ABSTRACT

Aim

To report a potential knowledge exchange between nursing studies and the results obtained from a study conducted into the attributes of embodied leadership.

Background

Leadership theories have been applied to evaluate, improve and train nursing practitioners in several previous studies. However, leadership research has entered a new phase where the focus is to produce sustainable leaders through authenticity and compassion, the same two characteristics identified as being of most success in emergent nursing practice. There are few studies that have indicated a knowledge exchange between the latest developments in leadership studies and nursing.

Design

An exploratory and qualitative study.

Method

Between February 2012 - July 2012, a focused sample of 14 medical care professionals was interviewed across a chain of hospitals. The aim was to evaluate embodied leadership characteristics and understand the factors that contribute to the manifestation of these characteristics. The transcribed interviews were analysed using thematic analysis.

Findings

Several factors that contribute to the characteristics of embodied leadership have been identified in the interviews as well as in subsequent literature searches on the characteristics and contributing factors found to be associated with nursing research. These could prompt a knowledge exchange.

Conclusion

The results suggest common ground between nursing and contemporary leadership research in the exposition of behaviours; namely, being non-judgmental, listening actively, reflective practice and embracing uncertainty. Several implications can therefore be expected through the exchange of knowledge resulting from collaboration between researchers in the two disciplines.

KEYWORDS

Leadership, emotional intelligence, nurse education, care giving, nurse roles, nursing theory

SUMMARY STATEMENT

Why is this research or review needed?

* + - To explore the extent and usefulness of knowledge exchange between embodied leadership and nursing research.
    - Leadership in nursing is recognized as a major factor in improving both patient care and staff relationships in the nursing community.

What are the key findings?

* + - Some factors implicit in embodied leadership have been identified in the medical care sector.
    - There are several overlaps, in the area of compassionate care, between people in nursing and embodied leadership and other disciplines.

How should the findings be used to influence policy/practice/research/education?

* + - The findings could be introduced through continuing professional development programmes and professional mentoring undertaken by nurses.
    - Further research in other locations is necessary to corroborate the findings and investigate whether the results could be replicated elsewhere, possibly leading to a further exchange of knowledge between nursing and leadership studies.
    - Established organisational development strategies could be amended to recruit and train individuals differently in response to the findings.

INTRODUCTION

Nursing has been deeply affected by recent changes in healthcare funding and the economic crisis, which in some cases has led to workforce cuts. Numerous reports suggest that employees in the health sector, especially those directly involved with patients, are in an environment of constant stress (Wilkinson, 2015; Rankin & Campbell, 2007; McVicar, 2003), raising health and safety concerns not only for the patients under their care, but also for the workforce (Wilkinson, 2015).

Personnel in the private sector have been able to perform effectively under similar levels of stress through training in leadership theory and being entrusted to take increased responsibility and independent decisions. Such employees subsequently demonstrated increased commitment, engagement and sense of purpose regarding their professional duties. Despite the availability of such measures, however, nursing still faces challenges resulting from stressful working conditions. Recent developments emerging from leadership studies have come from authentic (Avolio & Gardner 2005; Wong & Laschinger, 2012) and transformational theories. In particular, the work on embodied leadership (Sice *et al.,* 2013; Koya *et al.,* 2015), proposes a series of leadership characteristics that could, if refined and tailored, support employees in stressful situations. This present study has further investigated embodied leadership characteristics in medical care professionals to understand the factors that contribute its personification.

BACKGROUND

Theoretical Framework

The roots of embodied leadership lie in the combination of transformational (Bass, 1998), authentic (Avolio & Gardner, 2005) and resonant leadership (Boyatzis & McKee, 2005) theories. Building on Scharmer’s (2008) work on identifying the scotoma in leadership studies, embodied leadership aspires to create a model that could assist individuals to actually ‘become’ leaders, in contrast to ‘acting’ as leaders. It proposes the model based on Maturana and Varela‘s (1987) theory of enaction. This suggests the standard of human experience is based on reciprocity between social and biological dynamics, implying that leadership is a capability that can materialize through the possession of enhanced biological functions, cognitive functions and better social interactions. Based on this understanding, the embodied leadership model of Koya *et al.* identifies several characteristics which are believed to underpin embodied leadership in individuals: being non-judgemental, listening actively, tolerance of uncertainty, intuition (through patterned thinking), ethics and values, authentic presence, intention, meaning/purpose and holistic decision-making.

**INSERT TABLE 1**

The embodied leadership characteristics are of interest to researchers in transformational, authentic and embodied leadership. It is suggested that individuals who embody these characteristics have better relationships with their co-workers, improved performance (Avolio & Gardner, 2005), less stress (Boyatzis & McKee, 2005; Koya *et al.,* 2015) and make better strategic decisions (Ilies et *al.,* 2005). It is therefore worthwhile to better understand the factors or practices that will enable health professionals to learn to become embodied leaders and healthier employees.

LITERATURE REVIEW

Embodied Leadership

Embodied leadership posits linearity in behavioural aspects, physiological dynamics and social dynamics in a human experiential phenomenon: leadership. The idea of correlations in behaviours and physiology between individuals originates from Maturana and Varela’s (1987) theory of enaction and the more recent interpersonal neurobiology work of Siegel (2007). Leadership studies, which had been undergoing a transformation, began focusing on more comprehensive ways to train leaders. Authentic and resonant leadership perspectives were also starting to emerge. Various studies between leaders and their subordinates have linked supportive behaviours and wellbeing to performance (Bass, 1998; Lipman-Blumen, 2000; Sice & French, 2004; Bernerth *et al*., 2007; Komives *et al.,* 2009). Several works on transformational leadership (Bommer *et al.,* 2004; Lyons & Schneider 2009; Avolio & Gardner, 2005), charismatic leadership (Conger *et al.,* 2009; Rowold & Laukamp, 2009) and destructive leadership (Schaubroeck *et al.*, 2007; Tepper, 2000) have recognized that supportive behaviours, wellbeing and performance relationships have implications for the effectiveness of organizations (Padilla *et al*; 2007, Einarsen *et al.,* 2007). Boyatzis and McKee’s (2005) work on resonant and dissonant leadership highlights clearly how different leadership approaches lead to different physiological and behavioural outcomes. Supportive behaviours, according to Boyatzis *et al.* (2012), lead to ‘high quality connections’, where both leaders and their staff benefit from better physiological health (Heaphy & Dutton, 2008), positive behavioural change in the organization (Dutton, 2003), improved potential (Carmeli *et al*., 2009; Lilius *et al.,* 2008; Roberts, 2007; Boyatzis *et al*., 2006) and an overall subjective experience of wellbeing (Miller & Stiver, 1997; Quinn & Dutton, 2005). Such findings have been substantially corroborated across education, health and several private sector organisations. The nursing profession/role, however, is in need of review, based on the findings of embodied leadership in particular.

The Potential Contribution to Nursing of Embodied Leadership

Recent reports have indicated the various challenges leaders in nursing have faced from staff in recent years, such as exhaustion, attitude and behavioural problems and poor health, leading to sickness absence, which adversely affects patient care (Wilkinson, 2015; Rankin & Campbell, 2007; McVicar, 2003).

Some work has been done on how this situation can be improved. Wong & Laschinger (2012) point out how structural empowerment (Kanter, 1993) leads to behavioural changes towards becoming authentic individuals, similar to how the behaviours are imparted from leader to subordinate as stated in authentic leadership theory (Avolio & Gardner, 2005). Additionally, authentic and transformational leadership studies in nursing demonstrate the positive correlation in attitudes and behaviours between nurse leaders and their staff (Wong & Laschinger, 2013). Resonant leadership theories provide an interpersonal neurobiological understanding. However, studies on wellbeing and leadership in nursing have often been limited and anecdotal. Furthermore, and importantly, while most leadership theories provide an explanation for the behaviour of leaders towards their staff, their solutions only seem to encourage people to *act* as leaders rather than *become* leaders. Also, research undertaken in this area has confined itself to a few people in leadership positions in the organization. This narrow perspective has precluded the opportunity and possibility of developing leadership capabilities in greater numbers of individuals, apart from those in traditional leadership positions. Embodied leadership can, however, be adopted by people in healthcare at all levels.

Embodied leadership distinguishes itself by empowering individuals through enabling them to develop themselves as genuine and whole leaders. The behavioural characteristics of embodied leadership, as listed in Table 1, have been recognized by studies in various sectors, including finance, healthcare and education (Miller & Stiver, 1997; Quinn & Dutton, 2005; Carmeli *et al*., 2009; Lilius *et al.,* 2008; Roberts, 2007; Boyatzis *et al*., 2006; Dutton, 2003). The same studies have not, however, been accepted as the sum of the whole - as the personification of embodied leadership - in nursing; the characteristics have merely been accepted individually. Being non-judgmental, for instance, has been recommended to care workers as a professional duty (Koh, 1999), as it builds compassion and higher quality nursing (Gilbert, 2009). Active listening too, a skill that involves multiple senses (Davidhizar, 2003), has been found to be vital as it can assist nurses to empathize with their patients and help to cross cultural boundaries. Embracing uncertainty, as a daily part of nursing life, is well documented (Thompson & Dowding, 2000; Vaismoradi *et al.*, 2001; Penrod, 2001). Thompson and Dowding’s (2001) work on dealing with uncertainty is built on three principles, rationality, bounded rationality and intuition, which are drawn from experience and cognitive performance. Intuition in nursing practice has been quite widely researched; (McCutcheon & Pincombe, 2001; Young, 1987; Gobet & Chassy, 2008; Rew & Barrow Jr., 2007). Moreover, universal ethics and values as essential nursing characteristic have received tremendous support from practitioners and researchers alike (Milton, 2007). So too have the characteristics of intention (Watson, 2002; Johns & Freshwater, 2009; Zahourek, 2005, Yegdich 1999) and meaning and purpose (Ross, 1994; Baldachino & Draper, 2001; Sessana, *et al*., 2007). Reflective practice is recognized as assisting nurses, individually and in groups, to reflect on their practice to generate fresh ways of working (Bulman & Schutz, 2013; Howe, 2006; Jarvis, 1992; Platzer *et al.,* 2000). Authentic presence can be described as understanding one’s own thinking and being mindful of one’s presence. Several studies in nursing mention this characteristic, although it has multiple interpretations (Watson, 2002; Watson, 2012). Decision-making at all levels is the essence of nursing (Orme & Maggs, 1993) and, in the theory of embodied leadership, holistic decision-making is the practice of taking into account all the aforementioned characteristics before acting.

The characteristics that constitute embodied leadership are intrinsically linked to compassionate nursing; hence, the authors believe that embodied leadership characteristics are consonant with/ compatible with/ in agreement with the concept of compassionate nursing. Although compassionate nursing has not yet been clearly defined, owing to its subjective nature (Straughair, 2012; Curtis, 2013), this present research suggests that embodied leadership characteristics contribute to understanding compassionate practices in nursing. New contributions and an exchange of knowledge between nursing and leadership studies can, therefore, only enhance both research areas.

**THE STUDY**

Aim

The aim of this study is to explore and understand the factors contributing to, or influencing, the development of embodied leadership attributes in medical care professionals. Hence, to report a potential knowledge exchange between nursing studies and the results obtained from a study conducted into the attributes of embodied leadership.

Research Design

The study applied an exploratory and qualitative design to recognize what facilitated/ facilitates the development of the characteristics of embodied leadership and takes an interpretivist stance on the results. Semi-structured interviews were designed to guide the participants through this exploration.

Sample

A sample of 14 medical care professionals (2 chief physicians, 1 senior consultant, 1 consultant, 3 nurse practitioners and 7 registered nurses) was recruited on a voluntary basis in two clinics located in Hyderabad, India, where the researchers were working as contractors to build an integrative patient records management system. As the clinics were small, the researchers communicated personally with all staff regarding the study and sought their willingness to participate. The participants were required to have been employed full-time for at least one year and to comprehend and speaking English. Qualitative studies such as this do not necessarily represent a population; rather, they attempt to generate insight and meaning. Thus, there were no principles involved in the sample other than considerations of practicality, purpose and interview design (Troachim *et al*., 2006).

Data Collection

Semi-structured interviews were scheduled and took place over a period of 5 months, from February 2012 to July 2012. Most of the interviews were scheduled in the afternoon, as this was the time when participants were less busy and in a more relaxed state of mind. The participants were evaluated on their present, past and desired competency in demonstrating the embodied leadership characteristics (Table 1). A visual analogue scale was provided to assist the participants to rate themselves between 0 to 10, with 0 being the worst score and 10 being the best. The computer application ExpressScribe was used to record the interview, the design of which is further elaborated in Figure 1. Four pilot interviews were conducted prior to the actual research and analysed for the purpose of improving interviewing skills and time management. The pilot interviews were not included in the final analysis. Questions in the form of closed-ended questions (questions leading to “yes” or “no” answers) and any irrelevancies that emerged were later modified to make the interviews more open and informative.

Interview Design

The interview was designed to encourage self-evaluation and reflection by the participant. The interviewer’s role was limited to guiding this reflection, with no attempt to influence the participant. Each characteristic of embodied leadership was explored and investigated using the above interview guide. The visual analogue scale provided a constant reference, enabling all participants to identify accurately their ratings, 10 being the best and 0 being the worst. The interview process was set up in five stages:

Stage A: The question at this stage is a self-evaluation of the participant’s current performance of the characteristics.

Stage B: The purpose of this question is to gain insight into the participant’s past performance of the characteristics.

Between Stage B & Stage C: If the participant’s past score was lower than their present score, it was assumed that they had made a subsequent improvement, so a question as to how they managed the improvement was asked. If the participant’s score was higher than their present score, it was assumed that they had been challenged in some way and they were questioned as to the reason behind this. Real life scenarios and instances were requested as part of the conversation at this stage:

Stage C: This stage is about understanding the participant’s desired behaviour as regards the characteristics.

Stage D: The final stage aims to understand what factors could support and assist the participant in improving their score so as to reach their desired behaviour. It also helps us to understand whether the environment around the participant is conducive to change.

Ethical Considerations

The Research Ethics Committee of Northumbria University approved this study and the review board conducted an evaluation on this study to review informed consent, data protection, storage, coding and privacy.

Data Analysis

Descriptive statistics was employed to understand the demographics of the participants; namely, the Statistical Program for Social Sciences (SPSS 17.0). The transcribed interviews were coded systematically, compared (Corbin & Strauss, 1998) and analysed in Nvivo 8 and MS Excel, using thematic analysis from a grounded theory approach. It should be clarified again that this is not a grounded theory study; rather it uses the coding technique, where the results are grounded in the data. The open codes are the embodied leadership characteristics (Table 1), which were further explored through the interview in an effort to understand the nature of their manifestation. A detailed analysis of the transcriptions identified phrases and words, which were then conceptually grouped as themes. Memos were made during analysis to keep track of the subtle semantic nature of themes. Selective coding was employed to understand the relationship between the characteristics of embodied leadership and the factors that contribute towards their personification.

Rigour

Reflexivity and sensitivity to the verbatim was promoted through dialogue with the participants and the interviewer (Hall & Callery, 2001). The validity of the study followed Lincoln and Guba’s (1986) criterion for qualitative study, which, essentially, is to address credibility, transferability, dependability and confirmability. The rigour of the study can be judged by the author’s reflection on the data, the consideration given to multiple perspectives and the research process itself. At every stage of the interview, the participants were given freedom to express themselves and the interpretations made by the author during the interview were reconfirmed by the participants through ongoing clarification. The overarching themes appeared after eight interviews; however, it was decided to complete the fourteen interviews, although data saturation appeared to have occurred by this point.

Findings

*Descriptive statistics*

Fourteen participants between the ages of 20-45 took part in the study (Mean 29.35 years; Standard deviation 6.11). The medical care providers ranged from newly qualified staff to highly experienced individuals who had been in nursing for well over twenty years.

Themes

The study revealed that each characteristic had its own set of factors (grouped as themes in the results section) contributing towards its embodiment in the participants. The characteristics and contributing factors are summarised in figure 2. The factors emerged from the participants’ experiences of what they thought had assisted them in building each characteristic at Stage D and between Stage B and Stage C of the interview they describe how to improve their ability in each characteristic, based on their perspective of their world. The scenarios or circumstances described by the participants were from the past and present of both their personal and professional lives. The participants’ desired goals provided insight into the usefulness of their current circumstances as regards enabling them to move forward.

RESULTS AND DISCUSSION

Vocational Skills

Vocational skills such as knowledge, maximising potential, experience and planning skills, contributed to being able to be non-judgmental, dealing with uncertainty, active listening, intuition and holistic decision-making. This effectively assisted the staff to perform their duties:

*…updating my knowledge allows me to take decisions that can lead to uncertain consequences.*

*…practice, experience, knowledge and an intent to work has helped me immensely in what I do.*

Working responsibly in a particular position increases knowledge in the specific area and leads to a non-judgmental attitude (Youngson, 2011), enhanced ability to deal with uncertainty (Slovic *et al.,* 2005) and intuitive capabilities through creating a knowledge base (Burns & Grove, 2010). All of this ultimately leads to better decision-making (Standing, 2007; Hoffman *et* *al.,* 2004; Kuiper & Pesut, 2004). The participants in this study also felt that having a knowledge sharing system in clinics would assist in better performance (Ditillo, 2004; Mosindi & Sice, 2011). This is backed by research in nursing and healthcare studies by Youngson (2011) and research in the areas of exercise physiology (Lenton *et al.*, 2008), probability (Manski, 2004) and medicine (Giustini, 2006), which have demonstrated that when experience is fed into a system, individuals in the system responded better to uncertain situations and made better decisions. It is also a generally accepted fact that, in human systems, experience increases knowledge and, thus, improves potential growth in uncertain periods (Argote & Miron-Spektor, 2011; Taylor & Greve, 2006). This was also the general opinion of the participants during the interviews but it was noted that subjective experience should be combined with interpersonal skills (Nolan & Bradley, 2008) to create smoother operations in the organization.

Planning skills underpin the functional effectiveness of any leader (Derue *et al.,* 2011). Participants agreed that they appeared to constitute a crucial factor when handling uncertain situations as they assisted in making good decisions. They also agreed that forethought and planning provided direction and stability, essentially achieved through divergent thinking (Neufville, 2003). Divergent thinking is the systemic process of generating creative ideas by exploring as many solutions as possible (McCrae, 1987). Montana and Charnov (2008) demonstrate this by proposing a three-step process that could be implemented to improve planning in every aspect of management science, including the care sector. The three steps are: choose a goal; think and evaluate directions to reach that goal; choose a direction. Neufville (2003) also demonstrates similar techniques for handling uncertainty, using systems design and divergent thinking.

Listening Skills

Participants opined that active listening skills contributed towards being non-judgmental, intuition and decision-making. Listening skills involved interactions made with the full attention of all the senses”

*I make an effort to listen to my patients as much as I can to completely understand their side of the story before making any diagnosis and doing this helps me catch clues. Physical evaluation is not enough to make a diagnosis in my opinion. People (colleagues/doctors) judge too quickly or come up with treatment options too quickly without understanding the patient’s story… this confuses the patient and leads to a complete lack of trust.*

The link between listening skills and being non-judgmental has been recognized by research both in counselling and guidance (Bobevski *et al*., 1997) and in nursing (Wiseman, 1996). When combined with vocational skills and empathy (Funnell, 2010), such listening skills deliver better care. Some participants also mentioned that listening skills created an open thinking environment, which enabled them to provide personalized care for patients:

*I could have provided better care to that patient if my superior (senior) colleague had listened to me….but he judged saying that I was trying to make a statement as I was new…I had already talked to the patient regarding their problem and I think I know the severity because I know his entire background.*

In the context of intuition, the participants stated that during any conversation, an individual is likely to be confined to their thoughts, judgments, experience and knowledge and this can prevent them from listening to their surroundings, which include their peers and patients. In this context, active listening could influence intuitive capabilities (McCain, 1965).

Team Spirit

Team spirit in the form of knowledge sharing, collective realisation, collective intent and respecting peer intuition appears/appeared to contribute towards shared decision-making, congruence and intuitive decision-making. One of the participants mentioned the term ‘collective realization’ when implementing universal values in a group. These values merge with personal values and become a general belief system in the group, as found in the following (Muller, 2004):

*we can’t convince people on values as everyone has ~~got~~ their own individualities. All I can do is stand true to my values. I believe there should be a collective realisation when it comes to implementing universal values.*

This is like group intention (Kristof-Brown *et al.,* 2005), a form of collective realization, which maintains a bond in the group (Hermes et *al.,* 2009) and works towards fulfilling the planned goals.

Self & Social Awareness

Possessing self and social awareness in the form of contemplative decision-making without preconceptions, performing conscious actions with the right intention, accepting uncertainty and emotional detachment can lead to the embodiment of leadership attributes:

*It is important to realise what I had done throughout the day. I think about why I had taken a decision, why have I behaved in a (particular) manner and why am I doing my job. Asking myself these questions helps me review my action…It becomes experiential.*

*…as long as we are able to answer to ourselves in a true manner, there is nothing to be afraid of*

Emotional detachment here is referred to in the context of rational judgement, a judgement made with integrity and not affected by personal desires or attachments (Osumi & Ohira, 2010). The participants suggest that judgments might be made with relevance to the group’s overall aim, but not out of personal desires or fondness. This is an aspect of decision-making that keeps the group together (Mallinckrodt & Wei, 2005) and was initially recognized through the work on emotional intelligence (Goleman, 2006), pertaining to the balance between individual and group emotion. Various researchers have suggested the use of mind training practices such as meditation to attain composure over emotions (Siegel, 2007; Davidson, 2003). Studies in the past have stated that emotions mask our real understanding of observations (Jeste & Vahia, 2008):

*I usually take decisions after giving a lot of thought, even after that if something goes wrong, I accept responsibility and change it. There is no place for ego here as I’m connected and my decisions affect others around me.*

Contemplation mainly contributed to the characteristic of holding authentic presence, which is connected to constructivism and investigation into why individuals think and behave in a particular way. This factor is the core of behavioural psychology (Mahoney & Stattin, 2000), where therapists seek to understand why someone presents in a certain way and try to find appropriate ways of treatment (Hoffman *et al.,* 2010). Contemplative methods such as mindfulness and meditation (Hoffman *et al.*, 2010; Davidson *et al.*, 2003), Socratic questioning, mentored dialogue and self-checking (Hayes *et al.,* 2006; Baer *et al.,* 2006) are used to aid individual contemplation. However, it is contemplation in a wider context that relates to the characteristics of reflective practice and decision-making. Reave (2005), in a review study of over 150 studies, showed the relationship between meditation or contemplative reflection and effective leadership. He noted how meditation as a reflective practice allowed leaders to make better decisions, enabling them to consider their previous decisions or actions from an external perspective.

Universal Ethics

Possessing ethical values (Do not all human beings possess “ethical values” of some kind??) appears to influence the embodied leadership attribute of congruence in individuals. Universal ethics is built around compassion for the self and showing compassion towards others (Schwartz, 2005). Additionally, Spinrad & Eisenberg (2009) suggest parenting style could also embed leadership qualities in children by encouraging them to nurture ethics, compassion and empathy:

*I’m aware of some of my colleagues outside of this organisation duping their patients, but I had never encouraged it in my clinic or in my personal life….although I can judge ethics, I cannot command ethics, because ultimately the action lies with that person.*

Participants agreed that the primary factors that affect conscience are an individual’s ethics and values. Research on conscience and subjective wellbeing came to the fore during the recent economic crises (Easterlin, 2006). In their work on the subjective wellbeing of individuals, Kahneman and Krueger (2006) also recognize the importance of a clean conscience and how it affects an individual’s ability to stay within the congruence of generalized beliefs. It is not surprising to see how an individual’s family and upbringing affects their value system and ethics. Parker *et* *al.* (2006) cite the importance of screening before recruiting to ensure the candidate’s personal values are compatible and aligned with the values of the organization. Research on workplace safety has also identified family upbringing as a major factor that needs to be considered during recruitment (Granovetter, 1995); hence, Choudhry *et al.* (2007) and Guldenmund (2007) stress the importance of implementing a regulation to check on the background of applicants.

Open Thinking

Some participants mentioned the term ‘open thinking’ when asked how they could become less judgmental and improve their intuition and effective decision-making abilities. They explained this further when they said they would try to approach people and situations without preconceived notions:

*I believe that I don’t know everything that is there in this world and I know that everyone in this world does not know everything. You know something at a particular moment, we have to give our full attention so that we learn at least some small thing.*

This is what psychologists refer to as divergent thinking or multiple thinking strategies (Razoumnikova, 2000). There have been several studies on improving divergent thinking in different contexts for personnel improvement (Nusbaum & Silvia, 2011; Gilhooly *et al.,* 2007). In a landmark finding, McGarvey (1990) showed that this type of open or creative thinking decreased in children as they grew older and climbed up the school ladder. Robinson (2001) mentions loss of creative thinking both in his book and during a highly acclaimed Technology Entertainment Design (TED) talk, during which he discusses transforming teaching practices to encourage increased creativity.

Mentorship/Friendly Relationships/Empathy

The participants believed that mentorship and good relationships are co-relational and justified this by saying that good relationships with co-workers create an environment where individuals listen with intent to understand. This accords with work by Zachary (2011), where mentorship is identified as a leading contributor to good workplace environments:

*Having a friendly atmosphere and being true to myself and my colleagues resulted in good decisions being made in my work and life…. as decisions are complementary… they also have to be accepted by others… others have to see where you are coming from and understand you.*

Research is currently being carried out on how good relationships can create a mentoring culture, improving the empathy of individuals (O’Broin & Palmer, 2009).

Creating a good relationship with the environment itself; respecting it and enabling it to reciprocate by supporting and nurturing the people occupying it, has also been recognised as being important to health and wellbeing. Unpleasant working conditions can assault or undermine the senses, depleting energy levels and effectiveness. Having an awareness of the effects of one’s settings and the ability to nuance and enhance or mitigate them, greatly contributes to a sense of personal control and increased ownership, especially at work**.**

Empathetic listening has been researched for a long time (Drollinger *et al.,* 2006), but there were no suggestions as to how it could be put into practice, until Scharmer’s proposal in Theory U (Scharmer, 2008), which actually goes beyond empathetic listening. This present study is partly an attempt to make Scharmer’s work easier to comprehend. Interestingly, while the participants were not aware of generative listening, they had the ability to describe it:

*When I listen to patients or my colleagues in with intent…I can connect to what they are trying to convey to me and I can also see the picture behind it, helping me make better decisions*

Traditionally, those carrying out Eastern practices, such as mindfulness, transcendental meditation, qigong and the like, have claimed to be able to embed empathy into individuals and empirical evidence now supports this claim (Birnie *et al.,* 2010; Kristeller & Johnson, 2005; Andersen, 2005) in the areas of nursing and business. Findings in nursing (Wilson *et al.,* 2005) and occupational therapy (Milner & Bossers, 2004) indicate that mentorship is a characteristic of a leader and assists individuals in the organization to deal with uncertainty and other potential problems. This finding was corroborated here by the participants, although they voiced concerns about lack of mentors being available in their own sectors:

*I had the knowledge from college…but no on the job experience….I had to learn everything about the clinic by myself….I received no help whatsoever to take care of problems arising in the clinic or treating difficult cases…*

Coaching and Professional Development through Activities

The meaning of active listening is to listen with all the senses with complete attention while simultaneously suspending judgment. One of the participants contended that his experience of being a sportsperson had helped him in his active listening skills:

*I used to be sportsman. I was coached to be switched on all the time. To be focussed on players around me all the time. I was able to bring that experience into my other parts of life.*

This is not surprising as many sports psychologists and coaches work as life skills teachers in organizations (Danish & Nellen, 1997). A recent study (Wylleman *et al*., 2009) also indicated how the application of sports psychology increases professional development in organizations, especially in the area of listening skills (Anderson *et al.*, 2004). The non-judgmental method of listening could be borrowed from the person-centred approach (Bovey & Hede, 2001). Bruce Lee (1971) conceives this idea perfectly:

*Be like water making its way through cracks. Do not be assertive, but adjust to the object and you shall find a way around or through it. If nothing within you stays rigid, outward things will disclose themselves. Empty your mind, be formless. Shapeless, like water. If you put water into a cup, it becomes the cup. You put water into a bottle and it becomes the bottle. You put it in a teapot, it becomes the teapot. Now, water can flow or it can crash. Be water, my friend.*

Ownership

According to the participants, taking ownership of goals increases the chances of making better intuitive judgments (Andersson & Floren, 2008) during uncertain periods, enabling better quality connectivity. The study participants agreed that taking ownership of their vocational obligations makes them better understand the nature of the work and hence take better decisions:

*My responsibility is important. After I’ve done my duty…I get a feeling of satisfaction and also connects me to my work.*

Rational/Social/Emotional Intelligence and Resilience

The participants felt the need for resilience and adaptability, as occasional uncertainty was inevitable in their roles. Work on resilience and adaptability has been implemented in occupational therapy (Skorikov & Vondracek, 2011) and personal development (Ungar, 2008). This is one of the most important character factors as it has been shown to affect health, relationships and overall wellbeing (King *et al.,* 2006) and could be usefully integrated into organizational continuing professional development.

Recognition of emerging patterns is a thought process similar to the rational process of thinking (Avolio *et al.,* 2004), where relationships are built on the effects that a decision might manifest. This is enhanced by divergent thinking (Razoumnikova, 2000), through which relationships in a space can be viewed from an outside perspective. Again, this enhances the chances of better intuitive decision-making.

The embodied leadership characteristics identified in the findings exhibit mental and relational qualities that underpin the empathetic and compassionate mindset psychologies (Gilbert, 2014):

* + - 1. Caring for and understanding of self and others (e.g. self and social awareness, open thinking, active listening, universal ethics);
      2. Supporting and nurturing, engaging to alleviate or prevent suffering (e.g. emotional and social intelligence, resilience, ownership, team spirit, mentorship, coaching, friendly relationships).

The empathetic and compassionate mindset psychologies have been identified as key qualities in nursing leadership (Kuiper & Pesut, 2004; Howe, 2006; Rew & Barrow Jr., 2007; Campbell-Yeo, Latimer & Johnston, 2008; Standing, 2008; Berwick Report, 2013). Subsequently, this research suggests how an understanding of compassionate nursing and embodied leadership can learn from one another.

LIMITATIONS

This study has only considered a sample of 14 medical care professionals at a single location, therefore the findings can only be linked to this population. Transferability and dependability could be confirmed by using similar data collection techniques in different settings, although deviations are bound to occur owing to differences in the background of the population, geopolitical, socio-economic, linguistic and cultural.

CONCLUSION

This study suggests there are substantial similarities between the latest research in areas of leadership and nursing, especially in the aspect of compassionate care. Further investigations in different contexts could reveal additional factors contributing to embodied leadership characteristics in medical care professionals. Organizational development programmes in the medical care sector could incorporate the current findings to create an immediate effect on both employees and, by extension, on patients. However, research into embodied leadership is in its infancy and there remains significant scope for gaining insight and knowledge that may contribute to identifying contributing factors and overlapping characteristics between sectors. Questions for further research would include: What conditions facilitate/prevent compassionate care? What practices develop empathetic and compassionate leadership?

REFERENCES

Abraham, C., & Michie, S. (2008). A taxonomy of behavior change techniques used in interventions. *Health psychology*, *27*(3), 379.

Andersen, D. T. (2005). Empathy, psychotherapy integration and meditation: A Buddhist contribution to the common factors movement. *Journal of Humanistic Psychology*, *45*(4), 483-502.

Anderson, A., Miles, A., Robinson, P., & Mahoney, C. (2004). Evaluating the athlete’s perception of the sport psychologist’s effectiveness: What should we be assessing?. *Psychology of Sport and Exercise*, *5*(3), 255-277.

Andersson, S., & Florén, H. (2008). Exploring managerial behavior in small international firms. *Journal of Small Business and Enterprise Development*, *15*(1), 31-50.

Argote, L., & Miron-Spektor, E. (2011). Organizational learning: From experience to knowledge. *Organization science*, 22(5), 1123-1137.

Avolio, B. J., & Gardner, W. L. (2005). Authentic leadership development: Getting to the root of positive forms of leadership. *The Leadership Quarterly*, *16*(3), 315-338.

Avolio, B. J., Gardner, W. L., Walumbwa, F. O., Luthans, F., & May, D. R. (2004). Unlocking the mask: A look at the process by which authentic leaders impact follower attitudes and behaviors. *The Leadership Quarterly*, *15*(6), 801-823.

Avolio, B. J., & Locke, E. E. (2002). Contrasting different philosophies of leader motivation: Altruism versus egoism. *The Leadership Quarterly*, *13*(2), 169-191.

Ashforth, B. E., Harrison, S. H., & Corley, K. G. (2008). Identification in organizations: An examination of four fundamental questions. *Journal of Management*, *34*(3), 325-374.

Baer, R. A., Smith, G. T., Hopkins, J., Krietemeyer, J. & Toney, L. (2006)"Using self-report assessment methods to explore facets of mindfulness." *Assessment* 13(1) 27-45.

Baldacchino, D., & Draper, P. (2001). Spiritual coping strategies: a review of the nursing research literature. *Journal of advanced nursing*, *34*(6), 833-841.

Bass, B. M. (1998). Transformational leadership, NJ: Lawrence Erlbaum

Bernerth, J. B., Armenakis, A. A., Feild, H. S., Giles, W. F., & Walker, H. J. (2007). Leader–member social exchange (LMSX): Development and validation of a scale. *Journal of Organizational Behavior*, 28(8), 979-1003.

Berwick report, NHS England, <https://www.england.nhs.uk/tag/berwick-report/>

Birnie, K., Speca, M., & Carlson, L. E. (2010). Exploring self‐compassion and empathy in the context of mindfulness‐based stress reduction (MBSR). *Stress and Health*, *26*(5), 359-371.

Bobevski, I., Holgate, A. M., & McLennan, J. (1997). Characteristics of effective telephone counselling skills. *British Journal of Guidance and Counselling*, *25*(2), 239-249.

Bommer, W. H., Rubin, R. S., & Baldwin, T. T. (2004). Setting the stage for effective leadership: Antecedents of transformational leadership behavior. *The Leadership Quarterly*, 15(2), 195-210. DOI: 10.1002/job.342. Retrieved on 21/05/2014.

Bovey, W. H., & Hede, A. (2001). Resistance to organizational change: the role of cognitive and affective processes. *Leadership & Organization Development Journal*, *22*(8), 372-382.

Boyatzis, R. E., & McKee, A. (2005). *Resonant Leadership: Renewing Yourself and Connecting with Others Through Mindfulness, Hope and Compassion*. Harvard Business Press.

Boyatzis, R. E., Passarelli, A., Koenig, K., Lowe, M., Matthew, B., Stoller, J., Phillips, M. (2012). Examinaton of neural substrates activated in experiences with resonant and dissonant leaders (2 ed., vol. 23, pp. 259-272). *The Leadership Quarterly*

Boyatzis, R. E., Smith, M. L., & Blaize, N. (2006). Developing sustainable leaders through coaching and compassion. *Academy of Management Learning & Education*, 5(1), 8-24. doi:10.5465/AMLE.2006.20388381. Retrieved on 21/12/2013.

Breuer, F. (2003). Subjectivity and reflexivity in the social sciences: Epistemic windows and methodical consequences. In *Forum Qualitative Sozialforschung/Forum: Qualitative Social Research* 4(2).

Bulman, C., & Schutz, S. (Eds.). (2013). *Reflective practice in nursing*. John Wiley & Sons.

Campbell-Yeo, M., Latimer, M. & Johnston, C. (2008) 'The empathetic response in nurses who treat pain: concept analysis.', *Journal of advanced nursing,* 61 (6), pp. 711-719.

Carmeli, A., Brueller, D., & Dutton, J. E. (2009). Learning behaviours in the workplace: The role of high‐quality interpersonal relationships and psychological safety. *Systems Research and Behavioral Science*, 26(1), 81-98. DOI: 10.1002/sres.932. Retrieved on 20/01/2013.

Cennamo, L., & Gardner, D. (2008). Generational differences in work values, outcomes and person-organisation values fit. *Journal of Managerial Psychology*, *23*(8), 891-906.

Choi, Y., & Mai-Dalton, R. R. (1999). On the leadership function of self-sacrifice. *The Leadership Quarterly*, *9*(4), 475-501.

Choudhry, R. M., Fang, D., & Mohamed, S. (2007). The nature of safety culture: A survey of the state-of-the-art. *Safety science*, *45*(10), 993-1012.

Conger, J. A., & Kanungo, R. N. (1988). The empowerment process: Integrating theory and practice. *Academy of management review*, *13*(3), 471-482.

Conger, J. A., Kanungo, R. N., & Menon, S. T. (2000). Charismatic leadership and follower effects. *Journal of Organizational Behavior*, 21(7), 747-767. DOI: 10.1002/1099 1379(200011)21:7<747::AID-JOB46>3.0.CO;2-J. Retrieved on 20/02/2014

Cunningham, I., & Hyman, J. (1999). Devolving human resource responsibilities to the line: beginning of the end or a new beginning for personnel?. *Personnel Review*, *28*(1/2), 9-27.

Curtis, K. (2013). 21st Century challenges faced by nursing faculty in educating for compassionate practice: Embodied interpretation of phenomenological data. *Nurse education today*, 33(7), 746-750.

Dane, E., & Pratt, M. G. (2007). Exploring intuition and its role in managerial decision making. *Academy of Management Review*, *32*(1), 33-54.

Danish, S. J., & Nellen, V. C. (1997). New roles for sport psychologists: Teaching life skills through sport to at-risk youth. *Quest*, *49*(1), 100-113.

Davidhizar, R. (2003). Listening--a nursing strategy to transcend culture. *The Journal of practical nursing*, *54*(2), 22-4.

Davidson, R. J. (2003). Affective neuroscience and psychophysiology: toward a synthesis. *Psychophysiology*, *40*(5), 655-665.

Davidson, R. J., Kabat-Zinn, J., Schumacher, J., Rosenkranz, M., Muller, D., Santorelli, S. F. (2003). Alterations in brain function produced by mindfulness meditation. *Psychosomatic medicine, 65*(4), 564-570

Derue, D. S., Nahrgang, J. D., Wellman, N. and Humphrey, S. E. (2011) Trait and Behavioural theories of leadership: An integration and meta-analytic test of their relative validity. Personnel Psychology, 64: 7–5

Ditillo, A. (2004) "Dealing with uncertainty in knowledge-intensive firms: the role of management control systems as knowledge integration mechanisms." *Accounting, Organizations and Society* 29(3) 401-421.

Drollinger, T., Comer, L. B., & Warrington, P. T. (2006). Development and validation of the active empathetic listening scale. *Psychology & Marketing*, *23*(2), 161-180.

Dutton, J. E. (2003). *Energize your workplace: How to create and sustain high-quality connections at work* .San Francisco: Jossey-Bass.

Easterlin, R. A. (2006) "Life cycle happiness and its sources: Intersections of psychology, economics and demography." *Journal of Economic Psychology* 27(4) 463-482.

Einarsen, S., Aasland, M. S., & Skogstad, A. (2007). Destructive leadership behaviour: A definition and conceptual model. *The Leadership Quarterly*, 18(3), 207-216. DOI: 10.1016/j.leaqua.2007.03.002. Retrieved on 30/09/2013.

Fernando, M & Jackson, B. (2006). "The influence of religion-based workplace spirituality on business leaders' decision-making: An inter-faith study." *Journal of Management & Organization* 12(1) 23-39.

Funnell, M. M. (2010). Peer-based behavioural strategies to improve chronic disease self-management and clinical outcomes: evidence, logistics, evaluation considerations and needs for future research. *Family practice*, *27*(suppl 1), i17-i22.

Gilbert, P. (2009). Introducing compassion-focused therapy. *Advances in psychiatric treatment*, *15*(3), 199-208.

Gilhooly, K. J., Fioratou, E., Anthony, S. H., & Wynn, V. (2007). Divergent thinking: Strategies and executive involvement in generating novel uses for familiar objects. *British Journal of Psychology*, *98*(4), 611-625.

Gleig, A. L. (2010) *Enlightenment After the Enlightenment: American Transformations of Asian Contemplative Traditions*. Dissertation. Rice University.

Gobet, F., & Chassy, P. (2008). Towards an alternative to Benner's theory of expert intuition in nursing: a discussion paper. *International Journal of Nursing Studies*, *45*(1), 129-139.

Goleman, D. (2006) Emotional intelligence: Why it can matter more than IQ***.*** New York: Bantam Books.

Giustini, D. (2006). How Web 2.0 is changing medicine*. Bmj*, 333(7582), 1283-1284.

Granovetter, M. S. (1995). Getting a job: A study of contacts and careers. University of Chicago Press.

Guldenmund, F. W. (2007). The use of questionnaires in safety culture research–an evaluation. *Safety Science*, *45*(6), 723-743.

Haggard, P., & Clark, S. (2003). Intentional action: conscious experience and neural prediction. *Consciousness and cognition*, *12*(4), 695-707.

Hall, W.A. and Callery, P., 2001. Enhancing the rigor of grounded theory: Incorporating reflexivity and relationality. *Qualitative Health Research*, 11(2), pp.257-272.

Hayes, S. C., Luoma, J. B., Bond F. W., Masuda, A & Lillis, J. (2006)"Acceptance and commitment therapy: Model, processes and outcomes." *Behaviour research and therapy* 44(1) 1-25.

Heaphy, E. D., & Dutton, J. E. (2008). Positive social interactions and the human body at work: Linking organizations and physiology. *Academy of Management Review*, 33(1), 137-doi:162. 10.5465/AMR.2008.27749365. Retrieved on 08/08/2013.

Hermes, G. L., Delgado, B., Tretiakova, M., Cavigelli, S. A., Krausz, T., Conzen, S. D., & McClintock, M. K. (2009). Social isolation dysregulates endocrine and behavioral stress while increasing malignant burden of spontaneous mammary tumors. *Proceedings of the National Academy of Sciences*, *106*(52), 22393-22398.

Hoffman, K., Donoghue, J., & Duffield, C. (2004). Decision‐making in clinical nursing: investigating contributing factors. *Journal of Advanced Nursing*, *45*(1), 53-62.

Hofmann, S. G., Sawyer, A. T., Witt, A. A., & Oh, D. (2010). The effect of mindfulness-based therapy on anxiety and depression: A meta-analytic review. *Journal of consulting and clinical psychology*, *78*(2), 169.

Howe, C. (2006). Reflective Practice in Nursing. *Journal of Advanced Nursing*, *54*(3), 400-400.

Ilies, R., Morgeson, F. P., & Nahrgang, J. D. (2005). Authentic leadership and eudaemonic well-being: Understanding leader–follower outcomes. *The Leadership Quarterly*, 16(3), 373-394.

Jarvis, P. (1992). Reflective practice and nursing. *Nurse Education Today*, *12*(3), 174-181.

Jeste, D. V., & Vahia, I. V. (2008). Comparison of the conceptualization of wisdom in ancient Indian literature with modern views: Focus on the Bhagavad Gita. *Psychiatry*, *71*(3), 197.

Johns, C. & Freshwater, D. (2009) *Transforming Nursing Through Reflective Practice*, 2nd edn. Oxford: Blackwell.

Giacalone, R. A., & Jurkiewicz, C. L. (2003). Right from wrong: The influence of spirituality on perceptions of unethical business activities. *Journal of Business Ethics*, *46*(1), 85-97.

Gilbert.P. (2014). The Origins and nature of compassion focused therapy, *British Journal of Clinical Psychology, 58,* 6-41.

Kahneman, D. & Krueger, A. B. (2006). "Developments in the measurement of subjective well-being." *The journal of economic perspectives* 20(1) 3-24.

Kanter R.M. *(*1993*) Men and Women of the Corporation, 2nd edn.* Basic Books, New York.

King, L. A., Hicks, J. A., Krull, J. L., & Del Gaiso, A. K. (2006). Positive affect and the experience of meaning in life. *Journal of personality and social psychology*, *90*(1), 179.

Koh, A. (1999). Non-judgemental care as a professional obligation. *Nursing Standard*, *13*(37), 38-41.

Klehe, U. C., Zikic, J., Van Vianen, A. E., & De Pater, I. E. (2011). Career adaptability, turnover and loyalty during organizational downsizing. *Journal of Vocational Behavior*, *79*(1), 217-229.

Komives, S. R., Lucas, N., & McMahon, T. R. (2009). *Exploring leadership: For college students who want to make a difference*. John Wiley & Sons.

Koya, K. anderson, J., Sice, P & Kotter, R. (2015). Attributes of embodied leadership: A beginning in the next chapter of leadership development*.* *Human Systems Management*, 34 (4), 287-300.

Kristof‐Brown, A. L.,Zimmerman, R. D. & Johnson, E. C. (2005)”Consequences of individual’s fit at work: A meta-analysis of person-job, person-organisation, person-group and person-supervisor fit” *Personnel psychology* 58(2) 281-342.

Kristeller, J. L., & Johnson, T. (2005). Cultivating loving kindness: a two-stage model of the effects of meditation on empathy, compassion and altruism. *Zygon®*, *40*(2), 391-408.

Kuiper, R. A., & Pesut, D. J. (2004). Promoting cognitive and metacognitive reflective reasoning skills in nursing practice: self‐regulated learning theory. *Journal of Advanced Nursing*, *45*(4), 381-391.

Lee, B (1971). Long Street. Available at <https://www.youtube.com/watch?v=LTnSEFsInp0>

Lenton, J. P., Fowler, N. E., Van der Woude, L., & Goosey-Tolfrey, V. L. (2008). Wheelchair propulsion: effects of experience and push strategy on efficiency and perceived exertion. *Applied physiology, nutrition and metabolism*, *33*(5), 870-879.

Lichtenstein, B. B., & Plowman, D. A. (2009). The leadership of emergence: A complex systems leadership theory of emergence at successive organizational levels. *The Leadership Quarterly*, *20*(4), 617-630.

Lilius, J. M., Worline, M. C., Maitlis, S., Kanov, J., Dutton, J. E., & Frost, P. (2008). The contours and consequences of compassion at work. *Journal of Organizational Behavior*, 29(2), 193-218. DOI: 10.1002/job.508. Retrieved on 01/12/2013.

Lincoln, Y. S., & Guba, E. G. (1986). But is it rigorous? Trustworthiness and authenticity in naturalistic evaluation. *New directions for program evaluation*, *1986*(30), 73-84.

Lipman-Blumen, J. (2000). *Connective leadership: Managing in a changing world*. Oxford University Press.

Lunn, J. (2009). The Role of Religion, Spirituality and Faith in Development: a critical theory approach. *Third World Quarterly*, *30*(5), 937-951.

Lyons, J. B., & Schneider, T. R. (2009). The effects of leadership style on stress outcomes. *The Leadership Quarterly*, 20(5), 737-748. DOI 10.1016/j.leaqua.2009.06.010. Retrieved on 11/06/213.

Mahoney, J. L., & Stattin, H. (2000). Leisure activities and adolescent antisocial behavior: The role of structure and social context. *Journal of adolescence*, *23*(2), 113-127.

Makoul, G., & Clayman, M. L. (2006). An integrative model of shared decision making in medical encounters. *Patient education and counseling*, *60*(3), 301-312.

Mallinckrodt, B., & Wei, M. (2005). Attachment, Social Competencies, Social Support and Psychological Distress. *Journal of Counseling Psychology*, *52*(3), 358.

Manski, C. F. (2004). Measuring expectations. *Econometrica*, *72*(5), 1329-1376.

Maturana, H. R., & Varela, F. J. (1987). *The tree of knowledge: The biological roots of human understanding*. New Science Library/Shambhala Publications.

McCain, R. F. (1965). Nursing by assessment--not intuition. *The American journal of nursing*, 82-84.

McCutcheon, H. H., & Pincombe, J. (2001). Intuition: an important tool in the practice of nursing. *Journal of advanced nursing*, *35*(3), 342-348.

|  |  |
| --- | --- |
| McCrae, R. R. (1987). Creativity, divergent thinking and openness to experience. *Journal of personality and social psychology*, 52(6), 1258. |  |
|  |  |

McGarvey, R. (1990) 'Creative Thinking', *USAIR*, pp. 36-54.

McVicar, A. (2003). Workplace stress in nursing: a literature review. *Journal of advanced nursing*, 44(6), 633-642.

Miller, J. B., & Stiver, I. P. (1997). *The healing connection: How women form relationships in therapy and in life*. Beacon Press.

Milton, C. L. (2007). Professional values in nursing ethics: essential or optional in the global universe?. *Nursing science quarterly*, *20*(3), 212-215.

Milner, T., & Bossers, A. (2004). Evaluation of the mentor–mentee relationship in an occupational therapy mentorship programme. *Occupational Therapy International*, *11*(2), 96-111.

Montana, P. J. & Charnov, B. H. (2008) "Management. New York, Barron's Educational Series." *Inc. p*333

Mosindi, O & Sice, P. (2011) "An Exploratory Theoretical Framework for Understanding Information Behaviour." *International Journal of Technology and Human Interaction (IJTHI)* 7(2) 1-8.

Müller, H. (2004). Arguing, bargaining and all that: communicative action, rationalist theory and the logic of appropriateness in international relations. *European journal of international relations*, *10*(3), 395-435.

Neufville, R. (2003) "Real options: dealing with uncertainty in systems planning and design." *Integrated Assessment* 4(1) 26-34.

Nolan, P., & Bradley, E. (2008). Evidence‐based practice: implications and concerns. *Journal of Nursing Management*, *16*(4), 388-393.

Nonaka, I. & Takeuchi, H. (1995) *The knowledge-creating company: how Japanese companies create the dynamics of innovation*. Oxford: Oxford University Press.

Nusbaum, E. C. &Silvia, P. J. (2011) "Are intelligence and creativity really so different?: Fluid intelligence, executive processes and strategy use in divergent thinking." *Intelligence* 39(1) 36-45

O'Broin, A., & Palmer, S. (2009). Co-creating an optimal coaching alliance: A Cognitive Behavioural Coaching perspective. *International Coaching Psychology Review*, *4*(2), 184-194.

Orme, L., & Maggs, C. (1993). Decision-making in clinical practice: how do expert nurses, midwives and health visitors make decisions?. *Nurse Education Today*, *13*(4), 270-276.

Osumi, T., & Ohira, H. (2010). The positive side of psychopathy: Emotional detachment in psychopathy and rational decision-making in the ultimatum game. *Personality and individual differences*, *49*(5), 451-456.

Padilla, A., Hogan, R., & Kaiser, R. B. (2007). The toxic triangle: Destructive leaders, susceptible followers and conducive environments. *The Leadership Quarterly*, 18(3), 176-194. doi: [10.1016/j.leaqua.2007.03.001](http://psycnet.apa.org/doi/10.1016/j.leaqua.2007.03.001). Retrieved on 06/04/2012

Parker, S. K., Williams, H. M., & Turner, N. (2006). Modeling the antecedents of proactive behavior at work. *Journal of applied psychology*, *91*(3), 636.

Penrod, J. (2001). Refinement of the concept of uncertainty. *Journal of Advanced Nursing*, *34*(2), 238-245.

Platzer, H., Blake, D., & Ashford, D. (2000). An evaluation of process and outcomes from learning through reflective practice groups on a post‐registration nursing course. *Journal of advanced nursing*, *31*(3), 689-695.

Platzer, H., Blake, D., & Ashford, D. (2000). Barriers to learning from reflection: a study of the use of groupwork with post‐registration nurses. *Journal of advanced nursing*, *31*(5), 1001-1008.

Probst, T. M. (2005) "Countering the negative effects of job insecurity through participative decision making: lessons from the demand-control model." *Journal of Occupational Health Psychology* 10(4) p320.

Quinn, R. W., & Dutton, J. E. (2005). Coordination as energy-in-conversation. Academy of *Management Review*, 30(1), 36-57. Retrieved on 6/6/2011.

Rankin, J. M., & Campbell, M. L. (2006). *Managing to nurse: Inside Canada's health care reform*. University of Toronto Press.

Razoumnikova, O. M. (2000) "Functional organization of different brain areas during convergent and divergent thinking: An EEG investigation." *Cognitive Brain Research* 10(1) 11-18.

Reave, L. (2005) "Spiritual values and practices related to leadership effectiveness." *The Leadership Quarterly* 16(5) 655-687.

Reily, K., Finnerty, P. L., & Terveen, L. (2009, May). Two peers are better than one: aggregating peer reviews for computing assignments is surprisingly accurate. In *Proceedings of the ACM 2009 international conference on Supporting group work* (pp. 115-124). ACM.

Rew, L., & Barrow Jr, E. M. (2007). State of the science: intuition in nursing, a generation of studying the phenomenon. *Advances in Nursing Science*, *30*(1), E15-E25.

Roberts, L. M. (2007). From proving to becoming: How positive relationships create a context for self-discovery and self-actualization. Exploring positive relationships at work: Building a theoretical and research foundation, 29-45.

Robinson, K. (2001) *Out of Our Minds: Learning to be Creative*. Oxford: Capstone.

Ross, L. (2006). Spiritual care in nursing: an overview of the research to date. *Journal of clinical nursing*, *15*(7), 852-862.

Rowold, J., & Laukamp, L. (2009). Charismatic leadership and objective performance indicators. *Applied Psychology*, 58(4), 602-621. DOI: 10.1111/j.1464-0597.2008.00365.x. Retrieved on 21/09/2011.

Scharmer, C. O. (2008) 'Uncovering the blind spot of leadership', *Leader to Leader,* 2008 (47), p. 52.

Schaubroeck, J., Walumbwa, F. O., Ganster, D. C., & Kepes, S. (2007). Destructive leader traits and the neutralizing influence of an “enriched” job. *The Leadership Quarterly*, 18(3), 236-251. DOI: 10.1016/j.leaqua.2007.03.006. Retrieved on 25/1/2013

Schwartz, M. S. (2005). Universal moral values for corporate codes of ethics. *Journal of Business Ethics*, *59*(1-2), 27-44.

Senge, P. (2006) *The fifth discipline: the art and practice of the learning organization*

London: Random House Business.

Senge, P., Scharmer, O. C., Jaworski, J. & Flowers, B. S. (2004) *Presence: Human purpose and the field of the future.* Cambribge: SoL.

Sessanna, L., Finnell, D., & Jezewski, M. A. (2007). Spirituality in nursing and health-related literature: A concept analysis. *Journal of Holistic Nursing*, *25*, 252–262. doi:10.117*/*0898010107303890

Siegel, D. J. (2007) 'Mindfulness training and neural integration: differentiation of distinct streams of awareness and the cultivation of well-being', *Social Cognitive and Affective Neuroscience*, 2 (4), pp. 259-263.

Siegrist, J., Starke, D., Chandola, T., Godin, I., Marmot, M., Niedhammer, I., & Peter, R. (2004). The measurement of effort–reward imbalance at work: European comparisons. *Social science & medicine*, *58*(8), 1483-1499.

Sice, P., French, I. (2004). [Understanding humans and organisations.](http://nrl.northumbria.ac.uk/21451/) *Philosophy of Management, 4 (1*), 55-66.

Sice, P., Koya, K., Mansi, S. (2013). [Leadership capability: an autopoietic perspective**.**](http://nrl.northumbria.ac.uk/12507/) *Human Systems Management, 32 (2).* 95-103.

Skorikov, V. B., & Vondracek, F. W. (2011). Occupational identity. In *Handbook of identity theory and research* (pp. 693-714). Springer New York.

Smith, P. A. (2001). Action learning and reflective practice in project environments that are related to leadership development. *Management Learning*, *32*(1), 31-48.

Slovic, P., Finucane, M. L., Peters, E., & MacGregor, D. G. (2004). Risk as analysis and risk as feelings: Some thoughts about affect, reason, risk and rationality. *Risk analysis*, *24*(2), 311-322.

Spinrad, T., & Eisenberg, N. A. N. C. Y. (2009). Empathy, prosocial behavior and positive development in schools. *Handbook of positive psychology in schools*, 119-129.

Standing, M. (2008). Clinical judgement and decision‐making in nursing–nine modes of practice in a revised cognitive continuum. *Journal of Advanced Nursing*, *62*(1), 124-134.

Straughair, C. (2012). Exploring compassion: implications for contemporary nursing. Part 2. *British Journal of Nursing*, 21(4).

Strauss, A. Corbin (1998) Basics of Qualitative Research. *Techniques and Procedures for Developing Grounded Theory. Thousand Oaks*.

Sumpf, D. (2002) "Changing the perception of managers with art." *Management by Play, Creativity and Aesthetics track, The European Academy of Management, 2nd Annual Conference on Innovative Research in Management, Stockholm*.

Tapper, K., Shaw, C., Ilsley, J., Hill, A. J., Bond, F. W., & Moore, L. (2009). Exploratory randomised controlled trial of a mindfulness-based weight loss intervention for women. *Appetite*, *52*(2), 396-404.

Taylor, E. W. (2008). Transformative learning theory. *New directions for adult and continuing education*, *2008*(119), 5-15.

Taylor, A., & Greve, H. R. (2006). Superman or the fantastic four? Knowledge combination and experience in innovative teams. *Academy of Management Journal*, 49(4), 723-740.

Tepper, B. J. (2000). Consequences of abusive supervision. *Academy of management journal*, 43(2), 178-190. doi: 10.2307/1556375. Retrieved on 15/4/2011.

Thompson, C., & Dowding, D. (2001). Responding to uncertainty in nursing practice. *International Journal of Nursing Studies*, *38*(5), 609-615.

Tomasello, M., & Carpenter, M. (2007). Shared intentionality. *Developmental science*, *10*(1), 121-125.

Treviño, L. K., Weaver, G. R., & Reynolds, S. J. (2006). Behavioral ethics in organizations: A review. *Journal of management*, *32*(6), 951-990.

Trochim, W. M., & Donnelly, J. P. (2005). *Research methods: The concise knowledge base*. Atomic Dog Pub.

Ungar, M. (2008) "Resilience across cultures." *British journal of social work* 38(2) 218-235

Vaismoradi, M., Salsali, M., & Ahmadi, F. (2011). Nurses’ experiences of uncertainty in clinical practice: a descriptive study. *Journal of advanced nursing*, *67*(5), 991-999.

Van Vegchel, N., De Jonge, J., Bosma, H., & Schaufeli, W. (2005). Reviewing the effort–reward imbalance model: drawing up the balance of 45 empirical studies. *Social science & medicine*, *60*(5), 1117-1131.

Verquer, M. L., Beehr, T. A., & Wagner, S. H. (2003). A meta-analysis of relations between person–organization fit and work attitudes. *Journal of Vocational Behavior*, *63*(3), 473-489.

Watson, J. (2002). Intentionality and caring-healing consciousness: A practice of transpersonal nursing. *Holistic Nursing Practice*, *16*(4), 12-19.

Watson, I. (2012). The theory of human caring: retrospective and prospective. *Caring in Nursing Classics: An Essential Resource*, 237.

Wheatley, M. J. (2010) *Leadership and the New Science: Discovering Order in a Chaotic World* San Francisco: Berrett Kohler.

White, R. P., & Shullman, S. L. (2010). Acceptance of uncertainty as an indicator of effective leadership. *Consulting Psychology Journal: Practice and Research*, *62*(2), 94.

Wilkinson, E. (2015). UK NHS staff: stressed, exhausted, burnt out. *The Lancet*, 385 (9971), 841-842

Wilson, V. W., Leners, D. W., Fenton, J., & Connor, P. (2005). Mentorship: Developing and inspiring the next generation of nursing leaders. *Nurse Leader*, *3*(6), 44-46.

Wiseman, T. (1996). A concept analysis of empathy. *Journal of advanced nursing*, *23*(6), 1162-1167.

Wong, C. A., & Laschinger, H. K. (2013). Authentic leadership, performance and job satisfaction: the mediating role of empowerment. *Journal of advanced nursing*, 69(4), 947-959.

Wylleman, P., Harwood, C. G., Elbe, A. M., Reints, A., & de Caluwé, D. (2009). A perspective on education and professional development in applied sport psychology. *Psychology of Sport and Exercise*, *10*(4), 435-446.

Yegdich, T. (1999). On the phenomenology of empathy in nursing: empathy or sympathy?. *Journal of Advanced Nursing*, *30*(1), 83-93.

Young, C. E. (1987). Intuition and nursing process. *Holistic Nursing Practice*, *1*(3), 52-62.

Youngson, R. (2011). Compassion in healthcare—the missing dimension of healthcare reform. *Caregiver stress and staff support in illness, dying and bereavement*, 49-61.

Zachary, L. J. (2011). *The mentor's guide: Facilitating effective learning relationships*. John Wiley & Sons.

Zahourek, R. P. (2005). Intentionality: Evolutionary Development in Healing A Grounded Theory Study for Holistic Nursing. *Journal of Holistic Nursing*, *23*(1), 89-109.