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The experiences of orthopaedic and trauma nurses who have cared for adults with a learning disability

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KEYWORDS
Learning disability;
Orthopaedic and trauma hospital care;
Orthopaedic trauma nurses;
6 Cs

Abstract ***Background:*** There is no published empirical research about the experiences of orthopaedic and trauma nurses who have cared for people with a learning disability. However, adults with a learning disability sustain more injuries, falls and accidents than the general population. Because of their increased health needs, there has been a corresponding increase in their numbers attending general/acute hospitals. The 6 Cs is a contemporary framework and has been used to gauge how orthopaedic and trauma nurses rate the Care, Communication, Competence, Commitment, Courage and Compassion for patients with a learning disability in orthopaedic and trauma hospital settings compared to patients without a learning disability.

Aim: The aim of the study was to explore the experiences of orthopaedic and trauma nurses who have cared for people with a learning disability.

Design: The study is based on a descriptive survey design and used a questionnaire to elicit data from participants.

Methods: A convenience sample of Registered Nurses completed a questionnaire. The study was explained to delegates attending a concurrent session on the topic of acute hospital care for people with a learning disability at a conference and the questionnaire was left on a table for participants to take if they wished. Questionnaires were returned anonymously.

Findings: Of the participants who had completed the questionnaire 100% (n = 13) had cared for a patient with a learning disability. Using the 6 Cs as a framework suggested that care, communication and competence of nurses were worse for people with a learning disability than for people without a learning disability. Three main themes emerged regarding areas of good practices: (1) promoting a positive partnership with patients and carers; (2) modifying care and interventions; (3) supporting the healthcare team.

Conclusion: There was evidence of good practices within orthopaedic and trauma settings such as the active involvement of family or a paid carer who is known to the

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patient and the modification of care and interventions along with specialist advice and support from the Acute Liaison Learning Disability Nurse. There were areas of concern such as the lack of use of Hospital Passports and the inconsistent implementation of reasonable and achievable adjustments. It is unknown if the care for patients with a learning disability is adequate. However, the themes that have emerged accord with the key domains in 'A competency framework for orthopaedic and trauma practitioners' (Royal College of Nursing 2012a, 2012b) and therefore could be considered for inclusion in future orthopaedic and trauma competencies to enable sharing of best practices.

Editor comments
People with a learning disability are regular receivers of orthopaedic and trauma care but the literature has not, to date, reflected this. This thought provoking paper and associated study begins to shed some light on some of the issues to be considered if safe and effective care is to be provided to this vulnerable group of people.
JS-T

Introduction

The aim of this paper is to discuss the experiences of orthopaedic and trauma nurses who have cared for people with a learning disability in hospital settings. It is based on research conducted with 13 Registered Nurses who had experiences of caring for people with a learning disability in an orthopaedic or trauma hospital setting in England, UK.

The Department of Health in England (Department of Health, 2001, p. 14) defines learning disability as: "a significantly reduced ability to understand new or complex information, to learn new skills (impaired intelligence) along with a reduced ability to cope independently (impaired social functioning)". The onset of disability is considered to have started before adulthood, with a lasting effect on development. Nunkoosing (2012) believed that the term 'learning disability' is socially constructed, historically and culturally bound, and is used to label a particular group of people within society. The Royal College of Nursing (2013) described learning disability as a common, lifelong condition which is neither an illness nor a disease. Learning disabilities affect about 1.5 million people in the UK (Royal College of Nursing, 2013). General Practitioners (GPs) are recognising more people with learning disabilities on their practice lists, for example, in 2011–12 there were 4.5 people in every thousand with a learning disability in England (Emerson et al., 2013). However, there is no definitive record of the exact numbers because not all people with a learning disability are known to GPs or local authorities. People with a learning disability, which is also referred to as intellectual disability, have poorer health and, hence, greater healthcare needs than their non-disabled peers (Emerson et al., 2012). Also of concern is that acute hospital services for people with learning disabilities have been found to be underperforming compared to other healthcare sectors (Care Quality Commission, 2012).

Background

Conditions and injuries affecting the musculoskeletal system

Finlayson et al. (2010; Finlayson, 2011) demonstrated that adults with a learning disability sustain more injuries, falls and accidents than the general population. Because of the increased health needs, there has been a corresponding increase in the number of people with learning disabilities attending general hospitals. Adults with learning disabilities therefore may be more likely to require care in orthopaedic and trauma hospital care settings.

There are more mobility problems for people with a learning disability than the general population (Van Schrojenstein Lantman-de Valk, 2005) and they share many factors with older people, such as high rates of osteoporosis (Schrager, 2006), Vitamin D deficiency (Vanlint and Nugent, 2006), poor nutrition and sedentary lifestyle (Robertson et al., 2000) as well as having increased prevalence of osteoporosis and lower bone density than the general population (Center et al., 1998; Jaffe et al., 2001, 2005; Tyler et al., 2000). Contributory factors include lack of support to engage in weight-bearing exercise, delayed

puberty, earlier-than-average age at menopause for women, poor nutrition, being under-/overweight and use of anti-epilepsy medication. Fractures may occur with a low impact injury and may be multiple; thus it is likely that these factors place individuals at increased risk of injury following a fall (Cox et al., 2010) or poor handling techniques (Srikanth et al., 2011). If more people with learning disabilities were supported in regular and planned physical activities, this could promote a number of positive outcomes regarding their bone health (Hallawell et al., 2012) including fewer musculoskeletal injuries.

It is clear from the literature that people with a learning disability experience more musculoskeletal conditions and injuries than the general population but the experiences of orthopaedic and trauma nurses who care for them in hospital settings are currently unknown.

The 6 Cs framework

It is the human elements of caring and compassion that are vitally important for safe and effective person-centred care (Baille & Black 2015; Department of Health, 2012; Nursing and Midwifery Council, 2010, 2015; Royal College of Nursing, 2012a, 2012b). Following wide consultation with nurses, midwives, care staff and patients, the 6 Cs were developed with the aim of Compassion in Practice (Cummings 2014; Department of Health, 2012, 2013) being a return to the very essence of what excellent care means for patients. The 6 Cs were to be embedded into pre- and post-qualifying nursing curricula and include: Care, Communication, Courage, Commitment, Competence, and Compassion. These outline values and behaviour that underpin care wherever it takes place and is required for all people receiving care. Baille and Black (2015) concur that these values must be embedded in nursing practice so that people have positive experiences of their nursing care. The 6 Cs were incorporated into the design of the questionnaire to explore if there were differences in the 6 Cs that were delivered to people with a learning disability from the nurses' experiences as there is evidence of inequality in health care for people with a learning disability (Emerson et al., 2012; Heslop et al., 2013; Michael, 2008). This may add to the body of knowledge regarding the quality of care for people with a learning disability as perceived by orthopaedic and trauma nurses and potentially inform future education and training needs.

A search of the literature revealed no published empirical research studies specifically relating to the experiences of orthopaedic or trauma nurses who have cared for people with a learning disability.

The study

The aim of the study was to explore the experiences of orthopaedic and trauma nurses who had cared for patients with a learning disability in hospital using the 6 Cs as a framework.

The research questions were:

1. What are the experiences of orthopaedic and trauma nurses who care for people with a learning disability in orthopaedic and trauma hospital settings?
2. Do the 6 Cs help to explore the values of care and compassion delivered to people with a learning disability in orthopaedic and trauma hospital settings?
3. What areas of good practice are there in orthopaedic and trauma hospital settings?
4. What areas of orthopaedic and trauma nursing practice require improvement for people with a learning disability?
5. Do orthopaedic and trauma nurses believe that hospital care is adequate for people with a learning disability?

The findings presented in this paper are an analysis of data relating to the experiences of orthopaedic and trauma nurses who have cared for people with a learning disability. The participants were Registered Nurses who were attending an international orthopaedic and trauma nursing conference.

Design

The study is based on a descriptive survey design and used a questionnaire to elicit data from participants. Questions were based on themes arising from previous studies about general hospital care for people with a learning disability (Bradbury-Jones et al., 2013; Hatton et al., 2011; Michael, 2008; Tuffrey-Wijne et al., 2013). The questionnaire was composed of the following sections: demographic details; number of people with a learning disability in orthopaedic and trauma settings; the 6 Cs comparing each 'C' with a patient without a learning disability; family/paid carer involvement; improvements that could be made; examples of good practices; access to and support from an Acute Liaison Learning Disability Nurse; reasonable adjustments; the adequacy of care and participants' experiences. A variety of different question styles were adopted depending on the information sought, including tick boxes and a five point Likert-type scale along with the opportunity for participants to make free text

comments. Please refer to Appendix S1 for the questionnaire.

Sample

The population comprised 25 delegates who were attending a concurrent session about the hospital care of people with learning disabilities at an international orthopaedic and trauma nursing conference. They were informed of the study at the end of the session and had a choice to take a questionnaire away with them to read through and complete it if they wished. Verbal and written information was given regarding the procedure for returning it in an addressed envelope to the reception area of the conference held by the end of the 2 day conference. The sample (13) was a convenience sample and not intended to be representative of all orthopaedic and trauma nurses.

Data collection

The questionnaires were printed to enable easy access as it was unknown if there would be adequate access to computers at the conference. It contained an explanation of the purpose of the study and reassurance that data would be anonymous unless the participant chose to add their details at the end of the questionnaire confidentially. Included with the questionnaire was a pre-addressed envelope with instructions to return it to the reception area by the end of the 2 day conference. Data collection took place on 11–12 September 2014.

Ethical considerations

Ethical approval was granted by the University of Wolverhampton Research Ethics Committee. Consent for participation was implied if completed questionnaires were returned.

Data analysis

There were two components to the data analysis: (i) the quantitative data generated from the questionnaire were analysed using Microsoft Excel 2010 which enabled simple descriptive statistical analysis; (ii) the qualitative data were analysed by identifying common themes using an interpretive thematic analysis (Braun and Clarke, 2006).

Rigour

The questionnaire was tested with 3 nurse lecturers who were not orthopaedic or trauma nurses and 3 members of the research supervisory team including a Reader in Applied Psychology, a Senior Research Fellow in Health and Wellbeing and a Senior Lecturer in Nursing. This was to check that the questions were clear and to ascertain how long it would take to complete. A member of the research supervisory team independently performed statistical and thematic analysis to enhance the reliability and rigour of the process.

Findings

Thirteen participants returned the questionnaire. There was a varied range of orthopaedic and trauma practitioners including Staff Nurses (n = 3), Clinical Nurse Specialists (n = 2), Advanced Nurse Specialists (n = 3), Ward Managers (n = 2), Case Manager (n = 1), Matron (n = 1) and Nurse Consultant (n = 1). All were working in elective orthopaedic and/or orthopaedic trauma hospital settings. All had experienced caring for a patient with a learning disability in the orthopaedic or trauma hospital setting and all were from England, UK. The distribution of hospital settings is shown in Fig. 1.

Numbers of people with learning disability in orthopaedic and trauma hospital settings

The participants who worked in elective orthopaedic hospital settings stated they encountered between one and five patients with a learning disability per year, although some (n = 2) participants did not know the numbers. Participants working in mixed elective/trauma and trauma only wards saw 13–20 patients with a learning disability per year approximately. There were higher numbers of adult patients with a learning disability in orthopaedic trauma hospital settings than in elective orthopaedic hospital settings.

The 6 Cs framework

The 6 Cs were scored using a 5 point Likert scale which enabled ranking of the Care, Compassion, Courage, Commitment, Competence and Communication for patients with a learning disability compared to patients without a learning disability. See Fig. 2 for the ranking of the 6 Cs. The

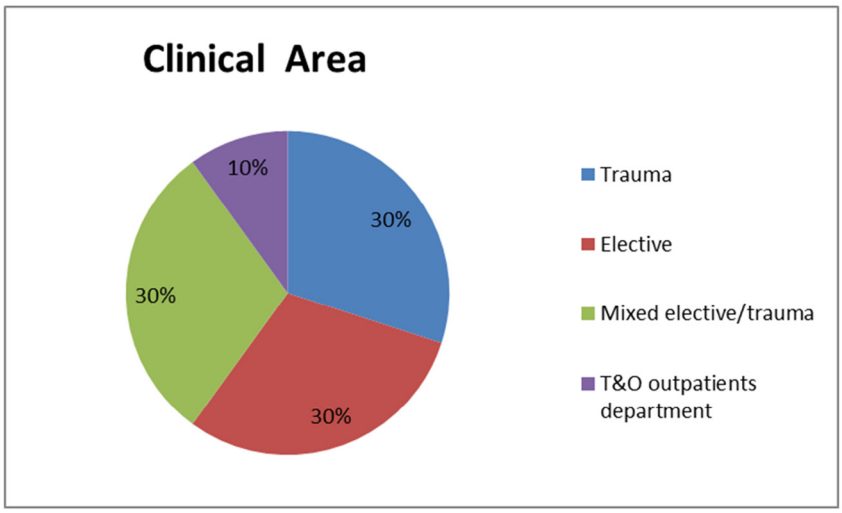

Fig. 1 The participants' clinical areas.

1=much worse	2=worse	3=the same	4=better	5=much better

Fig. 2 Ranking of the 6 Cs for people with a learning disability when compared to people without a learning disability.

scores were collated and the modes are reported below.

Care, communication and competence

Care, communication and competence were scored as 2 (worse) by the majority of participants; 62% (n = 8) indicated that care was worse, 69% (n = 9) indicated that communication was worse and 54% (n = 7) indicated that competence was worse for people with a learning disability when compared to care, communication and competence for patients without a learning disability in both the elective orthopaedic and trauma and mixed elective/trauma settings.

Compassion

62% (n = 8) scored the compassion for a patient with a learning disability as 3 (the same) as for a patient without a learning disability in elective orthopaedics but in trauma or mixed elective/trauma settings, it was scored as 2 (worse) by 69% (n = 9) for a patient with a learning disability.

Courage

69% (n = 9) scored the courage to speak out for patients with a learning disability as 3 (the same) as for a patient without a learning disability in both elective orthopaedic and trauma or mixed elective/trauma settings. 23% (n = 3) stated that they found 'courage' difficult to score as they were not sure how 'courage' applied to them. One participant did not complete this question.

Commitment

62% (n = 8) indicated that the commitment to patients with a learning disability in elective orthopaedic was better than for patients without a learning disability and the majority scored this as 4 (better). In mixed orthopaedic and trauma settings commitment was scored as 3 (the same) as for patients without a learning disability by 54% (n = 7).

Reasonable adjustments

The majority of participants 69% (n = 9) believed that reasonable adjustments were made in the orthopaedic and trauma hospital settings. One participant stated that reasonable adjustments were not made and 23% (n = 3) did not know if reasonable adjustments were made.

Mental capacity

46% (n = 6) mentioned that there were specific issues related to having the necessary knowledge and understanding to obtain a valid consent from a person with a learning disability. Alongside this 38% (n = 5) stated concerns regarding the Registered Nurses' role when patients refuse treatment or interventions or

present with behaviour that challenges the staff. This is illustrated by the following:

"It is difficult to know what to do when a patient with a learning disability refuses treatment or is uncooperative with staff. . ."

Participant 2

Family or paid carer role in hospital

The vast majority of the participants 92% (n = 12) stated that family or paid carers stayed with the patient in orthopaedic and trauma hospital settings and 31% of participants stated that carers stayed overnight if there was a side room available. However, 8% (n = 1) stated that the family or paid carers did not stay with the patient with a learning disability in hospital. The reason for this was not given. Direct care was reported by 69% (n = 9) of participants to be delivered by known carers of adults with a learning disability.

Good practices in orthopaedic and trauma hospital settings

The majority of the participants 69% (n = 9) gave examples of what they considered to be good practices. An interpretive thematic analysis was undertaken with these data (Braun and Clarke, 2006). These have been arranged into three main themes:

1. Promoting a positive partnership with the patient and carers
2. Modifying care and interventions
3. Supporting healthcare staff.

Each theme was comprised of several sub-themes. See Table 1.

The themes have a congruency with the key domains cited in 'A competency framework for orthopaedic and trauma practitioners' (Royal College of Nursing, 2012a, 2012b); for example, promoting a positive partnership with patients and carers and supporting healthcare staff accords with the 'Partner/Guide' domain. However, the emphasis in the data from this study was on the patients and carers of people with a learning disability being active as partners and guides for staff. The following illustrates this:

"It is so helpful when the carer stays with the patient as they know them. . ."

Participant 3

The other theme, 'Modifying care and interventions', accords with the Comfort Enhancer, Risk

Table 1 Good practices

1.	Promoting a positive partnership with the patient and carers
1.1	Carers are allowed to stay with the patient including overnight. In some areas this was only if there was a side-room available, however.
1.2	The same nurse is available to support the patient with a learning disability in outpatients and for follow up appointments so a trusting relationship can be formed.
1.3	Using a communication book and easier read information
1.4	Flexible visiting hours for carers.
1.5	Carers writing their concerns on the National Early Warning System documentation
2	Modifying care and interventions
2.1	Double appointments are allocated for outpatient appointments either at the beginning or the end of the clinic to allow more time for explanation.
2.2	A low stimulus environment is provided for people with a learning disability if needed. This was at a major trauma centre.
2.3	A mobile buzzer system is provided to the patient and carer in outpatients so patients with a learning disability do not have to sit and wait in the waiting area if this is difficult for them
2.4	No uniform is worn. Many people with a learning disability can become fearful or anxious around healthcare professionals and this reduced formality and may help reduce anxiety and fear.
2.5	Specific casting materials (reinforced soft cast) were used in some settings so that the cast can be removed without the use of a noisy and potentially frightening plaster saw
3.	Supporting healthcare staff
3.1	The Acute Liaison Learning Disability Nurse (ALLDN) prepares staff and patients for admission and also follows patients up in the hospital setting
3.2	There is regular staff mandatory training by an ALLDN in some hospitals
3.3	The ALLDN supports staff with caring for a patient with a learning disability and is recognised as an expert in the field of learning disabilities

Manager and Technician domains (Royal College of Nursing, 2012a, 2012b).

The acute liaison learning disability nurse

Almost two-thirds of the participants (61% (n = 8)) had access to an Acute Liaison Learning Disability Nurse, although 31% (n = 4) did not have access and one participant did not know if there was one available in their hospital.

The hospital passport

A Hospital Passport contains essential information about the person with a learning disability and it should be accessible and used by healthcare staff as it is vital for person-centred, safe and effective care. Only a small minority (15% (n = 2)) of the participants had seen a Hospital Passport used with a patient with a learning disability in orthopaedic and trauma hospital settings.

Adequate care

It is of concern that only a minority of the participants 23% (n = 3) believed that care of adults with a learning disability in trauma and orthopaedic hospital settings was adequate. Adequate care is basic and essential care. Almost half of the participants (46% (n = 6)) felt that they did not know if the care was adequate and 31% (n = 4) believed it was inadequate. Given that almost 80% (n = 10) of participants were unsure if care was adequate or believed it was inadequate, this suggests that further research is required (see Fig. 3).

Discussion

People with a learning disability are receiving elective orthopaedic and trauma hospital care, although healthcare access has been reported as inequitable for many reasons including difficulties negotiating health systems (Turner, 2014). The number of people was reported as higher in the trauma hospital setting which could be due to the higher rate of falls, poor handling techniques and injuries resulting in musculoskeletal trauma or fragility fractures (Finlayson, 2011). However the number of adults with a learning disability living into old age is increasing and older age is associated with osteoarthritis (National Institute for Health & Clinical Excellence 2014) so future elective orthopaedic hospital settings may encounter more adults with a learning disability (National Institute for Health & Clinical Excellence 2015).

The 6 Cs is a contemporary and useful framework to gauge how orthopaedic and trauma nurses rate the Care, Communication, Competence, Commitment, Courage and Compassion for patients with a learning disability in orthopaedic and trauma hospital settings compared to patients without a learning disability. However, it is not known if all nurses were familiar with the 6 Cs or if they assigned the same meanings to each of the 6 Cs, for example, 'compassion' might have differing meanings to individual nurses. Alongside this, social desirability bias needs to be considered as nurses were scoring themselves in the 6 Cs. It seems that improvements

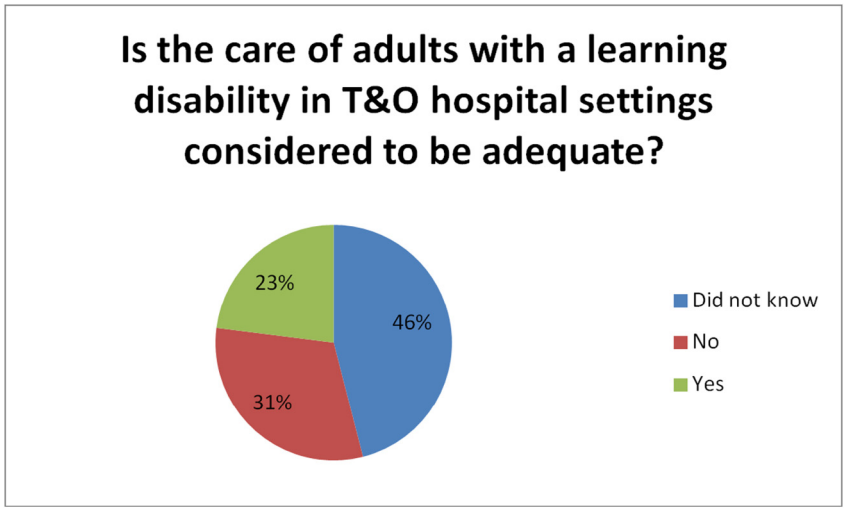

Fig. 3 Adequate care as perceived by orthopaedic and trauma nurses.

are needed to the care, communication and competence of Registered Nurses caring for patients with a learning disability in both elective and trauma hospital settings. 'Courage' to do what is right for a patient with a learning disability was not understood by some participants.

Poor communication, assumptions about quality of life and a lack of understanding of healthcare professionals means that people with a learning disability are receiving poorer standards of care (Bradbury-Jones et al., 2013; Mencap, 2010) which can result in grave consequences for people with a learning disability (Heslop et al., 2013). Good services are individualised and person-centred along with a focus on the quality of the relationship with staff and the person with a learning disability (Mansell, 2010) which is the same requirement as for a patient without a learning disability. The major discourses that are shaping policy and service delivery include person-centredness, inclusion, choice and independence. Central to all these is effective communication (Bradbury-Jones et al., 2013; Gates, 2012). Communication is a crucial human right because of its role in the basic need for interaction with other people, supporting the person's input into decisions, promoting greater independence, allowing people to express feelings and supporting people's participation (Bradbury-Jones et al., 2013; Goldbart and Caton, 2010). The family or paid carer knows and understands the patient and is considered a vital resource to support the patient's care in hospital. It is evident from the good practices in orthopaedic and trauma nursing that creativity needs to be encouraged because it can lead to enhancements in care for adults with a learning disability as well as for other vulnerable groups of patients.

Not all participants had access to an Acute Liaison Learning Disability Nurse within the acute hospital setting and there were concerns raised about obtaining valid consent from patients with a learning disability. Furthermore there was uncertainty amongst Registered Nurses regarding how to handle challenging behaviours, for example when a patient with a learning disability refuses treatment or interventions. Mencap (2014), a UK charity for people with a learning disability, is campaigning for all hospitals to have an Acute Liaison Learning Disability Nurse available 24 hours a day. In England 42% of Acute Hospitals do not have an Acute Liaison Learning Disability Nurse and none are available 24 hours a day (Mencap 2014). Tuffrey-Wijne et al. (2013), in their mixed-methods study, found that hospitals with Acute Liaison Learning Disability Nurses were better able to provide safe, good quality care to people with learning disabilities. This nurse can be involved in the preparation of a patient with a learning disability for surgery along with the planning and implementation of the reasonable adjustments that are required in the elective orthopaedic hospital settings.

There were no data available detailing the actual number of patients with a learning disability who have received or are awaiting planned orthopaedic surgery as patients with a learning disability are not routinely flagged on the acute hospital reporting/coding systems in England, UK. This lack of prevalence information also holds for patients with a learning disability who experience orthopaedic trauma. Furthermore, some people with a learning disability are unknown to health services and the presence of a mild learning disability and associated support needs may not be detected upon admission to hospital. Unless people with learning disabilities are recognised, it is impossible to make reasonable adjustments (Turner, 2014).

A hospital passport is advocated for use with a patient with a learning disability because it contains vital information that will assist the delivery of person-centred, safe and effective care. Potential reasons that it was not present may be that the admission was as an emergency and therefore the Hospital Passport may not have been sent with the patient or was not requested from carers. Hospital staff may be unaware of the purpose and importance of the Hospital Passport.

There are orthopaedic and trauma hospital settings that are employing reasonable adjustments as all acute hospitals have a legal responsibility to provide these for people with a learning disability (Equality Act, 2010). Reasonable adjustments can include changes to communication methods and provision of easier to read information or procedures may be tailored to individual needs such as not wearing a uniform if the person is scared of healthcare professionals (Hatton et al., 2011). It may be more difficult to anticipate the implementation of some specific reasonable adjustments in trauma settings as emergency admission will not have been anticipated. Reasonable adjustments will need to be made based on the individual patient's needs. The carer's knowledge of the patient is invaluable. An emergency admission is more likely for people with a learning disability (Emerson et al., 2013) suggesting that orthopaedic trauma hospital settings need to be more prepared to support and care for this patient group. MacArthur et al. (2015) highlighted that healthcare professionals need support, encouragement and guidance to make reasonable adjustments and that Learning Disability Liaison Nurses have an important and increasing role to play in advising on and establishing adjustments that are reasonable and achievable.

Although Michael (2008) recommended that all healthcare staff should be educated to care for

people with a learning disability, this does not appear to be happening consistently. Recently The UK Learning & Intellectual Disability Nursing Academic Network and The UK Council of Deans (2015) recommended that the education and training to support the needs of patients with a learning disability should be within all pre-registration nursing curricula. Although this is a positive action it does not address the ongoing educational needs of qualified staff who care for people with a learning disability. The 'Competency framework for orthopaedic and trauma practitioners' (Royal College of Nursing, 2005, 2012a, 2012b; Santy et al., 2005) discusses the domains of partner/guide, comfort enhancer, risk manager and technician and these link with the themes evolving from this study and which requires further exploration. However, it is not only nurses who care for patients with a learning disability in hospital so education of all healthcare staff is the key. The following sums this up:

"In the end, we will conserve only what we love, we will love only what we understand and we will understand only what we are taught." (Baba Dioum, 1968)

Limitations of the study

The main limitation is that this was a small study with 13 participants. As delegates at an orthopedic and trauma nursing conference the participants who completed the questionnaire may have had a specific interest in the subject which could have resulted in a biased sample. For these reasons the results cannot be generalised.

Tentative practice recommendations

Hospital flagging systems require further work so that all patients with a learning disability are quickly identified so that appropriate support and reasonable and achievable adjustments can be implemented. Further research is required to ascertain why Hospital Passports are not seen or being used by healthcare staff.

The role of the Acute Liaison Learning Disability Nurse in acute hospitals should be visible and understood by all staff in orthopaedic and trauma hospital settings. This could help enable the implementation of reasonable and achievable adjustments in practice along with providing specialist support and advice to orthopaedic and trauma nursing teams.

There should be regular mandatory education and training for orthopaedic and trauma practitioners about the care needs and support required for any patient with a learning disability. Alongside this, 'A competency framework for orthopaedic and trauma practitioners' (Royal College of Nursing, 2012a, 2012b) should consider the inclusion of competencies for caring for people with a learning disability in the future.

Conclusion

This appears to be the first empirical research investigating the experiences of orthopaedic and trauma nurses who have cared for people with a learning disability in orthopaedic and trauma hospital settings in England, UK. The study has identified good practices as well as areas of practice that need to be enhanced. The 6 Cs framework has provided useful data. The themes that emerged accord with the key domains in 'A competency framework for orthopaedic and trauma practitioners' (Royal College of Nursing, 2012a, 2012b) and this needs further exploration. The next stage of study will entail the development of an online questionnaire for orthopaedic and trauma practitioners and learning disability practitioners who have cared for people with a learning disability with a musculoskeletal problem requiring acute orthopaedic or trauma hospital care in the UK.

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Conflict of interest statement

There is no actual or potential conflict of interest of the authors.

Ethical approval

The study was approved by the University of Wolverhampton, UK Ethics Committee.

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Appendix: Supplementary material

Supplementary data to this article can be found online at doi:10.1016/j.ijotn.2015.08.003.

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