

Chapter 1

The critical care unit

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Aim

This chapter introduces the critical care unit, giving insight into the complex nature of providing holistic patient-centred care to critically ill patients and their families. By reading this chapter, the complexity of care given to critically ill patients will be highlighted and the extensive roles and experiences of nurses and interprofessional team members will be considered.

Learning outcomes

After reading this chapter the reader will be able to:

- Describe the critical care environment.
- Appreciate the complexities and ways of working within critical care.
- Understand the holistic care needs of critically ill patients.
- Consider the theory of humanisation in care for critically ill patients.
- Discuss the emotional influence of critical care experiences on the workforce.

Test your prior knowledge

- Describe critical care considering the environment, patient care, and underlying care philosophies.
- In hospital, how many levels of care can patients be categorised into and of these, at which level(s) would patients receive critical care provision?
- Name different members of the interprofessional critical care team and describe their professional roles.
- Based upon current evidence, critically discuss the holistic care needs of critically ill patients.
- Differentiate between the following terms: personal resilience, team resilience and organisational resilience.

Introduction

Chapter 1 explores the critical care unit, where the interprofessional team work together caring for critically ill patients and their families. The critical care unit is recognised as a complex demanding clinical environment (Rothschild et al., 2005), which aims to provide safe and effective care (Paradis et al., 2013) to the most severely ill patients in hospital making it one of the most expensive, resource demanding and stressful areas (Ervin et al., 2018), with staffing the greatest cost (Leon-Villapalos et al., 2020).

In the adult critical care unit, Park (2019, p. 24) defines critical care as:

the complex and acute care provided to adults, with single or multiple organ failure, . . . and there should be the prospect of recovery or improvement in the patients' condition at the time of their admission.

This definition outlines intentions to improve patients' situations, and the Faculty of Intensive Care Medicine (FICM) and Intensive Care Society (ICS) (2019, p. 11) view critical care admissions from the focus of achieving patient-centred outcomes, based on the balance of 'burdens and benefits'. The FICM & ICS (2019) advocate flexible use of resources, including organ donation and end-of-life care for patients outside the critical care unit. This is a perceptible shift away from historical treatment of reversible patient illnesses previously identified by the Department of Health (DH, 1996, p. 6), which indicated that critical care was for patients with 'potentially recoverable conditions'. Definitions influence patient admissions and these decisions are complex and multifaceted, based upon patient need, patient wishes, philosophies of care, critical care resources such as bed capacity, specialist equipment, staff expertise, staffing levels, policies, and guidelines.

6Cs: Care

Critical care provision needs to be safe, effective, and evidence-based, and must be underpinned by ethical, person-centred, holistic, and humanistic principles.

'Critical care' as an umbrella term includes High Dependency, Intensive Care and the Post-Anaesthetic Care Unit (Albarran and Richardson, 2013). However, critically ill patients outside of these units can require critical care provision, and this was recognised within the DH (2000) modernisation policy entitled 'Comprehensive Critical Care' which re-envisioned the delivery of critical care services. The concept of 'critical care without walls' was created and patients were categorised by the level of care they required regardless of their location within hospital.

Levels of care

The four levels of care shown in Box 1.1 categorised by the DH (2000) are based upon the extent of patient illness and the intensity of care interventions required. The classification of levels of care provides a 'blueprint' for critical care provision along a continuum of care (Albarran and Richardson, 2013). The FICM & ICS (2019) integrated the care levels within their United Kingdom (UK) guidance for critical care staffing levels to ensure sufficient trained critical care staff care for critically ill patients safely and effectively. These patients require complex care, and therefore staffing provision reflects these demands (Royal College of Nursing (RCN), 2017).

The critical care environment

Critical care units range in size, design, and structure and a typical bedspace can be seen in Figure 1.1. In the UK, Department for Health and Social Care (2013) guidelines specify the recommended design and layout, to ensure each critical care unit has sufficient space to provide appropriate bedside care and treatment. Consequently, there is tendency for critical care units to be larger, more technological, and highly clinical environments in comparison to other hospital wards.

Sufficient staff are needed to safely care for critically ill patients, and the complexity of patient treatment reflects the severity of their illness, which is often compounded by

Box 1.1 The four levels of patient care (Source: FICM & ICS, 2019).

Level 0	Patients whose needs can be met through normal ward care in an acute hospital
Level 1	Patients at risk of their condition deteriorating, or those recently relocated from higher levels of care, whose needs can be met on an acute ward with additional advice and support from the critical care team
Level 2	Patients requiring more detailed observation or intervention including support for a single failing organ system or post-operative care and those 'stepping down' from higher levels of care
Level 3	Patients requiring advanced respiratory support alone, or basic respiratory support together with support of at least two organ systems. This level includes all complex patients requiring support for multi-organ failure.

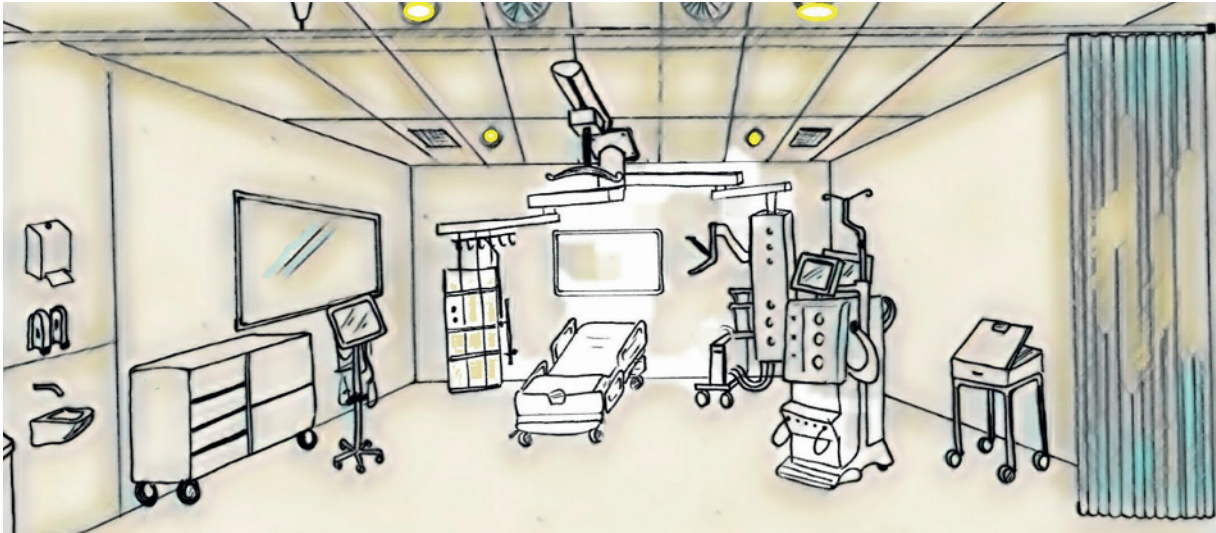


Figure 1.1 Layout of a critical care bed space (Illustrated by Vikki Park 2021 ©).

comorbidities. Therefore, the critical care unit can quickly become crowded with members of the interprofessional team, with machinery and equipment. Consequently, patients can experience sensory overload with elevated and prolonged periods of excessive light, noise, and activity. Critical care teams are hindered, and their collaboration is deterred in units that have poorly positioned equipment, irregular lighting and near constant alarms (Ervin et al., 2018). FICM and ICS (2019) guidelines emphasise that critical care unit design needs to consider environmental factors such as natural light levels, noise reduction and sufficient storage space, and they advocate access to outdoor space. Furthermore, critically ill patients can experience sleep deprivation. Richardson et al. (2013) identify numerous factors that can disturb patient sleep cycles, including mechanical ventilation, noise, light, and critical illness factors such as pain, clinical interventions and medication.

Critical care can be overwhelming for patients, families and all staff, particularly for new workers, students or redeployed colleagues. For patients specifically, this can lead to memories that are upsetting and like nightmares (Bienvenu and Gerstenblith, 2017) and these experiences are often associated with delirium. Tait and White (2019) claim that lack of awareness and knowledge of the adverse effects of delirium can lead to traumatic stress for patients and post-traumatic stress disorder (PTSD). Patients that overcome critical care illness and are discharged from the critical care unit often experience long-term effects as 'survivors' (Connolly et al., 2014). One fifth of 'critical illness survivors' experience PTSD-related symptoms in the first year of discharge from critical care (Bienvenu and Gerstenblith, 2017). Therefore, the need to holistically support patients with psychological recovery from critical illness is apparent, and guidelines from the National Institute for Health and Clinical Excellence (NICE, 2009) outline ways that multidisciplinary critical care rehabilitation can be given to patients.

Orange Flag

Patients admitted to critical care can experience sensory overload, sleep deprivation and can develop delirium and PTSD during their recovery. Rehabilitation support for critical care survivors is advocated, including the utilisation of outside spaces to promote critical care patient recovery. Increased evidence is needed to support critical care patient recovery, such as consideration of the role of psychologists in critical care.

Critical care patients

Whilst patients of all ages can develop critical illness, statistics show that on average patients admitted are older and have comorbidities (Intensive Care National Audit and Research Centre (ICNARC), 2020) and older patients with comorbidities are being increasingly admitted to critical care units (FICM & ICS, 2019). Jones et al. (2020) add to this demographic trend, stating in the last two decades more older patients have been admitted to critical care than can be explained by the demographic shift of the ageing population, but outcomes for critical patients continue to improve and they claim most patients return home following critical care admission. The COVID-19 pandemic has affected the demographics of patients admitted to critical care, and in the UK, early admission data indicated that demographics such as being male or having a body mass index of 30 or higher were commonly associated with critical care patients with COVID-19 (ICNARC, 2021).

Critically ill patients require continuous monitoring, often using invasive medical devices such as central venous catheters (CVC) to monitor central venous pressure (CVP) and to administer multiple intravenous infusions (IVI), and arterial lines to continuously measure

Box 1.2 Examples of patient conditions at Levels 1, 2 and 3.

- Level 1 Post-operative observation for a complex patient with extensive previous medical history or comorbidities. Care transitioning down from Level 2 or up from Level 0.
- Level 2 One organ failure e.g., respiratory failure. Care transitioning down from Level 3 or up from Level 1.
- Level 3 Patient with sepsis and multi-organ failure. Care has transitioned up from Level 2 due to deterioration.

blood pressure and obtain arterial blood samples. Critically ill patients may require clinical interventions to support respiratory, cardiovascular, genitourinary, and gastrointestinal function. Interventions can include invasive or non-invasive ventilation, urinary catheterisation, or parenteral nutrition. Examples of patients that are categorised across Levels 1–3 are provided in Box 1.2.

Level 1 care

Level 1 category patients have the potential to deteriorate, warranting regular vital observations to ensure haemodynamic stability. For example, a Level 1 patient with a NEWS2 score of 4, which is low-risk and requires a ward-based response, needs 4–6 hourly observations, unless one parameter scores 3 and then hourly observations are required (RCP, 2012). This group of patients may include people with a critical care bed booked post-operatively for close observation and monitoring, or patients who have a previous medical history or comorbidities that increase risk of complications or mortality. Level 1 patients may be transitioning their care down from Level 2 and could be ready for transfer to a ward setting, or they could be at risk of deterioration and may therefore require support from the Critical Care Outreach Team (CCOT).

Level 2 care

Patients at Level 2 are historically referred to as 'high dependency patients', and they require support for one failed organ. An example of a Level 2 condition would be a patient with respiratory failure due to Chronic Obstructive Pulmonary Disorder (COPD). Level 2 care is recommended to adopt a nursing care ratio of one nurse to two patients (RCN, 2017; FCM & ICS, 2019). Patients require frequent assessment and close monitoring, are usually conscious and conditions tend to be more stable.

Level 3 care

People who develop multi-organ failure from illnesses such as sepsis require one-to-one nursing care (RCN, 2017; FCM & ICS, 2019) and have severe and life-threatening conditions that need intensive treatment. Patients receiving Level 3 care will probably be intubated and ventilated, often invasively with an endo-tracheal tube (ETT) or tracheostomy tube, rather than non-invasively via a mask. Nutrition and hydration need to be maintained, and sedated ventilated patients are dependent upon the interprofessional critical care team to provide all care, from personal hygiene and positional changes, to organ support. Patients with kidney failure require haemofiltration and cardiovascular support with inotropic medication or vasopressor drugs commonly used in critical care to maintain vascular pressure and perfusion.

Medications management – inotropic and vasopressor medication

Critical care patients with organ failure, decreased vascular resistance, vasodilation, reduced circulating volume or reduced cardiac output may require inotropic or vasopressor medication to improve the blood flow around the body to perfuse tissues and organs.

Inotropes are used to support the cardiovascular system, improving cardiac muscle function, thereby supporting blood pressure, and increasing cardiac output. Inotropes work by affecting heart rate and contractility. Dopamine and doxamine are examples of inotrope drugs.

Vasopressors increase the vascular tone of the circulation through vasoconstriction, thereby increasing blood pressure, perfusion, and organ function. Vasopressors constrict blood vessels, reducing their diameter, increasing vascular resistance, and raising blood pressure. Noradrenaline and vasopressin are examples of vasopressors.

Inotropes and vasopressors are given intravenously in small volumes with syringe pumps, usually via central venous catheters. Administration of inotropes and vasopressors require close monitoring and careful titration, and caution must be exercised with management of such medication to avoid side effects, to ensure safe administration and to maintain the haemodynamic stability of patients receiving these potent medications.

See Chapters 11 and 13 for a further discussion of medications used in the critical care environment.

The snapshot (a patient referred to CCOT) gives an example of a deteriorating patient that requires admission to the critical care unit.

Snapshot

An example of a patient referral to the Critical Care Outreach Team (CCOT)

The CCOT nurse receives a referral from a surgical ward nurse for an urgent review of a patient who is 2 days post-operative following a hemi-colectomy (bowel surgery). The patient is John, a 67-year-old man who had a bowel resection for cancer. The nurse reports concern about his vital observations and reports he has new-onset confusion and agitation. The nurse is concerned John has sepsis, so has completed an infection screen. John's latest observations are:

Airway (A): Airway is patent and speaking in full sentences.

Breathing (B): Oxygen saturations 93% (NEWS2 = 2), on room air (NEWS2 = 0), respiratory rate (RR) 28 breaths per minute (NEWS2 = 3).

Cardiovascular System (C): Blood Pressure (BP) is 90/58 (NEWS2 = 3), Heart Rate (HR) is 112 beats per minute (NEWS2 = 2), capillary refill time (CRT) is 4 seconds.

Disability (D): New-onset confusion is noted (NEWS2 = 3), John is assessed as 'C' on the ACVPU scale (see Chapter 14), Body Temperature (T) is 38.6°C (NEWS2 = 1).

Exposure (E): Wound dressing intact. No abnormalities detected (NAD).

Total NEWS2 score: 14

Nursing actions

- The CCOT nurse attends the ward within 30 minutes to perform an urgent review in line with NEWS2 guidelines (Royal College of Physicians (RCP), 2020).
- John gives consent to be assessed and is updated about his condition.
- Vital observations are repeated and a thorough ABCDE assessment is conducted, with a head-to-toe assessment.
- The medical team is informed of the assessment findings for senior clinical review within 60 minutes (RCP, 2020).
- The patient is categorised as Level 2 – a bed is arranged on critical care to move the patient to an 'environment with monitoring facilities' (RCP, 2020).
- The CCOT nurse liaises with critical care and transfers John to the unit.
- The ward staff contact the patient's family.

Diagnosis

- John is diagnosed with sepsis.
- The Sepsis 6 protocol is initiated.
- The source of the infection is unknown, pending culture and sensitivity results from the infection

screen. A broad-spectrum antibiotic is commenced after blood cultures have been obtained.

- 30-minute observations are commenced initially on the ward.
- Oxygen and intravenous (IV) fluids are commenced.

Red Flag

New-onset confusion is an indicator of acute illness and requires urgent clinical assessment. Acutely altered consciousness and cognition can be caused by sepsis, hypoxia, hypotension, or metabolic disturbances.

RCP (2020)

Critical care competence

Critical care requires 'specific knowledge and skills' (ICS, 2020), and to holistically care for critically ill patients, a range of professions are required. The professional boundaries between staff often blur and overlap, and scope of professional practice is influenced by professional jurisdiction based upon profession-specific knowledge (D'Amour and Oandasan, 2005). This means that every profession works within their individual and professional levels of competence and within the remit of their professional field, which is often regulated by professional regulatory bodies such as the Nursing and Midwifery Council (NMC), the Health and Care Professions Council (HCPC) and the General Medical Council (GMC).

6Cs: Competence

To provide high-quality, safe and effective care, health-care professionals must recognise and work within the limits of their competence for their professional field.

Professionals are perceived as accountable by professional regulatory bodies to effectively apply their knowledge to inform practice-based decisions (Scholes et al., 2013). Healthcare staff registered with a professional regulatory body must possess a minimum level of competence to be entered onto their profession-specific register as a qualified healthcare practitioner, and to maintain registration they must maintain competence through regular learning, skill development and appraisal.

For nurses, the adult critical care nursing role is recognised as highly skilled. However, in the UK, to counter concerns about nurses' competence and post-registration education (Deacon et al., 2017), a national critical care

Box 1.3 Step 1 competency example.

Step 1 Competencies

National Competency Framework for Critical Care Nurses (CC3N, 2015b)

1.1.1 Promoting Psychosocial Wellbeing

You must be able to demonstrate through discussion essential knowledge of (and its application to your supervised practice):

Concept of holistic care and how it can be incorporated into your practice:

- Physical
- Psychological
- Social and family
- Spiritual and cultural

competency framework was developed to standardise knowledge and skills, and to develop insight into the critical care nurse role (Critical Care Network National Nurse Leads (CC3N), 2015a). The framework aims to promote safe, effective, transferable levels of care to patients and their families. Nurses new to critical care are expected to complete Step 1 competencies within 12 months, and newly registered nurses need a minimum of 6 weeks supernumerary status. The first element in the Step 1 competencies identified as a priority to achieve relates to promoting psychosocial wellbeing (see Box 1.3). Step 2 and Step 3 competencies are completed alongside academic programmes to develop expertise and competence (CC3N, 2015b).

The interprofessional team

Different professions are involved in providing complex patient care and the number of professionals involved reflects the trajectory patient treatment takes. Box 1.4 illustrates key healthcare professions that may provide critical care.

Critical care nurses are described as the one constant professional presence who advocate for patients and liaise with other professions (Park, 2019), nurses must develop rich knowledge and many skills to provide critical care safely and effectively. Nurses require technical skills, such as operating ventilators or haemofiltration equipment, and they need highly developed assessment skills and interpersonal skills to communicate effectively with patients, families, and colleagues.

Whilst critical care nurses provide 24-hour patient care, often on a one-to-one nurse to patient basis, they are supported by healthcare support workers such as healthcare assistants. Healthcare assistants and nursing support workers are essential members of the critical care unit team, and their role involves supporting healthcare professions

Box 1.4 Some of the healthcare professions working in the critical care unit.

Healthcare professions common to critical care units

Nurses, medical staff, physiotherapists, healthcare support workers, pharmacists, microbiologists, dieticians, speech and language therapists, psychologists, rehabilitation teams, health scientists, critical care outreach teams, advanced critical care practitioners, occupational therapists, infection control teams and students.

and providing direct care to patients. As a staff group that is not registered with a professional regulatory body, their training and career pathways are supported by organisations such as the RCN (2021), and a code of conduct has been produced by Skills for Care & Skills for Health (2013) to guide training, outlining role expectations and promoting consistent standards for practice.

Teams of doctors from different specialities plan and oversee the patient's treatment. Medical teams present in the critical care unit can include intensivists (critical care consultants), anaesthetists, junior doctors, advanced critical care practitioners (ACCPs), and visiting specialists such as surgeons or gastroenterologists. In the UK, doctors are registered and regulated by the General Medical Council (GMC) and have clearly defined training programmes, career pathways and appraisal processes.

Critically ill patients will often be cared for by physiotherapists. This independent body of practitioners, whose professional focus is on the optimisation of muscular-skeletal and respiratory function, are registered with the Health and Care Professions Council (HCPC) in the UK. Physiotherapists are vital in the recovery and rehabilitation of critically ill patients, and they can assist with breathing, ventilation, and mobility.

The intensity and complexity of patient care has resulted in extended roles in the interprofessional team. Several roles now exist, such as advanced critical care practitioners, nursing associates, physiotherapy assistants and critical care assistants. Extended roles in the critical care team have been associated with increased interprofessional learning and holistic care provision (Park, 2019).

To meet the needs of patients and to provide expert care, other professions common to critical care include dieticians to optimise nutritional status, pharmacists to oversee pharmacological management and speech and language therapists to ensure patients can safely swallow, additionally supporting patient communication.

Patients outside of the critical care unit receiving care at Level 1 or above may be cared for by the CCOT, emergency response teams or rehabilitation teams. These external teams are resourced with experienced critical care practitioners and their goal is to stabilise and support patients at specific stages of their critical illness to promote recovery and prevent deterioration.

Communication

Effective communication occurs when staff understand professional roles and share collaborative goals, and Hawryluck et al. (2002) link a lack of understanding with increased tension. Whilst critical care teams have low temporal stability because the team membership frequently changes (Ervin et al., 2018), Alexanian et al. (2015) note that teams continue to work effectively when they communicate shared knowledge and when they have shared expectations of professional roles. Therefore, effective communication between interprofessional team members is fundamental to the success of the collaborative critical care team (Van den Bulcke et al., 2016).

6Cs: Communication

To provide high-quality, safe care, healthcare professionals must communicate clearly and effectively to meet the complex needs of critically ill patients.

Ways of working

The critical care team develops routines and ways of working in the culture of their daily practice. The definitive starting and end point of a shift for most professionals is demarcated by the practice of handover. At the point of a shift change, healthcare staff such as doctors and nurses conduct handovers to update colleagues about the care given to patients and the events that have occurred. Handovers have also been associated with culture and rituals which have shared meanings within teams (Philpin, 2006). Whilst handovers tend to be profession-specific, they can be interprofessional, and interprofessional handovers are advocated within critical care standards to promote engagement in interprofessional activities (FICM & ICS, 2019). In the critical care unit, handover shapes the way professions work.

Each profession works in their own way to meet the remit of their professional focus and has its own goals for patient care, viewing patients through a different professional lens (Park, 2019). Staff are professionally socialised into their roles and Stephens et al. (2011) indicate it takes time for different professions to become professionally socialised in the critical care unit. Socialisation in healthcare happens when profession-specific frameworks shape

staff based upon a shared disciplinary worldview with firmly defined professional jurisdictions (D'Amour and Oandasan, 2005). As a multidisciplinary environment, critical care staff share the same goal to care for critically ill patients, but they have different outlooks, professional standards, and regulations (Gagan and Tait, 2019). Therefore, different professions share similar beliefs and values when caring for patients, but their professional perspectives differ.

A core goal shared by the interprofessional critical care team is to promote the provision of safe, effective, high-quality care that is patient-centred and holistic in nature (Park, 2019). This commonality between professions unite staff and forge a community of critical care practice which has shared values and shared purpose.

6Cs: Commitment

All critical care professions are committed to the shared goal of providing safe, holistic, patient-centred care.

Healthcare professions should raise concerns, identify safeguarding issues, and ask questions to learn and promote a safe working environment. The term 'psychological safety' refers to the feeling that staff are free from detrimental consequences if they speak up in the workplace. Ervin et al. (2018) claim that critical care functioning improves when psychological safety enables team members to contribute to problem solving and collaborative decision making. Avoiding 'authoritative decision making' approaches further promotes interprofessional decision making, enabling professions to highlight problems and challenges as they arise (Van den Bulcke et al., 2016).

6Cs: Courage

Healthcare professions require courage to ask questions, to raise concerns and to contribute to collaborative interprofessional decision making and care provision.

Red Flag

Most mistakes and clinical errors can be linked to communication. The extensiveness and low temporal stability of the critical care team means that communication must be exemplary between all interprofessional colleagues to always ensure the safety of critically ill patients.

Understanding philosophies of care

Care given to critically ill patients can become subsumed by the pragmatics of using technology and urgently treating the patient's physical presentation with the aim of monitoring haemodynamic stability and therefore prioritising the treatment of life-threatening conditions. One of the challenges in the critical care unit is to ensure that care remains patient-centred and holistic. It is imperative that the health care team do not lose focus of the patient amidst all the care interventions and invasive treatments, and that care is humanised and based on compassion.

6Cs: Compassion

Compassion in critical care is needed to ensure that the critically ill patient remains the focus of care provided.

The term 'philosophy of care' refers to the philosophical perspectives that individuals position themselves from in the pursuit of providing care to others. Philosophies of care are therefore theoretical belief systems that staff adopt to guide and underpin patient care. The provision of healthcare is based upon the ethical concepts of beneficence and non-maleficence. In simple terms, these are the acts of 'doing good' (Kozier et al., 2012) and 'to do no harm' (Gagan and Tait, 2019).

An example of a philosophy of care advocated in current healthcare practice is holism. Holistic approaches to care are concerned with the whole person, addressing their complex needs, considering the environment and following a bio-psycho-social care model (Kozier et al., 2012). The ICS (2020) caution that 'task-based approaches' to practice create barriers to holistic care. When care is fragmented into discrete tasks, the focus on the patient as a whole person becomes obscured and patients' complex holistic needs cannot be fulfilled. However, White and Tait (2019) recognise that for critically ill patients, critical care nurses may focus on the 'immediacy of sustaining life' rather than providing holistic care.

Patient-centred care as a concept centralises the patient as the focal point of care. Derived from theorist Carl Rogers' interest in client-centred therapy, it has a long history in nursing practice, and is recognised as a core philosophy in healthcare which is associated with quality improvement, adopting a holistic viewpoint (White and Tait, 2019).

Family-centred care is a philosophy that recognises family members need support when relatives become critical care patients, and healthcare professions need to involve families in patient care in person or remotely where possible. Brannay and Brannay (2019) discuss the importance of family access to the critical care unit and associate 'well managed' family visits with improvements

in patient recovery. However, it is known that families experience distress with uncertainty over their relative's recovery and as they adapt to the intimidating unfamiliar critical care environment, therefore staff must care for family in addition to patients (Tait and White, 2019). Family presence in the critical care unit is affected by visiting hours, hospital policies, patient acuity and culture. The COVID-19 pandemic influenced family access to the critical care unit, where prevention measures to reduce infection rates created an absence of families within hospitals. Montauk and Kuhl (2020) explain that increased family separation in critical care during the pandemic is likely to exacerbate psychological dysfunction experienced by families leading to increasingly complex decision making and exclusion from patient care, which prevents information processing, grief and closure.

Humanising critical care

Being human in such an intense clinical environment promotes care that is personable and kind. In such a highly technologically driven environment, with medical crises and invasive treatments, the challenge for those providing critical care is to remain patient-focused and person-centred. White and Tait (2019) propose that as healthcare becomes increasingly technical, the need for humanisation becomes increasingly essential. Humanising care is fundamental to the patient and family experience, and philosophically underpins the approach to critical care.

Humanisation as a philosophical concept can be traced back to key authors such as Carl Rogers and is rooted in the Renaissance and Enlightenment movements (Létourneau et al., 2017). When applied to healthcare, this philosophy perceives patients as people rather than the conditions they have or as a subset of biological systems. Critical care involves the complex balance of caring for patients physically, psychologically, socially, and emotionally, whilst primarily meeting the physiological needs of the body. One of the greatest risks in the critical care unit is for the acute environment to overshadow the human aspects of care, and when this happens, care becomes dehumanised (Todres et al., 2009) and holistic care becomes unachievable. An example of humanised care is patient diaries that capture the lived experience of being in critical care.

Adopting a humanised approach can enhance the therapeutic relationship with patients and their families, building trust and collaboratively working towards shared care goals. Humanising care extends to health professional colleagues as well. Additionally, trust and respect between colleagues can enable open interprofessional communication (Van den Bulcke et al., 2016) and affects interprofessional decision making (Alexanian et al., 2015). Humanising approaches between staff have been linked to improved staff morale, effective teamwork, and open environments where staff can ask questions, use professionally apt humour, share emotions and learn interprofessionally (Park, 2019).

Surviving critical care

Patient and family recovery after critical illness extends beyond admission to critical care. Rehabilitation teams, psychologists and use of outdoor spaces recognise and respect the person experiencing the critical illness with the goal of promoting healing and recovery. Effective patient care is built on a foundation of trust, and rapport developed between patients and the interprofessional team are associated with higher levels of morale and improved patient and family experiences. Survivors of critical care require rehabilitation support after discharge from the unit (NICE, 2009), and rehabilitation teams and voluntary organisations like ICU Steps can offer emotional and social support to patients and families once they have left the critical care unit.

Death in critical care

Whilst many people are discharged, they often experience long-term health conditions and may be readmitted for further treatment. Due to the fragility of patients' health, and the extent of critical illness, many patients do not survive and will die in the critical care unit. Mortality rates in the critical care unit can be high. Chapter 32 discusses dying and death. For staff, ensuring a dignified death that protects patient and family wishes is paramount. Measures taken to promote a humanised and dignified death can include:

- agreeing 'ceilings' of treatment to limit the invasiveness of interventions, where early decisions are made between staff, patients and families to predetermine the limit and 'highest level of intervention' that the medical team consider to be contextually appropriate to promote quality care (Walzl et al., 2019)
- implementing DNACPR orders (Do Not Attempt Cardiopulmonary Resuscitation) and
- initiatives such as ReSPECT (Recommended Summary Plan for Emergency Care and Treatment), endorsed by the Resuscitation Council (UK), which is a document which can capture patients' wishes about ceilings of treatment and CPR, to inform and guide decision making within clinical practice (Hawkes et al., 2020).

Resilience

Critical care staff are repeatedly exposed to stressful and emotional circumstances. Burnout, emotional labour, and moral distress are all associated with staff in the critical care unit, and the workforce is challenged to manage these stressors in a way that promotes health and well-being.

Work in the critical care unit can be emotionally challenging (Highfield, 2019). Critical care provision is complicated, consuming emotional energy (Lindahl and Norberg, 2002), and can evoke intense emotions (Brindley and Reynolds, 2011) which can be culturally stigmatised in relation to coping (Jackson et al., 2018). The process of emotional investment that people make in their daily working lives is

often referred to as 'emotional labour' (Hochschild, 2003). Stayt (2009) acknowledges that caring for critically ill patients and their families in the critical care unit expends significant amounts of emotional labour. Further psychological distress can arise for staff in situations where clinical decisions or situations conflict with their personal or professional morals, and this term is referred to as moral distress (Jameton, 2017). Exposure to moral distress in the workplace can lead to burnout and staff attrition as nurses leave the profession (Gutierrez, 2005).

Resilience is often referred to as a means of managing stressful circumstances, although there is no universal definition within research literature (Aburn et al., 2016). Resilience enables nurses to adapt positively to stressors and adversity in the workplace and is recognised as a dynamic and complex process (Cooper et al., 2020) and from these challenging experiences, individuals can learn and gain strength (Grant and Kinman, 2013). In critical care, resilience explains how staff can 'bounce back' from exposure to traumatic situations (Arrogante and Aparicio-Zaldivar, 2017). Resilience is associated with enhanced performance (Hartwig et al., 2020), staff retention, increased job satisfaction, increased quality of care, successful coping, and protection from psychopathology (Cooper et al., 2020). As a complex process, the concept of resilience in nurses is outlined in Figure 1.2, and resilience can be viewed from the perspective of individuals, teams, and organisations.

Personal resilience

From a personal perspective, resilience reduces the effect of workplace stress on critical care professionals' mental health (Arrogante and Aparicio-Zaldivar, 2017) and reflects a nurse's personal response to stressors. Research has indicated multiple factors that can influence resilience for individuals. Key factors include achieving work-life balance and self-care, being realistic and having social support (Cooper et al., 2020), having flexibility (Thomas and Revell, 2016), and having optimism, a sense of humour and self-efficacy (Thomas and Revell, 2016, Cooper et al., 2020). Critical care nurses experience different levels of workplace adversity and awareness of adversity shapes the nurse response (Jackson et al., 2018).

Team resilience

Nurses need resilience to respond to different adverse situations (Arrogante and Aparicio-Zaldivar, 2017), but having a group of individuals with high levels of resilience does not always produce a resilient team. Hartwig et al. (2020) consider a team's ability to face adversity as a collective response that is facilitated through effective collaboration, communication, and coordination, and they refute the aggregation of individual resilience as a representation of a team's overall resilience. Being in a resilient team can reduce workplace stressors for individuals because teams with strongly developed shared identities experience less stress and have higher well-being (van Dick et al., 2018). Shared identities can create commonalities and a community of critical care practice (Park, 2019) and can reduce workloads and increase capacity for team

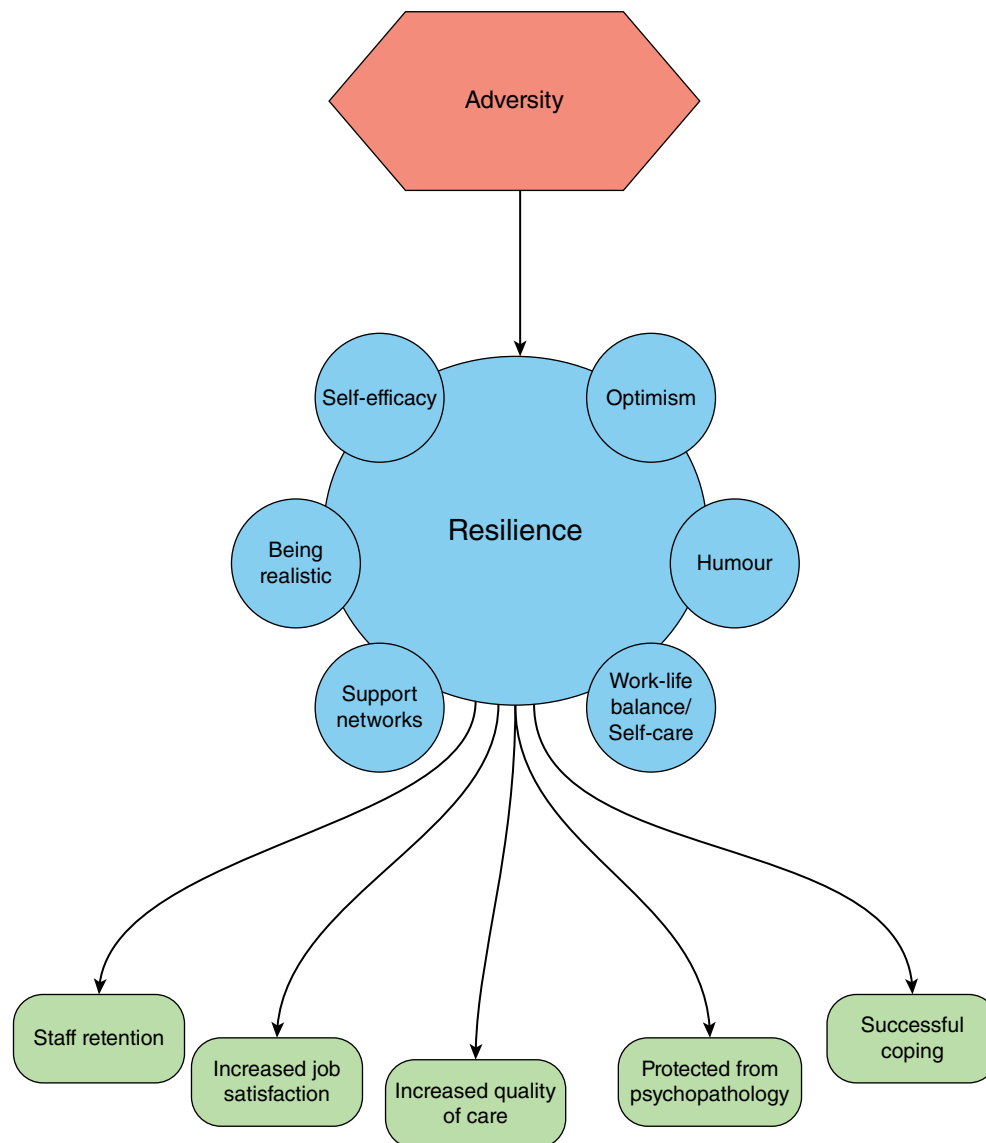


Figure 1.2 The concept of resilience in nurses.

Source: Cooper et al., 2020.

resilience (Hartwig et al., 2020). Team resilience is critical for situations where failure to collaborate as a team at work would jeopardise people's lives (Hartwig et al., 2020), which applies to the critical care unit.

Organisational resilience

Supportive clinical environments are needed to address workplace adversity, to promote retention of staff in critical care units and to promote well-being (Jackson et al., 2018). Therefore, organisational resilience can be viewed as the collective response of multiple teams when facing challenges and threats. Sustaining resilience requires individuals and organisations to engage and take action (Cooper et al., 2020). Overcoming stress in healthcare organisations is the focus of publications such as the 2015 RCN guide *Healthy Workplace, Healthy You. Stress and You: A Guide for Nursing Staff* and the DH 2009 paper *NHS Health and Well-being Final Report*.

Whilst resilience definitions are broad and research remains limited, the links between workplace adversity, burnout and resilience are clear within the acute environment of critical care and several mechanisms have been associated with improved management of workplace stressors, as illustrated in Figure 1.3.

Learning event: reflections

Consider the COVID-19 pandemic and reflect on an experience related to this where you or someone else may have become overwhelmed or required support in the workplace. Consider the coping strategies adopted, mechanisms of support available and ways to promote well-being and resilience.

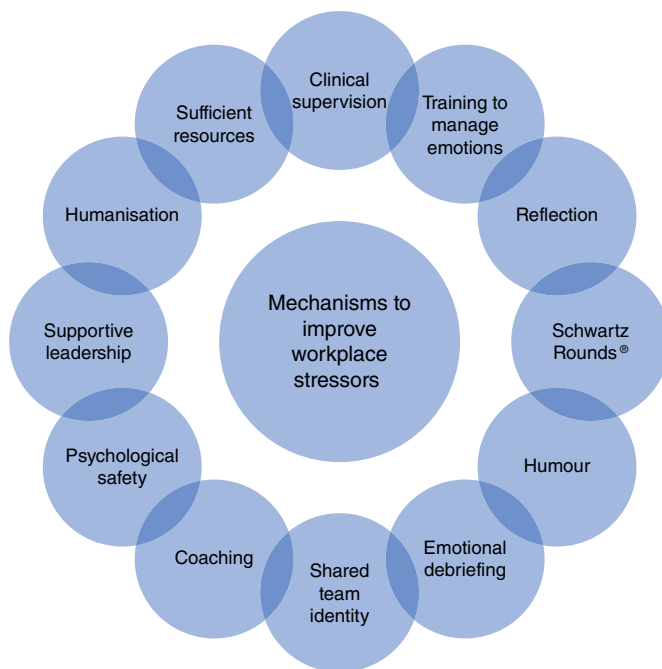


Figure 1.3 Examples of mechanisms to improve workplace stressors.

Nursing considerations and recommendations for practice

Nurses must prioritise people, as indicated in the code of professional conduct (NMC, 2018). As indicated in Box 1.5, nurses must assess and respond to patients' holistic needs promoting their health, well-being and preventing illness during all life stages. Partnership working with patients provides information and support, giving access to relevant health and social care. Nurses must act as patient advocates, and upon recognising the patient at the end of their life must provide compassionate care. Complex care must be thoroughly and accurately assessed, and care plans must meet patient's individual needs.

Future challenges

Critical care in the 21st century faces many challenges. The increasingly ageing population presents global challenges of treating more people with increasingly complex needs (Jones et al., 2020). However, the unexpectedness of the COVID pandemic and the rapidity with which the virus spread across the world is a stark reminder that the role of the critical care team has never been more intrinsic to global health and demands persist for increased numbers of highly skilled knowledgeable staff to meet these increasing health demands of the population. Technology is ever-evolving, and clinical practice advances at pace, underpinned by research and evidence as the face of healthcare adapts. Future critical care units need to be flexible to adapt to

Box 1.5 Assessing and responding to patient's holistic needs. Source: NMC, 2018.

NMC (2018) Prioritising People

3. Make sure that people's physical, social, and psychological needs are assessed and responded to.

To achieve this, you must:

- 3.1 pay special attention to promoting wellbeing, preventing ill health, and meeting the changing health and care needs of people during all life stages,
- 3.2 recognise and respond compassionately to the needs of those who are in the last few days and hours of life,
- 3.3 act in partnership with those receiving care, helping them to access relevant health and social care, information, and support when they need it,
- 3.4 act as an advocate for the vulnerable, challenging poor practice and discriminatory attitudes and behaviour relating to their care.

healthcare challenges, to respond to global health needs, and to maintain a humanised approach to care. The shared goal of providing safe holistic person-centred care is the driver that will ensure the future critical care workforce is versatile and resilient to rise to future challenges.

Conclusion

As a specialised area, the critical care unit often cares for the most critically ill patients in hospital. The large technological units are frequented by many different professions with their own professional perspectives, but all staff work towards the shared goal of providing safe, effective, holistic care to critically ill patients. Therefore, communication within the interprofessional critical care team must be exemplary. Due to the complexity of care provision, those working in critical care units need to become highly skilled and knowledgeable, and sufficient staffing levels are essential to safely provide specialist care. Critical care is emotionally demanding, affecting patients, families and the workforce, and is associated with emotional labour, moral distress and burnout. Individuals, teams and organisations develop resilience to overcome workplace adversities. Adopting a humanising approach to critical care supports patients, families and staff, and this can be challenging in such an acute environment. The critical care team must collaboratively work together to assess and respond to the physical, psychological and social needs of critically ill patients (NMC, 2018).

Take home points

1. The critical care unit tends to be large, fast-paced and highly technological.
2. Critically ill patients have complex needs.
3. It takes many different professions to provide holistic critical care.
4. It is important to understand professional roles in critical care.
5. Clear effective communication is needed.
6. Care must be humanised and holistic in approach.
7. The critical care unit can be an emotionally demanding environment.
8. The critical care team must find ways to develop resilience.
9. Critical care patients may require rehabilitation after critical illness.
10. Families require information and support.

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