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An Introduction to Orthopaedic and Trauma Care

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Introduction

Orthopaedic and trauma nursing is a discrete but diverse specialty focused on the care of the patient with musculoskeletal problems. The aim of this chapter is to provide the reader with an overview of today's orthopaedic nursing by exploring the essence of orthopaedic care, patient care needs, and the nature and development of orthopaedic nursing as a specific nursing specialty. It is important to understand what is special about orthopaedic nursing to excel in its delivery and to ensure its continued existence.

The Changing Nature of Orthopaedic Practice over Time

History provides important perspectives for contemporary practice. The history of orthopaedic nursing provides the lens through which we can understand today's experiences and perspectives. Orthopaedic nursing as a specific entity has only existed since the early decades of the twentieth century. Prior to this, nursing care for patients with musculoskeletal conditions and injuries had been provided by nurses and others with generic skills and limited, if any, healthcare education.

Many musculoskeletal diseases such as tuberculosis and poliomyelitis that were common in the eighteenth and nineteenth centuries were eradicated in higher income countries during the twentieth century. This was largely because of improvement in living conditions, public health and healthcare, and resulted in important and far-reaching change in priorities for orthopaedic and trauma care. Even

so, this history remains pertinent to the way in which care is provided today.

Orthopaedic care has been provided for as long as the musculoskeletal system has been prone to disease and injury, although this previously took place under the auspices of bone setters, barber surgeons and other 'informal' carers. Trauma nursing is most often evident in nursing stories from war, such as those surrounding the Crimean War and the role played by both Florence Nightingale and Mary Seacole. The care of patients sustaining musculoskeletal trauma has often made strides forward during times of conflict, war, great societal change and disaster. Much of the knowledge and skills in musculoskeletal trauma nursing derives from the part that nurses have played, and still play, in war. It could be argued, for example, that the likes of Florence Nightingale and Mary Seacole would have provided musculoskeletal trauma care to those injured during the Crimean war and could, therefore, be seen as the forerunners of today's trauma nurses. Before that, when nursing was not an organised profession, care on or near the battlefield would have been provided by military personnel engaged in field care or by wives who travelled to war with their soldier husbands.

Orthopaedic nurses have always worked closely with orthopaedic surgeons, although their development has not always been parallel. The formalisation of medical specialties began in the late nineteenth century once medical knowledge began to expand and there was an increasing need to organise and manage the growth of medical care (Weisz 2003). In the late 1800s doctors began to organise themselves into groups of specialists according to specific organs of the body or categories of diseases. The management of patients with musculoskeletal disease and injury,

however, was largely conducted by general surgeons until the twentieth century.

The term 'orthopaedic' is credited to Nicholas Andry, an eighteenth century French professor of medicine who published an introduction to orthopaedics in 1741, the first time the word orthopaedic was written. The word derives from two Greek words, *orthos* meaning 'straight and free from deformity' and *paidios* meaning 'child', with a collective meaning of 'straight child'. This reflects the roots of orthopaedic care of children with deformities of bones and joints from congenital conditions and childhood disease affecting the musculoskeletal system (Swarup and O'Donnell 2016). Later, this theme was continued with the philanthropism of the nineteenth century, which was often focused on what were perceived at the time as 'crippled' children from poor backgrounds whose families could not care for them.

Orthopaedic nursing has been entwined with the development of orthopaedic and trauma surgery. The efforts of pioneering surgeons such as Hugh Owen Thomas and Robert Jones led to the inception of orthopaedic surgery in the 1940s as part of the development of the National Health Service (NHS) in the United Kingdom as well as the development of orthopaedic and trauma services around the world.

The early development of orthopaedic nursing is widely attributed to Dame Agnes Hunt in Shropshire, England in the early twentieth century. She initially set up a small rural care facility for children with chronic musculoskeletal conditions from nearby industrial cities such as Liverpool. Her approach involved a focus on rest, fresh air and good nutrition, with the aim of ensuring the proper development and recovery of diseased, injured and deformed bone, joints and soft tissue. She enlisted the help of Sir Robert Jones as a consulting surgeon and together they set up a specialist orthopaedic hospital at Gobowen, not far from the initial site of the home. This became the Robert Jones and Agnes Hunt Orthopaedic Hospital, one of several specialist hospitals set up around the UK around that time to provide expert care to patients with musculoskeletal disease. Some of these hospitals still exist today with a focus on expert specialised diagnosis, treatment, surgery, care and rehabilitation for those with complex musculoskeletal health problems.

The development of orthopaedic surgery has been driven by a desire to improve lives by, for example, facilitating healing and preventing disability following trauma and ameliorating the pain and disability of osteoarthritis and other chronic conditions. Elective orthopaedic surgery, and the subsequent need for specialised nursing to care for patients undergoing such procedures, only fully developed following the advent of successful surgical orthopaedic

implants from the 1960s onwards. Both hip and knee arthroplasties were initially developed in the 1960s and gradual improvements in implants, surgical procedures and aftercare have resulted in great success in treating patients with severe joint arthropathies such as osteoarthritis and rheumatoid arthritis. Until then orthopaedic nursing would have been largely focused on musculoskeletal trauma, often relating to war, and on diseases of bones, joints and muscles.

In an early textbook, Mary Powell (1951) wrote of the general principles of orthopaedic nursing, which embodied the principles of rest balanced with movement and exercise, treatment of the patient as a whole, optimum positioning for joints using splinting and traction, relief of pain and the provision of the best conditions for recovery and healing. This encompassed pre-operative and post-surgical care, trauma care and rehabilitation. With a focus on the nurse-patient relationship and teamwork, many parallels can be drawn with orthopaedic and trauma nursing today.

Musculoskeletal care previously involved the enforcement of many weeks and months of rest, while the current focus is on early mobilisation and avoiding inactivity. Although much is very different in the twenty-first century, there are some principles of early twentieth century care that remain relevant, in particular the need for what Mary Powell (1951) would have called an 'orthopaedic conscience' (which she later renamed the 'orthopaedic eye'), a special sense or consciousness of how movement, position, posture and comfort are central to both the assessment and care of the orthopaedic patient in modern healthcare. Orthopaedic practitioners develop this intuition through experience of working with patients affected by musculoskeletal problems. Skilled and experienced orthopaedic and trauma practitioners are able, for example, to recognise patient care needs by instinctively observing posture and the way in which people move. Skilled orthopaedic practitioners understand how gentle and minimal repositioning of a limb or supporting it with a pillow can improve comfort and support healing and recovery. Such observation and subsequent intervention are not as simple as they sound, rooted in insight and skill, and demonstrate how nurses make judgements about the needs of patients and formulate decisions about care based on clinical information derived from a variety of sources including, but not exclusively, evidence (Thompson and Dowding 2002).

As mentioned earlier, at the beginning of the twentieth century several specialist orthopaedic hospitals sprang up in the UK. This led to the rapid creation of a network of centres, often in rural or suburban locations, focused on the specialist care of patients and the education of practitioners in the principles and specifics of musculoskeletal

care. These organisations also became early developers of the evidence base for orthopaedic care. As services have become more centralised, several of these centres closed and were integrated into acute urban hospital centres. Those remaining specialist hospitals continue to develop the specialist knowledge and research evidence for musculoskeletal care alongside emergency departments and acute, outpatient and community units.

Modern Orthopaedic Care

During the twentieth century, musculoskeletal care began to evolve into two related entities: elective care and musculoskeletal trauma care. Elective orthopaedic surgery involves procedures that are planned and usually aim to improve known conditions that are causing pain and/or disability. This often includes surgery for arthropathies such as osteoarthritis and rheumatoid arthritis, and might also involve surgery to further manage the effects of trauma once initial recovery and healing has taken place. This might include, for example, surgery to correct deformity or the removal of metal work inserted electively or following injury. Patients with rheumatoid arthritis and other rheumatological conditions are often cared for in specialist centres where the focus is on medical management and rehabilitation rather than on surgery. They might, however, be referred for elective surgery when this is of potential benefit.

Trauma care, conversely, is unplanned and involves the care and rehabilitation of patients who have sustained injury following an unexpected event such as a fall, road traffic accident or sporting injury. All structures of the human body are prone to injury and trauma care can therefore take place in a variety of settings, including the emergency department, intensive care unit and neurosurgical setting as well as the orthopaedic trauma unit. Orthopaedic trauma care is focused specifically on trauma to the musculoskeletal system while considering the need to include other aspects of trauma management as necessary. The focus in this book is specifically on those aspects of trauma care which involve the musculoskeletal system. Often orthopaedic nurses are specialists in one or the other of elective or trauma orthopaedics, but many have skills in both areas and work in units where the two are combined.

The Nature of Orthopaedic and Musculoskeletal Trauma Nursing

The orthopaedic practitioner has a unique role, with associated skills and knowledge. Nursing theory applied to orthopaedic and musculoskeletal trauma nursing comes

both from general sources relating to nursing and healthcare (such as surgical and medical nursing), and from specialist sources relating specifically to the orthopaedic and trauma specialty. The theory which underpins orthopaedic nursing practice is based on an in-depth knowledge of the anatomy and physiology of the musculoskeletal system and of those physical and psychosocial factors which affect musculoskeletal health and wellbeing as well as recovery from injury and surgery.

Specialisation in nursing has been moving back towards generic nursing for a few decades largely because of nursing resource shortages and the erosion of specialist nursing education. Despite this, orthopaedic nursing remains very much a discrete entity, different from all other nursing specialisms. The exact nature of orthopaedic nursing has been a matter of some discussion over many years. Work has focused on its status as a discrete specialty and the specific nursing actions which make it distinct from other nursing specialisms and from generic nursing. This debate has highlighted the importance of specialist skills and the need for specific education for orthopaedic and trauma nursing. One example of this is the assessment skills needed to recognise a very specific set of potential complications of orthopaedic surgery, conditions and injuries (see Chapter 9 for further detail) that are not part of the generic skills required of nurses and other practitioners. See Box 1.1 for further detail of the present state of inquiry into the specialist nature of orthopaedic nursing.

Within orthopaedic nursing itself, there are several additional areas of specialisation. These focus, for example, on either specific conditions or regions of the musculoskeletal system such as the spine, osteoporosis, hand injuries, skeletal oncology etc. The focus may also be on specific age groups across the person's life span. For example, children's orthopaedic care involves the provision of healthcare to the neonate, infant, child and young person. Caring for this population is highly specialised and requires specially trained and educated nurses who are able to combine skills in the care of the person from birth to 18 years and (sometimes beyond) with musculoskeletal problems (see Chapters 13 and 22–25). Children's nursing, although allied to mental health and learning disability nursing because of the child-specific stage of human development, remains different to adult nursing (Clarke 2019). Therefore, many countries continue to educate a dedicated group of children's nurses to provide nursing care to a diverse population, who are both a service user and rights holder, in partnership with their family (Clarke 2017). Many orthopaedic patients are older and have conditions that are a result of primary (normal ageing) or secondary (changes caused by illness or disease) ageing. A more recently recognised subspecialty of orthopaedic nursing is orthogeriatric

Box 1.1 Evidence Digest: The Nature of Orthopaedic Nursing

An early study by Love (1995) attempted to clarify and discriminate between orthopaedic and general nursing using a questionnaire survey of orthopaedic nurses that asked which nursing activities were highly orthopaedic nursing functions and which were not. There was a range of activities deemed to be unique to orthopaedic nursing, including 'elevation of limbs to prevent swelling' and 'removal of splintage if ischaemia is threatening safety of a limb'.

More recently a number of researchers (Santy 2001; Drozd et al. 2007) have used qualitative approaches to research, such as grounded theory, to explore the nature of orthopaedic and trauma nursing, and examine the detail of what specific interventions practitioners undertake with orthopaedic patients. Work by Judd (2010) has undertaken similar inquiry into issues related to working with children with orthopaedic problems.

This work is a foundation on which theory, education and practice frameworks can be developed to ensure that

musculoskeletal care can be increasingly effective in the future and enable practitioners to articulate their specialist role and value. The studies collectively demonstrate that there are many specialist interventions which focus on supporting mobility, managing and caring for the patient with orthopaedic devices such as splints, traction, casts and external fixators, and caring for the patient following specific surgical procedures and injuries as well as preventing and recognising the complications of those interventions. The studies also highlight how specialist skills are developed and used alongside the generic interventions and actions considered to be fundamental aspects of nursing as a whole. The studies can be used as evidence to help ensure that the skills, knowledge and attitudes required for effective orthopaedic and trauma nursing practice are maintained. The findings therefore ensure that the specialty of orthopaedic care is protected from erosion and that patients are cared for by practitioners who are competent in providing that care in all its forms.

nursing, where practitioners have specific skills in providing expert care to older people sustaining fragility fractures (see Chapters 18 and 19).

Even so, orthopaedic nursing has tended to continue to use generic nursing models applied to the care of the adult or child. Nursing models ideally aim to illustrate the theory of nursing practice to enable the practitioner to organise and prioritise effective and safe patient care. The nursing process, developed by Orlando (1961), provides a logical, structured approach that directs the practitioner's critical thinking in a dynamic manner. It encourages the nurse to balance scientific evidence, personal interpretation and judgement when delivering patient/family-centred care. This is supported by models of nursing and philosophies of care that help to define the care role and guide practice (Corkin et al. 2012). Currently, service users (patients) have become active partners in their care, being holistic, and person-centred.

Mobility and Function

Mobility, movement and function are concepts that have long been argued to be central to orthopaedic nursing (Balcombe et al. 1991; Davis 1994; Love 1995). The concept of mobility itself has been difficult to define. Ouellet and Rush (1992, 1996, 1998) and Rush and Ouellet (1998) began to highlight the complex and essential nature of mobility and its link with immobility as well as the care needs generated from mobility problems. Davis (1994) also

emphasised the centrality of mobility for patients with musculoskeletal problems within the physical, psychological and social domains of care. Key to this discussion is an acknowledgement that movement is an essential aspect of human health and wellbeing. It also acknowledges that both musculoskeletal problems and the associated nursing interventions can lead to immobility and that such immobility or restricted mobility leads to consequences, including serious complications.

The centrality of mobility in orthopaedic and trauma nursing practice has led to one proposed model for orthopaedic nursing (Balcombe et al. 1991; Davis 1994) which holds mobility at its core. The work of Ouellet and Rush in the 1990s has done much to illuminate the centrality of mobility in caring for patients with musculoskeletal problems. Even though the work has largely been conducted in older people's care settings, the findings have direct relevance to orthopaedic and trauma nursing.

Ouellet and Rush (1998) proposed a conceptual model of mobility which is broken down into six components: mobility capacity, forces, perceptions, actuation in all dimensions, patterns and consequences. These components can have direct relevance to the role of the orthopaedic practitioner in directing assessment and interventions that assess and improve mobility capacity. This takes account of the forces involved in mobilisation for patients with specific conditions, allowing for the patient and carer perceptions of their own mobility, how people actually mobilise, and the results of both mobilisation and the care provided.

Public Health and Musculoskeletal Conditions and Injury

Public health focuses on the health and wellbeing of individuals from a societal perspective. It is synonymous with the prevention of disease and ill-health through public action. The public health agenda applied to orthopaedic and trauma care is complex. It is mainly focused on skeletal health but this, in itself, is a multifaceted issue and necessarily involves consideration of numerous factors which affect musculoskeletal health, such as:

- bone development in the child and young adult
- bone health, including, specifically, vitamin D deficiency, osteoporosis, rickets and osteomalacia
- exercise and musculoskeletal fitness
- diet, nutrition and obesity
- lifestyle factors and risk-taking behaviours
- accidental injury and its prevention, e.g. road traffic, work place and sports injuries
- ageing.

Musculoskeletal conditions and injuries can affect any member of society and there are few personal, social and cultural boundaries. Human anatomy evolves slowly, but injury can be a result of immediate changes in the weather and other natural conditions as well as societal variations such as diverse and migrating cultures amongst countries. Other issues include changes in population dynamics, with an increasingly ageing population leading to an upsurge in fragility fractures (see Chapters 18 and 19). For the young person and young adult there is a heightened rate of injury due to risk-taking behaviour. The epidemiology of orthopaedic-related conditions alters as the pathophysiology of disease processes and the treatment options continue to evolve due to emerging technology, research evidence and the ongoing drive for safe, cost-effective care.

Concerns about vitamin D deficiency illustrate the changing nature of the public health agenda and musculoskeletal care. Deficiency is associated with rickets, fractures and musculoskeletal symptoms, and studies suggest a worrying link with deformity and generalised bone and muscle pain (Judd 2013). Such deficiency is attributed to an increasingly multiethnic population, poor diet and lifestyle choices made by families. Previously a condition linked with poverty, the recent recurrence of rickets in the UK, for example, is linked to changes in the lifestyle of children, which has resulted in them spending less time playing out of doors, reducing their exposure to the sunlight that is important for vitamin D and calcium synthesis.

The Diverse Orthopaedic Patient

Contemporary orthopaedic nursing is an advocate of equality, diversity and inclusion (EDI) because it ensures fair treatment and opportunity for all people, thus eradicating prejudice and discrimination on the basis of an individual or group of individuals' protected characteristics, i.e. age, gender, disability, etc. Veselinova (2014), for example, highlights the importance of person-centred care in the context of people with dementia (often cared for by orthopaedic nurses following fracture), and how workers care can ensure that rather than being marginalised, these service users are actively included in all aspects of their lives. EDI is an ethos that must be embedded by all healthcare providers, healthcare settings and care givers. Within the context of EDI, this chapter presents a valuable insight into people with intellectual/learning disabilities who present with orthopaedic-related conditions. The vast age range of the orthopaedic trauma patient means that there are a number of conditions and injuries that are more common in different age groups. Age groups carry different risk factors for musculoskeletal problems; these are outlined in Table 1.1. Changes occur as the musculoskeletal system develops, grows and deteriorates, and as humans age. Many orthopaedic conditions and fracture trauma injuries are related to changing musculoskeletal structure. Normal and abnormal changes occur in utero, at birth, in childhood, in adulthood and from old age to death. Intrinsic factors affecting this include abnormal musculoskeletal development such as developmental dysplasia of the hip, scoliosis and osteogenesis imperfecta, for which there are considerable variations in treatment and outcome. Other conditions are often age-related, such as osteoporosis and osteoarthritis, which are associated with intrinsic factors such as increasing age. Such variations can hopefully be reduced as a result of national guidance and globally relevant initiatives such as those published by the World Health Organization (WHO). Extrinsic factors include the risk-taking of the young person/adolescent leading to road traffic trauma alongside accidental and non-accidental injury in vulnerable children and adults. In spite of political and economic development in most parts of the world, social status and environmental conditions continue to impact on musculoskeletal health problems due to issues such as low income and poor education leading to poor diet.

A diverse society which focuses on the health and wellbeing of individuals includes people with intellectual disabilities (IDs) (referred to as 'learning disabilities' in England). The Royal College of Nursing (2017) defines 'intellectual disability' as 'a lifelong condition, resulting in a reduced intellectual ability and thus difficulty with

Table 1.1 Age groups in relation to orthopaedic problems

Age group	Examples often specific to age group
Familial/hereditary	Paget's Osteogenesis imperfecta
Congenital/ developmental	Developmental dysplasia of the hip Talipes
Post-natal and pre-walking	Birth injuries
Early childhood	Rickets and osteomalacia Non-accidental injury Accidental injury
Mid to late childhood	Juvenile idiopathic arthritis Perthes' disease
Young person/ adolescence	Slipped upper femoral epiphysis Osgood–Schlatter disease
Early adulthood	Injuries resulting from high-energy trauma Sports injuries Rheumatoid arthritis Ankylosing spondylitis
Middle and late adulthood	Work-related injury Back pain
Later life/older age	Injuries resulting from low-energy trauma Fragility fractures Osteoporosis Degenerative joint conditions

everyday tasks'. An ID affects the way a person understands information and includes a lifelong difficulty with learning new skills and understanding information (NHS England 2017). People with IDs are at increased risk of poor bone health but, despite this, assessment of bone health is often not undertaken (Michael 2008), with evidence of an underutilisation of the preventative services related to musculoskeletal conditions and injuries amongst people with IDs (Srikanth et al. 2011). Burke et al. (2019) demonstrated that the prevalence of poor bone health in people with IDs is substantial, implying an increased risk of fracture due to reduced skeletal integrity.

Lifestyle factors are contributors to poor bone health in people with IDs, such as poor dietary habits, constipation, poor mobility, low levels of exercise, low levels of vitamin D and obesity (McCarron et al. 2011). Finlayson (2011) and Finlayson et al. (2010, 2014) reported that people with ID sustain more injuries, falls and accidents than the general population. Eye disease is associated with

falls risk and is highly prevalent among older people with IDs (McCarron et al. 2013). Fractures may occur from a low impact injury if a person has osteoporosis and this places people with IDs at an increased risk of injury following a fall (Cox et al. 2010).

A large, population-based cross-sectional study was undertaken in Scotland, UK and concluded that the most prevalent physical health conditions affecting people with IDs included osteoporosis, bone deformity and musculoskeletal pain (Kinnear et al. 2018). A staggering 48% of people with IDs in this study with 1023 participants had musculoskeletal conditions. Although this study was undertaken in one region of Scotland it highlights the prevalence of these conditions as well as the complexity related to multimorbidity for people with IDs.

The Context of Hospital Experiences of People with an ID

Mainstream health services have difficulty in providing an equitable service for people with IDs compared with the general population (Box 1.2) (Mencap 2007; Emerson and Baines 2011; Heslop et al. 2013; Iacono et al. 2014). The hospital can be a high-pressure environment for staff with challenging targets to achieve, such as seeing and treating people quickly as well as reducing the length of stay of patients in hospitals. Blair (2017) affirmed that there were challenges for people with IDs receiving hospital care as hospitals can be very frightening environments for a person with IDs; they are often unfamiliar places and the person with an ID may have had previous negative experiences. Alongside this, Blair (2017) contended that healthcare professionals may have limited knowledge about people with IDs as they may not have been prepared, trained or educated to adequately care for them. This can result in healthcare professionals lacking in understanding of the fundamental needs and abilities of people with IDs. People with IDs require equity in the form of the provision of reasonable adjustments to achieve effective clinical outcomes (Equality Act 2010).

Health professionals need to see the 'person' with an ID and not just the 'disability'. 'Diagnostic overshadowing' occurs when a health professional makes the assumption that the behaviour of a person with IDs is related to their disability without exploring other factors such as illness (Blair 2017). Furthermore, a person with IDs may be unable to communicate their symptoms to healthcare professionals and therefore be at risk of symptoms being missed, which can lead to clinical deterioration and premature death (Heslop et al. 2013).

Box 1.2 Evidence Digest: The Voices of Adults with an ID about their Orthopaedic and Trauma Hospital Care in the UK

People with IDs have a greater prevalence of musculo-skeletal conditions and injuries than the general population and this has significant impacts on wellbeing. Despite this, orthopaedic and trauma hospital care had not been investigated with this group, who seldom have their voices heard or their experiences valued and interpreted. This study contributes to the existing evidence base by exploring the experiences of people with IDs who have received orthopaedic and trauma hospital care.

Aim: To understand the orthopaedic and trauma hospital experiences from the perspective of adults with an ID.

Methods: A qualitative approach, focusing on peoples' lived experiences, was utilised. A purposive sample of five participants was recruited and one-to-one, semi-structured interviews were undertaken. Analysis of the interviews employed an interpretative phenomenological analytical framework.

Findings: The findings from each participant in the study were discussed in relation to their orthopaedic and trauma hospital care. A cross-case comparison was then undertaken and the themes below represent common experiences across participants:

- communication challenges
- lack of person-centred care

- issues related to pain management
- lack of confidence in hospital care
- valuable support and expertise of carers
- incompetence of hospital staff
- isolation and loneliness.

Discussion and conclusions: This study contributes to the evidence base by being the first to specifically focus on and provide experiential findings pertaining to the orthopaedic or trauma hospital experiences of adults with IDs. There were significant shortcomings in the orthopaedic and trauma hospital experiences of adults with IDs, who perceived they were unsupported and received poor care in orthopaedic and trauma hospital settings.

Recommendations and implications for practice: Person-centred care for adults with IDs in orthopaedic and trauma hospital settings is needed along with specific education and training, including close liaison with the experts by experience, people with IDs and their carers as well as the specialists in IDs (Drozd 2019).

The Care Journey in Different Settings

In many of the chapters in this book we see that the care journey takes place against a background of changing health services and political priorities as well as individual needs. During the COVID-19 pandemic, this has been even more evident as services have had to change and develop very rapidly. There is no reason to believe that the enormous change and development of healthcare services seen in the later decades of the twentieth century and at the beginning of the twenty-first century is likely to slow down. The practitioner, therefore, needs to ensure they have a dynamic understanding of how this affects the care of the orthopaedic and trauma patient, especially in relation to the setting in which care takes place.

Ambulatory care is increasingly providing opportunities for patients to be offered treatment and care without a stay in hospital or, at most, a very short stay. This is driven by the need to reduce the costs of healthcare as well as an acknowledgement that an acute hospital is not always the best place for the patient to be. In the orthopaedic and trauma setting, this has increasingly been the case for major orthopaedic surgery such as hip

and knee arthroplasty. Fast-track, rapid recovery and enhanced recovery will be discussed often in this book as they are now embedded features of orthopaedic care everywhere. It is important to bear in mind, however, that non-admission to, or early discharge from, hospital is not always in the patient's best interests and can be anxiety provoking and painful for patients and their families. Thus, there is a need to provide support that ensures that specialist orthopaedic advice and services are accessible remotely from the hospital. In particular, services need to ensure that patients recovering at a distance from an acute hospital setting in their own homes are afforded support and a care package which includes fundamental elements such as effective pain relief, good nutrition, support for rehabilitation, access to advice and support, and all of the things the patient needs to reach both their recovery and rehabilitation potential as well as maintain their safety. Such services can be complex and difficult to coordinate. One of the difficulties in providing adequate support in the patient's home can be funding and purchasing mismatches between the acute hospital and community services, which may be quite separate entities depending on the structure and funding of the healthcare system. Family support for care in

the home is also becoming increasingly challenging as the role and employment of family members changes and increasing pressure is placed on families to provide complex care.

For more than a quarter of a century there has been a strong focus on reducing lengths of hospital stay and moving from hospital-based to community-based care. This focus is driven by the need to stretch limited resources while maintaining the quality of care. While this shift has long been an important aim for healthcare managers and policy makers, the reality has been more problematic, and this change is taking place slowly. Musculoskeletal conditions, injuries and surgery are problems which take time to resolve and may leave the individual of any age with varying degrees of temporary or permanent disability that require careful support and rehabilitation. Within this drive is a danger that patients are being discharged from hospital with residual nursing needs and there is a consequent need to develop care practice at the boundaries of the care settings. The development of technology is offering new opportunities for monitoring and supporting patients in their homes, especially in rural and remote settings, but in many areas this has yet to be applied to the orthopaedic patient. Meanwhile orthopaedic and trauma practitioners need to develop skills in providing care and support from a distance, and the use of communication technology is likely to increase as this aim becomes more relevant in the future.

Ethical and Legal Aspects of Orthopaedic and Trauma Care

Practitioners are increasingly required to consider the complex nature of ethical issues which affect the orthopaedic and trauma patient. As with all other branches of nursing, there are both specialised and general issues that affect the specific patient group, and the orthopaedic practitioner needs a deep working understanding of these.

Much of the discussion about ethical issues in all aspects of nursing is related to the nature and quality of care. Nursing care is often seen as being synonymous with holistic patient-centred approaches, which are non-judgmental and include the demonstration of attitudes and behaviours that are sensitive to the needs of patients and carers, and respect individuality and choice (McSherry et al. 2012). This is especially important when orthopaedic and trauma care takes place in highly pressurised environments in which it is possible to lose sight of patient-centred priorities. Effective education of orthopaedic practitioners, insightful and transformational leadership, and the development of a strong patient priority-centred evidence base

are central to this. Within this is the need to develop practitioners not only with the right knowledge, skills and attitudes but with a passion for working with patients with very specific and significant needs related to their musculoskeletal problem.

The provision of quality care within a framework that values and respects dignity is a constant source of discussion in all healthcare settings. This is particularly important in maintaining the practitioner's own safety when the patient is a vulnerable child or older adult or other individual with impairment. As people with learning disabilities live longer they are more likely to require care in orthopaedic settings. Mental health problems such as debilitating depression frequently affect care and recovery. There remains a need for the practitioner to develop the skills to care for orthopaedic patients with a wide variety of needs that make them vulnerable. The safeguarding from harm of both children and vulnerable adults is becoming an increasing priority and must be central to all care provided.

In any healthcare setting, informed consent for all procedures and activities is an important part of care along with consideration of the mental capacity of the patient. Orthopaedic interventions carry with them significant risks. Understanding how to assess the capacity of an individual to make decisions about their care is an important part of informed consent, as is the ability to ensure that patients, carers and families understand the risks of the decisions they are being asked to make. Practitioners must adhere to Acts of Parliament in their own country, which provide a statutory framework to empower and protect people of all ages who may lack capacity to make their own decisions.

There is a danger that orthopaedic practitioners assume that 'do not resuscitate' orders and living wills do not relate to the orthopaedic/trauma patient group except in the oncology setting. This can perhaps be traced to the specialty's focus on healing and recovery. However, as caring develops in the coming decades it is likely that there will be a greater focus on end of life issues and practitioners must be aware of the national guidance and legislation that requires them to be aware of best practice in both decision making and communication. One example of this is in the discussion regarding the need to consider palliative care for frail older patients with major orthopaedic injuries. Research increasingly shows that some conditions are life-limiting. One example is hip fracture, which often occurs in very frail elderly patients and may need to instigate a sensitive discussion about the need to implement end-of-life care (Murray et al. 2012). Decisions and discussions about such matters may not have been, but will need to be, part of the orthopaedic practitioner's

skills set as the quality of end-of-life care reaches a more prominent place in all settings.

Summary

This chapter has examined the nature of orthopaedic and trauma nursing, and the main issues which drive its development, including public health, political, practical, and

legal and ethical agendas. It has highlighted the diverse needs of the orthopaedic patient along the entire age continuum and in the variety of settings in which care takes place. It acknowledges that modern healthcare is complicated and has many drivers, and that this leads to numerous complex ethical issues with which the practitioner must engage. It is hoped that these principles can be successfully applied to the material contained within the remainder of this book.

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