

1.0 INTRODUCTION

Nursing is a noble profession. Nurses constitute major portion in the health care profession. The unique function of the nurse is to assist the individual, sick, or well, in the performance of those activities contributing to health or its recovery (or to peaceful death) that he/she would perform unaided if he had the necessary strength, will or knowledge (Henderson,1966). As per the definition, the main objective of the nursing education is to equip the nursing students with both theoretical knowledge & practical skills to provide quality nursing care to the patients/community. For this, a student nurse should be healthy physically, mentally, socially & spiritually, so that she can successfully complete her academic and clinical requirements. And meet professional demands, to become a successful nurse in the future.

This Research project, is divided into three studies two survey studies and one experimental study with yoga as an intervention.

1.1 STUDY-1

The study-1 was conducted to determine the association between resilience, mindfulness, empathy, and repeated negative thinking among the nursing students.

1.1.1 Resilience and nursing students

Nursing students experience enormous stress to meet the professional demands (Jimenez, Navia-Osorio, & Diaz, 2010). Considerably, resilience is an essential quality that equips them to meet this demand (McAllister & McKinnon, 2009). According to the American Psychological Association (2014), resilience can be defined as, “the process of adapting well in the face of adversity, trauma, tragedy, threats or even significant sources of stress.”

Moreover, resilience plays an important role in the retention of students in the academic program (Williamson, Health, & Proctor-Childs, 2013), and has a positive correlation with their academic success (Beauvais, Stewart, DeNisco, & Beauvais, 2014). This helps them to cope effectively with adversities in the clinical setting (Li, Cao, Cao, & Liu, 2014). However, resilience is considered as an innate personal resource (Grafton, Gillespie, & Henderson, 2010), this is dynamic in nature (Reyes, Andrusyszyn, Iwasiw, Forchuk, & Babenko-mould, 2015). The growing body of literature recognizes the importance of resilience in nursing profession (Reyes, Andrusyszyn, Iwasiw, Forchuk, & Babenko-Mould, 2015).

1.1.2 Mindfulness and nursing students

Mindfulness is being aware of the present moment to one's own experiences (Brown & Ryan, 2003). Being mindful helps to cope with stress (Walker & Mann, 2016). However, there was a significant positive correlation between resilience and mindfulness among health care professionals (Kemper, Mo, & Khayat, 2015). According to an evolutionary concept analysis being mindful/mindfulness has following practical applications; for well-being, the development and sustainability of therapeutic nursing qualities and holistic health promotion in nursing (White, 2014). This is one variable which is studied in all the three studies.

1.1.3 Empathy (affective) and nursing students

Empathy is an essential quality of a student nurse to provide quality health care to patients. This is an ability to imagine and understand the patients experiences and the feelings (Shamay-Tsoory, 2011). In line with the professional requirement, several studies have reported higher levels of empathy in nursing students than other undergraduate students

(Penprase, Oakley, Ternes, & Driscoll, 2013; Williams et al., 2014). However females are more empathetic than male students (Williams et al., 2014).

1.1.4 Repeated negative thinking and nursing students

Repeated negative thinking is involved in the maintenance of emotional disorders (Watkins, 2008) . However, emotional problems are related to increased levels of repeated negative thinking (RNT) either in the form of rumination and/or worry. Specifically, rumination is the key feature in the onset of depressive symptoms (Nolen-Hoeksema, Wisco, & Lyubomirsky, 2008), whereas worry is subsequently related to anxiety (Borkovec, Robinson, Pruzinsky, & DePree, 1983). Nursing students have more stress and anxiety compared other students (Bartlett, Taylor, & Nelson, 2016). Especially female nursing students are at high risk of anxiety and depression (Uras, Delle Poggi, Rocco, & Tabolli, 2011). Indeed, students in nursing with high depressive rumination have the pessimistic disposition and this is related to drop out from academic program (Roso-Bas, Pades Jiménez, & García-Buades, 2016).

According to the previous studies both mindfulness and resilience aid in handling stress, stress increases the risk of rumination and/worry especially in females and they are more empathetic than other healthcare students. Hence, we had conducted survey study-1 to explore correlates of resilience among nursing students.

1.2 STUDY-2

The study-2 was conducted to identify the relationship between mindfulness, self-compassion, satisfaction with life and spiritual well-being.

1.2.1 Spirituality and nursing students

Spirituality is at the core of nursing professional identity (Hensel & Laux, 2014). It was reported that nursing students perceived high personal levels of spirituality (Shores, 2010). However, it is essential to include spirituality in nursing curricula to meet the demands of the profession (Wallace et al., 2008), as nursing students experience stress to meet their academic and clinical requirements (Jimenez et al., 2010). Essentially, spiritual well-being is considered as an internal resource that helps an individual to cope well with stress (Landis, 2009). Besides which spiritual health is negatively related to stress and depression among nursing students (Y. Lee, 2014), whilst spiritual health is positively correlated with health-promoting behaviors (Hsiao, Chien, Wu, Chiang, & Huang, 2010), health (Espinha, de Camargo, Silva, Pavelqueires, & Lucchetti, 2013) and academic success among student nurses (Beauvais et al., 2014). Previous studies have shed light on the importance of spiritual well-being among nursing students.

Spiritual well-being is a multi-dimensional concept, the National Interfaith Coalition on Aging (1975) has defined spiritual well-being (SWB), as “the affirmation of life in a relationship with God, self, community and environment that nurtures and celebrates wholeness,” the instrument used in this study, is in line with the definition of spiritual well-being (Fisher, 2010). Although there were many instruments to measure spiritual well-being, a questionnaire developed by Fisher (2010), Spiritual Health and Life-Orientation Measure (SHALOM) was considered as an appropriate instrument to assess spiritual well-being (de

Jager Meezenbroek et al., 2012). Here spiritual well-being is measured on four domains based on a person's relationship with self-i.e., intra-personal (personal), others (communal), nature (environmental) and with God (transcendental).

1.2.2 Self-compassion and nursing students

Self-compassion is being warm and caring at times of hardship, being kind to self, accepting suffering or unpleasant experiences as they are and being non-judgmental (Neff, 2003). According to Neff (2003), the 3 basic components of self-compassion are self-kindness vs self-criticism, common humanity vs isolation, and mindfulness vs over-identification. First and fourth year nursing students have reported moderate ($M \pm SD$, 3.31 ± 0.56) levels of self-compassion (Eraydın & Karagözoğlu, 2017). Compassion is a professional quality that nursing students should possess to provide quality health care to the patients. When an individual is compassionate towards self, he/she can be compassionate towards others during suffering (Neff, 2003).

1.2.3 Mindfulness and nursing students

This is explained in the study-1.

1.2.4 Satisfaction with life and nursing students

Satisfaction with life is a subjective judgment about a person's life (Diener, Emmons, Larson, & Griffin, 1985).

The following studies have reported the relationship between variables studied in our study. There was a significant association between satisfaction with life and spiritual well-being i.e. Religious well-being (relationship with God) and existential well-being (a person's life

purpose and meaning in life) (Jafari et al., 2010), and personal spirituality i.e. the degree to which an individual integrates spirituality into daily life by practicing prayer or engaging in sacred rituals (Fabricatore, Handal, & Fenzel, 2000). A study conducted among Turkish university students reported a significant correlation between spiritual experiences (connection with the transcendent in daily life) and self-compassion (Akin & Akin, 2017). Moreover, mindfulness (state and trait) and spirituality (Meaning and peace in life and Faith) were significantly correlated (Carmody, Reed, Kristeller, & Merriam, 2008).

These studies have reported about personal and transcendental domains of spiritual well-being. Particularly, the communal domain has its role to play in nursing while providing care to the patients. So, we have used Spiritual Health and Life-Orientation Measure (SHALOM) that measures spiritual well-being on four-domains. Therefore, this study was designed to determine the correlates of spiritual well-being on personal, communal, environmental, and transcendental domains among nursing students.

1.3 Study-3

The study-3 was conducted using following variables: mindfulness, resilience, self-compassion, satisfaction with life, empathy, perceived stress, low back and hamstring flexibility, peak expiratory flow rate, handgrip strength, pinch strength, and hand dexterity. Mindfulness, resilience, self-compassion, satisfaction with life were included in both experimental study and survey studies.

1.3.1 Empathy (cognitive) and nursing students

In this study, empathy on cognitive dimension was measured. Empathy is an essential professional quality a student nurse should possess to provide quality health care to patients. Empathy can be defined as, “a predominantly cognitive attribute that involves understanding of the patient’s experiences, concerns, and perspectives with a capability to communicate

this understanding and an intention to help (Hojat, 2009).” Higher level of empathy and resilience was reported in older nursing students (Pitt, Powis, Levett-Jones, & Hunter, 2014).

1.3.2 Perceived stress and nursing students

Perceived stress is the feelings or thoughts that an individual has about how much stress they are under at a given point in time or over a period (Phillips, 2013). It was reported that nursing students experience moderate to high level of perceived stress and this was negatively associated with resilience (Seyedfatemi, Pourafzal, Inanloo, & Haghani, 2015). Perceived stress was associated more with the clinical practice than the academic demands, resulting in more psychological symptoms (Jimenez et al., 2010) and also gastro-intestinal symptoms (Lee, Mun, Lee, & Cho, 2011).

1.3.3 Low back and hamstring flexibility and nursing students

Almost majority of nursing procedures in clinicals like shifting, transferring, bedmaking etc, and long term standing while providing care to the patients leads to muscles strain especially of back, shoulders and legs. However, there is high prevalence of back pain in nursing students and freshers nurses, appropriate interventions during nursing education would be effective in prevention of back pain (Bas-Sarmiento et al., 2017; Bas-Sarmiento et al., 2017). Additionally, female nursing students with low back pain reported higher stress levels (Mitchell et al., 2009). Overall, this requires lower back strength and flexibility to carry our daily duties during clinical postings.

1.3.4 Peak expiratory flow rate and nursing students

The peak expiratory flow rate (PEFR) is a person's maximum speed of expiration, it measures a person's ability to breathe out air. There was a significant negative correlation

between perceived stress and peak expiratory flow rate among geriatric population (R, K N, & N, 2013). In this study we used this variable to identify the effect of yoga intervention on nursing students as they have moderate to high level of stress (Seyedfatemi, Pourafzal, Inanloo, & Haghani, 2015).

1.3.5 Handgrip and pinch strength and nursing students

Certainly, nursing students require both hand grip and pinch strength to perform clinical procedures efficiently. Both hand and pinch strength are used to evaluate the functioning of upper extremity (Incel, Ceceli, Durukan, Erdem, & Yorgancioglu, 2002). Measuring hand grip and pinch strength also aid in assessment of hand injury (Shim et al., 2013). Indeed, grip strength is considered as a stronger predictor of risk of mortality (Leong et al., 2015; Arvandi et al., 2016). So, it is essential to improve hand grip strength (Arvandi et al., 2016) among nursing students.

1.3.7 Hand dexterity and nursing students

Nursing students as per their curricular requirement should develop and achieve skills in performing nursing procedures in the clinical setting. Majority of the procedures like administration of medication, catheterization or assisting in surgeries etc. all require both gross and fine motor dexterity. Dexterity is a fine motor skill in performance of a task. Dexterity can be defined as, “the fine, voluntary movements used to manipulate small objects during a specific task and to complete the task within precise time” (Backman, Gibson, & Parsons, 1992).

1.3.8 Yoga as an intervention

Essentially, physical fitness is associated with perceived physical and psychological health (Klainin-Yobas, He, & Lau, 2015). As nursing students have reported poor to moderate levels of physical fitness, this has to be addressed through appropriate intervention (Klainin-Yobas, He, & Lau, 2015; Chan, Creedy, Chua, & Lim, 2011; Hosseini, Ashktorab, Taghdisi, Vardanjani, & Rafiei, 2015). Yoga is an effective practice to reduce stress (Kim, 2014), improve psychological well-being (Gard, Noggle, Park, Vago, & Wilson, 2014; Woodyard, 2011), hamstring flexibility (Hewett, Ransdell, Gao, Petlichkoff, & Lucas, 2011; Tekur, Singphow, Nagendra, & Raghuram, 2008) and hand strength (Sharma et al., 2014). Hence, the present study was designed to evaluate the effectiveness of an 8-week yoga intervention to reduce perceived stress and to enhance psycho-physical functioning of nursing students.