm.
<i>Justice/ Fairness</i>	Participants right to fairness and equity.	<ul style="list-style-type: none"> • All participants were treated fairly throughout the research process. • All participants were offered a copy of their transcript.
<i>Veracity</i>	Participants right for truth.	<ul style="list-style-type: none"> • All participants were told the truth and not in any way deceived about any aspect of the research. All aspects of the research project were explained to the participants verbally, and in writing (Participant Information Leaflet) and return, each participant declared their full understanding as stipulated in the Consent form. • What was transcribed were all accurate accounts of participants' statements.
<i>Fidelity</i>	Researcher's commitment to protect and reciprocate participants' trust.	<ul style="list-style-type: none"> • The researcher made sure that participants understood the purpose, procedures and adverse outcomes that may be involved before data were collected. This was mentioned in the Statement of Investigator's Responsibility. • The researcher took full responsibility of protecting all participants in all aspects of this research.

<i>Confidentiality</i>	Participants' right to confidentiality and privacy, and the data obtained from them.	<ul style="list-style-type: none"> • Each participant was interviewed individually in a private or single room. • All participants were assigned a pseudonym to protect their identity. • The researcher ensured that no identifiable information could be accessed without the participants' consent. Identifying information were not entered in the computer system or other potentially accessible database. • All hard documents were stored in a locked cabinet. • All data stored electronically were password-protected and were not stored in clouds. • No information collected that threatened public interest and safety. Thus non-disclosure was not required.
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3.12 Conclusion

This chapter has explicitly described the methods and the manner on how the investigation was conducted to provide answers to the research question, "what are nurses experiences with the drug round tabard?". Despite the numerous empirical studies carried out in understanding interruptions in healthcare, it is acknowledged that there are gaps in research worth exploring. Previous studies have recognised that measures to counter interruptions must be individually investigated which this research study has favourably achieved.

This researcher came with the idea that it is important to understand the nature of interruptions and distractions in order find ways to counter them. The drug round tabard was introduced by the organisation to reduce interruptions and distractions when performing medication administration in selected community hospitals here in Ireland. The researcher has explicated the reasons on why exploring nurses experience with the drug round tabard is worth researching, and this was made possible through qualitative descriptive approach.

The next chapter will discuss the findings of this research study.

CHAPTER 4.0

RESEARCH FINDINGS

4.1 Introduction

The aim of this research study is to explore nurses' experiences with the drug round tabard when dispensing medications to older people. The research aim was achieved by discussing to each participant a list of statements (Appendix 11) which supported the research question "What is your experience with the drug round tabard?"

This chapter provides a description of the sample, demographic data and the details of the interview process. Also, this chapter presents the findings summary and then recounts as a narrative the experiences of eight staff nurses who described their awareness on safe medication practice (theme 1), the organisational or external challenges encountered (theme 2), and their own responses to the new initiative of using the tabard during medication administration task (theme 3) throughout their various experiences.

4.2 Sample and Demographic Data

The research study took place in two Community Hospitals in the North-West of Ireland which specialises in the care of the older person. In total, twenty-seven nurses were invited (n=27) from two sites. Through purposive and convenience sampling, eight nurses voluntarily participated in the research study. Location A had a high response rate of sixty percent (5 out of 9 nurses), while Location B had seventeen percent (3 out of 18 nurses) response rate. All eight participants were female with a mean age of 48 (range 21-64 years old).

Nurse participants in this research study are very experienced in the care of the older person nursing. The majority of the participants (6 out of 8) have been registered for 20-40 years, and 5 out of 8 had practised in their area for 16 to 20 years. All nurses from location A practised in the field of continuing care unit, while all nurse participants from location B practised in the area of mixed palliative, respite, convalescence, rehabilitation, assessment and continuing care.

Most of the participants (7 out of 8) are educated to degree level, with only 1 out of 8 holding a specialist qualification in palliative care. It is noteworthy that despite the highly specialised area of the care of the older people, no nurse participant holds a specialist qualification for gerontological nursing and dementia care. The majority of the nurse participants received their nurse education in Ireland (5 out of 8), while 2 out of 8 had undertaken their nurse education in the Philippines and one nurse received her education in India. The main differences in the demographical characteristics of the participants from the two sites relate to the type of ward or unit and country of nurse education.

4.3 The Interview Process

The main approach to data collection in qualitative research is obtained by way of interview, and modes of interview range from unstructured, semi-structured to structured interviews

(Morse and Field, 1996). In this research, a semi-structured interview was chosen because of two main concerns. First, it is well suited for exploring experiences and allows 'probing' for clarifications. Second, this method produces a rich narrative through the use of a guide topic (Parahoo, 2006).

In this research study, interviews were conducted with nurses working in older people services who gave their written consent and interviewed on one occasion in their workplace. Each nurse respondent was assigned a pseudonym, and this has been utilised consistently throughout this study to maintain confidentiality and anonymity. An Interview Schedule (Appendix 11) was formulated and utilised in all interviews which comprised of a topic list of statements that support the research question, "What is your experience with the drug round tabard?" The aim of the research question was to explore nurses' experiences with drug round tabard when dispensing medications to older people and to gain understanding, insight and knowledge into the experiences of nurses with the drug round tabard when dispensing medication to older people. The length of time interviewing each nurse varied slightly (Table 8), Bernie's interview was the longest which took thirty-six minutes, while Gillian's interview was the shortest which took only thirty-one minutes. The average length of time conducting the eight interviews was thirty minutes and seventy-five seconds each. In this research, interviewing was stopped when the ideas shared by other participants did not produce new ideas which LoBiondo-Wood and Haber (1998) termed as data saturation. A total of eight interviews were conducted, transcribed verbatim and comprehensively analysed using Braun and Clarke's (2006) framework of thematic analysis. The themes generated were communicated to the eight participants for validation (Appendix 18) and as shown in Table 8.

Table 8. Length of Interview and Theme Validation

Pseudonym	Length of Interview	Theme Validation
Amanda	35 mins	Yes
Bernie	36 mins	Yes
Claire	35 mins	Unable
Deirdre	33 mins	Yes
Ellaine	33 mins	Yes
Fiona	35 mins	Yes
Gillian	31 mins	Yes
Helen	32 mins	Yes

4.4 Theme Structure and Summary of Findings

To be counted as a theme, Braun and Clarke (2006) described it as one which captures something important about the data in relation to the research question and one which depicts some level of patterned response or meaning within the data set. Instead of real entities precisely described by the participants, themes are concepts determined by the data (Morse and Field, 1996).

The themes in this research are presented as a narrative that describes the participants' experiences with the drug round tabard which are grouped into three main themes: (1) awareness of safe medication practice, (2) organisational or external challenges encountered, and the final theme which describes the participants' responses to the new initiative, as shown in the table below.

Table 9. Main Themes and Sub-Themes

Main Themes	Sub-Themes
<i>Awareness of safe medication practice</i>	Acknowledging the importance of medication administration task. Associating drug round tabard to safe medication practice.
<i>Organisational or external challenges</i>	Patients with Cognitive Impairment. Gradual acceptance from Support Staff and Public. Discomfort with the Apron. Staff Shortage.
<i>Response to the new initiative</i>	Tabard is mostly worn during daytime medication rounds. Tabard is not necessarily worn during night time medication rounds. Overall satisfaction with the concept of drug round tabard in reducing interruptions/distractions.

4.5 Findings in Detail

This section recounts the experiences of eight staff nurses who described their awareness on safe medication practice (theme 1), the organisational or external challenges encountered (theme 2), and their response to the new initiative of using the tabard during medication administration task (theme 3) throughout their individual experiences.

4.5.1 Awareness of safe medication practice

This theme describes how the participants acknowledged the importance of performing medication administration as a task and how they associated the drug round tabard to safe medication practice.

<i>Acknowledging the importance of Medication Administration task.</i>

All participants have acknowledged that medication administration is an important task. Most of the participants have recognised the consequences of an error if the task is not performed without caution. Amanda, Fiona and Ellaine clearly stated the importance of such task:

Amanda	Lines 49-50
<i>"If you're giving the medication, you shouldn't be disturbed. Like, it is very important. Medication is very risky and if you commit mistake you can't get away from it."</i>	

Fiona	Lines 100-103
<i>"I definitely felt that and as well as just even for ourselves it gives an awareness that this is a very important task that we do here. Even just that side of it alone was, is important. And I think that was a good learning I think for us, for me."</i>	

Ellaine	Lines 79-81
<i>"Because it's such an important task, you will welcome anything that will make it you know, will make it a bit easier. To be able to concentrate on what you are doing at that given time."</i>	

Some participants have indicated the importance of being focused and of working precisely, thus developed their strategies to ensure safe administration of medications. Bernie and Fiona described their own,

Bernie	Lines 49-53
<i>"We have plastic bags system here with all the patients in one bag you know the bag. So, on one side of the trolley, I would take out and I make sure that I really check. You know what I mean. I'm checking it myself. Because if you have a patient with 8 to 9 tablets in the morning, it is very easy to lose track if you got interruptions."</i>	

Fiona

Lines 31-33

"At that particular time, we have a system here where the medicine round in the morning was being done by one person that came an hour earlier and that generally was me."

<i>Associating drug round tabard to safe medication practice</i>

In this study, all participants have described their awareness for the purpose of wearing the drug round tabard, and they associated it with reducing interruptions and distractions during medication administration. Ellaine and Gillian gave their description.

Ellaine

Lines 30-31

"Well, I suppose it is to reduce the amount of times that you are interrupted while dispensing medications."

She adds,

Lines 44-45

"Because as you know, interruptions you know can go on to, lead to error."

Gillian

Lines 9-13

"We started to wear the apron because they think it is the best practice. Because if you're wearing that apron, no distractions or no disturbance from others. You can concentrate especially in the medication management."

Fiona and Claire specifically mentioned how the new initiative was introduced in their respective clinical areas.

Fiona

Lines 22-24

"I'd say, we were introduced when we were all informed by our managers that this were now in place. And that they were there for use to minimise the interruptions and as a result minimise any errors that might occur around that time."

JC When this Red Apron was introduced, are you aware about its purpose?

Claire

Lines 14-16

"Yeah. We were told by our former CNM2 (named person) that we have to use the red tabard. Because in giving medication, you should be focusing on what you're doing. So, we try that, and we've been using that before, ever since I've been using that."

Seeing colleagues wear the drug round tabard while performing the task, Fiona narrated her feelings about it.

Fiona

Lines 59-62

"I felt, it definitely did for me. So I think, it does yeah. And I think seeing my colleagues that have worn it, you are not as likely to go and ask to help you something or to you know that's their job and they're doing the tablets and medicines, and we're not going to disturb them. So, when you know, they just stand out. Oh yeah, definitely I would have found."

Wearing the drug round tabard allows the medicating nurse to perform the task without interference from others. Bernie, Fiona and Ellaine related their experiences.

Bernie

Lines 13-14

"There was not many interruptions no doubt about that. People ran away from you when they see the big Red Tabard."

Fiona

Lines 47-52

"It definitely was an inhibitor of come and saying I'll only ask you something. This certainly, they viewed it as being a bit of ah you know, I'm not go nearby that person. So definitely it worked from that point of view I felt, so you won't be distracted, you won't be disturbed or interrupted to the same level as you were before. Now, I think everyone knew that you could be approached if there is anything urgent or needed or whatever."

Ellaine

Lines 58-59

"But the only thing is, if you're wearing your Red Apron and you're doing your tablets, you know you can call assistance or call another colleague."

4.5.2 Organisational or external challenges encountered

The organisation and work environment appears to have an influence on nurses' ability to implement the drug tabard initiative. Participants have identified situations and issues that challenge the implementation of the drug round tabard initiative which includes: patients with cognitive impairment, gradual acceptance from support staff and public, apron material and staff shortage.

<i>Patients with cognitive impairment</i>
--

Both locations used in this study were institutions for the care of the older people. Five out of eight participants have recognised that most patients they care for would have some form of cognitive impairment. The most common cognitive impairment they mentioned was dementia or confusion. In Location A, Bernie and Helen shared their experiences,

Bernie

Lines 24-30

"Not the type not so much about the patients because longer patients here have dementia. So they wouldn't really understand. And not really, very little response"

from the patients because there's so few patients here that would understand because of the dependency level here and because of their cognitive abilities."

Bernie continued.

Bernie

Lines 99-102

"We have a lady here. She always kicks off, and she is shouting a lot. I have to go and take the trolley out and go to another room, and I have to go back in like that because I just can't concentrate. I find it you know it takes my concentration."

Helen

Lines 63-68

"For most of the patients, yeah because you could go over and explain there, that you are doing the medicines at the moment. But you can go back over and start again. But they could still be calling you over because they've no memory. Because they have a short-term memory is very poor. You be, they don't remember that I did that, I've told them that in the first place. So they would keep asking so would still have disruptions when you're especially in the ward area."

In location B, Ellaine and Deidre also mentioned the confused patients. However, they take it as part of the reality of working with the older people which a nurse needs to accept.

Ellaine

Lines 53-56

"From a patient's point of view, (clears throat), If you start, If you know you have a confused patient if you have patients who needs to, you know, use the bed pan or use the, you know. It doesn't matter what you're wearing they see you as a nurse and they need assistance, you know what I mean?"

Deirdre

Lines 26-27

"Sometimes I suppose the confused patients wouldn't really, no, like not to interrupt you, see you always gonna have that like."

When asked about the ratio of patients who have no issues with comprehension, Bernie from location A and Deirdre from location B revealed that patients with comprehension are the minority.

Bernie

Lines 28-29

"Because there's so few patients here that would understand. I don't think there's anyone here. Maybe one or two people here out of 21."

Deirdre

Lines 63-64

"...and some of the patients that can you know understand and, some of like you know yeah a couple of one or two, you know respect that you're..."

From all the statements above, participants have indicated that the majority of patients in their workplace have issues with comprehension, thus implementing the drug round tabard initiative is indeed challenging.

<i>Gradual acceptance from support staff and public</i>
--

This sub-theme describes the responses and acceptance of the support staff and public (relatives or visitors) on the drug round tabard initiative. Among the five participants from location A, Claire specifically mentioned the negative response she received from some care staff members.

Claire

Lines 35-40

"And, maybe some carer you know some carer , members of the care team don't understand. They might think that oh we can not disturb her as you can see she is wearing the Red Tabard. But I think that's a good thinking that they should not disturb me when I'm wearing the red Tabard and they should just get on with what they are supposed to do and leave me on the medication rounds. There will always be negative em, response from the patients and the carers."

However, she hoped for gradual acceptance from the care staff.

Claire

Lines 40-42

"But I think it would be best if you keep on wearing the Red Tabard so that they will be, they will get used to it. You know if somebody is wearing that, that what you are doing is very important."

Claire emphasised the need for nurses to play as the promoters of the initiative by wearing the drug round tabard regularly despite the challenging reaction from the support staff to raise awareness. Also from location A, Gillian described the gradual acceptance of the support staff to this initiative.

Gillian

Lines 33-37

"Before, the staff they thought maybe like it's a funny thing you know. They don't accept, but later on, we explain to them my dear it is really good you know. They can call someone for the help for others. Suppose if I'm or other staff is giving medicines so you should not disturb. So they also think that is a good thing you know."

In contrast to the statements of Claire and Gillian, Bernie, who is also the acting clinical nurse manager I, shared her opinion on the support staff members' positive response to the new initiative.

Bernie

Lines 21-22

"hmmm people are more understanding, you do medication they won't interrupt you. That was the response from the care staff."

She added,

Bernie

Lines 30-32

"So the biggest response, positive response would come from outside people like visitors, care staff, housekeeping, kitchen and upstairs with salaries'. That's the biggest response, and it was a good response. No negativity found at all here."

In location B, all three participants described the non-nursing staff members' acceptance to the new initiative. Deirdre narrated,

Deirdre

Lines 27-29

"But the staff would be more, em, you know they'll understand that like they are not to interrupt you especially you know the cleaning staff and the other staff you know they know not to interrupt you."

Participants' opinions on public acceptance were mixed. Half of them claimed that the visitors or public do accept the new initiative. Amanda and Claire both recognised the positive reactions from the visitors.

Amanda

Line 48

"Like visitors, they understand you know that we are wearing that."

Claire

Line 44

"visitors ? I think the visitors do understand."

Three out of eight participants claimed that visitors or the public may still interrupt regardless of what the drug round tabard represents. Deirdre and Helen expressed their thoughts on this.

Deirdre

Lines 30-33

"The member of the public could still you know, but I suppose they don't really, or sometimes they don't know just what you know what you're wearing, or they don't really stop doing they do not stop thinking you know you know that kind of way."

Helen

Lines 27-29

"For family wise, they would say they would understand this is with regards to their patients so that they would fully understand. They would still interrupt you or call you, Nurse!nurse! or whatever."

However, Fiona was the only participant who had no experience with the visitors' reaction to the new initiative because she only performs the task when visitors are not around.

Fiona

Lines 111-115

"I know I made mentioned about relatives, but the times that I was using it, there wasn't people about either, you know, it was only me and the other staff and the catering staff and the non-nursing staff that could have been around and the clients themselves that would interrupt you but em, I wouldn't experience with the visitors really because it's 8 O'clock in the morning. There's no visitors about."

<i>Discomfort with the Apron</i>

During the interview, participants described the type of apron material they have. Location B has two aprons which are jersey-like fabric or material that is soft and comfortable to wear, thus no issues of discomfort raised from the three participants regarding the apron material. On the other hand, location B got only one apron which is plastic or vinyl-like type of material. Two out of five participants disclosed their criticisms on the apron material.

Bernie

Line 122-128

"I would like it to be having a different more material type of one, rather than plastic cause I find that it makes you sweat you know if you put it next to your... ok, this one (approaching the trolley and picks up the apron at the bottom of the trolley) is not the most wearable, comfortable one to wear."

She added.

Bernie

Line 138-141

"The other criticism I'm having on it, it's horrible next to your, next to your uniform".

JC : yes, ok.

"It makes you sweat and other than... that's me personally speaking. That's my own."

Claire

Lines 49-50

"Well, red tabard is good but personally the material that we are using is very warm on the skin"

Lines 59-60

"I feel uncomfortable using that you know. If I become sweaty, I want to remove it really. I want the medication rounds done, (laugh)."

Out of five participants from location A, Helen voiced out her discomfort with the oversized apron. Helen is a petite person.

Helen

Lines 42-56

"The only thing I found was it was a bit oversized. And whenever I look at my, I cannot look at my Fob watch because the apron covered it. So I have to lift the apron to look at the watch as well as the buttons, the keys and the pens. I have to

move it to put them in into the pocket. So I don't know whether or not they did something on the apron or something some way of not covered properly that you need. That was everything I can do. That's the disadvantage of actually wearing the apron. Other than that, I found it really good."

JC : So, are you only using one size?

"Yes we have just the one, and it's a wee velcro straps on either side so you can close it but even that because of the size it will cover, it would be more like it would still be quite big. Yeah".

JC : Ok.

"So that's the only thing that... So it's kinda hard that we can't look you know, when you write them times of the medications and get your watch out you have to pull it across."

Also, Ellaine from location B mentioned the inappropriateness of the apron size.

Ellaine

Line 86

"Wish it was bigger size (laugh)."

Two out of five participants from location A suggested for more supply of the apron. Bernie emphasised it clearly.

Bernie

Lines 137-138

"And maybe to have a couple of them like to have one for washing and one for the other trolley too, to change over."

The participants' statements about the apron have indicated that the discomfort of wearing it seems to influence nurses' compliance with the drug round tabard initiative.

<i>Staff Shortage</i>

Unanimously, five participants from location A highlighted the staff shortage as one of the main challenges they encountered while implementing the drug round tabard initiative. They indicated that less number of staff yields to increase sources of interruptions. Amanda described the situation with day shift, while Bernie described the scenario during night shift.

Amanda

Lines 35-42

"Apron is really good. Like if there's more staff working. Like you only focus on giving medication. There are some like extra staff doing the toileting. But then and then like for the past few months, we are very, very short. So, while you're the only one in that area giving the tablet and there's no other care staff. Because some of the care staff are doing their own like caring. Like we have some residents like in our day room where I was giving the medication. And then oh so you're on your own. And then, well, you can just like, ok you wait and then I will get somebody to help you. But then some will wait, but some can't wait."

She continued.

Amanda

Lines 86-88

"If there is more staff, more care staff, more nurses then to attend the residents then your focus is only giving the medications. It is really like you know really acceptable to be wearing that."

Bernie

Lines 109-116

"On night duty, when you have the room's all scattered everywhere when you have no, kind of...you know hold up there, hold down here. It is very difficult in that case. You have to toilet; I used to do to toilet and medication at the same time. Oh, when I was doing the medication on one side, I would ask help from anyone to do the toileting, but that's because only one nurse and much to do here in night time. I don't know about other places? Is it the same thing happening in other places? That's what it is. Because of the fact that it is only skeleton staff on at night."

When staff level is low, nurses workload are higher, Bernie had indicated that answering telephone calls is a source of interruptions.

Bernie

Lines 81-87

"And the other would be the telephone."

JC : ok

"That would be the problem, the telephone and maybe but the telephone. You see the situation here is we have to answer the phone as we are expected to answer the phone. But sometimes, she can't if she is in the toilet or she could be doing the medicines you know. But the girl (named person) would pick up the phone and that's an instance here. The telephone would be the worst one."

Among the five participants, Gillian disclosed the reason for nurses' non-compliance with the initiative which she associated to Staff Shortage.

Gillian

Lines 7-8

"Actually, the apron came two or three years before, but some of our staff used to wear but some of our staff not, because of the shortage of the nurses."

4.5.3 Nurses' response to the new initiative

In this study, participants indicated that their response to the drug round tabard initiative is shaped by their personal views and the external force or challenges they experienced. This final theme details the participants' responses to the drug round tabard initiative. The first two contrasting responses are: that the tabard is mostly worn during daytime medication rounds and that it is not necessarily worn during night time medication rounds. The third sub-theme describes the participants' overall satisfaction with the drug round tabard initiative.

<i>Tabard is mostly worn during daytime medication rounds.</i>

Three out of eight participants have spoken about the time the drug round tabard is mostly used. Fiona spoke candidly about it.

JC : You mentioned about wearing it especially in the morning time, what about the other time of the day?

Fiona

Lines 81-97

"the other time during the day, em, I don't know, I think it's because that's the biggest medicine round".

JC : ok

"That's big part of the wearing, so you know you have so much more to do at that time. A lot of patients are in around won't say, it's the morning medication round, it's the time they tend to get up. That was by I think it was ah eh you can't went far straight away, whereas, the other ones during the day you could have, ah, they'd be 4 or 5 patients at round medication and it wasn't as I don't know of the word as necessary. You were able to manage that drug round without interruptions. It could have been the fact that the times were slightly different. The meal times were over so it was just either after a meal or before a meal. So it wasn't in the middle of a meal and which you need to help with the feeding and with other tasks. So you weren't going to be interrupted. Plus the fact that there was only a few people needing medications. So, I think I have, to be honest, but the main time I wear it was the morning."

Helen and Bernie both affirmed the usefulness of the tabard during the day when the staff shortage is not an issue.

Helen

Line 91

"During the day when you have enough staff, I think it's good."

Bernie

Line 47

"All I can tell you is, on day time here, it's not too bad."

<i>Tabard is not necessarily worn during night time medication rounds</i>
--

Both Bernie and Helen exposed the problem they face during the night shift. Although Bernie no longer works at night due to her acting ward sister role, she maintains that the drug round tabard initiative is difficult to keep due to poor staffing level at night.

Bernie

Lines 103-105

"There is a problem on night duty. I have to say there is a problem on night duty. I'd like you to bring them up on that ok?"

She added.

Lines 115-119

"Because of the fact that it is only skeleton staff on at night."

JC : Hmmm

"That's the problem. That would be the greatest interruptions for the toilet (inaudible)"

JC : it goes down to the staffing level?

"Yes, it does. At night it does. During the daytime, it's not so bad. I'm sure."

Helen

Lines 83-91

"At night time, it does not work at all. It doesn't work because, em, only nurse and one carer for twenty-two and you can even be interrupted actually during tabs you need to assist patients to the toilet. So you have to do it so you can be called away and locked up your trolley. You come back, and you don't know what you've put it or what it happened. Because most of the patients are assistance with two and with only one other carer, you're called on when they need anything. You have to leave the trolley and go. You're interrupted all the time. That's what I, the whole point that it won't work at night. But during the day when you have enough staff, I think it's good."

On the other hand, Fiona's non-compliance is due to the fact that there is less source of interruptions at night.

Fiona

Lines 85-86

"The night time, I felt, it was never needed cause there is nobody in the building (chuckles). There's no relatives, that type of thing, around that time it is quieter time."

<p><i>Overall satisfaction with the concept of drug round tabard in reducing interruptions and distractions.</i></p>

Unanimously, all participants coming from two different working environment, agree that interruptions and distractions are reduced with drug round tabard. Bernie and Claire stated in affirmation,

Bernie

Line 161

"It does stopped the amount of distractions you would get when you are wearing it."

Claire

Line 69

"It does. Although you cannot get away from interruptions and distractions but it does."

Finally, all eight nurse-participants did express their satisfaction with the drug round tabard initiative despite the challenges associated with it.

Amanda Lines 83-85
"Well, for me, I'm very satisfied you know wearing red apron because it is really very helpful especially if you are giving the medications that you are not supposed to be disturbed. Because medication is very important."

Gillian Lines 61-63
"I am satisfied with the red apron. One hundred percent, I am satisfied with that red apron. Because I'm a staff nurse. Because I don't want to make any mistakes while giving the medicine you know especially for the patients you know."

Ellaine Line 99
"I'd be satisfied. I think It is stepping in the right direction."

Fiona Lines 103-104
"Em, I was quite satisfied with it yeah even though I didn't use it in all the drug rounds but when I did use I found it effective."

Deidre Lines 73-75
"Hmm, yeah, I think it is effective like but it's not a hundred percent effective but you never would get anything with a hundred percent effective, so, but it does help in at times you know."

Claire Line 161
"I'm satisfied, I'm satisfied as long they will change the material."

Helen Lines 78-79
"Yeah, I would be satisfied with regards to the staffs and the relatives and just getting the appropriate size, yeah."

Bernie Line 122
"Yes, I'm satisfied."

She added.

Bernie Lines 151-154
"But no, I think I find it very good. I think that's a great idea."

JC : Ok.

"No, I have no objection to them, no biggest objection here. Only such few things here that comes at night time. Only that."

4.7 Conclusion

The narrative accounts of the eight nurses who wore the drug round tabard when dispensing medication to the older person have been described and illustrated in this chapter, built around the three key themes revealed from their personal experiences documented during the interview. The findings of this research have uncovered the experiences of nurses when dispensing medication to the older person. The next chapter presents the discussion of the findings, and the key themes are explored in relation to previous research.

CHAPTER 5.0
DISCUSSION OF FINDINGS

5.1 Introduction

This research study sought to address what is identified as the gap in studies of interruptions by investigating the individual strategies that counter interruptions during medication administration (Hayes *et al.*, 2015). Nurses working in specialist institutions for the care of the older people have adopted the practice of using the drug round tabard to promote safe medication administration.

The findings of this research study were presented and illustrated in the previous chapter. Subsequently, this chapter reports the meaning and interpretation of the findings (LoBiondo-Wood and Haber, 1998), by discussing the key themes that the nurse participants experienced when using the drug round tabard during medication administration task (Figure). The findings were drawn from the actual accounts shared by participant nurses who, as related during their interviews, described their awareness of safe medication practice (theme 1), the organisational or external challenges encountered (theme 2), and their own responses to the new initiative of using the tabard during medication administration task (theme 3) throughout their various experiences. These findings are explored and compared to other published studies in this chapter.

A brief summary of the methods utilised in this research study will be presented in the next section then followed by a thorough discussion of the research findings.

5.2 Summary of Findings

The aim of the study was to explore nurses' experiences with the drug round tabard when dispensing medication to the older person. The objectives were to explore the nurse participants' views and opinions on the use of the drug round tabard, to investigate their awareness on the purpose of the drug round tabard, and to identify issues that led to their satisfaction or dissatisfaction with the drug round tabard. These objectives were met through the qualitative descriptive approach utilised in this research study.

The research study took place in two Community Hospitals in the North- West of Ireland which specialises in the care of the older people. Location A is a healthcare institution for older people requiring long-term continuing care, while location B caters for older people requiring short-term care. Through combined purposive and convenient sampling, eight nurses voluntarily participated. These eight nurses were all female with a mean age of 48, the majority of whom have over twenty years of nursing experience. Five out of eight participants were Ireland- educated nurses; others received their education in Philippines and India. It is noteworthy that no nurse participant holds a specialist qualification in gerontological or dementia despite working in the speciality of care of the older people. However, only one from among the eight nurses completed a post graduate diploma programme in palliative care.

Qualitative descriptive was the method chosen for this research study which is described as an appropriate approach for exploring a phenomenon, problem or issue and can contain a wide scope of questions relating to people's experiences, knowledge, attitudes, feelings, perceptions and views (Cronin *et al.*, 2015). This qualitative research involved discussing a list of topic statements which focused on the experiences of nurses with drug round tabard when dispensing medication to the older person. Following the pilot study, the researcher has maintained that the list of topic statements is capable of collecting information on the nurse participants' experiences with the drug round tabard when dispensing medication to the older person. Thus it was able to provide a rich descriptive data required for an in-depth understanding of the phenomenon under investigation.

The semi-structured interviews of the eight nurse participants were audio-recorded, transcribed verbatim and were analysed using a thematic framework adapted from Braun and Clarke (2006). Three themes emerged from the data which include: awareness of safe medication practice (theme 1), organisational or external challenges (theme 2), and responses to the new initiative (theme 3).

5.3 Discussion of Findings

In an editorial by Morse (1999, p. 163), she proposes that "qualitative research must add something more to the participants' words for it to be considered a research contribution, whether it be synthesis, interpretation, or development of a concept, model, or theory". The researcher aimed to bring about an objective interpretation of the participants' experiences with the drug round tabard when dispensing medication to the older person, which will appear in subsequent sections.

5.3.1 Theme: Awareness of safe medication practice

This study has found that all participants acknowledged the importance of medication administration task and that they are cognisant of the risk that may arise when performed without caution. This finding is consistent with the literature reviewed in the second chapter where nurses play a major role in medication administration and are duty-bound to protect their patients against risks and danger associated with it (HIQA, 2009). This finding is similar to that of Smeulders and colleagues (2014) who conducted a study interviewing nurses in a Dutch hospital and found that knowledge of the risks associated with medication administration seems to shape the perceived need to implement safety practices in nurses' daily work.

Moreover, some participants indicated the importance of being focused and of working precisely to avoid medication errors that may occur. This insight reflects on National Medicines Information Centre's (2001) theory that medication error is the most common type of error affecting patient safety and is the most common preventable cause of adverse events. As a result, nurses developed their strategies to ensure safe administration of

medications as claimed by half of the participants of this research study. This finding also supports Henneman and colleagues' (2010) hypothesis that nurses are in a key position to identify, break and correct errors before they affect patients.

In the literature reviewed, various practices or strategies have emerged to address the issue on interruptions and distractions during medication administration (Hodgkinson *et al.*, 2006; Kane-Gill & Weber, 2006; Anthony *et al.*, 2010) and wearing of the drug round tabard was recommended by UK's National Health Service (NHS, 2007).

This research study has found that all participants have associated the drug round tabard to safe medication practice. They have acknowledged that the drug round tabard is a countermeasure to reduce interruptions and distractions. Several studies proved that the reduction of interruptions and distractions were evident with the use of cluster of interventions (Relihan *et al.*, 2010; Uko-Udom, 2014; Dall'Oglio *et al.*, 2017), while using the drug round tabard alone was also proven to have positive effects in reducing interruptions and distractions (Scott *et al.*, 2010; Vermeij *et al.*, 2014). The discussion of these studies found in the section (2.6) of the literature review.

According to Grol and Wensing (2004), awareness of the professional can be a promoter or barrier for change. The participants' level of awareness of the drug tabard's purpose were indicative of nurses' being promoters for change. This finding was evident in majority of the participants' statements where they relate about their line managers' introduction to the new initiative, thus prompted them to use and promote it in their respective clinical areas.

Also in this research study, some participants indicated the positive response from nursing colleagues. This similar result noted in a study led by Pape (2005) who found that with the use of 'do not disturb' signs, distractions from other nurses were notably reduced which they relate to as an indicator of increased awareness of the importance of not being distracted when administering medication. However, studies conducted by Tomietto *et al.* (2012) and Relihan *et al.*, (2010) both found contradicting results where interruptions from nurses have increased after the drug round tabard was introduced. Nonetheless, we can conclude that this finding indicates that nurses' awareness of the principle behind the drug round tabard prompts them to not cause interruptions to colleagues who were allocated to perform the task.

5.3.2 Theme: Organisational or external challenges

Obstacles to change in practice can occur at different stages in the healthcare system which include the patient, the professional, the health care team, the healthcare organisation, or the environment (Grol and Grimshaw, 2003). Participants in this research study have identified situations, and issues that challenge the implementation of the drug round tabard initiative in their workplace and these include patients with cognitive impairment, gradual acceptance from support staff and public, discomfort with the apron and staff shortage.

Patients With Cognitive Impairment

Five out of eight participants revealed that the majority of patients they care for would have some form of cognitive impairment, and the most common form they mentioned was dementia or confusion. Confused patients do not have the capacity to understand what the symbol of the red tabard represents.

It is paradoxical to implement an intervention which requires comprehension and cooperation in a care setting dominated by patients with comprehension issues. This specific finding is an interesting revelation generated from this research study. Nothing from the literature reviewed and previous studies mentioned this similar result because most studies conducted in acute care settings. In a contextual study conducted by Tomietto and colleagues (2012) found that patient interruptions from seven surgical units were reduced with the multi-intervention programme. However, the authors did not state whether the units were age-specific. On the other hand, in a mixed method study by Verweij and colleagues (2014) in a university hospital, found a non-significant effect of the tabard on interruption from patients as confirmed by their quantitative results and that the tabard did not change patients' effort to attract attention from nurses as revealed from their qualitative outcome. Here in Ireland, the majority of patients in hospitals are over the age of 65 years as the older population continues to grow (Department of Health, 2016) and many from these group of clients have cognitive issues such as dementia or delirium. This health trend was consistent with the published work by the Minister of Health on The Irish National Dementia Strategy (2014), who reported that up to 29% of all patients in a typical general hospital might have dementia.

Gradual Acceptance From Support Staff And Public

This research study has revealed that the acceptance of the support staff and public on the drug round tabard initiative was gradual as indicated by the majority of the participants. Some participants disclosed the adverse reaction from the support staff especially during the initial stage of its implementation. However, this awareness and acceptance grew with time. This finding is consistent with the results of pre and post intervention studies conducted by Verweij and colleagues (2014) where a significant reduction in interruptions noted at the two post-implementation periods at (1) two weeks and (2) four months.

Discomfort With The Apron

This research study has found that the apron challenges nurses' compliance with the initiative. Participants from location A expressed their discomfort with the vinyl-like apron material or fabric they have, while location B participants were satisfied with their jersey-like apron. This finding is comparable with Smeulders and colleagues (2014) who found that it is important for nurses to feel comfortable with it to embrace it.

Furthermore, this finding is supported by Verweij *et al.*'s (2014) qualitative results which revealed that discomfort on the apron such as hygienic issues could be a personal barrier as indicated by nurses in their study.

Staff Shortage

This research study has found that staff shortage can significantly challenge the implementation of the drug round tabard initiative which was expressed by all participants from location A. They have indicated that with less number of staff, nurses are also obliged to attend to other nursing or non-nursing duties such as answering patient calls and telephone calls, which they claimed as great sources of interruptions during medication administration. That scenario is how Sanderson and Grundgeiger (2014) precisely described interruptions, it is when an event leads a person to remove their attention fully but temporarily from a primary and then move their attention back to the main task. This research finding is consistent with that of Tormietto and colleagues' (2012) finding that reducing the number of nurses increases the likelihood of those available in the unit being interrupted.

Additionally, the majority of the participants from location A have described staff shortage situation during night shift as the most challenging. The next section highlights this issue.

5.3.3 Theme: Nurses' response to new initiative

Participants' response to the drug round tabard initiative emerged as the final theme for this research study. This theme summarises the participants' description of their behaviour and their satisfaction or dissatisfaction with their drug round tabard experience. In Bandura's (1986) Social Cognitive Theory, the triad of interaction behaviour, personal and environmental factors determines human behaviour. Moreover, Grol and Wensing (2004) mentioned that individual professionals should be informed, motivated and trained to apply the latest evidence into their work. Therefore, how participants behave is a product of their self-awareness and how the external factors challenge or affect them.

This research study has found that participants wear the tabard only at certain times. A similar result was indicated by some nurses in Verweij *et al.*'s (2014) study who disclosed that the tabard is only useful at certain times. In this research study, the majority of nurses claimed that the tabard is specifically helpful during daytime medication rounds when support staff, patients and visitors are around.

This research study has also found that staff shortage greatly affects nurses' behaviour toward the drug round tabard initiative. Some participants have expressed the dilemma that when staff level is low, the medicating nurse would also need to attend patients' continence needs which in itself is contradicting the tabard's purpose. Often nurses were left with no choice but to not wear the tabard as they will be interrupted just like in the case of night shift.

At present, studies on interruptions during night time medication rounds remain scarce as most observed studies conducted were limited only to daytime medication rounds.

However, this research study was able to capture how nurses cope with interruptions during night time medication rounds as evident by their interviews.

Finally, this research study has found that even with varied work environments and despite the challenges encountered, participants were satisfied with the whole concept of the drug round tabard initiative. Unanimously, the participants have indicated that interruptions and distractions were reduced since its implementation which is evident from the eight interviews conducted. This finding supports the conclusion of several studies which proved that measures, including drug round tabard, to counter interruptions during medication administration are proven effective (Scott *et al.*, 2010; Relihan *et al.*, 2010; Tomietto *et al.*, 2012; Verweij *et al.*, 2014; Uko-Udom, 2014; Dall'Oglio, *et al.*, 2017).

In contrast, Smeulers *et al.* (2014) found that the drug round tabard was not unanimously accepted by nurses due to personal barriers and lack of convincing evidence of its effectiveness. Hayes and colleagues (2014) argued that the complexities of nursing practice oblige that nurses should be available to their patients instead of isolating themselves. However, this research study has found that nurses unanimously embraced the drug round tabard initiative because of their ultimate intention to protect their patients from harm which medication errors may cause.

5.4 Conclusion

A thorough discussion of the research findings presented in this chapter and the three key themes were explored in relation to previous research. This study has found that nurses' level of awareness of the importance of medication administration task and the knowledge on the purpose of the drug round tabard initiative (first theme) appear to have shaped the perceived need to implement this safety practice in their daily work. It was also found that organisational or external challenges (second theme) influenced nurses' compliance with the drug round tabard initiative which includes: patients with cognitive impairment, gradual acceptance from support staff and public, discomfort with the apron and staff shortage. Finally, participants' responses to the new initiative (third theme) were determined by their self-awareness and how the external factors challenge or affect them.

The findings from this study firmly support the literature reviewed.

The research implications, recommendations, limitations and dissemination will appear in the concluding chapter which will be presented next.

CHAPTER 6.0

CONCLUSION

6.1 Implications of Findings

In Theory. The findings support the fundamental assumption that interruptions and distractions can be minimised, if not eliminated, with the utilisation of countermeasures during medication administration. Literature so far show that the use of drug round tabard is an effective evidence-based practice to counter interruptions and distractions.

In Research. The findings support the healthcare interruption studies conducted over the last decade which has taken place here in Ireland and worldwide. The findings represent the nurses' perspectives and experiences with the drug round tabard initiative. However, this outcome has given rise to the question, can the drug round tabard's effect be the same for the non-nursing staff, public and patients in general? Future research should consider looking at the multi- dimensional or multi-perspective study investigating this particular interruption countermeasure.

In Education. The findings of this research study add to the growing knowledge of interruptions in healthcare. The findings also contribute to the body of nursing knowledge that nurse educators and practitioners can utilise.

Also, nurses should consider undertaking specialist education in gerontological nursing or dementia care as care of the older people is a highly specialised area.

In Nursing Practice. Nurses' are duty-bound to protect their clients from any harm in their daily work. The nurses in this study are aware of the importance of safe medication administration task and hold the issue of medication errors with great respect. Nurses should adhere to the drug round tabard initiative and take leadership to create awareness and cooperation from patients, non-nursing and public. Also, nurses of this study recognised that there are external factors which challenge the implementation of the drug round tabard initiative. However, these challenges can be managed by addressing these issues. The healthcare institution should provide an environment conducive to the implementation of this intervention.

6.2 Recommendations

In future research, one could consider multiple perspectives from non-nursing, public and patients in investigating the effectiveness of the drug round tabard initiative for a wider understanding of this phenomenon.

Conducting the research study in two healthcare sites facilitates comparison and contrast of the drug round tabard practise in different settings. Future research must consider the advantage of utilising multiple sites in their investigation of this phenomenon.

This research study suggests that the managers of healthcare organisation such as Director Of Nursing must use their influence in resolving drug round tabard initiative- related issues and provide an environment conducive to its implementation which includes:

- Supply aprons or tabards with comfortable fabric or material and appropriate sizes.
- Support training to nurses and non-nursing staff regarding the importance of safe medication practice and the drug round tabard initiative.
- Address staff shortage issue in general as being a barrier to the use of the tabard. For a nurse to perform the task adequately, sufficient staff members must be available.

This research study endorses that nurses should take leadership and be promoters of change to create awareness and cooperation from patients, non-nursing and public.

This research study urges nurses to advance their knowledge by undergoing specialisation programmes such as specialist certificate/ diploma/ masters degree in gerontological nursing and or dementia care because the care of the older people is a highly specialist area.

Finally, this research study recommends that nurses should conform to the recommended guidelines of medication administration set by Nursing and Midwifery Board of Ireland, formerly An Bord Altranais (2007) that it is a nurse's obligation to take appropriate steps to develop and maintain competence in relation to medication management.

6.3 Limitations

This research study took place in two healthcare institutions for the care of the older people and therefore may not be generalisable to other nursing institutions.

The number of participants was relatively small, and the follow-up of the participants was limited due to time constraints.

The findings only represent nurses perspectives and experiences, which in itself is a limitation into the in-depth understanding of the drug round tabard initiative. A multi-perspective study would facilitate a more comprehensive interpretation of this phenomenon.

This research was undertaken by conducting a semi-structured interview with participants in their workplace. Interviewing participants was a challenge to the researcher as often participants were too busy to sit down or anxious to leave the nurses' station or office.

Also, the researcher realised that further in-depth interviews with the participants would be required to fully address the research question, "What is your experience with the drug round tabard?" The researcher acknowledges that the time constraints imposed on this academic work by the University are a limitation to this research study.

Despite the limitations identified, the study achieved the overall aims and objectives of understanding the nurses' experiences with the drug round tabard when dispensing medication to the older people.

6.4 Dissemination

This research study serves as the first evaluation of the drug round tabard's effectiveness conducted in healthcare institutions specialising care of the older people here in North-West of Ireland as far as the researcher is aware. The findings of this research study will be communicated locally to nurses working in community hospitals and nursing units, both users or non- users of the drug round tabard through one-on-one or group meetings.

The findings of this research study will be published in websites such as Lenus, the Irish Health Repository for public access.

Further dissemination will occur through presentations at conferences and seminars, both locally and nationally, and through articles published in peer-reviewed journals.

6.5 CONCLUSION

It is known that understanding interruptions in healthcare are still at its early stage. This study adds that the use of drug round tabard to counter interruptions and distractions during medication administration task as experienced by nurses is effective.

Through qualitative descriptive approach, this research study has provided an initial description of the experiences of eight nurses who utilised the drug round tabard when dispensing medication to the older person. No practice improvement comes without challenges, and this drug round tabard initiative is not an exception. However, it is promising to note that nurses were satisfied with the whole concept of the drug round tabard initiative despite the challenges. Ellaine offered a summary of her experience.

Ellaine

Lines 99-101

"I'd be satisfied. I think It is stepping in the right direction. And I don't know how you could improve it anymore you know . I don't know. Park us in a glass case when we are doing the tablets?(laugh)."

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Appendix 1. Literature Review Summary

Subject: Efficiency of interventions (including drug round tabard) in minimising interruptions and distractions during medication rounds.

Author(s)	Year Published	Methods	Findings	Recommendations
Scott <i>et al.</i> (UK)	2010	A tick box questionnaire NHS Grampian's Datix Incident Reporting system	An average number of interruptions was reduced from 6 to 5. A slight reduction in the number of incidents reported over the five weeks.	Further studies to provide a better understanding of the effectiveness of drug round tabards.
Relihan <i>et al.</i> (Ireland)	2010	Pre and post intervention Observational Study	Identified 10 sources of interruptions, that the source of interruption impacted the effectiveness of the interventions. The overall most significant source of interruptions was nurses themselves. Overall decrease in interruptions post-intervention.	Future research to include: directly quantifying the impact of the interventions described in the study on the volume of medication administration errors; assessing the time lost as a result of interruptions and distractions during the medication round; and developing a standardised means of recording and analysing interruptions and distractions to allow meaningful comparison of the benefits of interventions across studies.
Tomietto <i>et al.</i> (Italy)	2012	Contextual study (monitoring patient trends from 2006 to 2010)	Patient interruptions were reduced. Staff member interruptions increased.	Before introducing new strategies, an evaluation of their appropriateness with regard to the culture of the patients and nurses is recommended.
Smeulders <i>et al.</i> (Netherlands)	2014	Qualitative exploratory interview. (20 nurses)	Three themes emerged: 1.nurses' roles & responsibilities in medication safety. 2.nurses' ability to work safely. 3. nurses' acceptance of safety practices	Further investigation of the extensive roles of both nurses and their managers in medication safety.

Verweij <i>et al.</i> (Netherlands)	2014	Mixed method: before and after study in 3 observation periods + personal inquiry	Significant reductions in both interruptions and MAEs	Further research on complementary interventions that contribute to further reduction of MAEs.
Uko-Udom (Ireland)	2014	Quantitative data collection + Survey Questionnaire (8 questions + 5- point Likert rating system)	85% reduction in interruptions; 91% reduction in MAEs; 98% reduction in non- compliance to policy	Further research to document the contribution of work interruptions to MAEs. Further descriptive studies needed to better understand work interruptions characteristics.
Dall'Oglio <i>et al.</i> (Italy)	2017	Pre- post study MADOS-P Observation sheet adapted to Paediatric context.	The median of interruptions occurring in each cycle decreased significantly from baseline to post- intervention.	Further research is needed to confirm the effectiveness of interruption reduction programmes in the paediatric setting, particularly through a study with a control group.

Summary developed by the researcher for the sole purpose of this study. See Reference list for corresponding authors mentioned.

Appendix 2. Project Plan

Time Frame	Activity
September 2016 October 2016	Prepare application to Ethics Committee. Contact Health Board for Ethical Committee Application.
November 2016 December 2016	Follow-up Health Board Ethical Committee Application. Submit application to SNMREC's Chair Approval
January 2017	<p>Send out letters to Directors of Nursing (DONs) (Appendix) via post.</p> <p>Follow up call and visit to hospitals' DONs. DONs to name the Appointed Gatekeepers. Give the letter to appointed gatekeeper (Appendix).</p> <p>Send out Participant Information Leaflet (Appendix) for the Appointed gatekeeper to distribute.</p> <p>Conduct pilot study with two nurse colleagues to test the reliability of the research question.</p> <p>Contact participants who responded to the invitation, to arrange place, date and time of the interview.</p>
February 2017	<p>Conduct recorded interviews utilising interview guide (Appendix) at the pre-arranged place, date and time.</p> <p>Take notes on participants' moods, expressions and gesticulations (field notes).</p> <p>Listen repeatedly to the recorded interview to gain insight into participants' experiences.</p>

	<p>Transcribe interviews onto a word processor and excel format.</p> <p>Consult with Supervisor.</p> <p>Re-read transcripts and re-listen to recorded interviews to immerse into the data collected.</p> <p>Commence data analysis utilising Braun & Clarke's thematic analysis.</p> <p>Stop recruiting new participants when the desired amount of data attained.</p>
March 2017	<p>Analyse data to code data segments, and into key themes.</p> <p>Consult with Supervisor.</p> <p>Revisit all participants to validate findings.</p>
April 2017	<p>Draft research report.</p> <p>Review with Supervisor.</p>
May 2017	<p>Submit final report to Trinity College Dublin.</p>

Appendix 3. Statement of Resources

Resources Required	Cost (Euro)
Dictaphone Audio Recorder, batteries	100
Personal Computer/ Laptop	Nil
Travelling expenses	200
Miscellaneous:	
●Photocopying, Printer cartridges/ Pens, Paper, folders, stapler, USB, Postage stamp.	200
●Tokens: diary/ planner, pens, post-it note pads, boxes of chocolates	100
Total	600

Appendix 4. Health Board Research Ethics Committee Chairman's Approval

Health Board
headed notepaper

8th December 2016

Ms Judie Cabanero
Personal Address

**Re: Qualitative Research Study Investigating Nurses Experiences with Drug Round Tabards
in Community Hospital**

Dear Ms Cabanero,

With reference to application listed above, your application has been considered by members of (named health board) Ethics Committee and I am happy on behalf of (named health board) to grant Chairman's approval.

Please do not hesitate to contact me if you require any further information.

Yours sincerely,

(signed)
General Manager

Appendix 5. SNMREC Chair's Approval



Coláiste na Tríonóide, Baile Átha Cliath
Trinity College Dublin
Ollscoil Átha Cliath | The University of Dublin

Judie Cabanero
Student Msc Gerontological Nursing
School of Nursing and Midwifery
Trinity College Dublin

23rd January 2017

Study title: Nurses' experience with the use of red apron/tabard during medication rounds".

Dear Judie,

I am pleased to inform you that your study has been granted ethical approval from the School of Nursing and Midwifery Research Ethics Committee. You can now proceed with your study.

Yours sincerely,

A handwritten signature in purple ink, appearing to read 'G. Hynes'.

Prof. Geralyn Hynes
Chair of School of Nursing and Midwifery Research Ethics Committee

Appendix 6. Letter to Director Of Nursing

[Named Person]

Director of Nursing

[Named Hospital]

Address

23 January 2017

Re: Research Study: A Qualitative Research Study Investigating Nurses' Experiences with Drug Round Tabards in Community Hospitals.

Dear [Named Person],

I am Judie Cabanero, currently a student of M.Sc. in Gerontological Nursing degree at Trinity College Dublin, School of Nursing and Midwifery. I am required to carry out an academic work in the form of a research study within my professional scope of practice. The study I have selected is the investigation of nurses' experiences with drug round tabards. I am hoping to conduct this study within the [named hospital] nursing unit. In lieu of this, and following ethical approval from both [named health board] and Trinity College Dublin's School of Nursing and Midwifery Ethics Committee, I am writing to seek your permission to gain access to participants from the said nursing unit and also the permission to carry out the interviews in a quiet room within the hospital.

The red tabard had been introduced to help reduce interruptions and distractions experienced by nurses during the performance of medication rounds, thereby minimising the incidence of Medication Administration Errors. To date, only a little research have been conducted in this specific area. Since the red tabard's introduction to Community Hospitals here in North-West of Ireland, no study (that I am aware of) has been carried out to evaluate nurses' experience with it.

This study will involve the participation of at least eight (8) staff nurses who fit the inclusion criteria, partaking in an audio-taped interview which could last for approximately 30 minutes. The interviews shall take place in a quiet room within the nursing unit. All ethical issues will be considered and addressed throughout. Confidentiality will be maintained at all times.

The aim of this study is to explore staff nurses' experiences to gain a full understanding of their experience with the red tabard during medication rounds. It is envisaged that this study will benefit both nurses and service users as a result of knowledge accessed.

An information leaflet will be issued to all potential participants. If a staff wished to participate, written consent must be obtained and signed on the day of the arranged interview. It is hoped that the results of this study will be accepted for publication by nursing journals.

Thank you for taking the time to read this letter. I would be grateful for your permission to carry out this study within your hospital. Enclosed are ethics committees' approval letters for your reference. Should you have any queries, please feel free to contact me at [mobile number] or email [email address] at any stage. I look forward to hearing from you.

Yours faithfully,

Ms Judie Cabanero

Appendix 7. Letter to the Appointed Gatekeeper

[Named Person]
[Named Hospital]
[Address]

25 January 2017

Re: Research Study: A Qualitative Research Study Investigating Nurses' Experiences with Drug Round Tabards in Community Hospitals.

Dear [Named Person],

I am currently undertaking a Masters of Science Degree in Gerontological Nursing at Trinity College Dublin. I am required to carry out an academic work in the form of a research study on an area of interest within my professional scope of practice. The study I have selected is the investigation of nurses' experiences with the drug round tabards. I am hoping to conduct this study within the [named hospital]. In lieu of this, I am writing to seek your assistance to invite staff nurses to participate in the study.

The red tabard had been introduced to help reduce interruptions and distractions experienced by nurses during the performance of medication rounds, thereby minimising the incidence of Medication Administration Errors. To date, only a little research has been conducted in this specific area. Since the red tabard's introduction to Community Hospitals here in North West of Ireland, no study (that I am aware of) has been conducted to evaluate the nurses' experience with it.

This study will involve the participation of at least eight (8) staff nurses who fit the inclusion criteria, partaking in an audio-taped interview which could last for 30 minutes. The interviews shall take place in a quiet room within the nursing unit. All ethical issues will be considered and addressed throughout the study. Confidentiality will be maintained at all times. Pseudonyms will be used to distinguish information and all information transcribed will be stored on an external hard drive which will be securely locked to ensure confidentiality.

The aim of this study is to explore staff nurses' experiences to gain a full understanding of their experience with the red tabard during medication rounds. It is envisaged that this study will benefit both nurses and service users as a result of knowledge accessed.

An information leaflet will be issued to all potential participants. If a staff wished to participate, written consent must be obtained and signed on the day of the arranged interview. All participants maintain the right to withdraw from the study at any time without penalty. It is hoped that the results of this study will be accepted for publication by a recognised nursing journal.

Thank you for taking the time to read this letter. I would be grateful for your assistance by distributing the information leaflets to all staff nurses. The interested participants may contact you or myself directly. Should you have any queries, please feel free to contact me at [mobile number] or email [email address] at any stage. I look forward to hearing from you.

Yours faithfully,

Ms Judie Cabanero

Appendix 8. Cover Letter to Participant

Researcher's Address

Participant's Name

Hospital Address

January 2017

Dear ,

May I request your participation in my research study which explores nurses' experiences with the drug round tabard. The aims of my research are to explore your experience with drug round tabard when dispensing medications to your clients. To improve nursing knowledge, understanding and insight from your experiences of the drug round tabard and to use this knowledge for future practice and research.

The red tabard was introduced to help reduce interruptions and distractions experienced by nurses during the performance of medication rounds, thereby minimising the incidence of Medication Administration Errors. To date, the effectiveness of the drug round tabard has remained under-researched according to the literature reviewed. Thus, I am taking this opportunity to investigate this area with your help. Your views and experiences are very important to me.

Your participation in this research study is voluntary and is not of an invasive nature. I wish to conduct an audio recorded interview with you and this will be confidential. Your name and the hospital you work with will not be identified in the research.

I have enclosed with this letter an information sheet that outlines how this research will be conducted. I will require your full voluntary consent written and spoken on the day of the interview. If you have questions, do not hesitate to ask me. My telephone number xxxxx or e-mail me xxxxxxx.

This research study is in partial fulfilment of the Masters Degree Programme in Gerontological Nursing, Trinity College Dublin where I am a student. I am thanking you in advance for your participation.

Yours faithfully,

Judie Cabanero

Appendix 9. Participant Information Leaflet

Information for Participants:

I want to invite you to participate in my study exploring "Nurses' experiences with the use of red apron/tabard during medication rounds". Please ensure that you read and understand the information detailed on this sheet before deciding whether you wish to take part or not.

Title of the Study:

A Qualitative Research Study Investigating Nurses' Experiences with Drug Round Tabards in Community Hospitals.

Background to the Study:

Nurses have the sacred duty to protect all clients in all aspects of their care. Thus, patient safety is a primary concern nurse must work hard to maintain at all times against the complexities of health care delivery. Medication Error (ME) remains a major issue on the subject of patient safety nurses are facing today. Interruptions and distractions have been mentioned to be contributors to these errors.

The red tabard had been introduced to help reduce interruptions and distractions experienced by nurses during the performance of medication rounds, thereby minimising the incidence of Medication Administration Errors. To date, only a little research have been conducted in this specific area. Since the red tabard's introduction to Community Hospitals here in North West of Ireland, no study (that I am aware of) has been conducted to evaluate the nurses' experience with it.

In behalf of Health Service Executive- North Western Health Board, the Letterkenny University Ethics Committee has granted this study a Chair's Approval. Also, the School of Nursing and Midwifery Research Ethics Committee (SNMREC) Chair of Trinity College Dublin has reviewed and approved this study. The results of this study may be published in a nursing journal or presented in conference presentations. In any case, no research participants and work location will be identifiable in any publications.

Research aim:

The research aim is to explore nurses' experiences with the drug round tabard when dispensing medications to older people.

The objectives of the study are:

- To explore nurses' views and opinions on the use of the drug round tabard by gaining insights on their experience with it.
- To investigate nurses' awareness of the purpose of the use of drug round tabard and its connection with minimising interruptions and distractions during medication administration.

- To identify issues that led to nurses' satisfaction or dissatisfaction on drug round tabard which may have implications for future practice and research.

Who can participate:

Participants must be a Staff Nurse working at the ward level and currently using or have ample experience with the red apron or tabard when administering medication to an older person.

You could not participate in this study if you used the red apron or tabard only once while performing medication administration.

Procedures:

The appointed gatekeeper will distribute the information leaflet to all nurses. At least eight (8) nurses will be invited to participate in the actual study. You would have a minimum of seven (7) days to reflect if you want to take part in the study or not. If you agree to participate, contact me directly or let the appointed gatekeeper know. My contact details are stated below. I will then contact you to arrange the date and time that suits you for data collection.

Informed written consent will be taken on the day of the arranged interview. I have prepared eight (8) guide questions to explore your experience with the red tabard during medication rounds which would last for approximately 30 minutes. The interview will be audio-taped using Dictaphone to establish accuracy. The recording system will be placed discretely to minimise distraction during the interview. These recordings will be replayed for analytic purposes only, and confidentiality will be assured throughout. You will have the opportunity to see the final transcript and excerpts to be used. You can postpone, discontinue or withdraw anytime if you feel uncomfortable or threatened in any form during the interview.

Benefit:

There is no immediate benefit for you as a research participant. However, the findings will contribute to theory and practice in the nursing profession by gaining insights into your experiences with the drug round tabard. Therefore, the results of the research can evaluate the efficiency of the red apron/tabard in preventing or minimising interruptions and distractions during medication administration which may have implications for future nursing practice and research.

Adverse Outcomes:

During the face to face interview, the potential for adverse outcomes (such as sudden illness) for both the investigator/researcher and participants are not anticipated. However, you should have access to a communication system (e.g. telephone or call bell) in the case of emergency. You should also be aware of the escape route in case of fire. If you experience

sudden illness at the time of the interview, the interview should be stopped immediately. You will be referred to appropriate health care providers should this be required.

If you are interested in taking part, please contact:

Principal Investigator Name: Ms Judie Cabanero

Student

M.Sc. in Gerontological Nursing

Trinity College Dublin

E-mail: xxxxxxxxxxxx

Mobile: xxxxxxxxx

Appendix 10. Consent Form

Project Title:: A Qualitative Research Study Investigating Nurses' Experiences with Drug Round Tabards in Community Hospitals.

Principal Investigator/ Researcher: Judie Cabanero

Background: This study is about the exploration of staff nurses' experiences with the red tabard during medication rounds. The use of red apron or tabard was introduced in selected Community Hospitals in 2014. Since its commencement, no study that I am aware of has been conducted to evaluate nurses' experiences with it. Each participant will be invited to an interview which will take approximately 30 minutes. The participants' identity will not appear on study documents or published materials. All information shared will be treated in the strictest confidence and will be maintained throughout the study.

Declaration(s):

I _____ have read and understand the content presented in the information letter.

I have received adequate information regarding the nature of the study and understand what will be requested of me. I am aware of my right to withdraw at any point during the study without any penalty.

I have been given a copy of this agreement.

I hereby consent to participate in this research study, without prejudice to my legal and ethical rights.

Participant's Signature: _____

Date: _____

Contact Details: _____

Statement of Investigator's Responsibility:

I have explained the nature and purpose of this study, the procedures to be undertaken and any adverse outcomes that may be involved.

I have offered to answer any questions and fully answered such questions.

I believe that the participant understands my explanations and has freely given informed consent.

Investigator's Signature: _____

Date: _____

(Original of this form is kept in the investigator's file, and one copy to the participant.)

Appendix 11. Interview Schedule

Introduction:

Opening: My name is Judie Cabanero. I would like to ask you questions regarding your experience with the use of drug round tabard when dispensing medications to your clients.

Purpose: I would like to interview you so I can gain some insight into your experience with the drug round tabard.

Motivation: As you know, the red tabard was introduced here in your unit in 2014. I am interested in knowing your experience with it.

Time Line: You will determine the length of the interview, however, it is expected to finish at approximately 30 minutes. Are you available to respond to eight guide statements for this length of time?

Statements:

1. In your words, describe the previous medication administration practice in your clinical area before the red tabard was introduced.

2. Can you describe your awareness on the purpose of wearing the drug round tabard?

3. Can you tell me your initial experience with the red tabard during medication rounds?

Probes: How was this experience important to you?

4. What type of responses have you encountered when wearing the red tabard?

Probes: Are these responses common?

5. In your opinion, is wearing of the red tabard accepted in your clinical area?

6. In your opinion, does wearing of the red tabard reduces interruptions and distractions during medication rounds?

7. Can you describe the challenges you encountered when wearing the red tabard during medication round?

Probes: Can these challenges be overcome?

8. As your overall opinion, are you satisfied or dissatisfied with the use of drug round tabard? Please explain why.

Conclusion:

Summary of the discussion will be provided by the investigator, ensuring that the participant agrees with the summary.

Appendix 12. Interview Transcript of Ellaine

1 **JC as JUDIE CABANERO**

2 **E as ELLAINE**

3 JC : I'd like to explore your experience with the Red Apron when dispensing medication in
4 your clinical area. Now, Can I ask you what was it like, the practice before the Red
5 Tabard was introduced, can you describe to me?

6 E : Hmm (pause), that's a hard question because I'm visualising myself now without the
7 apron on. I guess it's very hard to go backwards.

8 JC : I understand.

9 E : I'd... I'd be pretty sure that there was more interruptions prior to the Red Apron
10 being introduced.

11 JC : Ok.

12 E : yeah

13 JC : That was the only difference, the Apron.

14 E : yeah

15 JC : That there was no, from the practice... the medication practice, it was only the Apron
16 that was the difference. There are no other changes I mean.

17 E : Well, here whenever you are allocated to do the medications, the nurses, your own
18 colleagues would know that you are doing tablets. So, obviously, they won't interrupt
19 you. You know or ask you or anything.

20 JC : ok

21 E : But from the patient's point of view or relatives, you know they may still interrupt us.
22 Like your own colleagues, they wouldn't because they would've been aware of what
23 exactly you are doing you know, so I suppose the introduction of the Red Apron I think
24 is more for the public awareness you know.

25 JC : Ok

26 E : than it's your colleagues are aware that you are doing the medications. You know
27 what I mean? You are allocated to do them.

28 JC : Ok. Now, so, from the time that it was introduced, can you can you describe to me
29 your awareness about the purpose of the Red Apron?

30 E : Well, I suppose it is to reduce the amount of times that you are interrupted while
31 dispensing medications.

32 JC : Was there any like training or how was it introduced in your area?

33 E : my line manager who have told us about it.

34 JC : Let's talk about your initial experience like the first few days since you started
35 wearing the Red Apron? Can you tell me ?

36 E : Em, well I suppose because it is a new piece of uniform (chuckles) as such. Em,
37 people are probably more curious about the actual fabric, the wearing outfit you know
38 and what it said typed thing you know. So once, em, once you wear it once that's kind
39 of it. Then everybody associate it, everybody starts to associate the importance of it
40 then afterwards.

41 JC : Ok. Yeah Now, we'll follow up that one. What type of responses? I think you are
42 already talking to me about that one but can you tell me more about the responses of
43 your colleagues, patients, the public?

44 E : The responses. Well, your nursing colleagues always would've been aware that
45 when you're doing the medications, unless it was absolutely necessary, do not
46 interrupt. Because as you know, interruptions you know can go on to, lead to error.
47 And, I suppose the Red Apron would have also create such an awareness with non-
48 nursing as well. You know from the secretaries to everybody within the ward.

49 JC : Hmm

50 E : So, I think there was more, it created more awareness to non-nursing than it did to
51 nursing. Because nursing they know the importance of what you're doing before you
52 started out whereas non-nursing may not. And then when they associate with the
53 Red Apron now with medications, they actually, it's has really improved from the
54 amount of interruptions that you'd be having. So I think it was more from there.
55 From a patient's point of view, (clears throat), If you start, If you know you have a
56 confused patient, if you have a patients who needs to, you know, use the bed pan or
57 use the you know it doesn't matter what you're wearing they see you as a nurse and
58 they need assistance, you know what I mean?

59 JC : yeah

60 E : But the only thing is, if you're wearing your Red Apron and you're doing your tablets,
61 you know you can call assistance or call another colleague.

62 JC : ok

63 E : you know, that type of thing.

64 JC : ok

65 E : but, no definitely, (inaudible), no, no, it's definitely improved.

66 JC : Now, let's go to the question...so , just a statement from you, is wearing of the Red
67 Tabard or that apron accepted in your ward or your clinical area?

68 E : yeah

69 JC : yes

70 E : yes

71 JC : Ok and then this is in your opinion, does wearing the Red Apron reduce the
72 interruptions and distractions?

73 E : Yes (nods)

74 JC : while you're doing the medication rounds? ok

75 E : Yeah I think so yeah. Me, personally I think so if you're wearing your red apron.
76 Yeah. Definitely

77 JC : And perhaps there were challenges, you already started at the beginning but can you
78 add more to that? The challenges that you faced?

79 E : Hmm, I suppose on a personal level? From staff members, no, you know. Because if
80 you are a qualified nurse, you know the importance of what you're doing. See, you are
81 not going to challenge anything that's going to help you carrying out that task.
82 Because it's such an important task, you will welcome anything that will make it you
83 know, will make it a bit easier. To be able to concentrate on what you are doing at
84 that given time. Em, so no we don't really have...

85 JC : What about the apron itself?

86 E : yeah

87 JC : The wording, the material do you have any issues?

88 E : wish it was bigger size (laugh)

89 JC : (laugh) sure we can do something about it

90 E : (laugh) I definitely think it has created awareness. I definitely think it has helped in
91 the area that it was introduced to do so, you know, and it is up to us to keep, you
92 know, the awareness around it. You know you have to accept yourself what you put it
93 is what you take out. So if you're wearing the red apron and somebody is interrupting
94 for something that does not that important, that can wait you know. You have to

95 prioritise of course what you've been asked to do at that given time. But, it's up to you
 96 to create more awareness around it as well.

97 JC : ok

98 E : or point out what... But as I say, it definitely created a lot of awareness around staff
 99 but patients. But we have to accept that for what it is, you know.

100 JC : Ok. Now, that would lead us to the final question. Are you satisfied or dissatisfied
 101 with the purpose of the Red Apron?

102 E : I'd be satisfied. I think It is stepping in the right direction. And I don't know how you
 103 could improve it anymore you know. I don't know. Park us in a glass case when we are
 104 doing the tablets (laugh)

105 JC : (laugh) yes

106 E : that type of thing. I think it has definitely created more awareness with non-nursing
 107 than nursing.

108 JC : ok

109 E : And as I say, the nurse already knows the importance of the task you did.

110 JC : Hmm ok. Now, you certainly gave me good points

111 E : ok

112 JC : And as a conclusion, you are telling me about your whole experience with the red
 113 apron when dispensing medication. So you've mentioned about challenges where you
 114 have patients with Dementia, where you think whatever you wear it doesn't matter to
 115 them. But overall, you told me that you are satisfied on the purpose of the red apron.

116 E : Yeah I think so, it has really improved.

117 JC : Yeah, you agree on that?

118 E : Yeah (nods)

119 JC : That's our interview. Thank you for that.

120END.....

Appendix 13. Interview Transcript of Bernie

1 **JC as JUDIE CABANERO**

2 **B as BERNIE**

3 JC : Now, we will go straight to the questions.

4 B : Yes, Can you just give me one of the questions as well ? just to... ok.

5 JC : Ok sure. Well, I'll be looking at the same sheet. We'll start with the first question. Can
6 you briefly describe to me what are the practices here prior to the introduction of the
7 Apron?

8 B : There's nothing at all. Absolutely nothing at all.

9 JC : That's ok. So now, we go to the second question. Your awareness about wearing that
10 Apron.

11 B : I think it's good. Yes. I'm very aware about what I'm wearing. Yes, yes, very good,
12 yeah.

13 JC : You're aware of the purpose yeah

14 JC : And then that would lead us to your initial, let's talk about your first few days when
15 you started wearing it. Just tell me your experience.

16 B : Hmm, that was special. There was not many interruptions no doubt about that.
17 People ran away from you when they see the big Red Tabard.

18 JC : even the initial part, you get that already?

19 B : yes, yes, they really understood. They will not interrupt you as much. There was not
20 many interruptions during the medications rounds. Was the experience very
21 important? Yes. It was good yeah. What type of responses you encountered when
22 wearing? I can only say good responses

23 JC : Can you explore more on those responses?

24 B : hmmm people are more understanding, you do medication they won't interrupt you.
25 That was the response from the care staff.

26 JC : Care staff yes, and what about the patients?

27 B : Hmmm Not the type not so much about the patients because longer patients here
28 have dementia.

29 JC : ok, ok.

30 B : So they wouldn't really understand. And not really, very little response from the
31 patients because there's so few patients here that would understand. I don't think
32 there's anyone here. Maybe one or two people here out of 21. Because of the
33 dependency level here and because of their cognitive abilities. So the biggest

34 response, positive response would come from outside people like visitors, care staff,
 35 housekeeping, kitchen and upstairs with salaries. That's the biggest response, and it
 36 was a good response. No negativity found at all here. Well, not in my....

37 JC : Yeah, yes, that's interesting.

38 B : (reading the questionnaire). What kind of responses have you encountered wearing
 39 the.... this is probably (inaudible) already what I've just said, you know?

40 JC : Yeah, yeah.

41 B : Hmm, in your opinion, is wearing the red tabard accepted? Yes, I have said. It is
 42 accepted. It is now open (inaudible). I'm not saying anything against it.

43 JC : Yes, it is accepted. Good to know.

44 B : The only problem is I found, that I have forgotten sometimes to put it on.

45 JC : Yes.

46 B : And I'll be straight with it. I forget to put it on sometimes. There's a reason why I
 47 forget at the minute the reason. Just an improvement with it the thing that we have.

48 JC : ok, ok. Right.

49 B : In your opinion, does wearing the Red Tabard reduce interruption? Yes, it does. It
 50 does. Can you describe the (inaudible)? All I can tell you is, on daytime here, it's not
 51 too bad because if someone needed you to toilet, I don't like to be interrupted. I'll be
 52 straight with you because if I'll lose my track when I'm giving out the medicines, we
 53 have plastic bags system here with all the patients in one bag you know the bag. So,
 54 on one side of the trolley, I would take out.... and I make sure that I really check. You
 55 know what I mean. I'm checking it myself. Because if you have a patient with 8 to 9
 56 tablets in the morning, it is very easy to lose track.

57 JC : True

58 B : If you got interruptions through boxes and things, after medications. So I always
 59 once I've taken the box out, I'll put it to the right side. That kind of way under that
 60 little table here (pointing to the drug trolley)

61 JC : Yeah, yeah.

62 B : it's my system that kind of way.

63 JC : it's your own system

64 B : And sometimes I even go as far as counting them to make sure I haven't forgotten
 65 the you know. Because if you got 8 or 9, that's just me...

66 JC : Yeah, yeah.

67 B : That's just because I'm, I'm double checking all the times. Only once that I found here
 68 attempt to check in the pharmacy in chance of going back a couple of years ago, there

69 was a wrong medication. You know you use to looking at the tablets, you pick it up
70 straight

71 JC : yes, yes.

72 B : Only once had and that's because we're checking all the time ourselves. This is
73 something in you, you know because you are afraid of making mistakes you know.

74 JC : Oh yes.

75 B : So, in your opinion (inaudible). Yes, explain the challenges. The challenges would be
76 that one really.

77 JC : Hmmm

78 B : It's interruptions. The other challenges would be people looking to go to the toilet.
79 Or people getting up or they alarmed and go. You know? Then you have to kind of if
80 somebody is getting up and gonna fall and trap everything and lock up. And the other
81 would be the telephone.

82 JC : ok

83 B : That would be the problem. The telephone and maybe but the telephone you see the
84 situation here is we have to answer the phone as we are expected to answer the
85 phone. But sometimes, she can't if she is in the toilet or she could be doing the
86 medicines you know. But the girl (named person) would pick up the phone, and that's
87 an instance here. The telephone would be the worst one. Is that what you all up?

88 JC : Yeah, yeah.

89 B : You probably heard it before? There will be a chance people will be getting up to
90 start walking when they are not safe to walk on their own, that's major. Then you have
91 just to close the trolley, and you have to go and sort it out. If they are looking for toilet
92 or something, I genuinely would say to them that I will get a girl to sort it out for you
93 (phone ringing). Because I don't think you should be toileting and giving medicines at
94 the same time. That's, that's mine, period. You can get some (inaudible). And there's
95 somebody; we have one lady forgets she's been and she would get up. Sometimes
96 you would just have to lock up the trolley and go with her. There's certain one or two
97 people here that would do that with. Generally, if they knew there were girls coming
98 around doing the rounds hmm you would tell her such, and such are looking for, and
99 tell her could you go to her. And the girls are very good on this when you are doing the
100 medicines. You cannot do toileting and medications at the same time.

101 JC : That's correct. They have to understand what you're doing

102 B : Because you can't be interrupted, that's it, and I'm very aware about that myself
103 because I'm getting older now I don't know. I'm just frightened to make a mistake.
104 That's the only reason I said it to you, you know? And I find it difficult to concentrate
105 sometimes now. We have a lady here. She always kicks off, and she is shouting a lot. I
106 have to go and take the trolley out and go to another room, and I have to go back in
107 like that because I just can't concentrate. I find it you know it takes my concentration.

108 But that's just coping mechanisms you know. So that's.. another thing that I would say
 109 now is on night duty. There is a problem on night duty. I have to say there is a
 110 problem on night duty. I'd like you to bring them up on that ok?

111 JC : yes, that's very interesting

112 B : Because I would say, I stop doing night duty. I'm acting up now, so I'm not doing any
 113 night duty for the time being, but I'll be finishing in about six months time because I'm
 114 retiring. And on night duty,

115 JC : I can imagine how it's like...

116 B : when you have the room's all scattered everywhere, when you have no, kind of...you
 117 know hold up there, hold down here. It is very difficult in that case. You have to toilet;
 118 I used to do to toilet and medication at the same time. Oh, when I was doing the
 119 medication on one side, I would ask help from anyone to do the toileting, but that's
 120 because only one nurse and much to do here in night time. I don't know about other
 121 places? Is it the same thing happening in other places? That's what it is. Because of
 122 the fact that it is only skeleton staff on at night.

123 JC : Hmmm

124 B : That's the problem. That would be the greatest interruptions for the toilet (inaudible)

125 JC : it goes down to the staffing level?

126 B : yes, it does. At night it does. During the daytime, it's not so bad. I'm sure

127 JC : That's the last, the final question. Are you satisfied?

128 B : yes, I'm satisfied, but I would like it to be having a different more material type of
 129 one, rather than plastic cause I find that it makes you sweat you know if you put it
 130 next to your...

131 JC : Oh you got the plastic one.

132 B : we have

133 JC : right

134 B : ok. This one (approaching the trolley and picks up the apron at the bottom of the
 135 trolley)is not the most wearable, comfortable one to wear.

136 JC : Oh it's not the cloth one. Yeah . ok. That's,

137 B : That's my only criticism. I know it's for wiping down and everything. You know it's
 138 for. Obviously, you have to wipe it down. But I find it isn't very nice against you

139 JC : Ok, yeah

140 B : Maybe a little bit of a tear in there in it as well.

141 JC : The cloth?

142 B : And it can be washed

143 JC : it can be washed.

144 B : And maybe to have a couple of them like to have one for washing and one for the
 145 other trolley too, to change over. The other criticism I'm having on it, it's horrible
 146 next to your, next to your uniform

147 JC : yes, ok

148 B : It makes you sweat and other than... that's me personally speaking. That's my own

149 JC : ok.

150 B : Did any anybody else have brought it up?

151 JC : Hmmm

152 B : Somebody said same thing? Other than they said it's too big for them or you know.
 153 That would fit me . That would fit for both of us anyway.

154 JC : (laugh)

155 B : (laugh), So that's it.

156 JC : You've raised a very good point there. They're good points to consider.

157 B : you probably get the other ones with different approach about it.

158 JC : That's their experience yeah

159 B : but no, I think I find it very good. I think that's a great idea.

160 JC : Ok.

161 B : No, I have no objection to them, no biggest objection here. Only such few things here
 162 that comes at night time. Only that.

163 JC : So, in conclusion, you are aware of the purpose of that, the concept behind it, and as
 164 per your experience you felt you are happy wearing it because of the fact that you are
 165 not distracted, although you have challenges...

166 B : we have challenges but,

167 JC : But overall you are satisfied

168 B : It does stopped the amount of distractions you would get when you are wearing it.

169 JC : That's very good. Thank you so much

170 B : That's it.

171 JC : Yeah, yeah. (end)

Appendix 14. Field Notes: Interview with Bernie

Interviewee: Bernie

Interview Date: 01/02/2017

Duration: 36 minutes

Pre-interview goals for interview:

- The main goal is to explore Bernie's experience with the drug round tabard initiative.
- As an interviewer, to conduct the interview confidently.
- To cover all areas of concerns as per Interview Schedule.

Location of interview:

Location A is a community nursing home located in a rural area in the North- West of Ireland. The two- storey home was originally built as a workhouse in the 1800s but became a dedicated older person's centre for over ten years.

Interview room: Nursing Office. The nursing office is located on the ground floor of the extended corridor/hall of an old two-storey building. The room is only a few steps away from the main entrance.

People present:

Bernie and myself.

Description of the environment:

Inside the nursing office, I see computer tables, chairs, desktop computers, telephone, filing cabinets, bookshelves and a medicine trolley attached to the right corner of the room. The room is quite dated. It has old glass windows situated at the upper corner of the concrete walls. Bernie and I were seated across each other. On my left side was a computer table where I placed the dictaphone, and few steps to my right is the door. The nursing office door was closed during the interview. I could still hear noise coming from the corridor, but it was minimal.

Non-verbal behaviour:

Bernie moves around the room at least twice during the interview when she showed me the drug round tabard which was placed under the medicine trolley. She also stood up and walked towards the medicine trolley to demonstrate her system of double checking.

While talking, Bernie also uses hand gestures to give emphasis to her statements. She maintained good eye-to-eye contact throughout.

The content of interview:

Bernie indicated that she is happy practising the drug round tabard initiative in her workplace because it was effective in reducing interruptions and distractions when she is dispensing medication. She mentioned that everybody in the unit had accepted the practice.

Researcher's impressions:

Bernie appears enthusiastic in sharing her experience. She gave me an impression of sincerity while talking about her views on the topic. Bernie mentioned that she is only a few months away from retiring.

Analysis:

Bernie gave a thorough account of her experience with the drug round tabard. Due to her role as an Acting CNM1, she was able to practise the initiative with ease. She said: *"No negativity found at all here"* (Line 36). Her statement is contradicting other three participants' claim that non-nursing staff and public did not seem to accept the practice especially during the initial phase of the implementation.

Technological Problems:

The equipment (dictaphone) was checked before meeting Bernie. There was no technical problem encountered during the interview.

Appendix 15. Field Notes: Pilot Interview with Participant A

Interviewee: Participant A

Interview Date: 24/01/2017

Duration: 45 minutes

Pre-interview goals for interview:

- The main goal is to conduct a test run of the interview.
- To test the trustworthiness of the Interview Schedule.
- As an interviewer, to practise interview skills.
- To test and learn to operate the equipment.
- To identify issues which need corrective strategies.

Location of interview:

Interview room: Receiving room of a family house in a neutral location. The house is situated in a quiet housing estate.

People present:

Participant A and myself.

Description of the environment:

Pleasant surroundings. The room has chairs and tables. The room was quiet, free from outside noise. The dictaphone was placed in a discreet place in the room. We were seated beside each other.

Non-verbal behaviour:

Participant A glances at my notebook while I am writing few notes during the interview but was able to maintain eye-to-eye contact. She uses some hand gestures when giving emphasis to her statements.

The content of interview:

Participant A claimed that the drug round tabard is an interesting topic and that she is happy to share her experience. She believes that the drug round tabard is helpful in reducing interruptions but not 100% sure of its acceptance in the ward. She stated that patients' and non-nursing staff members' responses are mixed.

Researcher's impressions:

Participant A was able to respond appropriately to all the statements on the topic list. She appears excited in sharing her experience although she is fully aware that it was

only part of the pilot interview. Her glances, while I was jotting notes, seems to have distracted her, so it came instantly clear to me that writing during the interview is not a good idea.

Analysis:

Doing the pilot interview with participant A gave me few pointers to take:

- Note taking distracts the interviewee.
- The audio recorder should be placed in proximity to the equipment to capture voice data clearly.
- Familiarise the list of topic statements before the interview.
- Practice interview skills.

Following the pilot interview with participant A, gave me an initial evaluation of the appropriateness of the research question. It came immediately apparent that the interview schedule is capable of collecting rich data and that the list of topic statements can address the research question, what are nurses experiences with the drug round tabard?

Technological Problems:

The equipment (dictaphone) was checked before the interview, however during the playback revealed a poor voice quality because the equipment was placed in a discreet place within the room.

Appendix 16. Analysis of Interviews

Phase 1. Transcription of interviews.

Phase 2. A total of 187 initial codes, including repetitions and similar codes, generated from eight interviews. Clustered into different colour codes.

Phase 3. Codes Reduced, eliminating similar meanings/ repetitions.

- Medicating Nurse was unidentifiable before tabard was introduced.
- The tabard is the only change with medication administration practice.
- Medicating nurse was often interrupted before tabard was introduced.
- Patients with cognitive impairment are major source of interruptions.
- Majority of patients suffer from cognitive impairment (Dementia).
- Only a few patients can understand.
- Most patients see nurses who should attend to their needs whenever they want.
- Tabard has created awareness to non-nursing staff about the importance of the task.
- Interruptions and distractions from non-nursing staff were reduced.
- Interruptions from the public were reduced.
- Public/ relatives may still interrupt.
- Nurses need to attend to patients' urgent needs.
- Nurses fear of committing medication errors.
- Nurses cope differently in handling interruptions.
- The tabard is not worn at night as nurses are constantly interrupted due to skeleton staff.
- Tabard is mostly worn during morning medication rounds.
- Self-awareness on purpose of the tabard.
- Self-awareness on the importance of the task.
- Gradual acceptance of the tabard in the unit.
- Interruptions and distractions were reduced with tabard.
- All nurses are satisfied with the drug tabard's concept.
- Overall, all nurses believe that tabard is effective.
- Most nurses associated interruptions to medication errors.
- Tabard has created awareness to non-nursing and public about the importance of safe medication administration.

CODES	REDUCED CODES	REDUCED CODES
<p>of interruptions before the tabard was introduced.</p> <p>pre interruptions before tabard was introduced.</p> <p>ron is the only difference with medication administration practice.</p> <p>e tabard is introduced purposely for public awareness.</p> <p>ard was introduced by the line manager.</p> <p>ople are curious on the actual fabric of the apron initially.</p> <p>edicating Nurse is often interrupted before tabard was introduced.</p> <p>allocated medication nurse comes an hour earlier during morning medication round.</p> <p>urses find it strange to wear the tabard initially.</p> <p>ard is the only change with medication administration practice.</p> <p>edicating Nurse is Not identifiable before tabard was introduced.</p> <p>lients read the message of apron but respond negatively.</p> <p>allenge of patients with dementia.</p> <p>gative response from patients with dementia.</p> <p>ly few patients without cognitive impairment.</p> <p>emptions from patients with cognitive impairment.</p> <p>gative response from patients.</p> <p>nfused patients would still interrupt.</p> <p>e tabard did not stop the confused patients from interrupting.</p> <p>ly few patients can understand.</p> <p>nfused patients would still interrupt.</p> <p>lients need assistance no matter what you are wearing.</p> <p>ard has created awareness around staff but not for confused patients.</p> <p>lients recognised the red tabard.</p> <p>epose was explained to the patients.</p> <p>me patients understand.</p> <p>ost patients have no comprehension.</p> <p>lients with dementia are challenging as they dont understand.</p> <p>ly a fraction of patients understood the purpose of tabard.</p> <p>ost of the patients would still interrupt due to cognitive impairment.</p> <p>it much interruptions in area with less patients e.g single room.</p> <p>lients see you as a nurse who should attend to their needs anytime regardless of primary task.</p> <p>ed response from care staff.</p> <p>erally care staff are supportive.</p> <p>ly Staff members know not to interrupt nurses.</p> <p>ard creates awareness to non-nursing staff about importance of task.</p> <p>is nursing staff members have accepted the drug round tabard's purpose.</p> <p>e tabard reduces interruptions from staff.</p> <p>everybody understand the purpose of the tabard eventually.</p>	<p>Patients with cognitive impairment are major source of interm.</p> <p>Majority of patients suffer from cognitive impairment (Demen</p> <p>Only few patients can understand.</p> <p>Most patients see nurses who should attend to their needs of</p> <p>Tabard has created awareness to non-nursing staff about the importance of task.</p> <p>Interruptions and distractions from non-nursing staff were reduced.</p>	<p>Only few patients can understand.</p> <p>Most patients see nurses who should attend to their needs whenever they</p> <p>Tabard has created awareness to non-nursing staff about the importance</p> <p>Interruptions and distractions from non-nursing staff were reduced.</p> <p>Interruptions from the public were generally reduced.</p> <p>Public relatives may still interrupt.</p> <p>Nurses need to attend to patients' urgent needs.</p> <p>Nurses fear of committing medication errors.</p> <p>Nurses cope differently in handling interruptions.</p> <p>Tabard is not worn at night as nurses are constantly interrupted due to ske</p> <p>Tabard is mostly worn during morning medication rounds.</p> <p>Self-awareness on purpose of tabard.</p> <p>Self-awareness on importance of task.</p> <p>Tabard is accepted in the unit.</p> <p>Interruptions and distractions were generally reduced with tabard.</p> <p>Most nurses are satisfied with the tabard's concept.</p> <p>Overall, all nurses believe that tabard is effective.</p> <p>Most nurses associated interruptions to medication errors.</p> <p>Tabard has created awareness to non-nursing and public about importan</p>

Possible themes and sub-themes:

Before tabard was introduced:

Medicating Nurse was unidentifiable before tabard was introduced.

Medicating nurse was often interrupted before tabard was introduced.

Responses on Drug Round Tabard:

The majority of patients suffer from cognitive impairment (Dementia), so poor response.

Interruptions and distractions were reduced from Non-Nursing Staff members.

Interruptions and distractions were reduced from visitors/public.

Tabard has created awareness to non-nursing and public re importance of safe M.A.

Challenges Encountered:

Staff shortage yields to increase in interruptions.

Patients with cognitive impairment.

Apron material issues.

Nurses need to attend to patients' urgent needs.

Personal considerations:

Self-awareness on the importance of safe Medication practice.

Self-awareness on purpose of drug round tabard.

Fear of committing medication errors.

Nurses behaviour/ response:

The tabard is not worn at night as nurses are constantly interrupted due to skeleton staff.

Tabard is worn at morning and afternoon rounds.

Nurses cope differently in handling interruptions.

Overall, nurses believe that tabard is an effective tool in reducing interruptions and distractions during M.A.

All nurses are satisfied with the drug tabard's concept.

Phase 4. Refinement of possible themes and sub-themes.

Phase 5. Naming themes.

THEMES:

1. Internal awareness of safe medication practice

- Acknowledging the importance of medication administration task.
- Associating drug round tabard to safe medication practice.

2. Organisational or External challenges

- Patients with Cognitive Impairment
- Gradual acceptance from Support Staff and Public
- Discomforts with Apron
- Staff Shortage

3. Nurses' response to new initiative

- Tabard is mostly worn during daytime medication rounds.
- Tabard is not necessarily worn during night time medication rounds.
- Overall satisfaction with the concept of drug round tabard in reducing interruptions/distractions

Appendix 17. Letter to Participant to Validation Findings

01 April 2017

[Participant's Name]

Staff Nurse

[Name of Hospital]

[Address of Hospital]

Dear [Participant's name],

I would like to take this opportunity to express my gratitude to you for participating in the research interview, exploring your experience with the drug round tabard when dispensing medication to the older person. Following data analysis, here are the themes and sub-themes generated:

1. Awareness of Safe Medication Practice

- *Acknowledging the importance of medication administration task.*
- *Associating drug round tabard to safe medication practice.*

2. Organisational or External Challenges

- *Patients with Cognitive Impairment*
- *Gradual Acceptance from Support Staff and Public*
- *Discomfort with the Apron*
- *Staff Shortage*

3. Nurses' Response to the New Initiative

- *Tabard is mostly worn during daytime medication rounds*
- *Tabard is not necessarily worn at night time medication rounds*
- *Overall satisfaction with the concept of drug round tabard in reducing interruptions and distractions.*

May I ask you to verify if your true experiences have been recorded by answering the questions below. You may agree or disagree with the findings mentioned above.

1. Do you recognise your descriptions of the internal awareness or factors which you associated with drug round tabard?

2. Do you recognise your descriptions of the organisational or external challenges encountered while wearing the drug round tabard during medication administration?

3. Is this an accurate analysis of your response with this new initiative?

Thank you for your validation of the research findings. I would also like to confirm that your name or any identifiable information was not used in this study. You have been given a pseudonym that I used consistently throughout. You may send this letter back to me using the pre-paid or stamped envelope provided or contact me on xx xxx xx.

Once again, my heartfelt gratitude for your participation in this study.

Yours faithfully,

Judie Cabanero

Appendix 18. Participants' Validation of Research Themes

1. Do you recognise your descriptions of the internal awareness or factors which you associated with drug round tabard?

Amanda: *"Yes, everything that you said there is correct. I am fully aware that medicines should be safely administered."*

Bernie: *"Yes, I agree. They are all true."*

Claire: (unable)

Deirdre: *"Yes, I agree."*

Ellaine: *"Yes, I agree. Interruptions will lead to errors."*

Fiona: *"Yes, I agree. I understand that it is a very important task."*

Gillian: *"Yes, I agree."*

Helen: *"Yes, I agree."*

2. Do you recognise your descriptions of the organisational or external challenges encountered whilst wearing the drug round tabard during medication administration?

Amanda: *"That's correct, patients with dementia are very challenging as they do not recognise the purpose of the red apron."*

Bernie: *"Yes, these are the challenges that I mentioned to you."*

Claire: (unable)

Deirdre: *"Yes, I agree. But I have no discomforts with the type of apron we are using."*

Ellaine: *"Yes, I agree. I wished the apron size is bigger."*

Fiona: *"Although I have not mentioned everything during our interview, but I certainly agree on these challenges."*

Gillian: *"Yes, I agree on these challenges."*

Helen: *"Yes, I agree."*

3. Is this an accurate analysis of your response with this new initiative?

Amanda: *"Yes, your analysis reflects my response and my whole experience with the drug round tabard. True, I don't wear it at night time medication rounds."*

Bernie: *"Yes, these are all correct. I am satisfied with the drug tabard as I find it very helpful in reducing interruptions."*

Claire: (Unable)

Deirdre: *"Yes, I agree."*

Ellaine: *"Yes, I agree."*

Fiona: *"Yes, that's true. I don't wear the tabard during night shift as I find it not needed. And yes, I find that the tabard reduced the interruptions that is why I'm satisfied with it. "*

Gillian: *"Yes, I agree."*

Helen: *"Yes, I agree. The tabard is not worn at night time as only one nurse and one carer on duty. Interruptions when carer requires assistance with residents."*

Appendix 19. Validation of Decision Trail & Findings

A Nurse Colleague, who is a Senior Staff Nurse (SSN), working in Care of the Older People was asked to validate the decision trail and comment on the research findings of this study. This nurse colleague is currently practising the drug round tabard initiative in her workplace. Following the review of this research by the SSN, the researcher was contacted, and the subsequent comments were given.

SSN: I have just completed the review of the research, and I wanted to let you know that this research is very valuable to nursing the older person in relation to safe medication practice.

SSN: The decision trail is detailed and something which other readers and I can follow. Your findings have revealed a true picture of the nurses' experiences with the tabard when dispensing medication to the older people. It was easy for me to relate to the nurses' experiences in your study because I can see myself in their shoes. You have captured the internal and external factors affecting nurses' implementation of the drug round tabard initiative through your themes.

SSN: I completely agree on the nurses' response as I do the same. I find that most of my colleagues use the tabard only during daytime because there was not enough staff at night.

SSN: I do feel that there are lessons that the managers can learn from this research, one, is to acknowledge the difficulties or challenges nurses are facing while implementing this initiative. They have a role to play for this practice development to succeed.

SSN: Finally, nurses must assume leadership because if they want others to understand why wearing the drug round tabard is necessary, then they must be promoters of the initiative themselves.