Factors Affecting and Interventions to Improve Nurses' Work Engagement: An Integrative Review

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Abstract

Aim: *To identify common themes related to influencing nurses' work engagement as well as to explore previously tested interventions to enhance nurses' work engagement.*

Background: *Nurse work engagement is linked to better work outcomes and staff wellbeing attributes. The multifactorial nature of the construct determines the need for knowledge synthesis through the review of related scientific literature.*

Evaluation: *In an integrative review, a search of two electronic databases, namely PubMed, and Cumulative Index to Nursing and Allied Health Literature (CINAHL) as well as search engine, Google Scholar, was conducted in January 2022. The keywords and terms used in the PubMed database were: "work engagement" AND "nursing" and were based on the Medical Subject Headings (MeSH) as well as Boolean terms. The keywords "work engagement" + nursing were used in Google Scholar as well as CINAHL database.*

Key Issues: *The search resulted in 32 studies in the final inclusion phase that were included in the study. For analysis, studies were divided into two categories (factors-related and intervention-related). 29 studies were identified under the 'factors' category and 3 under the 'interventions' category. Main identified factor themes were transformational leadership, environment, and emotional intelligence. The intervention-related studies were scanty in number.*

Conclusion: *Work engagement is a necessary component contributing to improved outcomes all round – for the nurse, the healthcare team, the organization, and ultimately the patient. The complex nature of the concept requires more robust and well controlled studies to address it.*

Implications for Nursing Management: *The findings support the premise of nursing leadership wisely assessing the leadership styles to be utilized, in addition to being more aware and insightful of the work environment and personnel-related factors that contribute to better work engagement. Moreover, assessing work environment is necessary for nursing leadership to identify and prioritize the type of interventions required to be tested or implemented to improve nurse engagement.*

Keywords: *work engagement, nursing, burnout, nurse retention*

1. INTRODUCTION

Nurses are integral in health care systems and their contributions to patients' health outcomes are well recognized and documented. Therefore, nursing shortages can lead to impediment of safe and quality health care delivery. There is an escalating need for nurses as communicated in the World Health Organization (WHO) report (WHO 2020), where a projection of an extra nine million nurses will be needed by 2030. One can argue that these figures may very well be doubled or tripled in the evolving and uncertain world we are existing in.

Due to the global situation, health care leaders are forced to be creative and innovative in finding ways to recruit and retain nurses. There are numerous strategies documented in literature that can improve nurse retention and achieve favorable patient outcomes. These strategies range from basic remuneration and monetary incentives to fewer tangible rewards such as work environment and other conditions, specifically work engagement (Pursio et al 2021).

Work engagement, as the focus of this review, can be defined as a "positive, fulfilling, work-related state of mind characterized by vigor, dedication, and absorption" (Schaufeli et al. 2002. 71 – 95). Vigor means having high levels of energy, mental resilience, willingness to invest effortin one's work, and tenacity despite difficulties. (Schaufeli & Bakker. 2004). Dedication refers to a "sense of significance, enthusiasm, inspiration, pride and challenge" (Schaufeli and Bakker, 2004) and absorption is described as pleasantly engrossed and concentrated in one's work (Schaufeli and Bakker, 2004).

The importance of a strong work engagement culture is deeply rooted in diverse scientific communities and is endorsed by many reputable bodies such as the American Nurses Credentialing Center (ANCC) Magnet® programs. Maslow's Hierarchy promotes self-actualization which, when applied to the work environment, can arguably be influenced by factors such as job satisfaction and work engagement. (Groff Paris, 2010).

Existing nursing research offers valuable insights into the predictors and influencing factors that can assist in fostering work engagement. Although there are past studies conducted in Western countries (Garcia-Sierra et al, 2016; Keyko et al., 2016) that have identified that nurses' work engagement plays a pivotal role in promoting positive individual and organizational outcomes, and a few other studies that have highlighted the mediating and moderating factors associated with work engagement, the overall body of research related to work engagement in nursing is largely fragmented and unsynchronized. (KeyKo et al, 2016). Keyko (2016) stated that the existing research does not fully support initiatives to promote work engagement of registered nurses in clinical practice.

It is evident to the authors that a comprehensive and systematic review of nursing literature is required to extend the current body of knowledge about the complexities surrounding the topic of work engagement in nursing practice. (Keyco et al, 2016).

2. AIMS

The aim of this integrative review is twofold:

(1) Identify common themes related to factors influencing nurses' work engagement.

(2) Explore previously tested interventions on nurses' work engagement.

3. METHODS

3.1. Design

An integrative review methodology was utilized to obtain a complete and extensive elucidation of existing scientific knowledge. The review approach was based on the Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA) guidelines and the phased flow diagram is illustrated in Figure 1. (Page, 2021).

3.2. Search Strategy

The search strategy commenced with a search of two electronic databases, namely PubMed, and CINAHL as well as Google Scholar search engine and was conducted in January 2022.The keywords and terms used in the PubMed database were: "work engagement" AND "nursing" and were based on the Medical Subject Headings (MeSH) as well as Boolean terms. The keywords "work engagement" and "nursing" were used in CINAHL database and Google Scholar. Preference was given to research studies over grey literature.

3.3. Inclusion and Exclusion Criteria

Inclusion criteria encompassed all scientific qualitative and quantitative empirical research study designs, that were published between 2012 to 2022. The studies were to be written in English and pertaining to nurses only. All the studies were to be presented in peer-reviewed journals and were to study work engagement and/or factors influencing work engagement as well as the outcomes of work engagement within the nursing profession.

Studies conducted before 2012 were excluded as well as those not specifically related to nurses/nursing. Studies that did not include the topic 'work engagement' were excluded, as well as those not written in English.

It is important to note that a sweeping search was done on PubMed of related systematic and/or integrative literature review studies

with no date exclusion – a total of eight articles were found, four of which were excluded because of irrelevance.

3.4. Quality Appraisal

Two reviewers evaluated thirty-two selected articles guided by Joanna Briggs Institute (JBI) Critical Evaluation Tool (2017). All articles passed the evaluation criteria successfully according to the two reviewers therefore they were includedin the integrative review.

3.5. Search Outcome

The first phase of the search process, the identification phase, included searches of two databases (PubMed, CINAHL) as well as Google Scholar search engine: that collectively yielded a total of 2 725 potentially relevant studies. Duplicate studies (578) and articles not appearing in scientific journals (648) were excluded. A total of 1 499 records remained.

Proceeding to the second phase, called the screening phase, the abstracts of the remaining records were screened by title and abstract resulting in an additional 1 424 articles being excluded. The remaining 75 full text records were assessed in the eligibility phase (phase three)and 43 were excluded, based on the following: duplication = 18, irrelevance = 15, and 10 for not having the words 'work engagement' in them.

This resulted in 32 studies in the final inclusion phase that were included in the study. (Figure 1)

3.6. Data Extraction and Synthesis

As part of this integrative review, we reviewed 32 selected articles (selected via PRISMA guidelines). For clarity and to extract specific data, we classified the selected articles into 2 main categories, namely: intervention and experiment, and factors. The data synthesis and interpretation of our integrative review will fall into these categories.

4. RESULTS

A total of 32 articles were analyzed as part of this integrative review. They included qualitative, quantitative and mixed methods approaches. More specifically, they were largely correlational, and descriptive, A few were experimental and literature reviews. The majority adopted a cross-sectional data collection methodology. The selected studies

are tabulated as per Table 1 under the following headings: Title, Author, Year of Publication, Purpose, Sample Size, Design and Main Findings (See Table 1). Thereafter the studies were screened for similarities in themes and the commonalities across the studies were identified and divided into two broad categories, namely factors-related categories, and intervention-related categories.

4.1. Factors-related and Intervention-related Categories

4.1. Factors-Related Category

A total of twenty-nine articles were classified under factor-related in our approach to categorize the articles in this integrative review. The reviewed articles were published between 2017 to 2021 and mainly originated in the western part of the world. The design of the studies included quantitative and qualitative methodologies that used the following documented approaches in implementing the studies: descriptive, correlational, multiple case studies, regression analyses, and sequential studies with most of them being cross sectional in nature. The majority of the studies generated themes of the factors that affect nurse work engagement. Some studies generated themes for engagement outcomes.

As an initial step of our integrative review, we performed an analysis of the general synopsis of factor-related themes. These we classified into categories, namely: transformational leadership, work environment, and emotional intelligence.

4.2. Transformational Leadership

The transformational leadership style was highly emphasized in the literature as one of the most proven strategies to enhance nurse work engagement (Pan, 2017; Bishop, 2013). The need for a transformational style is further highlighted in a few articles pertaining to the generational-related variations in engagement levels. Consideration of age and generation is a necessary requirement of transformational leaders in their adaptation of an individualized approach based on these differences (Hisel, 2019). Huber MA, (2019) advocates a leadership style that is characterized by individualization, tailoring the adopted style as per generation.

According to Zemke, (2000) categorizing people based on generation reduces complexities. However, there are mixed opinions in the literature about the value of generational differences and their impact on work outcome and attitudes. Parry, (2011) and Hernas, (2014) provide an end to the argument by suggesting a multi-generational approach when dealing with theory and practice to assure comprehensive tailored attendance.

A few of the studies about the age factor and its relation to nurse engagement include those by Hisel et al (2019), Bishop (2013), Waltz et al (2020) and Wan (2018). They also reached the conclusion that there is a positive relation between age and work engagement.

4.3. Emotional Intelligence (EI)

According to Goleman (2002), emotional intelligence (EI) has been defined as the talent to understand, practice, and manage one's feelings and emotions in a constructive and positive manner. He also necessitates the presence of five components in addressing it: Self-awareness demonstrated in emotional understanding, self-regulation demonstrated in possession of stress management skills, motivation and adaptability demonstrated in exhibiting positive mode and happiness, empathy to reflect interpersonal qualities and social skills demonstrated in flexibility and problem-solving ability. (Goleman, 2002).

Numerous studies reviewed addressed emotional intelligence as a predictor factor in the success of different types of businesses, and was usually linked to interpersonal skills and not to the Intelligence Quotient (IQ). (Wanga, 2021; Neumann, 2017).

Therefore, it's not surprising to identify this theme in relation to nurse work engagement that is linked to improved nurse performance and consequently better patient care. Although emotional intelligence is identified as a core element in determining nurse work engagement whether specifically highlighting the term or relating to it in other synonymous terms was still not identified as a separate theme in the reviewed literature.

More so, stress was addressed by (Gómez-Salgado, 2020) and concluded in his study that higher levels of engagement were demonstrated by staff who did not experience high levels of stress, and this supported the coping with self-regulation and adaptability

dimension of the emotional intelligence theory. The EI theory component was also addressed by (Cao, 2019) in his 'calling' in the profession study where it was highlighted that the component related to self-awareness and understanding was represented by acknowledging work as a meaningful undertaking rather than resource fulfilling.

Work Environment

Work environment is an important precursor for work engagement verified in a multitude of previous research papers. As a broad construct needing further clarification, one study in our literature review categorized work environment into 5 specific dimensions namely, (1) nursing foundations for quality of care, (2) staffing and resource adequacy, (3) nurse managers' ability, leadership, and support, (4) nurse participation in hospital affairs, and (5) collegial nurse-physician relationship (Huang, 2018). The two most significant determinants of work engagement included nurse participation in hospital affairs and collegial relationships with physicians. This finding was partly corroborated by another study reviewed (Lepist, 2017), citing sufficient job resources and nurse-physician relationships as well as including good relationships with one's supervisors as being considered the most important environmental factors by the nurses in the study. Nursing foundations for quality of care refers to the professional development of nurses and this was a strong mediating predictor of engagement across ourliterature review. (Huang, 2018, Lepist, 2017, & Ugwua, 2020). Although nurse managers' leadership ability and support are included under environment factors, it was routinely referred to in many of the articles reviewed, warranting its individual sub-categorization (Huber, 2019; Hisel, 2019; & Tomietto, 2019). References to work environment requires consideration of 'the right person for the right job' as well as 'the right person in the right organization', - this was addressed in one of the studies we reviewed (Ugwua, 2020) where these concepts were combined to provide 'the person-environment fit' further validating the importance of environment on work engagement. An interesting study that was reviewed highlighted the effect of the feedback environment on work engagement - the nurses' perception of the 'why' of feedback of quality improvement results and the necessity of nurse

leaders to develop a supportive feedback environment taking individual nurses' perceptions into consideration that will ultimately facilitate work engagement (Giesbers, 2021).

Intervention-Related Categor

Our identified search methodology yielded a total of only three articles that studied specific interventions and their impact on nurses' work engagement. These studies were conducted in 2013, 2014, and 2020, respectively.

The three intervention-related studies measure the impact of an intervention on work engagement after the introduction of such an intervention.Two of these studies implemented a caring-related measure (intervention) in terms of (1) a retreat for older registered nurses (Bishop, M.2013) and (2) a mindfulness program in a patient care unit (Monroea, et al. 2020). The latter measured the impact of a national quality imitative that advocated increasing the time that nursesspend with patients, enhancing patients' and nurses' experiences and utilizing spaces innovatively to increase efficiency. (White, et al 2014).

5. DISCUSSION

Overall, the multifactorial nature of this construct was well documented in literature, and the two categories presented in the results section of this review highlighted the different approaches researchers adopted when tackling this complex topic. The two categories included in this integrative review are studies related to factors influencing nurse work engagement, and studies related to intervention or experiments.

Most of the studies reviewed (29) focused on factors influencing work engagement, thus it was feasible to identify common themes among them. These themes were divided into three main components: transformational leadership, emotional intelligence, and environment. Only three studies fell into the category of intervention related.

Work engagement among nurses is an under-appreciated attribute that, when present, has far-reaching and profound positive consequences for nurses, organizations, and patients. As evidenced in our review of the current literature, there are innumerable opportunities for the scientific community to further the body of knowledge on this important topic.

Transformational leadership, in the context of the review, was seen as one of the most rewarding and effective strategies in improving nurses' work engagement. (Giesbers et al, 2021., Kang et al, 2020., Parr et al, 2020). Furthermore, the transformational leadership aspect was highlighted as a pertinent need when leaders interacted with different age groups. It was also inferred that the different age groups required different approaches of transformational leadership in order to achieve engagement. The studies established a positive relationship between age and engagement levels, inferring that the older the nursing population, the stronger the engagement. (Bishop, 2013., Hisel, 2019., Hernas, 2014., Waltz et al, 2020). This can be logically explained by the nurse's level of work value maturation and understanding, in addition to their sense of purpose and meaning of the job. The exploration of additional strategies to effectively manage the so-called generational gap in terms of appropriately adjusting leadership styles to suit and facilitate work engagement is required. It is imperative that nurse leaders acknowledge the differences and tailor their leadership styles as needed.

Another important factor related to nurse work engagement is emotional intelligence. Considering the aforementioned evidence in the results section, emotional intelligence plays a major role in nurse work engagement, and this is clearly supported and confirmed by the adopted engagement definitions in our review. This theme supports the sense of purpose establishment in life and being genuine with self and others. It advocates the fact that mental wellbeing is the essence for ensuring easy and quick adaptations in work and life situations. The results of the review highlight the need for taking this aspect into consideration in future nurse-education curricula and student educational programs. (Pérez-Fuentes et al, 2018). While transformational leadership and emotional intelligence address different concepts, both are similar in nature with regards to the centre of focus being interpersonal skills and management of emotions for both.

The last factor identified is work environment. This factor was identified in different contexts in the studies and was addressed in different countries by different approaches, but the review of the current literature fell short of clearly identifying the role of the work

environment in enhancing work engagement (Lepist, 2017). The utilization and manipulation of the previously identified dimensions of environment to improve work engagement was not addressed in the studies reviewed and further research in this regard will be of benefit and is recommended.

The second category that was adopted in this integrative review is intervention-related.

Only three studies were found that addressed interventions related to work engagement. (Monroea et al, 2021., Wieneke et al, 2019., White et al, 2014). The lack of experimental nurse work engagement-related studies in the available literature indicates an opportunity and need for further research in this field. One reason for this deficiency could be due to the nature of the construct as the concept of 'engagement' relates to more abstract human qualities such as feelings, emotions, and a sense of belonging. It is reasonable to assume that it is more difficult to isolate such a notional quality in an experimental situation. However, for the justification of promoting further research, one could argue that the acquisition of additional knowledge regarding the dimensions and factors affecting work engagement can lead to more control, which in turn, results in increased experimental and causal-related relationships being established. This will enhance engagement among nurses and ultimately benefit patient care.

All three studies generated positive relations between the intervention and the outcome. However, sample size in both individual caring-related interventions was small and was not representative for purpose of generalization.

6. LIMITATIONS

The lack of research studies previously conducted on this topic, especially that pertaining to experimental and interventional research, resulted in only having a few appropriate studies(three) to review in this regard and thus may not indicate the true reflection of results of implementing an intervention to improve work engagement.

Another limitation was that no middle eastern studies were identified in this literature search, narrowing the study geographical area to largely western, as well as a few far-eastern studies. This may have an impact on applicability and suitability of the

interpretation of the existing scientific evidence as applied to the middle eastern environment, which has many unique elements to take into consideration.

Finally, the concept work engagement is largely abstract and can be interpreted differently by different people. Other terms for work engagement are often used interchangeably and this may result in misinterpretation and misunderstanding. This ultimately impacted on the search keywords used.

7. CONCLUSION

Work engagement is a necessary component contributing to improved outcomes all round - for the nurse, the healthcare team, the organization, and ultimately the patient. By focusing on the aspects that influence work engagement among nurses, including leadership, emotional intelligence, environment, and other factors such as education, age, maturation level etc., we can develop strategies including interventions that can be implemented to enhance work engagement among nurses, and in doing so, improve retention of this very scarce resource called nurses.

8. IMPLICATION FOR NURSING MANAGEMENT

The findings of this study may help the nursing profession to further assess the factors addressed in this review that ultimately impact nurses' work engagement thereby utilizing them to improve nurses' engagement levels. In addition, other factors not addressed in this review such as culture, should also be considered when exploring ways to improve work engagement amongst nurses. Perhaps the single most important implication for practice is to initiate and exercise the implementation of work engagement interventional programs at organizational level that are aimed at improving work engagement amongst nurses. These can then be evaluated for their effectiveness by means of experimental and quasi-experimental studies. In view of the limited availability, additional literature reviews are needed to enhance the body of knowledge synthesis.

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