Nursing Student's Resilience, Stress & Psychological Well Being Around the World: A Comprehensive Review

Pranjali Mishra[1], Nancy Thakur[2], Priyanka Thakur[3], S P Subashini[4]

Abstract

This paper has Compile evidence on the relationship of resilience, stress, and well-being in undergraduate nursing students from around the world. Reviewing in a systematic manner CINAHL, Web of Science, Medline (OVID), PsycINFo, and four Chinese biomedical databases were searched for peer-reviewed papers published between 2008 and December 2020. Twelve studies that met the inclusion criteria were retrieved and subjected to two researchers' quality assessment.There was a total of 12 publications included in the study. The level of resilience was modest, stress levels were high, and a proportion of nursing students had negative psychological health, according to the results. There was a lot of interplay between resilience, stress, and well-being. Resilience and a low level of stress were found to be stronger predictors of happiness. In relation to resilience, well-being, and stress among undergraduate nursing students, all of the research cited recommendations to inform educational policy and practise. This was the systematic review to incorporate the evidence on how resilience, stress, and well-being interact among nursing students at the undergraduate level. The role of resilience in nursing students in affecting stress and psychosocial morbidity has been proven. It is suggested that nurses use educational initiatives to promote and strengthen resilience.

Keywords: Resilience; Epolicy; Psychosocial morbidity.

INTRODUCTION

Students worldwide report that studying nursing is more stressful than studying any other trainee healthcare discipline (Edwards et al., 2010; Chernomas and Shapiro, 2013; Oner Altiok and Ustun 2013; Walker and Mann, 2016; Tung et al.,

Author's Affiliations: [1]Nursing Tutor, [2,3]Assistant Professor, [4]Dean, Department of Nursing, Galgotias School of Nursing, Galgotias University, Greater Noida 201307, Uttar Pradesh, India.

Corresponding Author: Nancy Thakur, Assistant Professor, Department of Nursing, Galgotias School of Nursing, Galgotias University, Greater Noida 201307, Uttar Pradesh, India.

E-mail: nancy_thakur@yahoo.com

2018). (Pulido Martos et al., 2012; Reeve et al., 2013; Turner and McCarthy, 2017). Nursing students are exposed to the realities of nursing practise during clinical education. They must learn to care for critically ill patients (Zhao et al., 2015), often in situations with staff and resource shortages, as well as an overwhelming fear of making mistakes (Yldrm et al., 2017). Academically, high intensity workloads have resulted in competitive and stressful learning environments (Evans, 2008; Reeve et al., 2013). On a more personal level, nursing students are dealing with increased financial stress as well as the demands of balancing their personal and professional lives (MacDonald et al., 2016; Turner and McCarthy, 2017). Stress can have a variety of negative effects on student learning quality (Goff, 2011; Ten Hoeve et al., 2017; Ayaz-Alkaya et al., 2018), physical (Cantrell et al., 2017; Al-Gamal et al.,

2018; Labrague et al., 2018a; Labrague et al., 2018b), and psychological well being (Ratanasiripong and Wang, 2011; Tee et al., 2016; Yıldırım et al., 2017

Resilience is a protective factor that has been discussed in academic literature (Thomas et al., 2012; Thomas and Revell, 2016) as well as educational and workforce policy (Challen et al., 2011a, 2011b; Howell and Voronka, 2012; Cam and Buyukbayram, 2017; McFadden et al., 2018). Despite the fact that various definitions of resilience have been proposed. It is generally defined as a complex and dynamic phenomenon relating to a person's ability to overcome adversity (Windle, 2011; Hegney et al., 2015). Despite its importance and close relationship with stress and psychological well-being, resilience remains an unexplored area. (Thomas and Asselin, 2018). While individual reviews of resilience (Aburn et al., 2016; Thomas and Revell, 2016), psychological well being (Walker et al., 2016), and stress (Turner and McCarthy, 2017; Tung et al., 2018) occur among nursing students, knowledge of how these concepts interact is lacking.

BACKGROUND

Stress is regarded as a universal feature among nursing students, with levels ranging from mild to severe (Amr et al., 2011; Geslani and Gaebelein, 2013; Shukla et al., 2013; Labrague et al., 2017; Smith and Yang, 2017; He et al., 2018; Ozsaban et al., 2019). Stress has far-reaching consequences, affecting sleep, memory, attention, and appetite (Goff, 2011; Kurebayashi et al., 2012). Making students feel unsafe, nervous, irritable, sad, anxious, and depressed can have an impact on their psychological health (Frojd et al., 2008; Hjern et al., 2008). Academically, it can have an impact on nurse education attrition (Pryjmachuk et al., 2009), student performance (Gibbons et al., 2009; Grobecker, 2016), and the ability to cope (Goff, 2011). As a result, it has a negative impact on the ability to learn, which is essential in academic settings (Dinse et al., 2017). It also has an impact on the effectiveness of communication and work effort, ultimately lowering the quality of health care services (Rafati et al., 2017). As a result, maintaining a high level of psychological well being is regarded as an essential component of future nurse training and development (Ratanasiripong and Wang, 2011).

Resilience is thought to counteract the negative effects of stress and improve a person's overall well being. Researchers in nursing have discovered that resilience has an impact on negative psychological outcomes such as anxiety, depression, and post-traumatic stress disorder (Mealer et al., 2012; Taylor and Reyes, 2012), as well as adverse health outcomes and difficult treatment adherence (Dyer et al., 2004; Bradshaw et al., 2007; Jackson et al., 2007). Researchers generally agree that resilience has a significant relationship with positive psychological well being (Gibbons et al., 2011; He et al., 2018; Rios Risquez et al., 2018). However, the prevalence rates of resilience, stress, and psychological health among nursing students vary worldwide, which can be attributed to inconsistencies in the concept's definition, the type of collection techniques used (Shukla et al., 2013; Zhao et al., 2015; He et al., 2018; Ozsaban et al., 2019), and cultural differences (Chow et al., 2018). However, there is little evidence of a relationship between these variables or the interaction of resilience, stress, and well being from cross cultural and/or cross country studies. To date, most research has focused on studies reporting individual concepts primarily from Western countries (Brennan, 2017; Pines et al., 2012; Lo, 2002), but there is growing interest in Asian settings (Zhao et al., 2015; Chow et al., 2018). As a result, it is critical to broaden our understanding of the various cultural contexts in which research on these topics is being conducted. As a result, the goal of this review is to compile evidence on the interaction of resilience, stress, and psychological well being among undergraduate nursing students from various countries.

METHODS

A systematic search was carried out in accordance with the preferred reporting items for systematic reviews guidelines for qualitative studies.

RESULTS

This review included a total of 12 articles. Internationally, studies were conducted in China (n = 2), the United Kingdom (n = 2), Spain (n = 3), India (n = 1), Turkey (n = 1), Australia (n = 1), Thailand (n = 1), and South Africa (n = 1). These studies' findings are based on a total of 3736 participants. All 12 studies looked at students from all years or just one year of undergraduate nursing programmes.

Just one of these papers (Klainin-Yobas et al., 2014) included a variety of educational levels, including Nursing Specialty (4 months), Master's, and PhD programmes. The twelve articles

Pranjali Mishra, Nancy Thakur, Priyanka Thakur et al./Nursing Student's Resilience, Stress & Psychological Well Being Around the World: A Comprehensive Review

27

employed a variety of methodologies, including eight cross sectional studies, one longitudinal study, two qualitative designs, and a randomised clinical trial. For data collection in all quantitative studies, validated scales were used. The Connor-Davidson Resilience Scale (CDRISC), the General Health Questionnaire (GHQ-12), and the Perceived Stress Scale (PSS) were the most widely used scales for measuring resilience, well being, and stress, in that order. In both qualitative studies, in depth and semi structured interviews and focus groups were used.

Only one paper, conducted in China by Smith and Yang (2017), used a theoretical model to guide data collection and analysis: Lazarus and Folkman's (1984) Transactional Model of Stress and Coping. While the 12 papers in this review provide insight into how the three concepts interact among nursing students, their findings should be interpreted with caution. For example, five papers (Rios Risquez et al., 2016; Mathad et al., 2017; Smith and Yang, 2017; Garcia-Izquierdo et al., 2018; Rios Risquez et al., 2018) collected data using self reported questionnaires, which may introduce response bias. Other studies have used a cross sectional design, which limits the ability to establish causal relationships between variables (Klainin-Yobas et al., 2014; Rios-Risquez et al., 2016; Garcia-Izquierdo et al., 2018) and cannot provide a deeper understanding of resilience, stress, and psychological well-being from a developmental perspective (He et al., 2018). Janse van Rensburg et al. (2012) reported in qualitative studies that their study limitation was limited focus group interviews due to student availability and time constraints. Galvin et al. (2015) pointed out that the difficulty of generalisation is a limitation of their study.

4.1. Findings from Quantitative and Qualitative Research.

Five of the 12 studies reported on levels of resilience, stress, and psychological health (Janse van Rensburg et al., 2012; Galvin et al., 2015; Rios-Risquez et al., 2016; Smith and Yang, 2017; He et al., 2018).

4.1.1. The degree of adaptability, stress, and well-being

In terms of resilience, two cross-sectional studies found that the level of resilience was moderate (Rios-Risquez et al., 2016; Smith and Yang, 2017). Furthermore, Smith and Yang (2017) found no significant differences in resilience scores among students in four different grades, but there were significant differences in resilience scores between students who were class leaders or non class leaders in a study of Chinese nursing students (year 1 year 4) using a cross-sectional survey. Nevertheless, given that this study was conducted in China, the findings' transferability is questionable given the different educational systems and cultural contexts there. Two other qualitative studies found low resilience among UK mental health nursing students (Galvin et al., 2015) and South African nursing students (Janse van Rensburg et al., 2012). Participants in these two studies reported that they struggled to adjust to and cope with stress related to their nursing programmes, which was especially noticeable among third year students (Janse van Rensburg et al., 2012; Galvin et al., 2015). In terms of stress levels, a study conducted in Spain by Rios Risquez et al. (2016) found that, using the cut off point proposed by Breso et al. (2006) for the Spanish population, the prevalence of burnout was 2.65 percent. However, He et al. (2018) reported in an Australian study that their participants had higher stress levels than the younger groups (nursing or health allied) reported in previous studies. However, as the author, He et al. (2018) suggests, such findings should be interpreted with caution because participants may have responded in ways that they consider socially desirable rather than reflecting their actual situation Smith and Yang (2017) evaluated the level of stress among Chinese nursing students (years 1–4) in China and discovered that it was relatively higher when compared to western nursing students. They also found a significant difference in stress levels between nursing students of different years; however, whether they are class leaders or not, there is no significant difference in stress levels. Two other qualitative studies discovered that nursing students experienced stress during their placement study (Janse van Rensburg et al., 2012; Galvin et al., 2015).

In terms of psychological health, Rios Risquez et al. (2016) reported that 8.8 percent of the 113 nursing students in their study were vulnerable or at risk of experiencing more negative psychological health based on the General Health Questionnaire-12 psychological measurement (Goldberg and Williams, 1988). Furthermore, Smith and Yang (2017) reported that in their study, senior nursing students (year four) had the lowest psychological wellbeing scores compared to earlier year groups. They also demonstrated that students in the upper and lower grades reported lower levels of psychological well-being.

4.1.2. The interaction of resilience, stress, and well-being

In nine observational studies, the interaction of resilience, stress, and well being was reported. In terms of stress and resilience, Rios Risquez et al. (2016) conducted a study in Spain and found a significant negative correlation between resilience and both emotional exhaustion and cynicism, while resilience was positively associated with academic efficacy. In contrast, a study conducted in Spain by Garcia Izquierdo et al. (2018) found that cynicism has no significant correlation with resilience among second year students. In another study involving similar variables, resilience was found to be weakly and negatively correlated with stress (Smith and Yang, 2017).

In terms of how resilience and well-being interact, resilience is significantly and positively correlated with well being (Gibbons et al., 2011; He et al., 2018; Rios Risquez et al., 2018). In other words, higher levels of resilience are associated with higher levels of psychological well-being in students. Rios Risquez et al. (2018) discovered in Spain that students' resilience and psychological well being improved over the course of their studies (years 2 and 4).However, because the results are based on a single cohort of students and are national in scope, generalizability is questionable. Furthermore, a Chinese academic study found that a positive coping style had no significant effect on well being (Luo and Wang, 2009), but this study did not report the reliability and validity of the scales, so the results may be inaccurate. Some studies found that stress had a significant effect on psychological health when it came to the interaction between stress and well-being. In other words, higher levels of stress are linked to lower levels of well being. Furthermore, Rios Risquez et al. (2016) and Rios Risquez et al. (2018) found that when emotional exhaustion and cynicism were present, the well being scores recorded were lower. Furthermore, they discovered that there was no link between academic efficacy and psychological well being. Finally, in terms of the interaction between resilience, stress, and well being, some studies have found a significant relationship between resilience, stress, and well-being (Klainin-Yobas et al., 2014; Rios Risquez et al., 2016; Smith and Yang, 2017; Garcia-Izquierdo et al., 2018). A study conducted by Garcia Izquierdo et al. (2018) has emphasised that nursing students who demonstrate lower levels of resilience and higher levels of stress report lower levels of well-being. Meanwhile, Smith and Yang (2017) discovered that resilience and stress

are both moderately and negatively related to well being. However, a random clinical trial conducted in India by Mathad et al. (2017) revealed that, while yoga improved resilience, life satisfaction, and perceived stress, the results were not statistically significant.

4.1.3. The predictors of resilience and happiness

Four papers mentioned predictors of resilience and psychological well being, but stress was not mentioned (Rios Risquez et al., 2016; Garcia-Izquierdo et al., 2018; He et al., 2018; Rios Risquez et al., 2018). Garcia Izquierdo et al. (2018) used hierarchical multiple regression analysis to determine the predictors of resilience in one quantitative study. A study was carried out on sex, emotional torment, and academic efficacy. They concluded that emotional exhaustion and academic efficacy were significant predictors of resilience (Garcia Izquierdo et al., 2018). However, Rios Risquez et al. (2016) found that academic efficacy was not significantly related to psychological health in a study conducted in Spain. However, this finding may have been influenced by the low internal consistency obtained in the academic efficacy subscale, which may have contributed to bias in the results of the analysis performed for this variable. Three studies looked at predictors of psychological well being. In an Australian cross sectional survey with a sample consisting of 1760 nursing students, for exampleNegative Clinical psychology Well being (N-PWB), resilience, anxiety symptoms, support from significant others, support from family, awareness, and support from friends were all reported as predictors by He et al. (2018). Friends' support was the least reliable predictor. Resilience, support from significant others, and support from family were predictors of Positive Psychological Well being (P-PWB). In another study, Rios Risquez et al. (2016) discovered that emotional exhaustion and resilience were predictive factors health using a hierarchical multiple regression analysis. Furthermore, Rios Risquez et al. (2018) found that emotional exhaustion at T1 (second academic year nursing students) is the only variable that predicts mental wellbeing at T2 (Nursing students in their fourth year of study). The perseverance of nursing students at T1 did not predict their psychological health at T2.

DISCUSSION

Overall, the findings of this systematic review indicate that stress is a part of a nursing student's life and has an impact on their psychological well-

being. As a coping strategy, resilience is reported to be variable, implying that more attention should be paid to student nurses in order to help them develop this skill. According to the findings, there was a strong interaction between resilience and stress and well being, with resilience and low stress being found to better predict well being. Unsurprisingly, all of the studies cited recommendations to inform educational policy and practise in relation to undergraduate nursing students' resilience, well being, and stress. The current study's findings, which focused on resilience, stress, and well-being, revealed that levels varied and were influenced by a variety of factors. Two papers, for example, found that nursing students' resilience levels were moderate (Rios Risquez et al., 2016; Smith and Yang, 2017), but these levels were reported to be influenced by a variety of factors, including class leaders (Smith and Yang, 2017). Other qualitative research, such as that conducted by Galvin et al. (2015), has highlighted the importance of maturity and experience as influencing factors in resilience. Overall stress has been reported to be high (Janse van Rensburg et al., 2012; Galvin et al., 2015; Rios Risquez et al., 2016; Smith and Yang, 2017), which is consistent with the previous systematic review study findings (Alzayy and Al-Gamal, 2014; Tung et al., 2018). Smith and Yang (2017) claim that Chinese nursing students have higher levels of stress than western nursing students, but such claims are difficult to verify due to a lack of international comparative studies. Nonetheless, the effects of stress on nursing students' psychological well being revealed a negative outcome for a subset of nursing students.

The analysis of the relationship between the interaction of resilience, stress, and well being revealed variation across studies. According to some studies, having a high level of resilience and a low level of stress predicts better psychological well-being (Klainin-Yobas et al., 2014; Rios Risquez et al., 2016; Smith and Yang, 2017; Garcia-Izquierdo et al., 2018). An RCT (Mathad et al., 2017) concluded, however, that the interaction between resilience, satisfaction, and perceived stress was not statistically significant. An examination of the levels of resilience, stress, and psychological well-being by study year revealed variation.

Several studies, for example, found that the level of stress, resilience, and burnout experienced by student nurses varied by student year group (Alzayy and Al-Gamal, 2014; Houpy et al., 2017; Smith and Yang, 2017). As a result, the year of study may be a factor in future research.

Finally, the findings of the systematic review identified a number of recommendations that could be used to inform educational policy and practise in the areas of resilience, stress, and well being. In this study, the most effective predictor variables of resilience were psychological stress and academic efficacy (Garcia Izquierdo et al., 2018). Furthermore, resilience, perceived stress, support from significant others, support from family, mindfulness, and help from peers were effective predictors of Negative Psychological Well Being (NPWB), whereas resilience, support from significant others, and support from parents were effective predictors of Positive Psychological Well Being (P-PWB). The current study's quantitative and qualitative findings regarding predictors may be used to inform the development of educational policy and practise concerning resilience, well-being, and stress among undergraduate nursing students.

CONCLUSION

This is comprehensive survey to examine the relationship between resilience, stress, and well being in undergraduate nursing students. Earlier studies have generally concentrated on a single concept (resilience, stress, or well being) to synthesise the evidence, whereas others have reported on predictors or incidence rate (Aburn et al., 2016; Walker et al., 2016; Thomas and Revell, 2016; Turner and McCarthy, 2017; Tung et al., 2018). This reveals a gap in the research evidence synthesising the interaction of reliance, stress, and psychological well being.

According to this review, the majority of research in this area has used a cross sectional design. Future research, however, should use different designs in order to provide a better understanding of adaptability, stress, and psychological well-being. Furthermore, more research is required to compare the levels of resilience, stress, and wellbeing among nursing students in developing countries in order to identify the influencing factors on a global scale.

REFERENCES

1. Garcia-Izquierdo, M., Rios-Risquez, M.I., Carrillo-Garcia, C., Sabuco-Tebar, E.d.l.A., 2018. The moderating role of resilience in the relationship between academic burnout and the perception of psychological health in nursing students. Educ. Psychol. 38 (8), 1068–1079.

2. Gibbons, C., Dempster, M., Moutray, M., 2011. Stress, coping and satisfaction in nursing

students. J. Adv. Nurs. 67 (3), 621–632.

3. Galvin, J., Suominen, E., Morgan, C., O'Connell, E.J., Smith, A.P., 2015. Mental health nursing students' experiences of stress during training: a thematic analysis of qualitative interviews. J. Psychiatr. Ment. Health Nurs. 22 (10), 773–783.

4. He, F.X., Turnbull, B., Kirshbaum, M.N., Phillips, B., Klainin-Yobas, P., 2018. Assessing stress, protective factors and psychological well-being among undergraduate nursing students. Nurse Educ. Today 68, 4–12.

5. Janse van Rensburg, E.S., Poggenpoel, M., Myburgh, C.P.H., 2012. Student nurses' experience working with mentally challenged individuals in South Africa. J. Psychiatr. Mental. Health Nurs. 19 (9), 761–769.

6. Klainin-Yobas, P., Keawkerd, O., Pumpuang, W., Thunyadee, C., Thanoi, W., He, H.G, 2014. The mediating effects of coping on the stress and health relationships among nursing students: a structural equation modelling appraoch. 70 (6), 1287–1298.

7. Luo, Y., Wang, H., 2009. Correlation research on psychological health impact on nursing students against stress, coping way and social support. Nurse Educ. Today 29 (1), 5–8.

8. Rios-Risquez, M.I., Garcia-Izquierdo, M.,

Sabuco-Tebar, E.L., Carrillo-Garcia, C., Martinez-Roche, M.E., 2016. An exploratory study of the relationship between resilience, academic burnout and psychological health in nursing students. Contemp. Nurse 52 (4), 430–439.

9. Rios-Risquez, M.I., Garcia-Izquierdo, M., Sabuco-Tebar, E.D., Carrillo-Garcia, C., Solano-Ruiz, C., 2018. Connections between academic burnout, resilience, and psychological well-being in nursing students: A longitudinal study. J. Adv. Nurs. 74 (12), 2777–2784.

10. Smith, G.D., Yang, F., 2017. Stress, resilience and psychological well-being in Chinese undergraduate nursing students. Nurse Educ. Today 49, 90–95.

11. Yıldırım, N., Karaca, A., Cangur, S., Acıkgoz, F., Akkus, D., 2017. The relationship between educational stress, stress coping, self-esteem, social support, and health status among nursing students in Turkey: A structural equation modeling approach. Nurse Educ. Today 48, 33–39.

12. Mathad, M.D., Pradhan, B., Sasidharan, R.K., 2017. Effect of yoga on psychological functioning of nursing students: A randomized wait list control trial. Journal of Clinical and Diagnostic Research : JCDR 11 (5), KC01–KC05.