Relationship between Transformational Leadership and Work Engagement among Nurses

HIND JAMMAN MUHAMAD ALJUMAH

Abstract: The health system is based on major pillars that it cannot continue without, the most important of which are doctors and nursing staff. Work engagement of nursing staff is one of the issues that effect on the health system. The current scoping review aims to identify relevant evidence related to the Relationship between Transformational Leadership and Work Engagement among Nurses. In this study, the researcher identify factors were not covered, gap regarding the factors that contribute to nurses’ work engagement and transformational leadership style at hospitals are motivation and communication among staff members. As well as, relation between staff members, leadership styles, organizational climate, work flow, work load and resources allocation are some of the important factors that contribute to nurses’ work engagement and transformational leadership style that needs to be studied.

Keywords: Work engagement, transformational leadership style, job resources job satisfaction.

1. INTRODUCTION

Transformational leadership is one of the most important theories in the area of organizational behavior in the past few decades. In contrast to transactional leaders who typically motivate the subordinates to perform in the correct and expected way, transformational leaders inspire the followers to do beyond what is usually expected (Kark, Van Dijk, & Vashdi, 2018). In doing so, transformational leaders increase their employees’ awareness regarding the importance of achieving organizational objectives. An effective way to do that is by aligning the needs of the employees with the needs of the organization and its stakeholders. Transformational leaders tend to promote and maintain closer relationships with employees by minimizing power distance between them and focusing on the employees’ needs and capabilities. This relationship is built on mutual trust between the leader and the subordinate in which frankness and richness of the communication, as well as feedbacks between them, are guaranteed (Puni, Mohammed, & Asamoah, 2018).

In this excellent working environment, the leaders and the employees collaboratively attempt to help the organization to achieve its goals. General transformational leadership influence employees’ positive attitudes and behavior. Transformational leadership has been positively associated with employees’ performance, job satisfaction and organizational commitment (Eliyana & Ma’arif, 2019).

A leader is apparent as transformational when leaders support and encouragement raise the level of their morals, motivation, beliefs, perceptions, and association with the objectives of the organization. Transformational leadership refers to the leader moving the follower beyond immediate self-interests through idealized influence (charisma), inspiration, intellectual stimulation, or individualized consideration. Transformational leadership occurs when a leader inspires followers to share a vision, empowering them to achieve the vision, and provides the resource necessary for raising their personal potential (Metwally, & El-bishbishy, 2018).
Transformational leaders serve as the icons, support positively and transformational leadership focuses on the rising of employee motivation and attempts to link employees’ sense of self with structural values. Transformational leadership is in some ways an expansion of transactional Leadership and it highlights the transaction or exchange that takes place among leaders, colleagues, and followers. Transformational leadership is satisfying basic needs and meeting higher needs though inspiring and motivating followers to provide newer solutions and create a suitable workplace (Claudine, 2016).

Transformational leadership increase the consciousness of followers by appealing to higher ideals and values such as freedom, integrity, peace, and equality and also transformational leaders emphasize new ideas, thus “transform” organizational culture. Transformational leaders motivate followers to achieve performance beyond expectations by transforming followers attitudes, beliefs, and values as opposed to simply gaining compliance. Transformational leadership produces greater awareness and acceptance of the purpose and mission of the organization and fosters a shared vision, re-orienting the training and construction of work teams. It elevates the followers' level of maturity and ideals as well as concerns for achievement, self-actualization, and the well-being of others, the organization, and society. Transformational leadership attempts to create emotional links with its followers and inspires higher values. Transformational leadership consists of four components: (a) idealized influence, (b) inspirational motivation, (c) intellectual stimulation, and (d) individualized consideration (Reza, 2019).

Transformational leadership examines the individuals who have the capability to change states and influence their followers using a challenging and visionary vision. Transformational leadership is an effective form of leadership globally because the transformational leaders are consistent with their vision more careful about followers. Transformational leadership enriched interpersonal relationship between supervisors and subordinate that creates higher level of job satisfaction among the employees. Transformational leadership theory and practice enhance the understanding of team performance (Dionne, 2016).

Transformational leaders also help employees to become more creative, innovative and bring new ideas. Transformational leadership is more apposite where employees are empowered with greater responsibility and encouraged to take initiative. Transformational leaders work actively finds out the best thing in their employees or followers and increase their confident level by providing inspiration. To seem as a transformational leader, the person's prerequisite is to be visionary and communicative well with his or her followers. Moreover, wisdom gives the leader more potentiality to make sophisticated and intelligent decisions (Reza, 2019).

Work engagement in nursing is becoming strategically important as three important factors converge: a global shortage of nurses, the largest group of healthcare providers; political resolve to limit the growth of rising healthcare costs in industrialized nations; and a medical error rate that jeopardizes national health. While the notion of job engagement is derived from the new ‘positive psychology’ (which emphasizes human strengths rather than limits), it has attracted international study attention due to its adaptability (Sayed, et al., 2019).

Job engagement is defined as a "positive, rewarding work-related state of mind" and a sense of well-being at work “marked by vitality, dedication, and immersion” (Schaufeli et al., 2017). Work engagement can take many forms, but it is largely acknowledged that it is characterized by a high level of energy in one's work, or vigour, as well as identification with one's work. Work engagement encompasses a psychological condition toward one's work that extends beyond individual or immediate situations that may be defined by other forms of engagement, such as patient engagement or therapeutic engagement (Leiter and Bakker, 2018).

Nurse engagement is a term that is frequently used to express nurses' dedication to and happiness with their professions. These are only two aspects of participation, in actuality. Nurses' dedication to the organization that employs them, as well as their devotion to the nursing profession itself, are also factors to consider (Dempsey & Reilly, 2016).

Staff nurse work engagement will be preceded by organizational factors like authentic leadership style and a supportive work environment; which can include access to job resources, control over workloads, fairness, rewards, and developmental opportunities (Bamford et al., 2019). The impact of labor engagement has been investigated with suggestions for increased job satisfaction, quality of labor life, and organizational commitment (Jenaro et al., 2016).
leaders in hospital environments, nurse managers are optimally positioned to reinforce nurse's engagement (Bamford et al., 2019).

Work engagement is perceived as a rewarding, job-related positive mental well-being characterized by dedication, absorption and vigor. Vigor refers to psychological resilience, strong energy and enthusiasm to take a position one’s best efforts in one’s work. Dedication is that the sense of involvement, significance, pride, inspiration and confidence in one’s career. Absorption is measured by being attached to one’s work and having difficulty of leaving their work setting. Nurses’ work engagement is influenced by their physical and psychological health (Gonzalez- Gancedo et al., 2019), practice environment, mental state, workload (Wan et al., 2018) and work stress. Specifically, work stress is predicted within the work setting of nurses, and their work stressors include time pressure, lack of patient and colleague interaction, increased workload, overpowering emotions and inadequate rewards (Tran et al., 2018).

Benefits of labor engagement for healthcare organizations are: reducing nurses’ absenteeism, improving nurses’ morale, increasing safety, more capability for the utilization of local volunteers by using succession plans, reducing nurses’ turnover, and increasing the nurses’ motivation. Moreover, benefits outside healthcare organizations are: increasing productivity, increasing profit and revenue, increasing customer loyalty, and increasing the power to draw in talented staff from outside the organization. Additionally, increasing staff productivity, higher wages, increasing self-esteem, and improving the extent of nurse’s health are the positive effects of labor engagement on employees (Dalenjan, Shoorideh, Hosseini, & Mohtashami, 2017).

There are organizational and private consequences of the work engagement of nurses outcomes of labor engagement are categorized into: personal outcomes, performance and care outcomes, and professional outcomes (Keyko, Cummings, Yonge & Wong, 2016). Personal outcomes talk to the results of labor engagement on the individual nurse. Personal outcomes are the foremost commonly examined outcomes of work engagement. Greater work engagement increases job satisfaction, compassion satisfaction and career satisfaction and reduce burnout, job turnover intent, and intention to depart current position.

Performance and care outcomes consult with various aspects of nurses’ performance, organizational outcomes and patient outcomes. These include voice behavior, perceived care quality, quality care, work effectiveness, patient satisfaction, adverse events, and productivity (Wong et al., 2018).

Professional outcomes impact the broader professional body of nurses. they'll be differentiated from organizational outcomes because they're not limited to one organization. Presence of work engagement among work environments leading to more employee productivity, increasing job satisfaction, quality of work life, and organizational commitment (Jenaro, Flores, Orgaz & Cruz, 2016).

Nursing as a profession should achieve success. However, because of their confrontations to suffering diligence, daily deaths and grief, and simultaneously, undertaking certain chores which are termed as challenging, monotonous and mundane make nurses for a awfully very long time be related with the experience of burnout, and stress. specializing in building, improving Nurse engagement in work has several impacts on 1) professionally: lessens exhaustion, burnout, turnover and concurrently enhancing collaboration, the experience of the patient, and organizational outcomes over various measures. 2) clinically: (increases satisfaction, nurses’ competency enhancing, improve quality and fewer malpractice). 3) operationally: (staffing and efficiency). 4) socially: (positive workplace and empowerment). And 5) behaviorally: (enhance collaboration among colleagues and patients) (Dempsey, Reilly, 2016).

During a research drained Saudi by Aboshaiqah, et al., (2016) aimed to assess the differences in work engagement among nurses in Asian nation and its relationship with personal characteristics showed significant differences in nurses’ levels of engagement among the varied work settings, and nurse’s demographic characteristics. The study found high levels of labor engagement among nurses within the three provenances hospitals where the study passed. The study considered creating and maintaining work engagement are of considerable importance, attributable to the shortage of nurses. Finally, it’s important to say the task commitment, and satisfaction of nurses are the 2 features described by this idea. While engagement is found more strongly associated with performance than these other attitudes.
The Aim of the Study

The current scoping review aims to identify relevant evidence related to the Relationship between Transformational Leadership and Work Engagement among Nurses

Research Question Formulation using PICOT:

In hospitals, is there evidence to suggest the Relationship between Transformational Leadership and Work Engagement among Nurses?

Search Strategy

The following electronic databases have been searched to identify a literature review that explores Relationship between Transformational Leadership and Work Engagement among Nurses. They are: MEDLINE, PubMed, CINAHL, web of science and EBSCO. The literature review uses related terms and a wide range of keywords.

Keywords used in the Review:

Work engagement, nursing experience, transformational leadership style, work stress, job resources, nurses and job satisfaction. Combining terms using ‘Boolean Operators’, (and, or), and truncation used appropriately.

Study selection process:

The inclusion criteria of the study included the limits applied to the databases for publication dates ranging from the year 2010 to the year 2020 and English language. The search was also not restricted to country of origin and studies focusing on the Relationship between Transformational Leadership and Work Engagement among Nurses were eligible for inclusion.

230 articles were identified through database searches and 110 excluded due to duplication. Then, 30 articles were excluded due to obvious title irrelevance. Studies excluded after abstract evaluation were 15, five articles of them were excluded due to language other than English, and 21 articles were outside timeframe for studies inclusion. Full-text articles assessed for eligibility (n = 49). Reviewed and included in quantitative strand of the studies (n =49). Therefore, forty nine full articles were eligible for the study criteria. Appendix 1. Figure 1.

2. RESULTS

Following the gathering of the literature, a thematic analysis was undertaken; several themes emerged from the literature as follows:

Theme 1: The demographic and work-related characteristics

This theme describes the demographic and work-related characteristics. Regarding to personal Characteristics: According to study of (Aboshaiqah, et al., 2016) who concluded that, the study shows significant differences in nurses’ engagement among the varied work settings and in nurses’ age and skill. variety of nurses’ personal characteristics have independent influences on their work engagement. An examination of the comparisons among personal characteristics and also the engagement scores. Female nurses demonstrated higher mean scores on all elements and on total engagement. However, the sole difference that reached statistical significance within gender was associated with dedication (P = 0.004).

Moreover, statistically, significant differences presented among legal status. Married nurses had the best mean scores throughout all work engagement elements with equal P-values for absorption and dedication (0.001) whereas vigor was calculated at 0.004. In contrast, people who were divorced or widowed had the bottom scores aside from dedication. Additionally, statistically, significant differences were indicated among hospital sectors and everyone three elements and within the total engagement score.

With reference to the engagement’s relationship with nurses’ age, qualifications and years of experience, weak positive correlations among all three work engagement elements and total engagement scores and between the nurses’ ages and their qualifications in their respective nursing programs.
Years of experience were only significantly and positively correlated with dedication scores (0.09); additionally, dedication was found to be positively correlated with nurses’ age (0.11) and qualification (0.09).

It was observed that the nurses in hospitals affiliated with the MOH had very cheap mean scores on absorption (3.9), vigour (4.5) and total mean score engagement (4.5). Meanwhile, those in military and personnel hospitals had clearly equal high dedication and total mean scores (4.9).

Al-Hamdan, Z., & Bani Issa, H. (2021) concluded that, regarding demographic and work-related characteristics, there is no statistically significant difference within the total score for work engagement or its three subscales supported the participants’ gender (p > .05).

The results highlight a statistically significant difference within the means of the vigor and dedication subscales and also the overall work engagement score supported the workplace (p < .05). The nurses privately hospitals had significantly higher mean scores for the vigor subscale and for overall work engagement than those in university hospitals (p < .05). No significant difference is clear within the numerous the dedication subscale in any of the hospitals.

The results show no difference within the scores for work engagement or its three subscales supported the department (p > .05). One subscale of labor engagement, namely, the vigor subscale, was significantly related to the nursing experience (r = .156, p < .05) and nursing experience within the current department (r = .155, p < .05).

Allam and Shaik (2020) for quality of work-life, finding a major difference between national and expatriate nurses, with the previous involved in family life and Saudi team peers, and therefore the latter varying with their experiences to those experienced by Saudis.

Theme 2: Vigor:

(Hayati et al., 2014), found that: according to their study, transformational leadership components have positive relationship with vigor; results supported all the aforementioned relationships. Multiple regression related to four components of transformational leadership and vigor is 0.64 which is significant (F = 30.95 & P < 0.001). Four components of transformational leadership explain about % 46 of vigor. Additionally, the results of β indicate that inspirational motivation has the biggest contribution in explaining the variance of vigor.

Swartz, (2020) concluded that, The Vigour subscale obtained a Kaiser-Meyer-Olkin measure of sampling adequacy value of .900 and the Bartlett’s Test of Sphericity test statistic achieved a value of 993.974 (df = 15; p < .01). There was enough evidence that the correlation matrix was factor analyzable. One factor with an eigenvalue greater than one was obtained when the results were drawn. All factor loadings were satisfactorily greater than .50 ranging from .76 to .88 and the factor matrix indicated that all items loaded adequately on one factor. This factor explains 69.74% of the variance. The uni-dimensionality assumption was validated and transformational leadership components have positive relationship with vigor.

Theme 3: Dedication:

(Hayati et al., 2014), found that: positive significant relationship between dedication and dimensions of transformational leadership. Mentioned results suggest that coefficient relationships between these variables vary from 0.25 to 0.59 (P < 0.001). In addition, data illustrate that multiple regression between transformational leadership dimensions and dedication is significant (MR = 0.69 & P < 0.001). These dimensions predict % 47 of dependent variable (dedication) whereby intellectual stimulation has the most contribution (β = 0.46).

Swartz, (2020) concluded that, Exploratory factor analysis shows that the Dedication subscale is factor analysable as indicated by the KMO Index and the Bartlett’s Test of Sphericity values of .899 and 745.056 (df = 10; p < .01) respectively. These values are satisfactory and indicate the factor analysability of the correlation matrix of the Dedication subscale. The Dedication subscale was found to be uni-dimensional positive significant relationship between dedication and dimensions of transformational leadership.
Theme 4: Absorption:

(Hayati et al., 2014), found that: there are significant multiple correlations between four components of transformational leadership and absorption which inspirational motivation has the biggest amount of beta in explaining absorption’s variance. Multiple regressions between transformational leadership dimensions and absorption is significant (MR = 0.47 & P < 0.001). These dimensions predict % 22 of dependent variable (absorption) and inspirational motivation has the most contribution (β = 0.44).

Swartz, (2020) concluded that. Exploratory factor analysis indicates that the Absorption subscale is factor analyzable as indicated by the KMO index and the Bartlett’s Test of Sphericity values of .911and 884.695 df = 15; p < .01) respectively, these values are satisfactory and indicate the factor analysability of the correlation matrix of the Absorption subscale. The Absorption subscale was found to be uni-dimensional and there are significant multiple correlations between four components of transformational leadership and absorption.

Theme 5: Stress

Albougami, (2020) identifies four variables as important predictors. Emotional malaise, personal outcomes, physical and psychological health have been identified as important predictors of willingness to leave.

In addition, Alotni & Elgazzar (2020) and Zhang, Huang & Guan (2015) concluded that there was a negative significant correlation between burnout and quality of life scores for emergency nurses. They showed that burnout was moderately distributed among ICU nurses. They also found that by investigating the level of burnout in this population, more attention could be paid to ICU caregivers.

A systematic literature review investigating the shortage of nurses in Saudi Arabia revealed that nurse stress was the result of excessive working hours and low nursing staff / patient ratios. This makes nurses more prone to error and fatigue, which can affect the quality of care provided to patients. In addition, this study recommended further review should be conducted to work out the causes of nurses’ stress which may affect their intention to go away their current jobs (Aboshaiqah, 2016).

Zaki, Elsayed & Ibrahim, (2016) revealed that but three quarters (71.6 %) of nurses had high levels of burnout. They recommended establishing communication skills training programs among healthcare teams to scale back nurses’ burnout. Continued administrative support, reinforcement, also as changing work place environment to scale back nurses’ job burnout and to enhance patients’ satisfaction with care were also recommended.

McElreath, (2020) indicated that nurses had significantly high levels of burnout, which contributes to an intent to go away nursing. There was a relationship between job satisfaction, burnout, and intent to go away among nurses working within the critical care environment. However, there was no difference between job satisfaction, burnout, and intent to go away among nurses working in critical care units and nurses not working in critical care.

(Seada, 2017) found that there’s correlation between nurses’ work engagement and organizational work stressors where these stressors like (role overload, personal inadequacy, and role ambiguity) have its negative impact on engagement levels, and hospitals administrators, policymakers have the responsibility to supply stress management programs, manage workload, also on provide the required resources to nurses to facilitate their job would contribute to enhancing engagement levels.

Theme 6: transformational Leadership style and work engagement:

Jayanto, & Basbeth, (2021) concluded that, transformational leadership positively and significantly related to employee engagement at p-value (0.003), and t = (2.750), transformational leadership provided the strongest outward motivation among the many transformational leadership dimensions.

Balwant et al. (2019) concluded that, transformational leadership and employee engagement, which found a positive correlation. Transformational leadership is associated with employee engagement, according to the study's findings.

(Chin et al., 2019) concluded that, the results also align with those of other studies that found that transformational leadership is positively associated with employee engagement.
Also, Jena et al., (2018); concluded that, transformational leadership positively and significantly related to employee engagement.

Mozammel & Haan, (2016); found that transformational leadership positively and significantly related to work engagement.

Swartz, (2020) concluded that, Transformational leadership was found to have a statistically significant relationship with employee engagement ($t = 7.510; p < .05$). This finding suggests that the proposed relationship between transformational leadership and employee engagement is supported.

Alrobai, (2020) analyzed leadership styles like Empowering leadership. The results showed that Empowering leadership supports work engagement.

Second, the study finds employees with high emotional intelligence and stimulated by the Empowering leadership experience enhanced psychological empowerment and work engagement.

(Baghdadi, et al., 2021) the present study revealed that the participating nurses had high levels of job crafting and work engagement. The work climate within the current study setting may have contributed to those high levels. The hospital policy emphasizes the importance of investment in human resources, and therefore the managers and administrators employ a team approach model. That is, nurses are encouraged to actively participate within the decision-making process and to continuously pursue professional development activities. These strategies seem to be effective in helping nurses to develop their capabilities, increasing their commitment to learning new things in their jobs and maximizing their utilization of their full capacity with effective and efficient use of the available resources.

Al‐Hamdan, Z., & Bani Issa, H. (2021). Nurses showed a mean level of labor engagement. The dedication subscale showed the very best score among the three subscales representing work engagement. The results showed that perceived organizational support and self-efficacy were positively correlated with work engagement ($p < .01$). Perceived organizational support and self-efficacy correlated positively with work engagement.

(Sawatzky & Enns, 2012) concluded that, relationships with nurse peers, patients, and families, and support from peers, family, and management influenced work engagement. Organization of labor and tasks: Rewards, fairness, and staffing resources.

**Theme 7: job resources:**

(Sawatzky & Enns, 2012) concluded that, Job resources are the foremost frequently studied influencing factors on work engagement. Job resources factors are grouped into three sub-themes, interpersonal and social relations, organizational and organization of labor and tasks. Predictors of labor engagement included social identification with the energy unit, satisfaction with interaction, relational coordination, and collaboration with physicians.

(Keyko, Cummings, Yonge and Wong, 2016) concluded that, professional resources: Professional resources enable nurses to have interaction in nursing practice in keeping with standards and scope of practice allowing them to fulfill professional goals. Professional resources are one in every of the foremost common influencing factors of nurses work engagement. Professional resources factors are categorized into four subthemes: professional practice environment, autonomy, role and identity, and professional practice and development.

(Laschinger et al., 2014) concluded that, Personal resources factors are grouped into three sub-themes including: psychological, relational, and skill. Psychological factors include psychological capital, psychological empowerment, self-transcendence, and turnover cognitions, which are positive predictors of labor engagement. However, turnover cognitions, including thinking of quitting, job-search behavior, intent to quit, and intent to look, are negative predictors of labor engagement.

(Byrne & Weston, 2016) concluded that Job demands factors are categorized as work pressure, physical and mental demands, emotional demands, and adverse environment. Work pressure. There are three factors associated with work pressure such as: workload, indirect patient care, and adjustment to nursing work) have negative impact on nurses’ work engagement.
3. CONCLUSION

The aim of the present study is to explore the Relationship between Transformational Leadership and Work Engagement among Nurses.

The following electronic databases have been searched: MEDLINE, PubMed, CINAHL and EBSCO. Following the gathering of the literature, a thematic analysis was undertaken and six themes emerged from the literature. Theme 1: The demographic and work-related characteristics, Theme 2: vigor, Theme 3: dedication, Theme 4: Absorption Theme 5: Stress, Theme 6: transformational Leadership style and work engagement, and Theme 7: Job resources. From these themes, it was concluded that, there is a positive relationship between transformational leadership and work engagement among staff nurses.

Knowledge Gap:

The present findings contribute to the limited literature on the Relationship between Transformational Leadership and Work Engagement among Nurses. The most of the knowledge gap regarding the factors that contribute to nurses’ work engagement and transformational leadership style at hospitals are motivation and communication among staff members. As well as, relation between staff members, leadership styles, organizational climate, work flow, work load and resources allocation are some of the important factors that contribute to nurses’ work engagement and transformational leadership style that needs to be studied.

4. RECOMMENDATIONS

- This literature will contribute to achieving the focused goals of the 2030 Vision of increasing the number of Saudi healthcare professionals and encouraging them to join the nursing profession and to be more commitment in their work activities.

- Therefore, nurse managers should make sure that the spirituality of nurses includes a target the clinical area. The nursing management must promote a spiritually friendly hospital that doesn't tolerate spiritual discrimination.

- Health care administrators and nurse managers have to help nurses bargain a significance in their labor and reform their add a way that aligns with organizational objectives and supports the effective and efficient use of resources.

- Encouraging nurses’ active participation within the decision-making process and pursuing continuous professional development activities seem to be promising strategies to form a healthy work climate that improves nurses’ job crafting and work engagement levels.

- creating a ‘safe place’ in hospitals in Saudi Arabia which will function a space that anyone, no matter their religious background, could safely and comfortably express and practice their spirituality.

- Furthermore, nurse managers may plan and implement educational interventions to enhance the notice of nurses and other hospital staff on workplace and individual spirituality to push tolerance and respect and encourage the expression of their spirituality in their workplace.

- Leaders and managers should be assisted to develop what is already known about leadership and link to this the ideal qualities that developing effective and active leadership behavior.

- Industrial and organizational psychologists who are involved in developing hospitals leaders and manager should comprehend that leaders and manager have different backgrounds, experiences and professional exposure, are at different stages of personal development and display clear preferences in terms of leadership styles.

- In addition, hospital leaders have different capabilities, tolerances, desires and motives. Recognizing these extensive differences provides a strong base for the development of leaders.

- The formal training of hospital leaders could also be reinforced by the implementation of a mentorship program whereby the leader is provided with constant developmental feedback on behavior and reactions.
It is necessary for leaders to know the process of feedback and prepare them for the feedback they will receive. Regarding to this point that the customers of hospital nurses are patients, so nursing is viewed as one of the sensitive jobs and this position needs to motivated and engaged nurses. Transformational leadership can be used as a motivator factor and intervention for improving the work engagement of hospital nurses.

REFERENCES


APPENDIX 1

Figure 1. Prisma adopted from Staneva, et al., (2015).

Figure 1. Flow diagram for study selection.