



Ulster University ,
Faculty of Life and Health Sciences
School of Nursing and Institute of
Nursing and Health Research
&
Practice Development Unit
Nursing Homes Ireland

A Review of the Literature on Restraint and the use of Bedrails

April 2015

Dr. Kevin Moore
Dr Assumpta Ryan
Ms Gaynor Rhead

**A Review of the Literature on
Restraint and the use of Bedrails**

**Faculty of Life and Health Sciences
School of Nursing and Institute of Nursing and Health
Research
Ulster University
&
Practice Development Unit
Nursing Homes Ireland**

April 2015

**Dr. Kevin Moore
Dr Assumpta Ryan
Ms Gaynor Rhead**

CONTENTS

Page

Abstract and Summary 2

BACKGROUND

Background to the Literature Review & Introduction 8

CHAPTER ONE

1.1 Challenges in the use of bedrails and a link to predictors of use, entrapment, risk of falls and perceptions of restrictive practices..... 9

1.2 Challenges in the use of bedrails and ethical caring for the older person that encompasses alternatives to bedrail use and restrictive practices 14

1.3 Involving the person and the family in collaborative care planning and decision making regarding bedrail use and that maximises on improving staff education..... 16

1.4 An exploration of the policy and legislative agenda on restraint and bedrail use 18

CHAPTER TWO

Key Recommendations 22

Limitations 25

Concluding Comments 26

References 28

ABSTRACT AND SUMMARY

Background:

Independent Nursing Homes Ireland Limited (trading as Nursing Homes Ireland) (NHI), and the NHI Nursing Committee has undertaken a review of its strategic approach to advancing nursing and care practices in its member nursing homes. This has included a regionalisation process of training, a review of education/learning priorities and increased funding mechanisms as well as the identification for on-going research that can support, in a robust manner, the advancement of knowledge and evidence-informed practice in the sector.

NHI had already established informal links with the Person-centred Practice Research Centre (PcPRC) at the Ulster University. The PcPRC focuses on the enhancement of knowledge and expertise in person-centred practice. NHI has subsequently engaged in further research and practice development activities to ensure that nursing care is delivered in a dignified and compassionate way that centres on the needs of residents, who live in Nursing Homes registered with NHI. To this end, the organisation funded this literature review on the use of bed rails to advance knowledge and evidence informed practice guidelines among its members. A position supported by O'Keefe (2013) in his assertion that to offset the rise of bedrails requires improving education and guidance to staff.

The Literature Review on the Use of Bed Rails:

The design and utilisation of bedrails within all health and social care settings has been controversial and indeed mostly contentious since about the early 1950's (Hignett et al., 2013). Bedrails have also been called cot sides, safety guards, bed guards (Noone et al., 1991; HSE, 2011) within the literature, although the National Patient Safety Agency (2007) reported that the term cot side was not a term that the patient's used, insofar as it was perhaps considered derogatory. For the purposes of this review the term bed rail will be operationalised. According to Hignett et al., (2013) issues related to benefits including safety, mobility, support, access to bed controls and disadvantages associated with falls, entrapment and restraint are the

most reported areas within the literature. Healey et al., (2008) had previously identified in a systematic review of clinical studies in bedrails on falls and injuries that around one-fourth of all falls in health care settings are falls from beds. She further suggested that the role of bedrails in falls prevention is controversial with a prevailing orthodoxy that bedrails are harmful and ineffective. A cursory examination of the prevailing literature would indicate that it is not a simple case of cause and effect herein.

Clearly the significance and impact of such a fall for an older person that may have been caused by the use of bed rails will have far reaching and diverse consequences and can possibly result in a concomitant economic increase to effective health and social care provision. Evidence also supports the view that falls increase the likelihood of hospital admission and admission to a nursing home or long-term care facility (Scuffham et al., 2003), and some authors have previously reported on the effects of such admissions (Ryan, 2006; Ryan et al., 2009; Ryan and McCormack, 2012).

However, there remains a scarcity of evidence informed literature in Ireland and the United Kingdom (UK) that reports fully and comprehensively on these complex and interrelated issues which quantifies the effect of the real cost of such a fall in older people. Scuffham et al., (2003) did report that unintentional falls impose a substantial burden on health and social services. There is a need therefore to extrapolate on the antecedents to such fall, the co-existence of patient behaviours at the time of such a fall and more importantly on the individualistic consequences of such a fall for the older person and their significant others. Add to these already complex issues the worldwide demographic trend that elucidates significant global transitions to an older population and of course more challenges will clearly ensue (Moore, 2013; Moore and Ryan, 2014). Moreover, notwithstanding such discourse, there is obviously the need to undertake scientific studies that can provide clarification on the use of bed rails and the issue of falls and injuries.

The Health Service Executive in Ireland issued a policy on the use of physical restraint in designated residential care units for older people in 2010 and this was

followed up by the Department of Health in Ireland (2011) when they issued policy guidance on Towards a Restraint Free Environment in Nursing Homes. The Health Information and Quality Authority [HIQA], (2012) issued a safety alert on the use of bed rails in designated centres, highlighting risks from the incorrect use of bed rails and asserting that bed rails do not always prevent falls and may introduce other risks. These assertions, and thus the policy guidance, are well supported within the published literature (Hospital Bed Safety Workgroup, 2006; National Patient Safety Agency, 2007; Healey et al., 2008; Health Service Executive, 2011; Hignett et al., 2013; Royal College of Nursing, 2013).

Suffice to say therefore that a review of the literature on the use of bed rails is thus considered important to provide practitioners with evidence to guide and inform their daily practices. Indeed Healey (2007) has suggested that unless a systematic approach is adopted with the literature, practitioners will seek out evidence that best fits with their own beliefs or opinions. This latter position could result in direct challenges to such care provision that is based on traditional views rather than on the evidence-based approach to care delivery. O'Flatharta et al., (2014) whose study was conducted in a large Irish teaching hospital with an in-patient population suggested that the use of electric profiling beds, abnormal mental states and difficult transferring from bed remain the main predictors of bedrail use in acute hospitals. They also concluded that inappropriate bedrails is common in those patients with cognitive impairment or with agitation. Some of their conclusions and recommendations could be applicable to the nursing home environment and are also worthy of consideration.

This review will help guide and inform practitioners accordingly by organising in a coherent manner the current published literature on bed rails. Consequently practitioners will be enabled within the scope of their professional practice to deliver appropriate evidenced-based standards of care and to ensure that they are compliant with appropriate legislation, best practice evidence and policy guidance whilst doing so.

Findings:

The literature search included a comprehensive review and application of accepted principles for search strategies within the British Nursing Index (BNI) and The Cumulative Index to Nursing and Allied Health Literature (CINAHL). The BNI is a bibliographic database that indexes articles from about 1994 onwards of the most popular English language nursing journals that are primarily published in the UK but not exclusively so. A total of sixty-four papers were identified within the BNI and entered into the review process. CINAHL covers nursing, biomedicine, health sciences, alternative medicine, allied health and much more published literature. It is a comprehensive and authoritative source of information for nurses and other health professionals, and it is the world's largest collection of over 1600 indexed full-text journals for nursing and allied health. A total of forty-nine papers and reports were identified and entered into the literature review process. Furthermore, a total of sixteen web sites were searched for official UK and Irish Government Reports, legislation and policies papers as it was identified that they contained important and relevant information pertaining to bed rail utilisation and the area of restraint and falls prevention strategies in the wider interpretation of bed rail utilisation.

Conclusion:

There is a clear lack of up to date and empirical evidence and systematic reviews of the literature that demonstrates a consensus of opinions and approaches to care delivery in the area of bed rail utilisation in the context of all aspects of health and social care provision. There is a complete dearth of such literature in its application and exploration within nursing home environments, with only limited reported from the USA. However Haugh et al., (2014) do present dimensional guidelines for bedrails that were developed to minimise the risk of patient entrapment in a large Irish teaching hospital, and their assertions are considered important for any patients for whom bedrails are to be used.

Given the earlier assertions with respect to a growing older population in Ireland, UK and Europe, this only demonstrates the important need for more specifically focussed research in this area. Consequently, not only is this primarily a real cause

for concern, it results in perpetuating confusion for clinical colleagues as to whether they should use or should not use bed rails for their patients/clients/residents? Such a clear lack of research and studies within this area epitomises the position afforded by Healey et al., (2008) in her assertions that the role of bedrails in falls prevention is controversial with a prevailing orthodoxy that bedrails are harmful and ineffective. Compounding this is the complete lack of scientific and empirical evidence from the nursing home sector itself.

The evidence suggests that patients with bedrails appear less likely to fall and less likely to be seriously injured if they do fall. Consequently, neither the elimination of bedrails nor indeed the routine utilisation of them is considered appropriate advice within any health and social care environs. The decision making on bedrail use must be based on an accurate, detailed, comprehensive and individualistic assessment of the person's care needs and preferences, which must always be collaborative with the person (where practical and possible) and/or significant others. Only when this is completed and documented accordingly in the care plan can the use of bed rails be operationalised on an individualistic basis. It is a fundamental partnership with the person and their family, who are actually the 'experts' with the lived experiences and thus should know best. Whilst the core requirement must be a collaborative and individualistic care plan for the person, it is also recommended that it is inclusive of other management strategies that encompass the risks or potentialities for the use of restrictive practices (Healey, 2007; Healey et al., 2008; RCN, 2013). The primacy of such practices must have the person at the centre of their care and direct consultation with families/significant others is considered essential to the effectiveness of this entire process. Ethically and morally the decision making capacity for the person must be an interconnected aspect to the care assessment, care approaches, care delivery and the final decisions made must be based on empirical evidence and should be transparent within the care plan and assessment approaches. Where there exists challenging aspects to the person's behaviour, good practice guidelines would indicate the need for an individualistic behavioural support plan for this person (Royal College of Nursing, 2013), and/or specific emphasis and careful selection of patients for whom bedrails are to be used (Haugh et al., 2014) that again are clearly transparent, documented, collaborative and collegiate.

Whilst the evidence is limited in the quality and quantity of published evidence it does not however support the position that bed rail use should be routinely eliminated completely due to its intrinsic link to causality and risk of falls or restrictive practices. Notably, Healey et al., (2008) in their systematic review of the literature suggested that wholesale reduction of bed rail use may actually increase the risk of falls. O'Flatharta et al., (2014) suggested that at least one-fifth of bedrails use was inappropriate for all patients and at least one-third for patients with abnormal mental status. Therefore if the operationalisation of the bedrails is with the person's consent, or request for them, and their co-operation and that of the family/significant other is available, then such a practice is unlikely to be viewed as restraint of the person, (Healey, 2007; Healey et al., 2008; RCN, 2013). Conversely however, it must be noted that if the person is confused, agitated, restless and presenting with some degree of challenging behaviour, associated with mobility levels that could result in a capacity to climb over a bedrail, then their utilisation is not considered appropriate and therefore this is more than likely to be viewed and construed as either inappropriate, restraint or restrictive practice (RCN, 2013; O'Flatharta et al., 2014; Haugh et al., 2014). Moreover, such practices would not be in keeping with any minimisation of, or alternatives to, restrictive practices within health and social care (Capezuti, et al., 2007; RCN, 2013). The utilisation therefore of such an approach to a person's care package would be difficult to defend either morally, ethically or indeed legally.

The paucity of literature in this area emphasises the essential importance of clinical staff adhering and complying with all legislative and policy guidelines at all times within the operationalisation of their day-to-day practice. Care packages must be clearly transparent and must document clearly the utilisation and reasoning behind the use of bed rails for individual patients. Staff must continue to explore all alternatives and therapeutic caring approaches within the application of assessment protocols and ensure that such approaches take due cognisance of legislation and the underpinning empirical evidence that can fully support and endorse a policy of a restraint free environment.

BACKGROUND TO THE LITERATURE REVIEW

Introduction

A further short paper available by Moore (2015) on the NHI website (www.nhi.ie) details the context and rationale for what constitutes the theoretical underpinnings for a literature review. It sets the context and scope of this report and demonstrates the relevance and complexity of bedrail operationalisation within health and social care contexts, or as O'Keefe (2013) asserts 'bedrails will rise again if we do not improve the education and guidance regarding bedrail use'. It details the importance of a review of the literature under pertinent sub-headings.

These sub-headings present a coherent framework within which to explore bedrail utilisation within this report and are further explored and elaborated upon within Chapter One. Therefore for the purposes of this literature review the main areas identified from the literature which are included within the review are as follows:

- Challenges in the use of bedrails and a link to predictors of use, entrapment, risk of falls and perceptions of restrictive practices
- Challenges in the use of bed rails and ethical caring for the older person that encompasses alternatives to bedrail use and restrictive practices
- Involving the person and the family in collaborative care planning and decision making regarding bedrail use that maximises on improving staff education
- An exploration of policy and legislative agenda on restraint and bedrail use.

These areas will now be critically discussed in more detail within Chapter One. Chapter Two will outline some key recommendations for practice and some key notes about the potential limitations of this literature review and it concludes with a brief summary. The Appendix will contain further information and evidence on some of the literature that was reviewed.

CHAPTER ONE

1.1 Challenges in the use of bed rails and a link to predictors of use, entrapment, risk of falls and perceptions of restrictive practices

Gallinagh et al., (2002) investigated the prevalence and type of restraint used with older people in NI using an observational approach to data collection and found that approximately 68% of the older patients being cared for had some form of physical restraint being utilised, and side rails being the most commonly observed method. They reported that justification for such approaches to care deliver focussed on the need to provide safety and protection for the patient. This, as Horsburgh (2004) alludes relates to the ethical principle of beneficence, in that it is in the patient's best interests; moreover, it also upholds the ethical principle of non-maleficence, in that it prevents the patient from further harm.

In cases where the patient had suffered from stroke there was clear evidence to support the utilisation of bed rails and also screw on top tables as a means of offering positional support and safety for the patient. Whilst the researchers viewed this as a possible form of restrictive practice, they noted that one-third of all patients had some form of recording in their care plans about the use of such practices and some concomitant evidence of patient involvement in the restraining decision making process. This latter point is also fundamental to the utilisation of bed rails and in all circumstances the patient's cognitive, mental and physical state must be the primary considerations. Failure to do so can result in the use of bed rails based on the practitioners own opinions rather than an evidenced approach (Healey, 2007).

Healey et al., (2008) in their systematic review of the effect of bedrails on falls and injuries identified a total of 472 papers and reported that their review was the most comprehensive systematic review and synthesis of published evidence of the effect of bedrails on falls injury (p370) and on the quality and limitations of published research. A total of only 24 papers met the criteria for a systematic review. They suggested that twelve studies reported direct injuries from the use of bed rails and three bedrail reduction studies identified significant increases in falls or multiple falls.

Conversely a control group study that had bedrails raised systematically appeared to demonstrate a decreased likelihood of falls and serious injuries. Healey et al., (2008) did not identify any randomised control trials within this area due to the obvious implications of such a methodological approach and suggested that their level of evidence was less robust than that for a Cochrane review or meta-analysis.

Despite these limitations and the weaknesses within some of the published literature reviewed the empirical evidence does not support the orthodoxy that bedrails increase the likelihood of falls and injury, or that bedrails result in an inherent risk of fatal entrapments (Hoffman et al., 2003; O'Keefe, 2004; Healey et al., 2008). Healey and Oliver (2006) had reported that approximately a quarter of all falls in hospitals are from beds. This suggests a correlation between bedrails, falls and potential injuries. However the evidence suggests that the individualistic nature of the patients care and condition must be taken into consideration and a closer examination of reasons why certain patients are more likely to fall than others is not strictly linked solely to the use of bedrails.

A total of only five studies explored the impact of falls and injury within nursing homes and these were USA studies (Healey, 2007), and particular caution must be exercised in incorporating these findings as the legislation and the utilisation of restraint to the body is fundamentally different. Healey (2007) provides a critical analysis of these specific studies in more detail and one key recommendation is that they have limited reference to UK settings.

Much of the published literature makes such an assumption and directly correlates the direct use of bedrails with restrictive practices (Todd et al., 1997; Nay and Koch, 2006; Hughes, 2008; McCabe et al., 2011; Griffiths, 2014). Manufacturers of bedrails are quite clear however and they identify that the use of bedrails must be viewed as increasing patient safety in clinical nursing practice particularly where the individualistic needs of the patient warrant bedrail use to prevent slipping, falling or rolling out of bed. However, evidence reported by Hignett et al., (2013) who collected data in their study on over 2219 different types of beds which included a total of 1799 occupied beds suggested that for 65% of patients who were confused, all bedrails were raised in caring for them, twice as likely for patients not described

as confused. They also pointed out that this was a cause for concern and whilst their research was supportive of previously published literature (O’Keeffe et al., 1996; Royal College of Physicians, 2011) it nonetheless indicated higher point prevalence. The two primary reasons afforded by nurses for using bedrails was preventing falls from the bed and supporting patient autonomy, and whilst Hignett et al., (2013) suggested that this was clinically appropriate, the proportion who suggested they were used for confused patients was of course not appropriate. This latter point concurs clearly with the HSE (2011) position on when bedrails should not be used (p18).

From an Irish perspective O’Flatharta et al., (2014) reported inappropriate use of bedrails was common practice (observed in one-fifth of all patients) particularly for patients that had some degree of agitation or cognitive impairment (observed in one-third of all patients) and indicated that this group of patients was generally indicative of more hazards for bedrail use. Of further concern was also the fact that O’Flatharta et al., (2014, 801) also reported that reasons given by staff for bedrail use supported the notion that bedrails were being used, unadvisedly, as a restraint for many patients. This is also contrary to the existing guidance and legislation in Ireland. They also reported on the difficulties inherent on relying on nurses’ descriptions to determine the physical and cognitive status of their patients and thus they implemented more detailed evaluations of individual patient mobility and mental status in their research. They concluded that electric profiling beds, confusion and reduced alertness and difficulty with bed transfers were generally predictors for bedrail use. They also reported interestingly that failure to use bedrails was potentially inappropriate in one-sixth of those patients without bedrails.

A further Irish study conducted by Haugh et al., (2014) also reported on high frequency of potential entrapment gaps in beds within a large acute Irish teaching hospital. They surprisingly reported that many beds used in the hospital did not comply with dimensional standards to minimise entrapment risks, and they suggested that only one such study with similar degrees of testing of bed devices had been performed previously, but had not been published in the literature as it was a student project. Haugh et al., (2014) reported that two recurring issues presented which they suggested accounted for many of the failures. Firstly, mattresses were

the wrong size, usually too narrow or their perimeters were too compressible and secondly, bedrails were too loose or were poorly maintained with bent or worn components which allowed significant lateral movement. Their study advocated the importance of careful patient selection for whom bedrails are to be used as well as the ongoing need for monitoring and maintenance of bed systems.

Therefore the literature abounds with published papers extrapolating on the issue of restraint and restrictive practices. According to the RCN (2013) restrictive practice is referred to as:

“The implementation of any practice or practices that restrict an individual’s movement, liberty and/or freedom to act independently without coercion or consequence and it can take many forms”.

RCN (2013, 16)

The RCN (2013) published significant guidance to nursing practitioners in the UK following on from the exceptionally poor press that had resulted from the use of direct restraint and abuse of patients in Winterbourne View, a private hospital for adults with learning disabilities and challenging behaviour. The RCN (2013) advocated the utilisation of a behaviour support plan for patients wherever restrictive practices are included in a care package for a patient to ensure adequate support due to their patient histories and care needs. The RCN (2013) advocate that the patient must be assessed carefully and all considerations given to any potential restriction of civil liberties to ensure compliance with Article 5 (1) of the European Convention on Human Rights (1950). They put forward taxonomy of restrictive practices along with specific definitions to ensure safe and ethical application of restrictive practices. Notable the use of any device to prevent, restrict or subdue movement of a person’s body, or part of their body, for the primary purpose of behavioural control can be viewed as a restriction of civil liberties.

The recommendations within the HSE (2011) policy on the use of physical restraints in designated residential care units for older people is inclusive of some positive aspects of these more recent RCN (2013) proposals but perhaps falls short in some areas and could include a taxonomy for practitioners to refer to when the patient’s situation is complex and challenging. Whilst there is an emphasis on appropriate

risk assessments and assessment outcomes it does not provide sufficient direction for practitioners on behavioural support issues or behavioural support plans as advocated by the RCN (2013). Horsburgh (2014) outlines key considerations for practitioners on the how and when patients can be restrained and perhaps these should also be extrapolated upon further by the Health and Safety Executive and The Health Information and Quality Authority. Moreover it is notable that the importance of careful patient selection, staff education and the utilisation of risk matrix tools, particularly where the client may have cognitive impairment are also advocated strongly within the literature (O’Keefe, 2013; RCN, 2013; O’Flatharta, 2014; Haugh et al., 2014), and significant lessons can be learnt herein for effective implementation of bedrails within all health and social care environs.

1.2 Challenges in the use of bedrails and ethical caring for the older person that encompasses alternatives to bedrail use and restrictive practices.

This report has identified earlier the important ethical principles of beneficence and non-maleficence as underpinning considerations in caring for older people. Many published articles report on multiple ethical considerations and emphasis on person centred practices (Horsburgh, 2003; Goethalas, 2013; Keeling, 2013; Penhale, 2010; Weeks, 2010). The RCN (2013) reports that key principles must protect and honour human rights at all times and that people must be treated with compassion, dignity and kindness. A positive relationship between the service user and the service provider must be protected and preserved and all services must keep people safe and free from harm. Clearly these are important guiding principles in caring for a person and are central to effective caring practices. Moore (2013) states that the promotion of dignity, independence, autonomy, fulfilment and respect for the patient/resident as core aspects to a valuing of the person within the therapeutic care giving relationship should be clearly evidenced within care practices and cannot be underestimated.

All nurses must ensure that their practice is in accordance with all of the specific Principles as detailed within the Code of Professional Conduct and Ethics (Nursing and Midwifery Board Ireland [NMBI], 2014). Principle 1 asserts the centrality of

respect for the dignity of the person, whilst Principle 2 asserts the centrality of professional responsibility and accountability for one's actions. The NMBI (2014, 13) Code of Professional Conduct and Ethics specifically provides guidance on issues of consent and capacity particularly in circumstances where a patient appears to lack understanding or is unable to communicate a choice about a treatment or procedure. How does an ethical conflict arise in nursing practice therefore?

The principle of autonomy dictates that the individual has the right to choose and to do as they want to do. It is the interpretation and application of this principle in nursing practice if it is believed that the bedrails interfere with or stop the individual doing what it is they appear to want to do. If this is the case then deprivation or restriction of liberty or freedom of action or movement comes into play. Some studies have included the use of bed rails as restraint and some studies have not done so and this means that rates of prevalence and direct comparisons cannot take place. Furthermore caution is recommended when including particular studies if clear inclusion or exclusion definitions have not been provided by the authors.

Of the studies previously reported nurses indicated that the primary reason for using bedrails was the issue of patient safety, yet high rates of bedrails use was also reported in confused patients, for whom their use is clearly problematic especially if they have the power and mobility to climb over rails. Although Healey (2007) had previously indicated that UK guidance is clear that bedrails are not a form of restraint if used to protect patients from accidentally falling out of bed, or if used for immobile patients. Bedrails used to stop a patient getting out of bed would be a form of restraint (Healey, 2007, HSE, 2011). Central therefore to the application of ethical caring will be the comprehensive assessment of the patient using appropriate and evidence-based methodological approaches and the involvement of their family/significant others. The issue of informed consent will be crucial in any process of using bedrails. Cohen et al., (2011, 78) suggested that consideration should be given to the following issues as a guideline for assuring reasonably informed consent for persons and these are as follows:

1. *A fair explanation of the procedures to be followed and their purposes*

2. *A description of the attendant discomforts and risks reasonably to be expected*
3. *A description of the benefits reasonably to be expected*
4. *A disclosure of appropriate alternative procedures that might be advantageous*
5. *An offer to answer any queries*
6. *An instruction that the person is free to withdraw consent and to discontinue participation at any time without prejudice.*

The role of the multi or inter-disciplinary team is also conducive to the provision of effective care principles in this regard. Further points for consideration under section 1.4 should also be noted under this section and particularly the issues inherent to ensuring proportionality of restrictive practices with individuals. Hamers (2014) pointed out that nurses' attitudes were primarily characterised by negative feelings towards physical restraint use, but they also still perceived the need for using physical restraints in clinical practice. She suggested that this discrepancy led to moral conflicts and the use by nurses of several strategies to cope with these conflicts. She asserted that when nurses were in doubt regarding restraint use, they decided predominantly in favour of using them.

1.3 Involving the person and the family in collaborative care planning and decision making regarding bedrail use and that maximises on improving staff education

Some of the reported studies in the literature identify that some care plans for patients where bedrails are used had recorded their participation in the decision making process (Healey et al., 2008), and it was suggested that patient involvement and consent is fundamental to the use of bed rails. The HSE (2011, 18) asserts specific patient characteristics for consideration prior to bed rails being used and in particular they recommend:

"In all circumstances consideration of the resident's mental and physical condition must take place and a documented risk assessment must be completed"

The fact that some of the studies have reported that bedrails are operationalised with patients who are confused presents a concern for the delivery of compassionate and responsive care delivery and can be interpreted as a direct restriction of human

liberty as previously asserted. This is further compounded if the bedrail is used with a confused and relatively mobile patient who may proceed to climb over the rail. Healey (2007) provided additional evidence from a review of seven UK hospitals that indicated that staff were very familiar with the risks associated with this type of patient and reported that only a small proportion of bedrail use, less than 1%, had been reported in this type of client group.

However, Capezuti et al., (2007) in a study in nursing homes presented additional evidence regarding the potential risks of certain patients climbing over the bedrails resulting in the likelihood of severe injury caused by a fall from a greater height, thus gravity adding a compounding variable to potential injury. Healey (2007) in her literature review presented sufficient evidence that would refute the validity of these earlier findings and the general conclusion was that falls from beds with bedrails appeared to result in lower proportions of injury. Healey (2007) thus asserted that this suggested that staff are avoiding bedrail use in this type of patient.

Fundamental of course to bedrail use will be the resident/patient involvement in the discussions and decision making process. In the case of a client that is confused it is reasonable to expect that the family/significant others will be able to provide their views and interpretations on how their family member should be treated (HSE, 2011). Every reasonable effort must be made to provide a collaborative approach to this involving the patient themselves and if possible their own views must be taken into account. The RCN (2013) advocated the importance of partnerships with users of services and the people who know the person best as a fundamental approach to complex client situations, particularly if the client had challenging behaviour, psychiatric illness or engaged in behaviour likely to cause harm.

The patient/resident who is unable to provide consent presents a greater challenge to the complexities of providing safe, compassionate, dignified and humane standards of care, particularly in an emergency situation. The HSE (2011) clearly articulates Irish Law in these circumstances and cites the work of Madden (2002) and the fact that one does not lose the right to autonomy and dignity with the loss of their mental capacity, and that the constitutional right of bodily integrity and privacy

as well as respect for the person applies in equal measures regardless of the ability to communicate their consent to or refusal of treatment.

The RCN (2013) provide key recommendations for the operationalisation of what they refer to as Behaviour Support Plans (BSP) for complex client situations wherever restrictive practices are included within the overall care approach. More detail on these recommendations are provided in Section 2.5 within an exploration to alternatives to bedrail use and restrictive practices.

The HSE (2011) accepts that while family members cannot give consent for the use of restraint, they should be involved in the decision making process. This review of the literature indicates that such discussions and collaboration with families/significant others are fundamental to provision of appropriate and safe standards of dignified care. Moreover, it clearly dispels any possible myth that a family member can request or prohibit the use of any form of restrictive practices with their loved one; as such application is primarily a clinical decision that will seek to involve them in collaborative and partnership decision making.

1.4 An exploration of policy and legislative agenda on restraint and bedrail use.

The law with respect to issues relevant to restraint and restrictive practices is continuously evolving and changing and it is interconnected to other important issues such as informed consent, mental capacity and deprivation of human liberties. Moreover statutory and common law defences may be applicable to certain restrictive practices according to the RCN (2013) where reasonable force has been used for the purposes of self-defence or the defence of others. The following is a list of the most commonly cited policies and legislation in the UK and Ireland:

- In England, the Mental Capacity Act (2005) & the Mental Health Act (2003) is most often cited.
- In NI, the Mental Health Order (NI) (1986) is most often cited.

- Under Section 8(1) b of the Health Act (2007) HIQA has the function of setting Standards on the Safety and Quality of Health and Social Care Services provided by the HSE or a service provider in accordance with the Health Acts 1947 to 2007, Child Care Acts 1991 and 2001, the Children Act 2001 and Nursing Home Services as defined in section 2 of the Health (Nursing Homes) Act 1990.
- Towards a Restraint Free Environment in Nursing Homes (2009) DoH Ireland, asserts the importance of Principle 14 of the United Nations Principles for Older Persons.
- National Quality Standards for Residential Care Settings for Older People (2009).
- HIQA Standards for Residential Care (2009).
- HSE Policy on the Use of Physical Restraints in Designated Residential Care Units for Older People (2010) Revised Dec. (2011).
- HIQA National Standards for Safer Better Health Care (2012).
- Royal College of Nursing consultation (2013). Draft guidance on the minimisation of and alternatives to restrictive practices in health and adult social care, and special schools.
- The European Convention on Human Rights (1950).

Some of the studies reported in this literature review clearly demonstrate that due cognisance is not given by practitioners to the policy nor legislative agenda when it comes to the selection of patients for whom bedrails have been operationalised either within the UK or Irish contexts (Healey, 2007; Haugh et al., 2014; O'Flatharta et al., 2014). Of notable concern was the utilisation of bedrails and their interconnected nature to that of restraint and/or restrictive practices for the patient. Of more concern is the direct utilisation of bedrails in patients for whom the evidence suggests are at greater risk of entrapment or falls, the agitated patient and the patient with a degree of cognitive impairment. The incidence and costs of unintentional falls in older people in the UK has been clearly documented in the literature (Hoffman et al., 2003; Scuffham et al., 2003; National Patient Safety Agency, 2007; Sands et al., 2010).

Clearly therefore it is vitally important that all practice standards are underpinned by best practice standards, policy and legislation, which are evidenced within the overall care package for the patient. This will ensure that individualistic challenges to the use of bedrails for a patient either from a moral, ethical or legal perspective can be robustly justified when the practitioner refers to the patient's care plan or inherent risk factors. The RCN (2013) have also advocated a positive behavioural support plan for challenging patients and as such good practice standards would be indicative of incorporation of these principles also that helps to minimise and reduce restrictive practices.

The National Patient Safety Agency (2007) suggested the issue of restraint could be explored under broad everyday definitions that generated understanding, meanings and interpretations of the concept of restraint and that these were most useful. However, they suggested that scientific and legal definitions might be more significant. A scientific definition was one that might be applied as a criterion for collecting data in a study that met a specified definition. A legal definition was one that set out what is and what is not permitted by law. It is important to note that this also varies slightly from one country to another.

Restraint and restrictive practices have been classified within the literature generally into the following areas:

- Physical or manual, which results in restrictive physical interventions.
- Chemical, forced medication or rapid tranquillisation.
- Mechanical, the use of devices to restrict or subdue.
- Environmental.
- Psychosocial or psychological or verbal.
- Seclusion or confinement of the person alone.
- Long term segregation of the person.

The RCN (2013, 16) defined restrictive practices as:

“The implementation of any practice or practices that restrict an individual's movement, liberty and/or freedom to act independently without coercion or consequence”.

The HSE (2011, 6) offered comprehensive guidance on restraint and they postulate the following definition:

“Any physical, chemical or environmental intervention used specifically to restrict the freedom of movement – or behaviour perceived by others to be antisocial – of a resident designated as receiving care in an aged care facility. It does not refer to the equipment requested by the individual for their safety, mobility or comfort. Neither does it refer to drugs used – with informed consent – to treat specific, appropriately diagnosed conditions where drug use is clinically indicated to be the most appropriate treatment”.

However, in clinical practice whilst such broad everyday definitions may be useful initially in determining the care a person should receive, it may not be as useful in making such a determination when there is some uncertainty about what a person wants to do. Making such a determination and translating this into everyday practice is the challenge for nurse practitioners particularly in dealing with patients who are cognitively impaired and mobile. Allen et al., (2009) reported that the evidence suggests that restrictive practices are primarily influenced by environmental, interpersonal and contextual factors; unclear policies and guidelines; overcrowding; poor care environments; low or inflexible working numbers; inexperienced staff; poor staff retention and poor information sharing.

The DoH (2009) in their policy for a Restraint Free Environment in Nursing Homes asserted the fundamental Principle, No 14, of the United Nations International Plan of Action on Ageing (1992) which states:

“Older persons should be able to enjoy human rights and fundamental freedoms when residing in a shelter, care or treatment facility, including full respect for their dignity, beliefs, needs and privacy and for the right to make decisions about their care and the quality of their lives”.

The RCN (2013) reports on the need for proportionality as a core principle that underpins the Human Rights Act (1998). They stated that there is a centrality between the general interests of the community and the protection of an individual’s fundamental rights. The RCN (2013) further report a four-pronged test of proportionality to provide a structured approach to assist in choosing between

various options connected with the care and treatment of an individual who has been assessed as lacking capacity to make their own decisions:

1. *Does the measure in question pursue a sufficiently important objective?*
2. *Is the proposed measure rationally connected with that objective?*
3. *Are the means adopted no more than necessary to achieve that objective?*
4. *Does the measure achieve a fair balance between the interest(s) of the individual and the wider community?*

(Royal College of Nursing, 18)

The Code of Professional Conduct and Ethics (NMBI, 2014) states clearly that if it is determined that a patient lacks capacity you should:

- *take into account the person's previous directions and wishes, if known;*
- *discuss the case with appropriate family members, carers or guardian;*
- *discuss the case with other members of the healthcare team;*
- *take into account (if possible) the expressed views of the person who lacks capacity in making a treatment or care decision.*

The Code of Professional Conduct and Ethics (NMBI, 2014, 13)

CHAPTER TWO

Key Recommendations

It should be noted that the risk of fatal entrapment and serious injury is real, although extremely rare in hospitals and information relating to nursing homes is exceptionally limited. The risk of fatal entrapment is not random, and can be reduced further by following advice on using bedrails safely from manufactures and local policies. Bedrail reduction programmes may also result in increases in falls and risk of falls (National Patient Safety Agency, 2007; Healey et al., 2008). In this review of the literature practitioners should note and give due consideration to all legislative and policy guidance in effect at the time. In consideration of this review practitioners should also note the following key points and recommendations carefully when the use of bedrails is considered as part of the patients care package within the nursing home sector:

- Bedrails are not suitable for a patient with severe confusion who is mobile enough to climb over them, (Healey et al., 2008). Their use in these circumstances can be viewed as restraint or restrictive practice and whilst the evidence from some Irish studies (O'Flatharta et al., 2014) identifies the prevalence of such use in this type of patient, they assert that it is a serious cause for concern.
- For patients who request bedrails in a consultative or collegiate manner with staff and family involvement, or who are incapable of leaving their bed without help, bedrails are unlikely to be viewed as a restraint, or a restriction of their independence, dignity or civil liberties.
- For patients without decision making capacity, staff should exercise a moral and ethical duty to care and to act in their best interests underpinned by a realistic assessment and regular review and evaluation of care and their individual risks of bedrail use or non-use. These should also be clearly documented in the care plan.
- Neither the elimination of bedrails, nor routine bedrail use, is considered an appropriate caring intervention. Decision making on bedrails needs to be based on an assessment of risks and benefits as they apply to the

individualistic needs of the patient. The care plan should contain evidence on the risk assessment matrix that has been operationalised for this resident.

- Whilst the evidence base is limited in quality and quantity, it does not support the prevailing orthodoxy that bedrail use should be eliminated or strictly curtailed on the basis of bedrail effects on falls, injury in falls or direct injury, and suggests wholesale bedrail reduction may increase the risk of falls (Healey et al., 2008).
- Practical and ethical considerations mean bedrails are not usually suitable for patients who could be independently mobile without them or for a patient with capacity who does not want them (Healey, 2007). Consideration to the legal position and policy direction must be observed herein.
- Can alternatives to bedrails be operationalised for this particular patient?
- Can alternatives to restraint or restrictive practices be evaluated and evidenced within the individuals care plan?
- Can restraint reduction programmes be evaluated for this environment and have these been documented within the patient's care plan?
- Can the nursing home assess and document the prevalence and predictors of restraint use and/or restrictive practices both within the overall care environment and particularly for this patient?
- When restraint or restrictive practices have been used, is there clear evidence of the assessment approaches used and does the care plan document any problems, concerns and/or possible alternative solutions?
- Have the reasons for the use of bedrails been clearly documented in the patients care plan using a validated assessment tool that takes due cognisance of multiple areas of risk; and is due consideration of the patient and family wishes evidenced?
- Has appropriate attention to the issue of informed consent been obtained and properly documented in the care plan where bedrails are used?
- Has an issue of patient safety been documented? Falling over and out of bed. What evidence is there of a collaborative and collegiate approach to the effective management of this issue of patient safety?
- Has an issue of patient safety been documented? Is there evidence of ongoing Monitoring and Reviews of the use of bed systems, mattress

utilisation and bedrails utilisation? Are these clearly evidenced, documented, and evidenced-based and in the care plan?

- For residents who are judged to be at risk of injury from falling, there are many strategies other than restraint that have been advocated within the literature. Is there evidence within the care plan of an evidenced-based approach and risk assessment?
- Has an issue of patient safety been documented? Is this resident prone to wandering and is there evidence that the promotion of safe walking is included in care package?
- Has an issue of patient safety been documented? Is this resident disturbed or are they presenting with challenging behaviour? Note there are issues arising related to definitions, evidence, causes and alternative responses? What do the nurses consider to be the ABC of challenging behaviour for this patient? The Antecedents (A), observable Behaviour (B) and Consequences (C) of their actions/behaviour?
- If issues of challenging behaviour have been identified, is there evidence to support the operationalisation of a Behaviour Support Plan (BSP) that has been put together in partnership with the resident and that includes both primary and secondary strategies which aim to prevent the use of restrictive practices (RCN, 2013)
- As most studies are USA or UK based and not Ireland based are staff training programmes and organisational issues clearly evident that promotes improving education and guidance on the use of bedrails?
- The evidence suggests that in the UK that antipsychotic drugs are being used instead of physical restraint, and so to reduce restraint one might increase the use of the other. Do care plans clearly document the utilisation of any forms of chemical restraint and are rapid tranquilisation policies in existence and adhered to accordingly?
- Where PRN medications are to be administered are these governed by a specific policy? Moreover, do these concur and take due cognisance of Practice Standards and Guidelines for Nurses and Midwives with Prescriptive Authority (NMBI, 2010); Guidance to Nurses and Midwives on Medication Management (An Bord Altranais, 2007) and Principles 1-5 within the new Code of Professional Conduct and Ethics (NMBI, 2014)?

- Change may be needed not just in the clinical practice of individual staff, but also in areas such as environmental design and organisational policies? Is there evidence that supports the existence of appropriate policies for this care environment?

Limitations

There are a number of limitations to this review of the literature. Firstly, this is not a systematic review of the literature nor does it satisfy the research criteria for a Cochrane review of the literature. This may limit the generalizability of the review. However, given the nature of Nursing Homes Ireland's provision across Ireland, it is fair to say that the review was reasonably representative of the published literature on the use of bedrails and the wider contextual areas therein at this time. The report's findings herein can thus add to the debate regarding the effective utilisation of bedrails within the nursing home sector provision.

Secondly, the definition of what constitutes restrictive practices and the correlation of falls and entrapment and the link to bedrails is not always abundantly clear in some of the published literature, with some authors choosing to link these areas emphatically and others choosing not to link these areas at all. Determining what constitutes a confused or agitated patient presents further difficulties for interpretation within some of the published literature with evident discrepancies, and subsequent limitations with respect to findings also. This can result in further ambiguity and lack of clarification for staff working in the nursing home sector.

Suffice to say however, that nursing home staff should take due cognisance of the advice on careful patient selection for whom bedrails are to be used as well as ongoing monitoring and maintenance of bed systems that have been advocated by Haugh et al., (2014). Of equal consideration for nursing home staff is the importance of improving education and guidance on bedrail use for all staff which has been strongly advocated by O'Keefe et al., (2013). Furthermore, giving due cognisance and consideration to these aforementioned assertions, coupled with the necessity of ensuring that constant and periodic reviews are in place, that enables the minimisation of inappropriate bedrail use in patients who are agitated or cognitively

impaired (O'Flatharta et al., 2014), will clearly enhance and assure quality standards of practice in bedrail utilisation in the nursing home sector in Ireland.

Finally, this review has primarily included published papers from hospital and community contexts, with negligible papers emanating from the nursing home sector itself. Moreover, it has not sought to exclude papers that explored the use of bedrails for medical, surgical or other patients who may perhaps not necessarily fall within the normal age category nor typology of residents being cared for within the nursing home sector. This could once again reduce the generalizability of the reviews findings within the nursing home sector. However, given the nature and contexts of the research methodologies within which many of the published papers are situate, it is fair to state that many of the assertions and recommendations made are applicable across the wider health and social care environs. In fact it is this assertion that is made by many of the authors who have published widely within this area. It would thus be considered self-limiting if such research and published papers were just limited to the sites or patients included within the reported studies and no inferences or recommendations for best practice made for the nursing home sector in Ireland.

Concluding Comments

This review of the literature suggests that the empirical evidence on the utilisation of bedrails is quite limited and when this is extended to include the nursing home sector, there is a dearth of reliable and robust studies. Some studies of merit and note have been published from an Irish perspective (O' Keefe, 2013; O'Flatharta et al., 2014; Haugh et al., 2014) and from a UK perspective (Healey, 2007; Healey et al., 2008). This would suggest that there is a need for much more research within this important and often controversial area of health and social care, that clearly is inclusive of older people within the nursing home sector.

Studies that have been reported within the literature are not necessarily scientific studies and do not necessarily satisfy the higher methodological requirements for empirical research, but they nonetheless do add to the body of knowledge within this important area. The fact that older people exclusively nor the nursing home

environment are not necessarily central within the published literature does not necessarily infer that the published literature cannot offer the nursing home sector core recommendations for enhancing practice standards in the use of bedrails.

Caution must be exercised with the interpretation of some reported studies on bedrail use as some authors have clearly linked such practice with that of restraint and others have not done so. Such a link without extrapolation on issues related to restrictive practices is not appropriate. Where care plans and family/resident collaborative consultations exist, that make reference to a risk assessment; a risk matrix; legislation; policy and good practice initiatives in the use of bedrails, this must be advocated. Further, it should be viewed as an appropriate strategy for maximising and ensuring dignified and compassionate care.

To conclude therefore, the paucity of literature in this area can only but emphasise the essential importance of all nursing home staff adhering and complying with all legislative and policy guidelines at all times within the operationalisation of their day-to-day practice. Care packages and care plans must be clearly transparent and must document the utilisation, reasoning, ongoing monitoring and reviews that underpin the use of bedrails for individual patients. Nursing home staff should continue to explore all alternatives and therapeutic caring approaches within the application of assessment methodologies and protocols that can ensure due cognisance of legislation and the underpinning empirical evidence that fully supports and endorses a policy leading to that of a restraint free environment.

References

- Allen, D., Lowe, K., Brophy, S., and Moore, K., (2009). Predictors of Reactive Strategy Use in People with Challenging Behaviour. *Journal of Applied Research in Intellectual Disabilities*. 22: 159-168.
- An Bord Altranais. (2007). *Guidance to Nurses and Midwives on Medication Management*. Nursing and Midwifery Board Ireland.
- Capezuti, E., Wagner, L.M., Brush, B.L., (2007). Consequences of an intervention to reduce restrictive side rail use in nursing homes. *Journal American Geriatric Society*. 55: 334-41.
- Cohen, L., Manion, L., and Morrison, K., (2011). *Research Methods in Education*. 7th Edition. London. Routledge Taylor and Francis Group.
- Curtin, L.L., (2004). The Coming Gerontocracy: Social and Ethical Ramifications. *Policy, Politics and Nursing Practice*. 5: 196-204.
- Department of Health, (2011). Towards a Restraint Free Environment in Nursing Homes. DoH. An Roinn Slainte, Ireland.
- European Convention on Human Rights (1950). Council of Europe.
- Gallinagh, R., Slevin, E., & McCormack, B., (2002). A systematic review of the literature on the utilisation of bedrails/side-rails and a correlation to physical restraint. *Journal of Nursing Management*. Volume 10, Issue 5. 299-306.
- Goethals, S., De-Casterle, B., Gastmans, C. (2013). Nurses decision-making process in cases of physical restraint in acute elderly care, A Qualitative Study. *International Journal of Nursing Studies*. (5): 603-12.
- Griffiths, P., (2014). A necessary evil? Nurses and the use of physical restraints in the care of older people. *Journal of Nursing Studies*. 51 (2): 175-76.
- Hamers, J.P.H., (2014). Review: nurses predominantly have negative feelings towards the use of physical restraints in geriatric care, though some still perceive a need in clinical practice. *Evidenced Based Nursing*. Published online July 4th and Available at <http://ebn.bmj.com/> Last Accessed March 2015.
- Haugh, J., O'Flatharta, T.O., Griffin, T.P., and O'Keefe, S.T., (2014). High frequency of potential entrapment gaps in beds in an acute hospital. *Age and Ageing*. 43: 862-865.
- Healey, F., (2007). *Bedrails – reviewing the evidence*. National Patient Safety Agency. London.
- Healey, F., Oliver, D., Milne, A., and Connelly, J.B., (2008). The effect of bedrails on falls and injury: a systematic review of clinical studies. *Age and Ageing*. 37: 368-378.

Health Information and Quality Authority. (2009). *Standards for Residential Care*. HIQA. Ireland.

Health Information and Quality Authority. (2012). *Safety Alert 004/2102*. HIQA. Ireland.

Health Information and Quality Authority. (2012). *National Standards for Safer Better Health Care*. HIQA. Ireland.

Health Services Executive (2011). *Policy on the use of physical restraints in designated residential care units for older people*. Health Services Executive, Ireland.

Hignett, S., Sands, G., Fray, M., Xanthopoulou, P., Healey, F., and Griffiths, P., (2013). Which bed designs and patient characteristics increase bed rail use? *Age and Ageing*. 42: 531-535.

Hoffman, S.B., Powell-Cope, G., MacClellan, L., Bero, K., (2003). Bedsafe – A Bed Safety Project for Frail Older Adults. *Journal of Gerontological Nursing*. 29 (11): 34-42.

Horsburgh, D., (2004). How, and when, can I restrain a patient? *Post-graduate Medical Journal*. 80: 7-12.

Hospital Bed Safety Workgroup. (2006). A Guide for Modifying Bed Systems and Using Accessories to Reduce the Risk of Entrapment. <http://www.fda.gov/MedicalDevices/Productsandmedicalprocedures> Last Accessed 14th Jan 2015.

Hughes, R., (2008). Older people falling out of bed: restraint, risk and safety. *The British Journal of Occupational Therapy*. Vol 71, No 9: 389-392.

Keeling, C., (2013). Practical and ethical use of bed rails. *Nursing and Residential Care*. Vol 15. Issue 4: 220-233.

Madden, D., (2002). *Medicine, Ethics and the Law*. Butterworth Publishing. UK.

McCabe, D., Alvarez, C., and McNulty, R., (2011). Perceptions of physical restraints use in the elderly among registered nurses and nurse assistants in a single acute care hospital. *Geriatric Nursing*. Vol 32. Issue 1. 39-45.

Moore, K.D., (2015). *How to Conduct a Review of the Literature on Restraint and the use of Bedrails*. Faculty of Life and Health Sciences, School of Nursing and Institute of Nursing and Health Research, Ulster University and Nursing Homes Ireland. Available at www.nhi.ie

Moore, K.D., (2013). *An Exploration of the Roles, Responsibilities and Services Provided by Home Care Workers: A Grounded Theory Study*. PhD Thesis University of Ulster. University of Ulster Repository.

Moore, K.D., and Ryan, A.A., (2014). "To Keep a Person in their own Wee Corner". Evaluating the Role of Home Care Workers in Health and Social Care Using a Grounded Theory Approach: Chapter 11 pp 197-220: In *Evaluation as a Tool for Research, Learning and Making Things Better*. Ed: Satu Kalliola. Cambridge Scholars Publishing, Newcastle Upon Tyne.

National Patient Safety Agency (2007). Resources for Reviewing or Developing a Bedrail Policy. London. NPSA.

National Quality Standards for Residential Care Settings for Older People in Ireland. (2009). Health Information and Quality Authority. HIQA. Ireland.

Nay, R., and Koch, S., (2006). Overcoming restraint use: examining barriers in Australian aged care facilities. *Journal of Gerontological Nursing*. 32 (1): 33-38.

Noone., I., Fleming, H., Crowe, M and O'Keefe, S., (1991). Use of cotsides in an Irish Hospital. *Irish Medical Journal*. 92: 134-5.

Nursing and Midwifery Board Ireland [NMBI]. (2010). *Practice Standards and Guidelines for Nurses and Midwives with Prescriptive Authority*. Nursing and Midwifery Board Ireland.

Nursing and Midwifery Board Ireland [NMBI]. (2014). *Code of Professional Conduct and Ethics*. Nursing and Midwifery Board Ireland.

O'Flatharta, T.O., Haugh, J., Robinson, S.M., and O'Keefe, S.T., (2014). Prevalence and predictors of bedrail use in an acute hospital. *Age and Ageing*. 43: 801-805.

O'Keefe, S. T., Jack, C.A., Lye, M., (1996), Use of restraints and bedrails in a British hospital. *Journal of the American Geriatric Society*. 44:9, 1086-1088.

O'Keefe, S. T., (2004), Down with bedrails? *The Lancet*. 363 9406 pp.343-344

O'Keefe, S. T., (2013), Bedrails rise again. *Age and Ageing*. 42: 426-427.

Oliver, D., Daly, F., and Martin, F.C., (2004). Risk factors and risk assessment tools for falls in hospital in-patients: a systematic review. *Age and Ageing*. Vol. 33. No 2: 122-130.

Penhale, B., (2010). Risks and Restraint-free Care of Older People: Person-centred approaches in health and social care. *The Journal of Adult Protection*. Vol 12. Issue 4: 46-47.

Redfern, S.J., and Ross, F.M., (2006). *Nursing Older People* 4th Edition London: Churchill Livingstone.

Regulation and Quality Improvement Authority Northern Ireland [RQIA, NI], (2011). *The Regulation and Quality Improvement Authority Submission to the HSC Review. Informing and Improving Health and Social Care*.
http://www.rqia.org.uk/cms_resources/RQIA%20Submission%20to%20HSC%20Revi

[ew%20Team%2C%20Nov%2011.pdf](#) Last Accessed, 8th April 2012.

Royal College of Nursing (2013). Draft guidance on the minimisation of and alternatives to restrictive practices in health and adult social care, and special schools. Royal College of Nursing. London.

Royal College of Physicians. (2011). Report of the 2011 Inpatient falls pilot audit. London. RCP, 2012.

Ryan, A.A., (2006). *Rural Family Carers' Experiences of the Nursing Home Placement of an Older Relative: A Grounded Theory Approach*. University of Ulster PhD Thesis. Northern Ireland: Bar Code: 100500931: University of Ulster.

Ryan, A.A., McCann, S., and McKenna, H.P., (2009). Impact of community care in enabling older people with complex needs to remain at home. *International Journal of Older People Nursing*. 22-32.

Ryan, A.A., McCormack, B., (2012). The Mental Health of Older People in Primary Care: a Review of the Literature. *FEASA – Newsletter of the All Ireland Gerontological Nurses Association*. (Living Well in Later Life: Nursing for Strength). Issue 4, Vol. 1, May 2012, p29, 31 – 33.

Sands, G., Hignett, S., Youde, J., and Griffiths, P., (2010). *The contribution of environmental factors to elderly in-patient falls in acute facilities: In Proceedings of the International Conference on Fall Prevention and Protection, May 2010*. Available at <http://dspace.lboro.ac.uk/2134/6566> Last Accessed 4th May 2104.

Scuffham, P., Chaplin, S., and Legood, R., (2003). Incidence and costs of unintentional falls in older people in the United Kingdom. *Journal of Epidemiol Community Health*. 57: 740-744.

The Health Act Ireland. (2007). <http://www.irishstatutebook.ie/2007/en/act/pub/0023/> Last Accessed January 2015.

The Human Rights Act. (1998). <http://www.legislation.gov.uk/ukpga/1998/42/contents> Last Accessed November 2104.

The Mental Health Act. (1983). <http://www.rethink.org/living-with-mental-illness/mental-health-laws/mental-health-act-1983> Last Accessed January 2015.

The Mental Capacity Act. (2005). <http://www.legislation.gov.uk/ukpga/2005/9/contents> Last Accessed January 2015.

The Mental Health Order [NI], (1986). <http://www.legislation.gov.uk/nisi/1986/595> Last Accessed January 2015.

Todd, J.F., Ruhl, C.E., Gross, T.P. (1997). Injury and death associated with hospital bed side-rails: reports to the US Food and Drug Administration from 1985-1995. *American Journal of Public Health*. 87: 10: 1675-1677.

United Nations International Plan of Action on Ageing. (1992).
<http://www.un.org/en/development/devagenda/ageing.shtml> Last Accessed 4th May 2014.

Weeks, S., (2010). *Risks and Restraint-free Care of Older People. Working with Older People*. Pier Professional Ltd. Brighton, UK.