

Nurse Resilience: A Concept Analysis

Abstract

Nurse resilience is attracting increasing attention in research and practice. Possession of a high level of resilience is cited as being crucial for nurses to succeed professionally and manage workplace stressors. There is no agreed definition of nurse resilience. A concept analysis was undertaken to examine nurse resilience using a priori selected analysis framework. This concept analysis aims to systematically analyse resilience as it relates to nurses and establish a working definition of nurse resilience. Sixty-nine papers met the search criteria for inclusion. Key attributes of nurse resilience were social support, self-efficacy, work-life balance/self-care, humour, optimism and being realistic. Resilience enables nurses to positively adapt to stressors and adversity. It is a complex and dynamic process which varies over time and context and embodies both individual attributes and external resources. Sustaining nurse resilience requires action and engagement from both individuals and organisations.

Keywords: Resilience; nurses; concept analysis; definition; adversity

Introduction

The stressful nature of nursing work places nurses at increased risk of burnout, depression, anxiety, secondary traumatic stress (STS) and suicide (Alderson et al., 2015; Craigie et al., 2015; D Hegney et al., 2014; Khamisa et al., 2013; Ray et al., 2013). Like other health professionals and emergency personnel, nurses are exposed to a wide variety of stressors including trauma, shift work, workplace violence and insufficient resources (Happell et al., 2013; Hsieh et al., 2016; Mealer et al., 2017; Zander et al., 2013). Specifically, in a mental health context, nurses are exposed to unique stressors including witnessing patients inflict self-harm and caring for patients who may attempt and complete suicide (Hagen et al., 2017; Toftthagen et al., 2014). A recent study found the emotional labour of suppressing emotions during interactions with patients negatively affected the resilience of mental health nurses (Delgado, Roche, Fethney, & Foster, 2020).

Moral distress can contribute to burnout and is when an individual is unable to act according to their core values due to internal and external restraints (Fumis et al., 2017; Rushton et al., 2015; Wagner, 2015). The nature of a nurses' role, involves providing continuous care and forming close relationships with patients and families, placing them at increased risk of compassion fatigue (CF) and burnout (Boyle, 2011; Jarrad et al., 2018). Protective factors which enable nurses to positively adapt in stressful work situations have been reported. Personal resilience has been identified as a key protective attribute in dealing with these circumstances (Cusack et al., 2016; Gillespie et al., 2009; Manzano García & Ayala Calvo, 2012; Meredith Mealer et al., 2012; Rushton et al., 2015). Maintenance of psychological wellbeing and mental health are common outcome indicators of a resilient process following adverse events (Foster et al., 2020; Gao et al., 2017; Itzhaki et al., 2015).

The origins of research in resilience stem from psychology, initially in children (Garmezy et al., 1984; Werner & Smith, 1982), then in groups including; adults (Connor & Davidson, 2003; Liu et al., 2015), veterans (Elbogen et al., 2012; Pietrzak et al., 2014), patients with chronic illness (Guest et al., 2015; Tan-Kristanto & Kiropoulos, 2015) and trauma victims (Anderson et al., 2012; Daniels et al., 2012). Most people are exposed to one or more life-threatening experiences (Southwick et al., 2014) as well as regular stressors throughout their lifetime (Fletcher & Sarkar, 2013; Southwick et al., 2014). Understanding what facilitates resilience and positive adaptation may play an important role in improving mental health for people across many contexts.

Resilience has been defined as a trait, a process and an outcome (Fletcher & Sarkar, 2013). When considered as a personality trait, resilience is fixed and stable over time whereas, when viewed as a dynamic process resilience can develop throughout life and vary across context and time (Atkinson et al.,

2009). Defining resilience as a trait originates in psychology when identifying the characteristics of resilient individuals was a focus (Fletcher & Sarkar, 2013; O'Dougherty-Wright et al., 2013). Consideration of the more complex nature of resilience gave rise to the view of a dynamic process where adaptive systems beyond individual characteristics interplay and affect individual resilience including biological, social and cultural processes (O'Dougherty-Wright et al., 2013). Definitions based on possessing a high level of resilience focus on positive adaptation and successful coping (Fletcher & Sarkar, 2013). Regardless of perspective, most definitions centre around adversity and positive adaptation (Fletcher & Sarkar, 2013). Adversity is an unpleasant or difficult situation (English Oxford Dictionary, 2018). Positive adaptation is '...the processes by which individuals' attain overall patterns of adjustment that represent unusually favourable developmental trajectories, given their background and available resources' (Mahoney & Bergman, 2002, p. 197).

Due to variations in any concept's utilisation across disciplines and contexts, clarity is required when employing a concept in nursing research (Baldwin, 2008; Foley & Davis, 2017; Walker & Avant, 2011). Concept analysis (CA) is utilised to inform a precise definition and provide mutual understanding (Foley & Davis, 2017).

Design

Concept Analysis is a precise and rigorous process, pioneered by the philosopher Wilson (1963), with the methodology spreading across disciplines. In nursing CA emerged in models developed by Rodgers and Knafl (1993), Walker and Avant (1995), Morse (1995) and Chinn and Kramer (1995). Walker and Avant's (1995) model is the most widely applied in the literature (Fitzpatrick & McCarthy, 2016) and has been further updated and refined. Their approach uses an eight-step process (Table 1) to guide a deeper understanding of a concept. These steps are *iterative* rather than *sequential* (Walker & Avant, 2011). Using Walker and Avant's method, an analysis of the critical attributes of resilience related to nurses is presented. The antecedents and consequences are described and model, borderline and contrary cases define the concept.

Table 1. Adaptation of Walker and Avant (2011) steps of concept analysis

Steps of Concept Analysis	Description
Select a concept	Concept selection for analysis
Determine the aims or purposes of analysis	Focus on the purpose and intention of performing the CA
Identify all uses of the concept you can discover	'.... Identify as many uses of the concept as you can find' (Walker & Avant, 2011, p.161)
Determine the defining attributes	Establish the cluster of attributes most frequently associated with the concept
Identify a model case	'...an example of the use of the concept that demonstrates all the defining attributes of the concept'. (Walker & Avant, 2011, p.163)
Identify additional cases	Used to illustrate what the concept is and is not. Borderline, related and contrary cases are frequently used invented and illegitimate cases are not always required.
Identify antecedents and consequences	Antecedents are '...events or incidents that must occur or be in place prior to the occurrence of the concept. Consequences are '...events or incidents that occur as a result of occurrence of the concept'. (Walker & Avant, 2011, p.167)

Define empirical referents	'...classes or categories of actual phenomena that by their existence or presence demonstrate the occurrence of the concept'. (Walker & Avant, 2011, p.168)
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Aim

Concept and Purpose

Whilst resilience is increasingly being referred to and explored in the nursing literature, there is no clear definition of what resilience means for nurses (Aburn et al., 2016). The aim of this CA is to inform a working definition of nurse resilience. An important potential implication of this study is that use of a consistent definition of resilience could guide future research efforts in the area. By knowing the key markers of nurse resilience, studies can be designed that focus specifically on the measurement of these variables.

Definitions and Uses of the Concept

In order to fully understand resilience, all uses must be considered including exploring literature outside of the discipline to avoid bias (Walker & Avant, 2011).

Primary Definitions

The origin of the term resilience is in the Latin word *resilire* meaning to 'spring back' (Online Etymology Dictionary, 2017). The English Oxford Dictionary (*English Oxford Dictionary*, 2017) defines resilience as 'the capacity to recover quickly from difficulties; toughness' or 'the ability of a substance or object to spring back into shape; elasticity'. Synonyms include flexibility, strength, pliability, buoyancy, toughness and hardiness and antonyms include rigidity, fragility, vulnerability and weakness (English Oxford Dictionary, 2017).

In science resilience refers to how easily a material returns to its original shape after elastic deformation (Gorse et al., 2012) or the rate that a system regains structure and function following stress or perturbation (Park & Allaby, 2017). In sport resilience is a measure of a body's resistance to deformation (Kent, 2006). In social ecology resilience is the capacity of a system to absorb or withstand disturbances and reorganise while undergoing change yet retain the same structure, function and identity (Walker et al., 2004).

Resilience in Psychology

In children research focused on how, when faced with significant adversities such as having a mother with schizophrenia (Garmezy & Streitman, 1974), socioeconomic disadvantage (Garmezy, 1991; Werner & Smith, 1982), maltreatment (Cicchetti et al., 1993; Moran & Eckenrode, 1992), chronic illness (Wells & Schwebel, 1987) or catastrophic life events (O'Dougherty-Wright et al., 1997) some were able to positively adapt and thrive. Studies focused on identifying characteristics or attributes resilient individuals possess (Garmezy, 1991; Kobasa et al., 1982; Rutter, 1987; Werner, 1982; Werner & Smith, 1982). Examples include a supportive environment, hardiness, good self-esteem and an easy temperament. These protective factors, are considered to foster positive outcomes in children exposed to adversity (Bonanno, 2004). A number of definitions have been offered for resilience in children including; '...the positive pole of individual differences in people's response to stress and adversity' (Rutter, 1987, p. 316) and '...a dynamic process encompassing positive adaptation within the context of significant adversity' (Luthar et al., 2000, p. 543).

The study of resilience moved beyond developmental and social-psychological studies when post-traumatic stress disorder (PTSD) as a diagnostic entity arose in 1980 (Agaibi & Wilson, 2005). Research focused on adults, examining responses to trauma and the development of PTSD. Psychologists sought to establish factors associated with vulnerability and resilience to PTSD (Agaibi & Wilson, 2005; Zuckerman,

1999). Studies focused on groups exposed to extreme trauma including; war veterans (Bartone, 1999; Hendin & Haas, 1984), prisoners of war (Gold et al., 2000; Kluznik et al., 1986) and holocaust survivors (Cohen et al., 2002; Kahana et al., 1988). In the context of acute trauma, resilient individuals are those that do not develop PTSD (Hoge et al., 2007). Definitions of resilience in adults include; 'Resilience embodies the personal qualities that enable one to thrive in the face of adversity' (Connor & Davidson, 2003, p. 76) and '... resilience reflects the ability to maintain a stable equilibrium' (Bonanno, 2004, p. 20). Despite the risk of psychopathology following trauma most people positively adapt and display resilience (Bonanno, 2004). This acknowledgement of the commonality of resilience stimulated a move away from focusing on psychopathology and towards a positive paradigm (Pan & Chan, 2007). The presence of resilience in individuals frequently exposed to adversity and how to foster and maintain this has become an area of particular interest.

A number of professionals including firefighters (Carpenter et al., 2015; Kimbrel et al., 2011; Meyer et al., 2012), police officers (Gershon et al., 2009; Martinussen et al., 2007), air traffic controllers (Jou et al., 2013; Maier, 2011; Martinussen & Richardsen, 2006) and health professionals (Felton, 1998; Koinis et al., 2015; Meredith Mealer et al., 2012) are subjected to extreme levels of stress, adversity and trauma at work which can result in negative psychological outcomes. The need to support individuals working in such areas is recognised and resilience has been identified as a key protective factor (Galatzer-levy et al., 2013; Lee et al., 2014; Papazoglou & Andersen, 2014). Drawing on definitions offered in psychology in their study of firefighters Lee et al., (2014, p. 129) state; 'Resilience can be defined as the ability to adapt and successfully cope with acute or chronic adversity'. Galatzer-levy et al., (2013, p. 545) cite the work of Bonanno (2004) identifying resilience as commonplace in police officers facing frequent exposure to potentially traumatic events; '... with the largest group being asymptomatic or having very low symptoms overtime, a pattern designated as resilience'.

Positive psychology has been applied to explore how organisations can influence resilience and well-being of employees (Bakker & Schaufeli, 2008; Bardoel et al., 2014; Youssef & Luthans, 2007) as can positive organisational behaviour (Bakker & Schaufeli, 2008). Conditions and resources organisations can provide include; social supports at work, employee assistance programs, flexible work arrangements, reward and benefit systems, development programs and work-life balance practices (Bardoel et al., 2014). Positive organisational behaviour benefits employees and results in better outcomes for organisations (Lengnick-Hall et al., 2011). There is evidence that behaviours of nurse managers can affect nurses' well-being and their ability to provide quality care (Adams et al., 2018) mirroring findings in other workplaces (Boddy, 2014; Chughtai et al., 2015).

The definitions of resilience utilised in the context of nursing research remain ill defined. Whilst the origins of the construct labelled 'resilience' arises from developmental psychology it is evident that the ability to be resilient is not limited to childhood. Like others, nurses are exposed to significant stressors and adversity in the workplace that may be modulated by resilience but have the potential to cause stress, depression or anxiety.

Methods

Nursing Literature Search

In reviewing resilience literature relevant to nurses the following electronic databases were searched from the date each was available to July 2019: CINAHL, MEDLINE, and PSYCINFO. Terms used were, *resilienc**, AND *nurs**. Titles and abstracts for all papers were reviewed to determine suitability and reference lists of retrieved articles were manually searched to identify additional studies. Inclusion criteria captured qualitative studies, quantitative studies, discussion papers and reviews, in English, explicitly discussing or investigating resilience in nurses (Figure 1). Exclusion criteria are listed below:

1. Resilience in nurses not a main focus

2. Student nurses
3. All other health professionals*
4. Patients or carers
5. Healthcare systems resilience

* due to similarities between nursing and midwifery professions, papers describing both disciplines were included, those solely on midwives were excluded.

Included papers were read and analysed to discover the attributes, antecedents and consequences related to resilience in nurses.

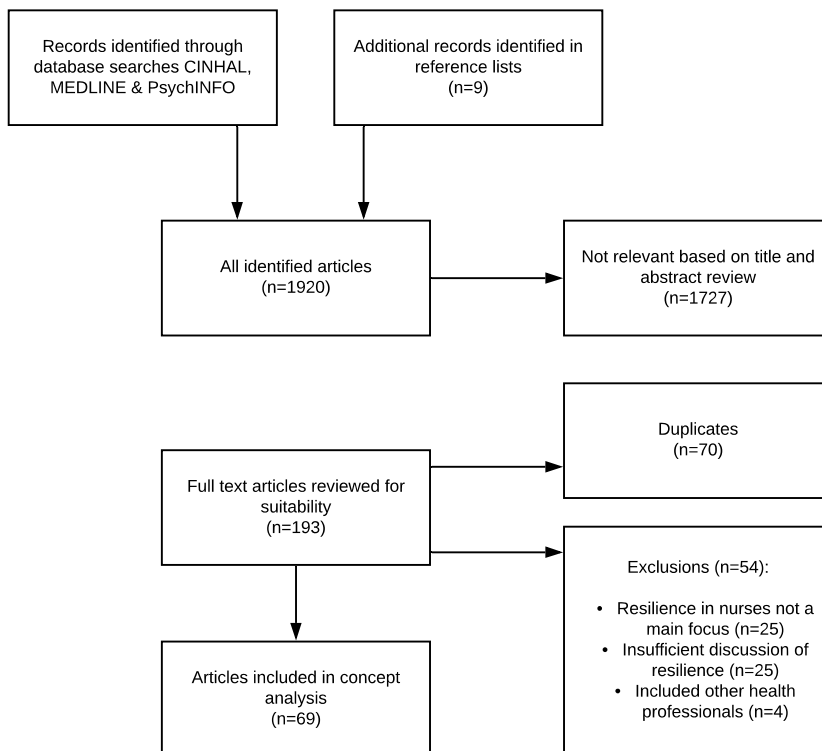


Figure 1. Literature Search

Findings

Resilience in Nursing

Nursing is a high stress profession facing increasing pressures in a changing social and ethical context. These pressures can lead to moral distress, CF and burnout which negatively impact nurses and the patients under their care (D. Hegney et al., 2014; Meredith Mealer et al., 2012; Rushton et al., 2015). The study and understanding of individual resilience in nurses has become increasingly important. Whilst there is currently no universally agreed definition of resilience in the nursing literature a number of themes have been identified ‘... rising above to overcome adversity, adaptation and adjustment, “ordinary magic”, good mental health as a proxy for resilience and the ability to bounce back’ (Aburn et al., 2016, p. 984). The nursing literature has considered individual characteristics associated with resilience, resilience as a dynamic process and resilience as an innate energy or motivating life force (Grafton et al., 2010). It is believed resilience can be enhanced and modified in nurses and is therefore not a fixed personality trait (Craigie et al., 2016; Foster et al., 2018; Foureur et al., 2013; McDonald et al., 2013; Mealer et al., 2014; Slatyer, Craigie, Heritage, et al., 2017). Resilience of nurses has been studied in

a variety of settings including; mental health (Itzhaki et al., 2015; Matos et al., 2010; Prosser et al., 2017), intensive care (Mealer et al., 2017; M. Mealer, J. Jones, J. Newman, et al., 2012; Meredith Mealer et al., 2012), oncology (Kutluturkan et al., 2016; Lim et al., 2016; Zander et al., 2013), operating theatres (Gillespie et al., 2009; Gillespie et al., 2007), emergency departments (Flarity et al., 2013; Hsieh et al., 2017; Tubbert, 2016) and aged care (Cameron & Brownie, 2010; V. C. Cope et al., 2016). There is agreement that resilience is vital in enabling nurses to cope with workplace stress and pressures (Hart et al., 2014; Hegney et al., 2015; McAllister & McKinnon, 2009; Meredith Mealer et al., 2012; Tusaie & Dyer, 2004). Resilience is associated with the prevention of negative outcomes including burnout, CF, STS, depression, stress and anxiety (Hegney et al., 2015; Kutluturkan et al., 2016; Lanz & Bruk-Lee, 2017; Lanz & Bruk-Lee, 2017; Manzano García & Ayala Calvo, 2012; Mealer et al., 2017; Meredith Mealer et al., 2012; Rushton et al., 2015).

Numerous attributes associated with resilience in nurses have been identified (Table 2 – see supplementary material). A variety of definitions have been employed, often drawing on definitions used in psychology. Pipe et al., (2012, p. 11) consider resilience to be ‘... the ability to adapt to life’s ever-changing landscape and recover quickly from stressors and potential stressors’. The analogy of “bouncing back” is frequently employed in definitions of resilience in nursing (Aburn et al., 2016; Hart et al., 2014; Mealer et al., 2017; Tubbert, 2016). Wei et al., (2014) employed a more complex definition considering resilience as a multifaceted construct including personal determination, the ability to endure, adapt and recover from adversity. Delgado et al. (2017) viewed resilience in nursing as a personal capacity that helps nurses manage workplace adversity and demands. Definitions vary and no universal definition from a nursing perspective has been established. To analyse the concept of resilience in relation to nurses the defining attributes require deeper examination.

Defining Attributes

Determining the defining cluster of attributes most frequently associated with the concept is a crucial aspect of the analysis (Walker & Avant, 2011). These help to differentiate the concept of resilience from other concepts. Numerous attributes of nurse resilience have been identified (Table 2 – see supplementary material). The defining attributes are not exhaustive however, they are based on analysis of the literature of resilience in nurses. Six **key** defining attributes most frequently cited in the literature are; social support, self-efficacy, work-life balance/self-care, humour, optimism and being realistic. These attributes are described in detail below:

1) Social support:

Social supports promoting resilience in nurses were frequently identified in the literature. Effective social support results in individuals feeling valued, cared for and provides a sense of belonging (Cobb, 1976). Nurses can draw on social support from colleagues, managers, friends and families. Individuals need to engage with social supports and workplaces can provide support systems and foster positive collegial relationships.

2) Self-efficacy:

Self-efficacy refers to an individual’s belief in their ability to succeed in a given situation or activity (Bandura, 1978). An individual’s perception of self-efficacy will influence the activities they engage in and those with higher levels of self-efficacy are more likely to persevere and succeed (Bandura, 1978).

3) Work-life balance/self-care:

Achieving work-life balance and self-care is crucial to well-being. Work-life balance is the division of an individual’s time between work and family or leisure activities. Work-life balance does not mean time is equally divided between work and non-work activities but can vary over time and is the perception that work and non-work activities are compatible (Kalliath & Brough, 2008). Self-care is when an individual actively practices protecting their well-being and happiness. This encompasses practices which maintain

and protect both physical and mental well-being (Orem, 1985). Self-care includes a wide range of activities including; exercise, good nutrition, mindfulness, meditation and socialising (Richards et al., 2010).

4) Humour:

The ability to make light of adversity through humour has long been recognised as a way in which nurses and other health professionals cope with workplace stress (Wanzer et al., 2005). Humour can foster relationships with colleagues and patients enabling teamwork, relieving tension (Dean & Major, 2008) and improving experiences (Åstedt-Kurki & Isola, 2001; Tanay et al., 2014).

5) Optimism:

Optimism is the extent to which individuals hold favourable expectations for the future and is linked to increased levels of coping and better physical health whereas, pessimism is the expectation that bad things will happen (Carver et al., 2010). Hope is related to optimism but differs as it is a feeling of expectation or desire for a particular thing to happen rather than a general favourable outlook (Bryant & Cvengros, 2004). There is evidence that positive emotions may sustain psychological resilience (Fredrickson, 2001). In nurses optimism is often discussed in the context of remaining positive and looking for the positive in adversity (Hart et al., 2014; Jackson et al., 2007; McDonald et al., 2012; Pipe et al., 2012).

6) Being realistic:

Nurses also need to be realistic as clearly not all situations they encounter have positive outcomes. Being realistic can be described as having a practical and sensible idea of what can be achieved or expected. This includes reframing experiences, having realistic expectations about caregiving, cultivating a realistic perspective on life and realistic goal setting. (Cline, 2015; Gillman et al., 2015, Leverence, 2015; Prosser et al., 2017; Zander et al, 2013). Being realistic is important because unrealistic optimism has potential negative consequences for physical and psychological well-being (Shepperd et al., 2017).

Case Studies

The defining attributes of resilience can now be employed to construct model, borderline and contrary cases. Walker and Avant (2011) indicate these can be from real life, constructed or in the literature. The purpose of the cases is to demonstrate what the concept *is* and *is not* by the presence or absence of the defining attributes. In order to demonstrate all attributes, it is common to use constructed case studies (Earvolino-ramirez, 2007; Vázquez-Calatayud et al., 2017; Wang, 2004). The presented cases reflect the adversity and stressors nurses can face in their daily work and the context in which nurse resilience has been explored in the literature.

Model Case

The following constructed model case presents a ‘...pure case of the concept,...’ (Walker & Avant, 2011, p. 163).

Sarah is a registered nurse (RN) working on an acute psychiatric ward. Each day she faces numerous stressors including caring for high acuity patients, skill mix and resourcing issues, traumatic situations including patient self-harm and suicide attempts, and workplace violence. Sarah is an experienced RN confident in her abilities, demonstrating a high level of self-efficacy. She has effective social support at work and in her personal life. Sarah will often de-brief with colleagues formally in facilitated de-brief sessions, if there has been a particularly traumatic event, and informally, going out with colleagues after work. The organisation Sarah works for provides access to counselling and support. She also has the support of family and friends who she shares her feelings and experiences with. Sarah can rely on her sense of humour in difficult situations and will take away the positive in any situation, remaining optimistic. Sarah has a realistic outlook and acknowledges every patient’s experience and recovery journey differs. Sarah maintains her

work-life balance, making time to do things she enjoys outside of work including; practising mindfulness, exercise, travel and socialising.

Borderline Case

The following constructed borderline case provides an example where most of the attributes of resilience are present.

Angela is a RN on a surgical ward. She cares for high acuity patients and resource and skill mix issues occur frequently. Angela is confident and competent caring for surgical patients although she becomes “flustered” if things don’t quite go according to her shift plan. She is expected to co-ordinate on the ward, a role the organisation has not prepared her for or provided support for. She gets on well with colleagues and has a supportive family. Angela has an active social life, making time for life outside of work. Angela likes routine where she can stick to her care plan for the shift. When there are unexpected complications or poor outcomes, she feels responsible for the consequences although they are often outside her control. This leaves Angela feeling stressed and anxious for a time.

Contrary Case

The following constructed contrary case provides an example of where the attributes of resilience are not present.

Joe is a RN working on a medical ward which is often poorly staffed and does not have an adequate skill mix. Some patients are confused and can be aggressive towards staff. Joe cares for patients who are dying. Although Joe is a RN he does not feel confident in his abilities and feels pessimistic about his work. Frequently Joe has trouble completing the tasks on his plan. The organisation Joe works for has few supports in place for staff. Joe doesn’t engage with his colleagues nor does he discuss the stresses of work with family or friends. Joe often calls in sick and after stressful days at work he will isolate himself and drink alone. He often thinks of leaving the nursing profession but is not sure what he would do instead.

Antecedents

Antecedents are the events or incidents that must occur prior to the occurrence of the concept (Walker & Avant, 2011). The main antecedent for resilience is adversity. In order for an individual to employ and demonstrate resilience significant stressors must be encountered which contribute to the experience of adversity. Nurses frequently encounter significant adversity in their work including; exposure to traumatic situations (Mealer et al., 2017; Morrison & Korol, 2014), shift work (Happell et al., 2013; Zander et al., 2013), workplace violence (Hsieh et al., 2016; Koen et al., 2011), staff shortages (Koen et al., 2011; McDonald et al., 2013; Zander et al., 2013), skill mix issues (Happell et al., 2013; Zander et al., 2013), poor remuneration (Khamisa et al., 2013; Koen et al., 2011; McHugh et al., 2011), gender inequalities (Evans, 1997; Williams, 2013), inter-professional conflict (Lanz & Bruk-Lee, 2017), patient acuity (V. Cope et al., 2016) and death and dying (Lanz & Bruk-Lee, 2017; Mealer et al., 2017; Shimoinaba et al., 2015). Although these are not unique to nurses the level of exposure to patients through direct involvement in care and extended interpersonal contact is unique to the profession (Boyle, 2011; Jarrad et al., 2018).

Consequences

Consequences are the events or incidents that result from the occurrence of the concept. The most cited consequences of possessing resilience in the literature are the prevention of negative psychological outcomes, increased job satisfaction, remaining in the workforce and increased quality of patient care (Table 2 – see supplementary material). These consequences are important given the global predictions of nursing shortages which will adversely impact care quality (World Health Organisation, 2013). The attributes associated with resilience enable nurses to adapt and bounce back.

Empirical Referents

The final step of CA is determining the empirical referents by which the defining attributes can be recognised and measured (Walker & Avant, 2011). A number of scales have been designed to measure individual resilience by measuring the attributes associated with resilience. The Connor Davidson Resilience Scale (CD-RISC) (Connor & Davidson, 2003) is a 25 item scale which is a multidimensional measure and draws on numerous attributes (Table 3). The CD-RISC has been used across a variety of populations and studies measuring resilience in nurses (Gillespie et al., 2009; Guo et al., 2017; Hudgins, 2016; Manzano García & Ayala Calvo, 2012; Meredith Mealer et al., 2012; Rushton et al., 2015; Russo et al., 2018). Five of the six key attributes identified in nurses are included in the CD-RISC (Connor & Davidson, 2003). These attributes are also measurable with a variety of other tools including; self-efficacy (Chen et al., 2001; Sherer et al., 1982), optimism (Scheier et al., 1994), social support (Sarason et al., 1983) and humour (Martin & Lefcourt, 1984; Thorson & Powell, 1991). The attribute of work-life balance/self-care is not included in the CD-RISC but other tools do exist to measure these such as the Mindful Self-Care Scale (Cook-Cottone & Guyker, 2018) which encompasses physical and psychological self-care and considers work-life balance.

Table 3. Characteristics of Resilient People identified by Connor and Davidson (2003)

View change or stress as a challenge/opportunity
Commitment
Recognition of limits to control
Engaging the support of others
Close, secure attachments to others
Personal or collective goals
Self-efficacy
Strengthening effect of stress
Past successes
Realistic sense of control/having choices
Sense of humour
Action orientated approach
Patience
Tolerance of negative effect
Adaptability to change
Optimism
Faith

Working Definition

The nature of nurses' work is characterised by extended interpersonal contact and direct involvement in delivery of patient care having the potential to create stress and adversity demanding interpersonal resilience. This CA has identified that resilience is vital in enabling nurses to positively adapt. There are a number of antecedents, defining attributes and consequences that contribute to nurse resilience (Figure 2). Based on the CA presented we propose the following definition:

Resilience is a complex and dynamic process which when present and sustained enables nurses to positively adapt to workplace stressors, avoid psychological harm and continue to provide safe, high quality patient care.

To sustain resilience, nurses need to draw upon their own resources (including family, friends and colleagues) and have organisational conditions and support which promote resilience. Without the combination of personal attributes, social and workplace support, nurses will face difficulty in continuing in the profession and are likely to leave employment or worse, suffer psychological harm. If steps to sustain nurse resilience are not taken it is likely that nursing shortages will be further exacerbated resulting in poorer health outcomes for patients.

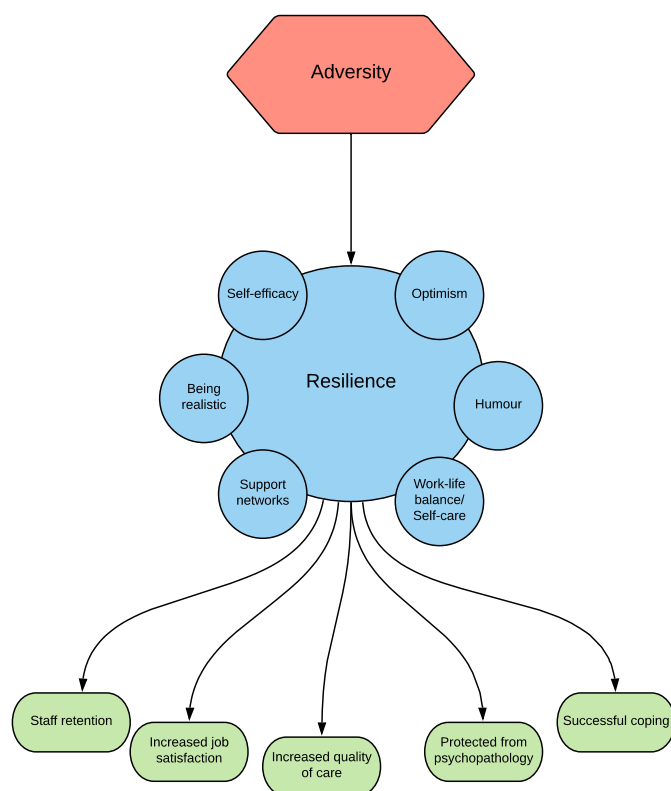


Figure 2. The concept of resilience in nurses

Discussion

Clearly, nurse resilience is gaining increasing attention in both research and practice illustrated by the large number of publications exploring the topic in recent years. Gaining an understanding of resilience and how to sustain nurse resilience is viewed as an essential requirement for the nursing profession. This move towards a focus on protective factors is in distinct contrast to earlier research which concentrated on the potential negative outcomes of working as a nurse (Cusack et al., 2016; Gillespie et al., 2009; Manzano García & Ayala Calvo, 2012; Meredith Mealer et al., 2012; Rushton et al., 2015). Given the increasing pressures faced by the nursing profession including nursing shortages, reducing resources and increasing patient complexity and acuity this shift in focus is needed (Koen et al., 2011; McDonald et al., 2013; Zander et al., 2013). Finding solutions to the challenges nurses face is crucial, promoting and sustaining nurse resilience could potentially play a role in supporting nurses and avoiding harm.

Through the process of concept analysis a detailed description of resilience specific to nurses has been drawn. The six key defining attributes incorporate internal and external factors which are cited as promoting nurse resilience. The use of case studies assists in the demonstration of the concept of resilience specific to nurses applying the presence or absences of the attributes in a clinical context. The clinical working environment is associated with adversity and stressors (Happell et al., 2013; Hsieh et al., 2016; Mealer et al., 2017; Zander et al., 2013) which are antecedents for resilience and are reflected in the case studies presented. A frequently described consequence of possessing high levels of resilience is the prevention of negative psychological outcomes (Table 2 – supplementary material). This includes the prevention or reduction of symptoms of burnout, depression and anxiety which nurses can experience as a result of their work (Hegney et al., 2015; Kutluturkan et al., 2016; Lanz & Bruk-Lee, 2017; Lanz & Bruk-

Lee, 2017; Manzano García & Ayala Calvo, 2012; Mealer et al., 2017; Meredith Mealer et al., 2012; Rushton et al., 2015). As well as being considered as a protective factor it is suggested resilience also results in benefits for nurses, organisations and patients, with increased job satisfaction, staff retention and increased quality of patient care (Table 2 – see supplementary material). Resilient processes are also associated with positive individual outcomes including the maintenance of psychological wellbeing and mental health (Foster et al., 2020; Gao et al., 2017; Itzhaki et al., 2015).

It is evident the literature to date has focused primarily on the actions individual nurses can take to develop and sustain resilience. This approach has recently been questioned and criticised as an incomplete because it largely ignores the working conditions nurses endure which can place them at risk (Taylor, 2019; Traynor, 2017; Virkstis et al., 2018). A more comprehensive approach to sustaining resilience in nurses is needed including consideration of the role organisations can play in promoting resilience of nurses under their employment. The scope and understanding of factors which affect nurse resilience beyond an internal locus is needed to fully optimise resilience research and resulting interventions.

Conclusion

In this paper we have provided a working definition of nurse resilience that has been empirically derived. The six key attributes that define nurse resilience provide a useful framework to guide future research in the area. Until now, research investigating nurse resilience is difficult to interpret due to the use of a multitude of different terms and concepts. We believe that a unified definition of resilience in the nursing profession will enable a more consistent understanding to guide research and interpretation to practice.

Relevance for Clinical Practice

Resilience is needed to successfully adapt and prosper as a nurse in clinical practice. Understanding resilience in the context of nurses and the factors which affect nurse resilience are critical to the development of effective research, policies, interventions and work environments to protect nurse wellbeing, retain nurses in the profession and ensure the provision of quality care. Organisations need to develop and provide strategies which promote and sustain resilience in mental health nurses. Given the complexity of nurse resilience, multifaceted approaches are needed which consider the unique stressors mental health nurses encounter and includes changes to work environment and conditions, as well as programs which help to develop and maintain individual resilience. These strategies need to be implemented, tested and evaluated in different mental health settings to optimise resilience, reduce the risk of psychological harm and promote the wellbeing of mental health nurses.

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2.4 Supplementary Material to the Publication

Table 2. Literature utilised in the concept analysis

Authors	Country	Design	Antecedents	Defining Attributes	Empirical Referents	Consequences
Tusaie & Dyer. (2004)	USA	Historical review	Significant stress or adversity	Optimism, intelligence, humour, social skills, wide range of coping strategies, perceived social support	N/A	Bouncing back, cope successfully
Ablett et al. (2007)	UK	Qualitative	Workplace stress	High degree of commitment, sense of purpose, hardiness, sense of coherence, spirituality, work-life balance, collegial support, good social networks	Interviews	Job satisfaction, maintenance of well-being, staff retention, quality patient care
Gillespie et al. (2007)	Australia	Quantitative	Adversity, workplace stress	Hope, self-efficacy, coping, control and competence	Connor-Davidson Resilience Scale (Connor & Davidson, 2003)	Retention of nurses
Jackson et al. (2007)	Australia	Literature review	Adversity	Positive and nurturing professional relationships, maintaining positivity, emotional insight, life balance and spirituality, reflection	N/A	Reduced vulnerability to workplace adversity, maintenance of normal functioning, retain nurses

Gillespie et al. (2009)	Australia	Quantitative	Workplace stress, adversity	Experience (more experienced nurses had higher resilience levels)	Connor-Davidson Resilience Scale (Connor & Davidson, 2003)	Ability to adapt or cope
Glass. (2009)	Australia, New Zealand, UK & USA	Qualitative	Adversity	Hope, optimism, being realistic, flexibility, adaptability, critical reflection, emotional intelligence, self-care, social support, work-life balance	Participant observation, semi-structured conversational interviews art-based reflections and written reflections	Intrapersonal strength, personal growth, job satisfaction, effective workplace practices, delivery of quality healthcare
McAllister & McKinnon. (2009)	Australia	Literature review	Adversity	Internal locus of control, pro-social behaviour, empathy, positive self-image, optimism and the ability to organise daily responsibilities	N/A	Development of coping skills, thrive in busy dynamic workplaces
Cameron & Brownie (2010)	Australia	Qualitative	Adversity	Collegial support, debriefing, work-life balance, self-care, a sense of purpose, humour, optimism and positive thinking, strong social support network, spiritual practice, confidence, personal satisfaction and pride	Interviews	Competent, skilful holistic care. Retention of workforce.

Grafton et al. (2010)	Australia	Literature review	Stress, adversity	Holistic self-care practices, spiritual well-being	N/A	Enables nurses to better manage responses to stress, recover from or prevent depletion of self and reduce vulnerability to the impact of future stress
Matos et al. (2010)	USA	Quantitative	Adversity	Positive professional status, effective interpersonal relationships, communication	The Resilience Scale (Wagnild & Young, 1993)	Job satisfaction, protection against negative outcomes
Koen et al. (2011)	South Africa	Quantitative	Workplace adversity	High levels of hope, optimism, coping self-efficacy, sense of coherence and flourishing mental health	The Resilience Scale (Wagnild & Young, 1993)	Overcome adversity
Kornhaber & Wilson. (2011)	Australia	Qualitative	Adversity	Hardiness, emotional toughness, developing coping mechanisms, work-life balance, emotional detachment, natural selection (an innate ability), nursing and multidisciplinary team support, pragmatism, determination, perseverance, self-efficacy	Interviews	Retain nurses, transcend adversity, personal growth, sustain nurses through difficult and challenging working environments, improved outcomes for nurses and patients

Dolan et al. (2012)	Australia	Mixed methods	Adversity, stress	Sense of purpose, sense of achievement, self-reliance, enjoyment in work, not working shifts, emotional distancing	The Resilience Scale (Wagnild & Young, 1993)	Protection from negative consequences such as burnout, ability to care
Manzano Garcia & Calvo (2012)	Spain	Quantitative	Adversity	Self-awareness, realistic expectations, positive emotions	Connor-Davidson Resilience Scale (Connor & Davidson, 2003)	Protection from emotional exhaustion and burnout, staff retention
McDonald et al. (2012)	Australia	Qualitative	Adversity	Peer support, reflection, hardiness, positive outlook, emotional intelligence, intellectual flexibility, creative and critical thinking, work-life balance, spirituality	Post intervention interviews, workshop evaluations, field notes and research journals	Positive supportive relationships and networks, increased confidence, increased awareness, well-being in the workplace and other spheres, assertive communication and conflict resolution
Mealer et al. (2012a)	USA	Quantitative	Adversity	Social support, engaging in relationships, safe workplace, higher general life satisfaction, engaging in fun and leisure activities	Connor-Davidson Resilience Scale (Connor & Davidson, 2003)	Lower prevalence of post-traumatic stress disorder and burnout
Mealer et al. (2012b)	USA	Qualitative	Extreme stressors	Spirituality, supportive social network, optimism, having a resilient role model, acceptance that	Telephone interviews with highly resilient nurses and	Ability to continue to work successfully in stressful ICU environment,

				death is part of life, acceptance patient outcome cannot be controlled, humour, emotional intelligence, positive reframing, critical reflection, viewing trauma as a learning and/or growing experience, engaging in exercise, rituals	nurses with PTSD	prevent the development of PTSD,
Pipe et al. (2012)	USA	Mixed Methods	Stress	Positive approach, optimism, positive coping skills	The Personal and Organisational Quality Assessment – Revised (POQ-R)	Use of positive coping strategies, enhanced wellbeing, increased confidence, empowerment, improved physical health, staff retention
Shirey (2012)	USA	Discussion paper	Workplace change and adversity	Self-efficacy, hope, coping, confidence, hardiness, optimism, patience, tolerance, adaptability, a sense of humour, collegial support	N/A	Positive adaptation, cognitive transformation, personal control, personal growth in the wake of disruption, more readily accept change

Flarity et al. (2013)	USA	Quantitative	Adverse circumstances	Self-regulation, intentionality, self-validation, connection and support, self-care and revitalisation	N/A	Ability to bounce back or thrive.
Foureur et al. (2013)	Australia	Mixed methods	Stress	Mindfulness	N/A	Increased health, decreased depression, anxiety and stress, increased sense of coherence
Lowe (2013)	USA	Literature review	Adversity	Supportive social networks, optimism, having a resilient role model, spirituality, self-efficacy, a sense of humour, hope, adaptability/flexibility, caring and healthy work environment, self-care	N/A	Successful adaptation, protection against negative psychological outcomes, enhanced job satisfaction, decline in nurse turnover rates, ability to provide compassionate, caring and excellent care to patients
McAllister (2013)	Australia	Discussion paper	Adversity	Internal locus of control, staying calm, sense of humour, optimism, ability to transcend, connectedness to	N/A	Positive adaptation, may improve patient outcomes and build a stronger profession

				social/cultural/physical environment, has a repertoire of coping mechanisms, generativity		
McDonald et al. (2013)	Australia	Qualitative	Workplace adversity, disruption, change	Self-care, self-confidence, self-awareness, creativity, flexibility, hardiness, hope, resourcefulness, optimism, emotional insight, emotional intelligence, positive outlook	Interviews	Increased assertiveness at work, more supportive communication, closer group dynamic, increased collaborative capital, empowerment, increased job satisfaction, increased retention
Zander & Hutton (2013)	Australia	Qualitative	Stress, negative situations, adversity, loss, hardship	Experience personal and professional, realistic view, self-care, personal rituals, emotional management and expression, talking, problem solving, effective support, insight, reflection, positive attitude	Interviews	Developing from past experiences, ability to overcome negative situations, use knowledge and adapt to new situations
Hart et al. (2014)	USA	Integrative review	Adversity	Hardiness, self-efficacy, hope, optimism, collegial support, humour, positive thinking, engaging in extracurricular activities,	N/A	Staff retention, ability to overcome challenge obstacles, increased quality of life, better health, effective use of

				positive organisational culture in the workplace		adaptive coping strategies
Mealer et al. (2014)	USA	Mixed methods	Trauma, stress	Positive support systems, optimism, faith, cognitive flexibility and self-care	Connor-Davidson Resilience Scale (Connor & Davidson, 2003), written exposure sessions	Mitigating the development of common maladaptive psychological symptoms
Wei & Taormina. (2014)	China	Quantitative	Stressors, adversity	Determination, endurance, adaptability, recuperability, conscientiousness, work-life balance, higher educational levels, good financial resources (income), physical wellness, Chinese values, future orientation	Authors newly created resilience measure	Career success
Cline. (2015)	USA	Discussion paper	Adversity, stress	Being realistic, self-acceptance, hardiness, courage, collegial support, continued learning, willingness to fail, optimism, positivity, emotional intelligence, self-care, work-life balance	N/A	Longevity, success, enhanced collegial relationships and leadership capabilities, protect emotional and physical health, reduced absenteeism, increased job satisfaction, improved nurse retention, patient

						safety and quality outcomes
Dyess et al. (2015)	USA	Qualitative	Adversity	Self-care, fostering relationships, work-life balance, reflection, accountability, finding meaning and learning in all situations	Interviews	Staff retention, positive adaptation to change
Gillman et al. (2015)	Australia	Systematic review	Stressors	Work-life balance, self-awareness, self-esteem, realistic expectations, optimism, humour, support	N/A	Ability to thrive, coping, job satisfaction
Hegney et al. (2015)	Australia	Quantitative	High level stressors, adversity	Mindfulness, self-efficacy, adaptive coping behaviours	Connor-Davidson Resilience Scale (Connor & Davidson, 2003)	Improved compassion satisfaction
Itzhaki et al. (2015)	Israel	Quantitative	Stress, workplace violence	Group resilience, collegial support	Connor-Davidson Resilience Scale (Connor & Davidson, 2003)	Higher staff resilience associated with increased life satisfaction
Kim et al. (2015)	Korea	Qualitative	Adversity	Work-life balance, positive thinking, flexibility, assuming responsibility, self-esteem, family support	Interviews	Positive coping
Leverence. (2015)	USA	Brief discussion paper	Adversity, stressors	Optimism, mindfulness, social support, spiritual practices, realistic	N/A	Reduce burnout, prevent compassion

				outlook, self-care, mentorship, self-reflection, humour		fatigue, improved patient care
Rushton et al. (2015)	USA	Quantitative	Stress	Hope, self-efficacy and coping, external activities such as developing problem-solving skills or engaging in work, prayer, exercise, play, or art	Connor-Davidson Resilience Scale (Connor & Davidson, 2003)	Protection from emotional exhaustion and increased personal accomplishment, reduced stress
Shimoinaba et al. (2015)	Japan	Qualitative	Negative situations or adversity	Self-nurturing, self-awareness, accepting professional limitations, validating care (receiving feedback), coping adaptively, support from others	Face to face in-depth interviews	High quality care for patients and families, a sense of mastery, effective coping skills
Turner & Kaylor. (2015)	USA	Conceptual framework	Adversity, stressors	Social support, positive professional relationships, work-life balance, reflection, emotional control, exercise, humour, spirituality, self-care	N/A	Overcome adversity, embrace change, maintenance of health/well-being
Brown et al. (2016)	Australia	Systematic review	Acute or chronic threats to personal wellbeing, stressors, adversity	Passion for work, engaging in professional development, maintaining a work-life balance, good social supports	N/A	Enable a sustainable workforce, sense of empowerment, cope better with work stressors, achieve optimal patient outcomes
Cope et al. (2016a)	Australia	Qualitative	Adversity, negative effects of workforce	Self-control, self-efficacy, optimism, hope, leadership, valuing social	Field notes, memos, gesture	Positive adaptation, ability to cope, maintenance of

			challenge and stress	support, humour, emotional endurance, positive attitudes, self-set goals, self-motivation, perseverance	drawings and interviews	normal function, resist and absorb the impact of events, remain working, perform care, advocate, teach
Cope et al. (2016b)	Australia	Qualitative	Adversity	Self-control, self-care, emotional intelligence, staying positive, reflection, hope, humour, valuing social support, paying it forward (undertaking acts of kindness), passion for the profession, taking on challenges, pride, perseverance, experiencing adversity and growing through it, good leadership	Interviews	Positive change and adaptation, perform effectively, retain nurses, protect nurses
Cope et al. (2016c)	Australia	Qualitative	Workplace adversity	Self-control, self-care, reflection, hope, humour, positivity, work-life balance, strong social networks (family, friends & colleagues), professional pride, sense of purpose, enjoyment in taking on a challenge, optimism	Interviews	Ability to survive and thrive, positive adjustment, sustain wellbeing, job satisfaction, staff retention, improved patient safety outcomes
Craigie et al. (2016)	Australia	Quantitative	Stress, adversity,	Self-efficacy, positive coping	Connor-Davidson	Adaptive coping to stress

			trauma, tragedy, threats		Resilience Scale (Connor & Davidson, 2003)	
Cusack et al. (2016)	Australia, Brazil, China	Theoretical model	Adversity	Self-efficacy, coping, mindfulness	N/A	Staff retention, quality patient care, reduction of burnout, compassion fatigue and workplace distress
Hsieh et al. (2016)	Taiwan	Quantitative	Workplace violence, traumatic events, adversity	Extraversion, peer support, work-life balance	The Resilience Scale for Adults (Friborg et al., 2003)	Maintenance of equilibrium, positive coping
Hudgins. (2016)	USA	Quantitative	Adversity	Optimism, self- confidence, work and personal support networks, empowerment, spirituality/sense of purpose, self-awareness	Connor- Davidson Resilience Scale (Connor & Davidson, 2003)	Increased job satisfaction, retention
Kutluturkan et al. (2016)	Turkey	Quantitative	Stressors	Having children, higher educational level, social support resources, age (older)	The Resilience Scale for Adults (Friborg et al., 2003)	Increased personal accomplishments, prevent burnout and emotional exhaustion
Lim et al. (2016)	Singapore	Quantitative	Adversity, change or risk	Self-efficacy, communication skills	The Resilience Scale (Wagnild & Young, 1993)	Reduction in stress, improve patient care
McDonald et al. (2016)	Australia	Qualitative	Workplace adversity	Collegial support, support from family and friends,	Interviews	Job satisfaction, feelings of

				self-care, self-motivation, autonomy, optimism, self-efficacy, confidence		competence, improve patient care, reduced stress, potential career advantage
Tubbert. (2016)	USA	Qualitative	Stress, adversity	Flexible and creative thinking, decisiveness, tenacity, interpersonal connectedness (social supports), honesty, self-control, optimism	Interviews	Ability to cope with stress, engaged workforce, increased job satisfaction
Williams et al. (2016)	Canada	Quantitative	Adverse events, stress	Self-efficacy, hope, coping, competency, hardiness	The Resilience Scale for Adults (Friborg et al., 2003)	Better quality of care, increased respect for patients
Brennan. (2017)	UK	Discussion paper	Adversity	Self-confidence, resourcefulness, curiosity, self-discipline, level-headedness, flexibility, problem solving ability, emotional stamina, intelligence and a strong sense of self	N/A	Positive adaptation and coping, assists nurses to deliver high-quality care and succeed professionally
Delgado et al. (2017)	Australia	Integrative review	Challenging circumstances or adversity	Optimism, sense of purpose, faith/belief, sense of self, empathy, insight, self-care, hope, self-efficacy, adaptability, emotional intelligence	N/A	Reduction in workplace stress, prevent negative, psychosocial outcomes, increased wellbeing
Gao et al. (2017)	China	Quantitative	Adversity, trauma	Social support, confidence	Connor-Davidson Resilience Scale (Connor &	Reduction in negative psychological outcomes, higher

					Davidson, 2003)	general well-being, positive adaptation
Guo et al. (2017)	China	Quantitative	Workplace adversity	Self-efficacy, education, positive coping style, lifestyle i.e. cigarette use and exercise (non-smokers had higher resilience levels, those who exercised had higher resilience)	Connor-Davidson Resilience Scale (Connor & Davidson, 2003)	Positive adaptation, increased job satisfaction
Hsieh et al. (2017)	Taiwan	Quantitative	Adversity	Higher level of education, seniority, extraversion, family support, peer support	The Resilience Scale for Adults (Friborg et al., 2003)	Ability to deal with violent events, improve safety and sense of well-being
Lanz et al. (2017)	USA	Quantitative	Adversity	Positive emotions, emotional control	The Resilience Scale (Wagnild & Young, 1993)	Ability to bounce back after experiencing conflict in the workplace, reduction in negative effects of social stressors
Marie et al. (2017)	Palestine	Qualitative	Adversity	Facing challenges, being steadfast, commitment, religion, love for the profession, supportive relationships (family, friends), supportive managers and colleagues, education, sense of purpose, experience, tenacity, self-confidence	Interviews and observational data	Successful coping skills
Mealer et al. (2017)	USA	Quantitative	Adversity	Optimism, humour, engaging the support of	Connor-Davidson	Reduced risk of PTSD

				others, personal competence, leadership, perseverance	Resilience Scale (Connor & Davidson, 2003)	
Prosser et al. (2017)	Canada	Qualitative	Adversity	Having a vast perspective, having realistic expectations, expert of self (self-nurturance and self-awareness), clarity in belief systems, being present through staying awake	Face to face semi-structured interviews	Ability to thrive and provide care
Wang et al. (2017)	China	Quantitative	Adversity, stress, trauma, threat, deprivation	Friend and co-worker support, self-efficacy, positive work climate, tenacity, strength, optimism	Connor-Davidson Resilience Scale (Connor & Davidson, 2003)	Reduce turnover
Zheng et al. (2017)	Singapore	Quantitative	Workplace stress	Age (older), experience (more years), higher education levels, religion, work-life balance	The Resilience Scale (Wagnild & Young, 1993)	Increased job satisfaction, staff retention, adaptive behaviour
Ang et al. (2018)	Singapore	Quantitative	Adversity	Being married or having been married in the past, older age, more years of experience, higher educational levels, self-efficacy	Connor-Davidson Resilience Scale (Connor & Davidson, 2003)	Retention of nurses
Brown et al. (2018)		Literature Review	Adversity	Optimism, self-efficacy, hope, flexibility	N/A	Reduction in negative psychological outcomes

Foster et al. (2018)	Australia	Qualitative	Adversity, workplace stressors	Peer support, organisational support, education, reflection	Focus groups and interviews	Reduction on negative psychological outcomes, improved patient care, increased job satisfaction, increased self-esteem
Foster et al. (2018)	Australia	Quantitative	Adversity, stressors	Education, good relationships, interpersonal and communication skills	Workplace Resilience Inventory (McLarnon & Rothstein, 2013)	Reduction in negative psychological outcomes, increased well-being
Slatyer et al. (2018)	Australia	Qualitative	Adversity, trauma, tragedy, threats or significant sources of stress	Mindfulness, self-care	Interviews	Staff retention, reduction in negative psychological outcomes
Slatyer et al. (2018)	Australia	Quantitative	Adversity, trauma, tragedy, threats or significant sources of stress	Mindfulness, self-care, social support	Connor-Davidson Resilience Scale (Connor & Davidson, 2003)	Reduced burnout and depressed mood, improved compassion satisfaction and quality of life
Babanataj et al. (2019)	Iran	Quantitative	Adversity, difficulties and hardships of life and occupation	Education and training, internal and external supports		Positive adaptation, personal promotion and growth, reduction in occupational stress

