Work engagement in nursing: an integrative review of the literature

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Aim To critically review empirical research about work engagement in nursing and to synthesise the findings to better understand this construct.
Background Empirical research shows that engagement is positively related to work performance, workers' health and client loyalty in different professions. It is, therefore, necessary to increase our understanding about engagement in nursing.
Evaluation An integrative literature search was conducted to identify articles and studies on work engagement in nursing that were published between January 1990 and December 2013 in the following databases: PsycINFO, MEDLINE and CINAHL.
Key issues The factors that influence engagement were divided into four areas of analysis: organisational antecedents; individual antecedents; and factors related to managers' leadership and outcomes of engagement.
Conclusion There is clear evidence that the quality of care by nurses improves through engagement. However, this depends on contextual factors such as structural empowerment and social support and on dispositional factors such as efficacy and optimism. It is also evident that nurse managers are key to promoting engagement.
Implications for nursing management Nursing managers and leaders may promote improvements in leadership behaviours and a context of optimism and self-efficacy as a way of increasing work engagement.

Keywords: engagement, leadership, management, nursing

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Introduction

According to World Health Organisation statistics (WHO 2006), there are 59.2 million full-time health workers in the world, more than two-thirds of them are direct-care staff, and 71% of these are nurses and midwives. Research shows that nurses are essential to health maintenance and suggests that a higher number of nursing staff is related to better patient results (Lankshear *et al.* 2005). In contrast, when the nurse–patient ratio decreases, death and therapeutic failure are more likely (Aiken *et al.* 2002). To be exact, a recently published study of 300 hospitals in nine countries shows that when a nurse's workload is increased

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by one patient, mortality increases by 7% and that every 10% increase in the number of qualified nurses is associated with a 7% decrease in mortality (Aiken *et al.* 2014).

These factors highlight the fact that if the healthcare world is to adapt to new social and economic challenges, there will be a need for professional proactive nurses who have initiative, take on the responsibility for their professional development and are committed to high standards of quality. It is these qualities that Bargagliotti (2012) suggests are included within the construct known as work engagement. Work engagement stems from positive psychology, which proposes the study of factors of normal and satisfactory activity rather than those of mental disorders, and in this sense, engagement was first conceived as the opposite of burnout (Maslach & Leiter 1997).

Schaufeli *et al.* (2002) defined work engagement as '... a positive, fulfilling work-related state of mind, and characterised by vigour, dedication and absorption'. Vigour refers to the willingness to invest effort in one's work, dedication is related to involvement, and absorption is related to concentration and being engrossed in one's work (Schaufeli *et al.* 2002).

People with high levels of engagement show positive attitudes towards their jobs and organisations, including job satisfaction and commitment to the company, and they do not frequently shift jobs (Demerouti *et al.* 2001, Schaufeli & Bakker 2004). Furthermore, those with high work engagement exhibit high learning motivation and proactive behaviours (Salanova *et al.* 2003, Sonnentag 2003, Schaufeli *et al.* 2006), and they work diligently because they enjoy their work even when they are tired, describing fatigue as pleasant because they can associate it with positive achievements (Schaufeli & Salanova 2008).

There are indications that the level of engagement is positively associated with job performance in terms of financial benefits, greater client loyalty and better adaptation to the working environment (Schaufeli & Salanova 2007, Xanthopoulou *et al.* 2009, Halbesleben 2010). Empirical studies are also available that indicate that engagement is positively related to health. For example, engaged employees have been shown to suffer less from depression and stress and to have fewer psychosomatic symptoms (Demerouti *et al.* 2001, Schaufeli & Bakker 2004).

The literature shows that both labour and personal resources are important predictors of engagement; working environments with adequate labour resources foster engagement, especially when the work is highly demanding, and personal resources such as self-esteem, optimism and self-efficacy are also useful for coping with the everyday demands of working life (Bakker *et al.* 2011). In 2009a, Simpson conducted a systematic review to synthesise the research about engagement in the organisational psychology, business and nursing literature.

Simpson (2009a) wanted to review engagement in nursing, but given the limited number of publications, she extended it to any working environment. We are now able to overcome this limitation because research on work engagement in nursing has greatly increased.

Objectives

The objectives of this integrative review were: (1) to critically review empirical research about work engagement in nursing; and (2) to synthesise the findings to better understand this construct within the nursing context.

Method

An integrative review was conducted following the steps by Whittemore and Knafl (2005) to ensure a systematic and rigorous review. Using this framework, five stages were followed: research questions were identified, a literature search was conducted, data were evaluated then analysed and results were presented.

Literature search

First, an electronic search was made of literature published between January 1990 and December 2013 using the following databases: Psychology Information (PsycINFO), National Library of Medicine (MEDLINE) and Cumulative Index for Nursing and Allied Health Literature (CINAHL). Because the search was aimed at documents in which work engagement in nursing was the central theme of the research, the key words used were 'engagement' AND 'nurs*' in the title.

In addition to this, a manual review of the reference lists of selected articles was performed. Six more articles were found and included (ancestry searching).

Inclusion criteria were: (1) the sample included staff nurses; (2) the study was published in English, French or Spanish and in a scientific journal; and (3) the study was empirical. Research that was conducted by

students and papers presented at congresses were excluded.

Search outcome

All publications that contained the key words were included, and articles were selected from among these according to the inclusion criteria, based first on the title, then on the abstract, and finally on the overall content. Figure 1 illustrates the literature search and article selection process (see also Moher *et al.* 2009).

Quality appraisal

As Whittemore and Knafl (2005) stated, there is no gold standard for appraising and interpreting the quality of reviews. They argue that quality appraisal should not be a criterion for deciding whether to include an article in an integrative review and that all of the studies that meet given inclusion criteria should be taken into account regardless of the methodological quality.

Cooper (1998) suggested that extracting methodological characteristics from primary studies could be useful for evaluating the general quality of research in systematic reviews and meta-analyses. The methodological details that we considered relevant for evaluating the quality of the research we selected are shown in Table 1. The criteria evaluated refer to the quality of the data and samples evaluated using Cronbach's alpha, sample size and response percentage. We also evaluated sampling methods and sample representativeness. The latter was categorised by considering the nursing specialties that were included in the sample, the numbers of centres or organisations and the categories of the health-care professionals who were involved. Studies were categorised as 'Low' representativeness [i.e. one specialty, only registered nurses (RNs); one organisation], 'Medium' representativeness (i.e. two specialties at least, or two organisations, or both RNs and other nursing staff) and 'High' representativeness (i.e. multiple specialties and organisations; RNs and other nursing staff, including advanced professional nurses).

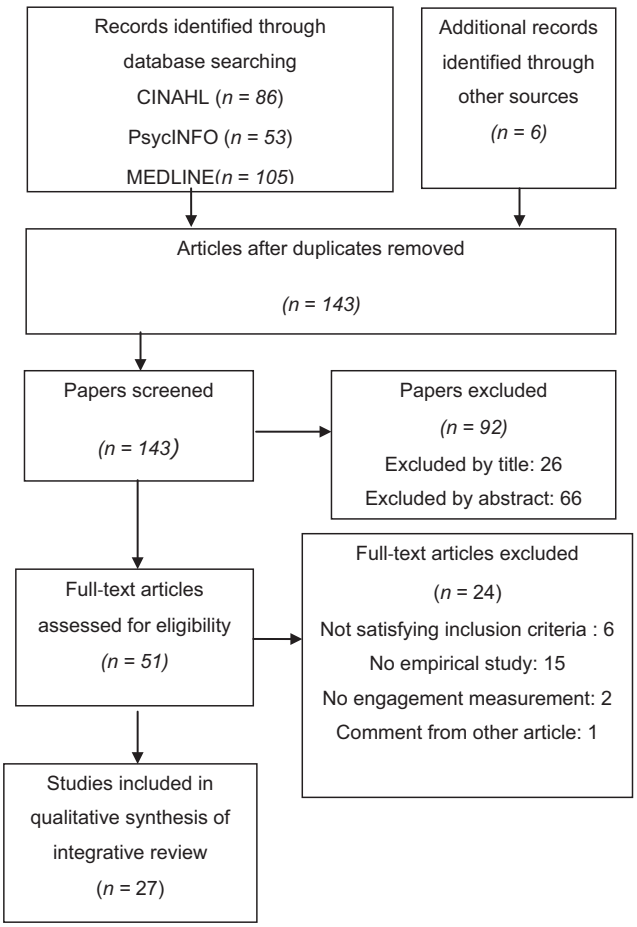

Figure 1
Prisma flow diagram illustrating the literature search and selection process.

Data abstraction and synthesis

During this phase, the studies were divided into groups according to whether engagement was used in the study as a dependent or an independent variable. Next, tables were developed to outline the relationships between the antecedents and the outcomes of engagement. As a result of the analysis and synthesis of the selected literature, three major themes emerged: engagement, its antecedents and outcomes and nurse managers' impact upon it.

Results

Twenty-seven studies were analysed, 24 quantitative and three qualitative. The methodological characteristics of all of the articles analysed are shown in Table 1. The quantitative studies that were analysed gave Cronbach's alpha values of between 0.72 and 0.93, indicating high reliability. Participants' response rates ranged between 14% (the lowest) and 90% (the highest), and only eight studies had over 60% participation. Sample sizes were generally very extensive, higher than 100 in all of the quantitative studies except for three. Sample representativeness (following the criteria given in the 'quality appraisal' section)

Table 1
Methodological characteristics of the studies

Author (year)	*Cronbach α*	*Response rate, %*	*n*	*Random*	*Sample representativeness**	*Design*
Abdelhadi and Drach-Zahavy (2012)	0.88	87.7	158	No	Medium	CD
Adriaenssens *et al.* (2011)	0.93	82.5	254	No	Medium	CD
Bakibinga *et al.* (2012)	NA	NA	15	No	Low	QD
Bamford *et al.* (2013)	UD	48	280	Yes	Medium	CD
Brunetto *et al.* (2013)	UD	35.5	1228	No	Medium	CD
Cho *et al.* (2006)	0.91	58	226	Yes	Medium	CD
Fiabane *et al.* (2013)	UD	55.5	110	No	Medium	CD
Freeney and Tiernan (2009)	NA	NA	20	No	High	QD
Garrosa *et al.* (2011)	0.65	61	508	No	Medium	CD
Giallonardo *et al.* (2010)	0.86	39	170	Yes	Medium	CD
Jenaro *et al.* (2011)	> 0.80	UD	412	No	Medium	CD
Laschinger *et al.* (2009)	0.87 ≥ 0.92	37.7	342	Yes	High	CD
Laschinger (2012)	0.86	UD	342	Yes	Medium	CD
Lawrence (2011)	≥0.83	14	28	No	Medium	CD
Lu *et al.* (2011)	0.91	90 (T1) 80 (T2)	990 (T1) 808 (T2)	No	Medium	LD
Opie *et al.* (2010)	UD	34.6	349	No	Medium	CD
Othman and Nasurdin (2012)	0.90	86.27	402	No	Medium	CD
Palmer (2010)	0.90	85	84	No	Medium	CD
Rickard *et al.* (2012)	UD	35.1	178	No	High	LD
Salanova *et al.* (2011)	UD	76.9	280	UD	Medium	CD
Simpson (2009b)	0.924	35	167	No	Medium	CD
Tomic & Tomic (2010)	0.72 ≥ 0.86	61	169	Yes	Medium	CD
van Bogaert *et al.* (2012, 2013)	0.80 ≥ 0.87	72	357	No	High	CD
Vinje and Mittelmark (2007)	NA	NA	9	No	Low	QD
Walker and Campbell (2013)	UD	UD	96	UD	Low	CD
Wong *et al.* (2010)	0.90	48	280	Yes	Medium	CD

CD, cross-sectional design; LD, longitudinal design; NA, not applicable, QD, qualitative design; Random, randomisation; UD, unavailable data.
*Sample representativeness: see text for explanation.

was between medium and high. The study designs were primarily cross-sectional, with only two longitudinal studies. It is also possible to appreciate (Tables 2 and 3) that the most used measure instrument was the Utrecht work engagement scale (UWES) (Schaufeli *et al.* 2002), whereas the Maslach burnout inventory (MBI) (Maslach *et al.* 1996) was only used in two studies.

After the articles were carefully read, analysed and synthesised, four major themes emerged: (1) organisational antecedents of engagement; (2) individual antecedents of engagement; (3) characteristics of the impact of nurse managers on engagement; and (4) outcomes of engagement.

Organisational antecedents

The most relevant characteristics from the 17 research papers that studied the organisational predictors of work engagement are shown in Table 2. The factors studied were varied, although the factor related to managers' leadership stood out as the most studied (in six of the studies), and thus, we will discuss leadership in a separate section.

Areas of work-life

In their study, Bamford *et al.* (2013) report that 22.1% of the variance in engagement was explained by the six areas of work-life conceptualised by Maslach and Leiter (1997).

These six areas were workload, control, reward, community, fairness and value congruence between company and employees. Fiabane *et al.* (2013) found significant and positive correlations between reward, fairness and values and the three dimensions of engagement. This study also found a significant association between personal factors such as mental health, locus of control and job satisfaction, and engagement, showing correlations between 0.26 and 0.53.

Structural empowerment

Another concept related to organisational aspects was structural empowerment, which is based on a theory by Kanter (1993). Structural power, as defined in the theory, entails access to resources, information and support. Cho *et al.* (2006) studied structural empowerment in nurses who had less than 2 years of nursing experience and found that it fostered their engagement.

Table 2
Summary of studies included in the review: organisational issues

Author and year	*Conceptual framework*	*Independent variable*	*Dependent variable*	*Health specialty*	*Country*	*Instrument*
Abdelhadi and Drach-Zahavy (2012)	Patient-Centred Care	Service climate	Patient-centred care behaviours	40 Wards of retirement homes	Israel	UWES-16
Adriaenssens *et al.* (2011)	Job Demand Control Support	Personal characteristics Job characteristics Organisational variables	Job satisfaction Turnover intention Work engagement Psychosomatic distress Fatigue	15 Emergency departments	Belgium	UWES-9
Bamford *et al.* (2013)	Authentic Leadership Areas of Work-life	Managers' authentic leadership Match in the six areas of work-life	Nurses' work engagement	Acute care hospitals	Canada	UWES-9
Brunetto *et al.* (2013)	Social Exchange Theory	Organisational support Supervisor–subordinate relationships Teamwork	Engagement Well-being Organisational commitment Turnover intentions	7 Private hospitals	Australia USA	UWES-9
Cho *et al.* (2006)	Kanter's Theory Areas of Work-life	Structural empowerment	Organisational commitment	Acute care hospitals	Canada	MBI
Fiabane *et al.* (2013)	Areas of Work-life	Organisational factors Personal factors	Work engagement	4 Long-stay wards	Italy	MBI
Freeney and Tiernan (2009)	Areas of Work-life			Acute care hospital Psychiatric hospital	Ireland	Semi-structured focus groups
Giallonardo *et al.* (2010)	Authentic Leadership	Perception of preceptor Authentic leadership	Job satisfaction Work engagement	Acute care hospitals	Canada	UWES-17
Jenaro *et al.* (2011)	Job Demands–Resources Model	Psychological adjustment Job satisfaction Job features	Work engagement	30 Units of a public hospital	Spain	UWES-9
Laschinger *et al.* (2009)	Kanter's Theory	Structural empowerment	Work effectiveness	College of Nurses of Ontario	Canada	UWES-9
Laschinger (2012)	New Graduate Nurse Work-life Retention Model	Core self-evaluation Structural empowerment Areas of work-life Authentic leadership Orientation preceptorship	Job satisfaction Job turnover intention Career satisfaction Career turnover intention	College of Nurses of Ontario new graduates.	Canada	UWES-9
Opie *et al.* (2010)	Adaptation of Job Demands–Resources (JD-R) Model	Job demands Job resources	Psychological distress Emotional exhaustion Work engagement Job satisfaction	Remote area	Australia	UWES-9
Othman and Nasurdin (2012)	Social Exchange Theory	Social support	Work engagement	3 Public hospitals	Malaysia	UWES-9
Rickard *et al.* (2012)	Extended Job Demands–Resources Model	Job demands Job resources System capacity	Occupational stress Work engagement Job satisfaction	2 Public hospitals	Australia	UWES-9
van Bogaert *et al.* (2012)	Nurse Practice Environment	Practice environment Workloads	Job outcomes Work engagement	2 Psychiatric hospitals	Belgium	UWES-9
van Bogaert *et al.* (2013)	Nurse Practice Environment	Work engagement	Quality of care Job Satisfaction Intention to remain	2 Psychiatric hospitals	Belgium	UWES-9
Wong *et al.* (2010)	Authentic Leadership	Authentic leadership	Voice behaviour (extra-role) Unit care quality	College of Nurses of Ontario	Canada	UWES-9

UWES, Utrecht work engagement scale.

Table 3
Summary of studies included in the review: individual factors

Author, year	*Conceptual framework*	*Independent variable*	*Dependent variable*	*Health specialty*	*Country*	*Instrument*
Bakibinga *et al.* (2012)	Self-Tuning Model			2 Health centres	Uganda	Depth interviews
Garrosa *et al.* (2011)	Job Demands–Resources Model	Role stress Optimism Hardy personality Emotional competence	Burnout Work engagement	4 General hospitals	Spain	UWES-17
Lawrence (2011)	Critical Reflective Practice	Education level Moral distress Critical reflective practice	Work engagement	Intensive care unit (medical and paediatric) Magnet hospital	USA	UWES-17
Lu *et al.* (2011)	Work-to-Family Enrichment and Family-to-Work Enrichment	Family mastery Job demand	Work engagement	1 Hospital	China	UWES-9
Palmer (2010)	Reed's Theory of Self-Transcendence.	Self-transcendence	Work engagement	Critical-care nurses conference	USA	UWES-17
Salanova *et al.* (2011)	Bandura's Social Cognitive Theory	Transformational leadership Self efficacy	Nurses' extra-role performance	1 Hospital	Portugal	UWES-11
Simpson (2009b)	Mobley's Model of Turnover	Job satisfaction Turnover cognitions Job search behaviour	Work engagement	6 Hospitals	USA	UWES-9
Tomic & Tomic (2010)	Existential fulfilment	Self acceptance Self-actualisation Self-transcendence Perceived workload	Work engagement	General Hospital	Netherlands	UWES-15
Vinje and Mittelmark (2007)	Self-care, Orem 1995			Community nurses	Norway	Depth interviews
Walker and Campbell (2013)	Work readiness	Organisational acumen Clinical competence Social intelligence Personal work characteristics	Job satisfaction Work engagement Intention to remain	2 Hospitals	Australia	UWES-14

UWES, Utrecht work engagement scale.

Social support

In general, positive work experiences that are related to work climate and support increase engagement, as shown in studies by van Bogaert *et al.* (2013) and Abdelhadi and Drach-Zahavy (2012). In a similar sense, Brunetto *et al.* (2013) found that perceived organisational support predicted engagement. However, in a study by Adriaenssens *et al.* (2011), other organisational variables such as staff ratios and availability and quality of material resources and rewards explained only 4% of the variance in engagement.

In relation to work teams, in a study that was conducted using semi-structured focus groups, Freeney and Tiernan (2009) found that feeling part of a community created a pleasant atmosphere and that this was a key element to engaging nurses in their work. Brunetto *et al.* (2013) also obtained results along this line. Othman and Nasurdin (2012), however, concluded that work colleagues did not have a significant effect on engagement, and in their study, work overload, lack of autonomy, high responsibility, insufficient reward and lack of impartiality or fairness were found to be barriers to work engagement.

Finally, Jenaro *et al.* (2011) observed that some work-related characteristics such as satisfaction with the workplace, quality of working life, low social dysfunction and low stress associated with patient care were also predictors of engagement.

Individual antecedents

Details of the studies about the individual factors among nurses that were described as antecedents to engagement are shown in Table 3. These factors are varied, and it was difficult to identify factors that were discussed in multiple studies.

Personal traits

Three personal resources were studied by Garrosa *et al.* (2011), although optimism was the only one that had a moderate effect on engagement. Another characteristic that correlated positively with engagement was self-transcendence (Palmer 2010), understood as the ability to extend self-conceptual boundaries multidimensionally (i.e. intrapersonally, interpersonally and temporarily). It was also understood as a characteristic of maturity that enables integration of the concepts of living, aging and dying. However, Tomic and Tomic's (2010) study was only able to show a weak negative association between this characteristic and the UWES vigour survey.

Social cognitive theory defines self-efficacy as 'beliefs in one's capacities to organise and execute the courses of action required to produce given attainments' (Bandura 1997). Salanova *et al.* (2011) confirmed a positive relationship between self-efficacy and work engagement.

A multidimensional study on how nurses perceived having the skills to develop their work successfully (Walker & Campbell 2013) showed that social intelligence—the extent to which people perceive their ability to adapt and interact in social work situations—was a predictor of work engagement in the framework of work readiness.

Vinje and Mittelmark (2007) conducted a qualitative study through in-depth interviews and found that nurses recognised that when their engagement was undermined, they needed to make changes in their lives or in their work focus to balance work demands and resources, which was possible through sensibility, reflection and introspection. Some years later, in 2012, Bakibinga and colleagues conducted similar research, combining phenomenology and hermeneutics to analyse the self-tuning model, which is a self-care strategy that involves coping responses to avoid burnout and preserve engagement. This research concluded that nurses coped with stress and maintained work engagement through the same resources: introspection, sensibility and reflection.

Professional characteristics

Simpson (2009b) developed a model that explained 46% of engagement variance with three predictors: professional status, thoughts of leaving the profession and social interaction.

Different studies have reported contradictory results in relation to number of years of experience. Jenaro *et al.* (2011) found that years of experience in a ward did not influence the average levels of engagement, although later, in 2013, Bamford and colleagues found that the number of years of experience explained 4.8% of the variance in engagement.

Family issues

Lu *et al.* (2011), using a longitudinal design, demonstrated that family mastery had a significant, positive, cross-lagged effect on work engagement ($\beta = 0.16$, $P < 0.05$). Family mastery concerns the extent to which individuals control their families' lives, and a seven-item scale developed by Pearlin & Schooler (1978) was used to measure family mastery in this investigation.

Work orientation

Critical reflective practice (CRP) (Lawrence 2011) is defined as being mindful in professional practice. That is, processing all work components—cognitive, behavioural, ethical and affective—leads to continuous growth and learning. In this research, CRP and work engagement were significantly and positively related ($r = 0.56$).

Impact of nurse managers

In 2004, Avolio *et al.* introduced the authentic leadership characteristics of nursing managers, which were later reviewed in a number of articles, and nurse manager leadership has become an important theme in relation to engagement in nursing. Leadership has also been considered in studies about organisational and personal factors (Tables 1 and 2). A study by Bamford *et al.* (2013) attributed 6.2% of the variance in engagement to leadership. Wong *et al.* (2010) study signalled social identification in managers as the characteristic that most directly and positively influenced nurses' engagement. Giallonardo *et al.* (2010) study also showed the mediator effect of work engagement between the authentic leadership of preceptors (i.e. senior nurses who support new nurses) and the job satisfaction of new nurses (i.e. those with less than 3 years' experience). In the same vein, Salanova *et al.* (2011) found a direct and significant relationship between transformational leadership and work engagement, and Othman and Nasurdin (2012) also found manager support to be a predictor of engagement.

In a study by Brunetto *et al.* 2013, the manager–subordinate relationship was found to be a predictor of engagement in a sample from Australia. However, this was not the case in the USA, a finding that was attributed to the differences in nursing posts from one

country to another: managers in Australia have high discretionary power, whereas in the USA power is gradually decreasing.

Outcomes of engagement

Performance

Four studies established that engagement affected nurses' performance. Laschinger *et al.* (2009) related structural empowerment to work efficacy, with engagement being a significant mediator in both new and senior nurses. In another study (Salanova *et al.* 2011), self-efficacy appeared as the principal personal resource that influenced additional performance by nurses (i.e. extra-role performance) through work engagement. Furthermore, the model proposed in the study by Abdelhadi and Drach-Zahavy (2012) showed that nurses' work engagement was a mediator in the relationship between the atmosphere in the ward and the nurses' patient-centred care (PCC) behaviours. Finally, van Bogaert *et al.* (2012) study showed that the UWES absorption subscale had a direct impact on both the quality of care and job-related outcomes.

Job satisfaction and intention to remain in the institution

In their study, Giallonardo *et al.* (2010) associated the dedication dimension of engagement with job satisfaction. Laschinger (2012) found that work engagement was a strong predictor of job satisfaction and turnover intent in first-year nurses. In relation to this latter point, Walker and Campbell (2013) showed that work engagement mediated in the relationship between organisational acumen (a work readiness dimension that refers to organisational awareness and attitude towards work) and intention to remain.

Discussion

One of the methodological issues that Simpson (2009a) noted in her research pertained to the four varying work engagement construct definitions, measurements, and ultimately, distinct lines of study (personal engagement, burnout *vs*. engagement, work engagement and employee engagement), and she argued that both a definition and a consistent measure of the engagement construct were required. This need appears to have been met because it is apparent from our review that research about engagement in nursing is extensive. Aside from this, 22 of the 24 quantitative research papers shared a common concept because they all used the UWES to evaluate engagement.

It is clear that engagement in nursing has been conceptualised as a construct that is different from burnout, as other authors have recently demonstrated (Hakanen & Schaufeli 2012). Furthermore, the results by Rickard *et al.* (2012), in a longitudinal study that was analysed in this review which evaluated the impact of organisational interventions, showed that a significant decrease in emotional exhaustion (burnout scale) was not accompanied by significant changes in work engagement, thus suggesting that they are not part of the same construct.

One of the motivations behind this integrative literature review was to investigate the antecedents that have been studied in relation to nurses' engagement. According to the evidence, we can say that the individual factors studied in the articles reviewed are characteristic of behaviours that can be explained through learning and contextual factors. In general, the different personal factors studied are not purely dispositional; they are also factors determined by the characteristics of the job. This is the case for professional status, thoughts about leaving the profession and interactions—three characteristics that Simpson (2009b) determined as explaining a high percentage of engagement. The question of the extent to which these factors are antecedents of engagement or its consequences can only be answered through longitudinal studies. Moreover, these three factors cannot be studied as individual factors that depend on a nurse's personality alone, as they are also determined by the characteristics of the nurse's position. There is room for the same reflection in relation to the results obtained by Lu *et al.* (2011) in which control over family life, as a personal factor, was found to be somewhat variable over time and not only dependent on a person's characteristics. In the same sense, critical reflective practice (Lawrence 2011), which is shown to be directly related to engagement, is a characteristic that is learned, that could be related to work experience and that also intervenes in the variability of engagement in other studies (Bamford *et al.* 2013).

Other aspects, such as introspection, sensibility and reflection (Bakibinga *et al.* 2012), self-transcendence (Palmer 2010) and social intelligence (Walker & Campbell 2013) are characteristics that relate to personal maturity, so that differences would be based on an individual's degree of personal maturity. Finally, within the focus of this analysis, we would like to highlight optimism (Garrosa *et al.* 2011) and self-efficacy (Salanova *et al.* 2011) as being the only authentic personal factors that demonstrated some influence on work engagement in nurses.

A review of the literature about engagement in nursing provides sufficient evidence to affirm that engagement depends to a great extent on nurses' work environments and then on personal learning throughout their professional careers (introspection, sensibility, reflection, self-transcendence, social intelligence, professional status, thoughts of leaving the profession, interaction, control over family life and critical reflective practice) as well as dispositional factors such as optimism and self-efficacy. We found predictive variables related to organisations at the institutional level (structural empowerment, value congruence between company and employees, quality of materials, organisational support) and at the ward level (nursing practice environment, reward, ward climate, social context, work fairness, feeling part of the community, workload, control). At the ward level, managers have an important impact not only as administrators of resources and staff but also as leaders. This clearly indicates that leadership characteristics act as engagement mediators and, consequently, the role of authentic and transformational leadership is of high importance. Therefore, under the right conditions, engagement appears to be able to improve over time during a nurse's career rather than being a stable condition that does not change according to a person's circumstances.

This review also confirms Simpson's (2009a) results in the sense that research continues to present evidence of the relationship between engagement and the quality of care provided by nurses (Laschinger *et al.* 2009, Salanova *et al.* 2011, Abdelhadi & Drach-Zahavy 2012, van Bogaert *et al.* 2012) and of the relationship between engagement and job satisfaction (Giallonardo *et al.* 2010, Laschinger 2012, Walker & Campbell 2013).

Future research should attempt to discern the levels of variability in engagement in separate individuals and separate jobs to completely understand the concept and provide better assessment tools for managers to evaluate when drawing up their work plans. Detailed knowledge about the variability in nurses' engagement will permit the design of interventions aimed at fostering staff engagement in practice. Longitudinal studies will again be necessary for monitoring the evolution of engagement depending on the different interventions that aim at fostering it and to confirm the causality of the predicting factors.

Limitations of this review

The fact that the word engagement is used and that it has other meanings unrelated to work meant that the search strategy had to be limited to the key words in article titles. This limited scope could have excluded some relevant studies and could be considered a limitation, although there was an attempt to correct this through ancestry research. In this review, the studies are from different countries on five continents, and nurses' training and competencies vary from one system to another, which could be a limitation in our qualitative analysis.

Finally, in relation to the characteristics of the studies included in this review, the research response rate was observed to be higher than 60% in only eight of the studies, and thus, participation percentages can also be improved. Finally, in relation to the research design, there were only two longitudinal studies, and thus, additional studies of this type are necessary for obtaining a better understanding of this concept.

Conclusions

Engagement influences nurses' performance, and therefore, it also has an impact on health-care outcomes. Engagement is not related to a personality trait, but it is a result of the interaction between dispositional factors, personal learning throughout their professional health-care providers' careers and their work environments; as such, engagement is susceptible to modification. Positive work climate, social support from the organisation and the influence of supervisors through leadership styles are factors that stand out as fostering engagement.

Implications for nursing management

The high number of studies that indicated adequate leadership as a strong predictor of nurses' engagement reveals that nursing administrators are key players in the modification of engagement. Nevertheless, if they are to facilitate work engagement, they need a certain level of autonomy in their decision making. Nursing managers and leaders can also promote improvements in leadership behaviours (Brady Germain & Cummings 2010) and in contexts of optimism (Luthans *et al.* 2008) and self-efficacy (Lee & Ko 2010) to improve nurses' work engagement and, consequently, their performance, job satisfaction and intention to remain in their jobs. Managers should encourage nurses to take responsibility, make them feel supported, and foster work climates (Caricati *et al.* 2013) that will improve work engagement over time during a nurse's career.

In the current world economic crisis, work engagement appears to be a necessary means of counteract-

ing the effects of decreasing staff ratios and improving the quality of health care.

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