

Original Research Article

An Explorative Enquiry into the Effects of Psychological Distress among Nursing Students at the National University of Lesotho

Mpho Z. Shelile* and Maphomane Matlali

Abstract

Department of Nursing, National
University of Lesotho

*Corresponding Author's E-mail:
shelilemz2@gmail.com /
mz.shelile@nul.ls

University students have increased psychological distress than any other students in different countries Worldwide. Psychological distress is defined as a condition that one feels in response to having to cope with situations that are unsettling, frustrating or perceived as harmful or threatening. The study focused on exploring the effects of psychological distress on nursing students at National University of Lesotho. The study used an explorative and descriptive qualitative research design to collect data using semi-structured interviews from a sample of 10 nursing students. Qualitative content analysis was used to analyse the data and 3 themes and 11 subthemes were developed. Participants identified academic workload, time management, clinical placement, financial and socio-demographic factors as the main stressors. Poor academic performance, impaired physical wellbeing, emotional suffering and spiritual ill-health were among the identified effects of distress. The coping mechanisms which the nursing students employed included using available social support, motivating self and engaging in leisure activities. It was concluded that psychological distress has a great effect on nursing students and it results in poor academic performance and illness. Effective interventions can be adopted to improve coping with psychological stress factors and subsequent stress responses among nursing students.

Keywords: Academic performance, Coping mechanism, National University of Lesotho, Nursing students, Psychological distress

INTRODUCTION

Psychological distress is defined as a condition that one feels in response to having to cope with situations that are unsettling, frustrating or perceived as harmful or threatening (Doran, 2010:289). Of all the students, university nursing students reported increased psychological stress in different countries worldwide, in particular higher prevalence of psychological stress was reported in medical students, including nursing students, in Germany and Egypt (Broderson, 2018; Soelch and Schnyde, 2020). Soelch and Schnyde (2020:138) further state that in studies that were conducted in the United

Kingdom, Spain, Jordan and India; student nurses and dental students showed high levels of stress compared to other students. Also, in Australia University students showed higher levels of stress than non-students and the general population (Soelch and Schnyde, 2020:138). The Sub Saharan Africa region is not an exception (Stoddard, 2017:12). University students in Africa are a particularly high risk population for mental illness due to high stress levels (Olape et al., 2017; van Brenda, 2017) and South African university nursing students are no exception to high trends of high stress levels. South African students,

for instance, appear to have similar causes of stress as students elsewhere in the world; these include academic workload, perceived stress, test anxiety and lack of social support (Stoddard, 2017:12).

There are a number of factors that predispose university students to stress. A life change is another factor; this can be a positive event like moving to a new place whose demands can be stressful (Butcher et al., 2007:148). In the university context, students have to move from home to school where they are exposed to different environments, pressures and demands (AL-Khatib, 2019:1). Furthermore, psychological environments can play a significant role in causing disorders or precipitating their onset. The faster the life changes the greater the stress (Butcher et al., 2007:146). The most frequent stress factors cited by the university students are related to their studies and academic demands, personal and social expectation, living condition and functional situation. Academic demands include: examinations, assessments, assignments and practicum (Soelch and Schnyde, 2020:138), it also includes pressures as a result of competition and deadlines. Personal issues include family problems, frustrations such as delay in reaching goals, daily hassles, changes and even losses. Living up to parent's expectations is also a personal stressor because students tend to be under a lot of pressure just to impress their parents or guardians (AL-Khatib, 2019).

Stress can cause physical illness because it affects the immune system and other systems in the body. Stress is implicated in chronic headaches which include migraines and these migraines involve strange visual sensation such as flashing or blind spots (AL-Khatib, 2019). This type of headache is also accompanied by other symptoms such as nausea and vomiting, cognitive impairment (confusion) and effective depression and irritability (Criollo *et al.*, 2018:36). Stress makes students more anxious and increases feeling of irritability and anger which increases likelihood of outburst of anger and social withdrawal (Anikina, 2020:581). In severe cases, stress can cause students to commit suicide. High rate of suicide is shown to be alarming and majority of those cases are caused by stress and academic failure (Anikina, 2020:581). Some universities provide resources that are not adequate for their students, these include social workers, students led mental health groups and clinical psychologists all in campus and lack of resources leaves mental illnesses undiagnosed and untreated (Stoddard, 2017:11).

Problem statement

University students report increased psychological stress in different countries worldwide, in particular higher prevalence of psychological stress (Soelch and Schnyde, 2020:138). Although existing evidence suggests that

nurses may experience significant stress during their training, less is known about the key elements responsible for the distress experienced by National University of Lesotho (NUL) nursing students, the effects of psychological distress and how the NUL nursing student scope. High levels of psychological distress result into poor academic performance and illness. It is in light of these that the study explored and described the effects of stress among nursing students at National University of Lesotho.

Aim of the study

The aim of the study was to explore and describe the perceived effects of psychological distress among nursing students at the National University of Lesotho.

Objectives

The objectives of this study were to; explore factors perceived to cause psychological distress among NUL nursing students, the perceived effects of psychological distress on nursing students at NUL and describe coping mechanisms of NUL nursing students.

METHODOLOGY

An exploratory descriptive qualitative research design was employed in this enquiry. Data was collected using semi-structured interviews from 10 nursing students who were conveniently sampled. They included 6 females and 4 males. Participants were from level I, II, III, IV and V of study. Data was collected in May 2021. A semi structured interview guide was used and it entailed a set of predetermined questions about their perceived stressors, effects of psychological distress and coping mechanisms. The interviewer carried each interview separately, recorded and jotted down field notes of each participant's interview. The data was transcribed verbatim. Qualitative content analysis was used to analyse the data. Data chunks were organized from the verbatim transcripts. Open coding was used by breaking down data into separate sections. Codes were developed, grouped into themes and subthemes. Axial coding was employed to establish the relationship between the data themes and subthemes.

Trustworthiness

Throughout this study, all necessary steps were taken to ensure the credibility, dependability, confirmability, and transferability of the investigation. The researcher established a relationship of trust with the student nurses

Table 1. Biographical data of participants

Gender	Female		Male		
	6		4		
Marital status	Married	Single	Divorced	Widowed	
	2	8	0	0	
Age	15-20 years	20-25 years	25-30 years		
	1	6	3		
Year of study	1st year	2 nd year	3 rd year	4 th year	5 th year
	1	2	1	2	4

Table 2. Factors perceived as stressors

Theme	Sub-themes
Factors perceived to cause psychological distress	<ul style="list-style-type: none"> • Academic workload • Time management • Clinical factors • Financial factors • Socio-demographic factors

through the explanation of the research objectives and process. This allowed the participants to relax during the interviews and, as a result, they provided more in-depth information freely. Field notes were taken to ensure that all observations as well as the ideas in the interviewer's mind were noted, allowing the researcher to reflect on his own biases, preconceived ideas, behaviour and experiences so that she could separate it from the findings. After the analysis both the researcher and co-coder agreed that the data was saturated. The researcher adhered to ethical principles, through which the research gained ethical approval, permission, beneficence, justice, confidentiality and respect.

Ethical Consideration

The National University of Lesotho Institutional Review Board (IRB) and the Ministry of Health Research and Ethics Committee granted the researchers permission to conduct the study (ID39-2021). The study participants provided written consent and voluntarily participated in the study. Interviews were conducted in a private room. All information provided was kept in strict confidence and was not used against the respondents. Participants were assigned numbers to identify them to be able to trace the answers from each participant. Respondents were allowed to withdraw from the interviews if they felt uncomfortable without any repercussions.

RESULTS

Data was collected from student nurses at the National

University of Lesotho. Table 1 outlines the demographic data of the participants; their age, gender, level of study and their marital status. Three themes and eleven sub-themes were derived from the qualitative data.

Theme 1: factors perceived to cause psychological distress

The student nurses' perceptions about the causes of psychological distress as identified from the interviews are described under this theme and subthemes, as identified by data analysis. The theme and subthemes are listed in Table 2. This theme highlights main stressors as academic workload, time management, clinical factors, financial problems and Socio-demographic factors.

Academic workload

Academic workload is considered one of the main stressors for college/university nursing students, as it has accounted for increased stress levels in college students (Murff, 2005). The participants in this study indicated that academic workloads were stressors of concern. These direct quotations provide proof to this assertion:

"University life comes with a heavy workload which entails a lot of deadlines. This places me under a lot of pressure and its one of the main stresses in my academic life.....the way we are taught here places a lot of pressure on us..." P1

"I have to attend classes and at the same time I'm expected to write assignments, tests, quizzes and even exams. This is so much to deal with and because of this; my university life is never a stress free life. I didn't imagine university will come with this heavy workload and had I known earlier I'm sure I would have thought otherwise" P7

Time management

In the current study, inability to balance study time and leisure time was reported as a stressor. The following direct quotations from the transcripts indicate what student nurses said:

"Since I'm new in this environment, I'm still having a hard time on how I manage my time. I feel like I take too much time focusing on one task and all of a sudden there is a pile of other tasks which needs to be completed. This place so much stress on me because I feel like if I was able to manage my time well I would live a stress free life" P2

"You'd think because I'm completing I'm used to this university life. The truth is I'm still struggling with time management even today and one of my major stressor. With nursing, things don't get easier as one proceeds and there's no enough time to manage everything" P3

Clinical factors

In the literature review by McCarthy et al. (2018), clinical stressors were found to be equally relevant to academic stressors. The participants clarified their perceived clinical factors as follows:

"Whenever it's time for clinicals, I lose a significant amount of weight. And if I had a choice, I wouldn't go for those. This place so much stress on me because I even feel like quitting" P10

"I get sick whenever I think of those nurses' attitude towards us, it's like they were raised by the same parents. Honestly nurses must introspect else we will grow up into better professionals because of them" P7

"It is so frustrating when you get to the hospital and you find that there is no equipment and things are not done by the book. To make matters worse, those sisters won't answer your questions" P9

Financial factors

According to Hales and Lauzon (2011:39), students in

medical fields, including nursing, are stressed because of going into debts. Ray (2017) showed that high tuition fees among other things constitute a significant source of stress for students enrolled at nursing and other South African higher institutions. Financial problems were also identified as stressors in this study. The following direct quotations are evidence of this statement:

"I'm a parent and faced with the heavy burden of having to pay for my own tuition fees and every expense in order for me to complete my studies. Nothing is cheap in this modern world we live in trust me. This heavy load on my shoulder leaves me stressed and worried and in turn affect my academic performance very badly" P8

"I come from a very poor background and because I 'm sponsored and get a monthly allowance, I find myself having to help my family with the same money. Already the money is not enough and having to share it leaves me broke, hungry and stressed. But there is nothing I can do because I cannot leave my family stranded" P6

"I found myself swimming in debt because the money we get from the sponsorship is not enough to meet all the needs. This is causing a lot of stress because I don't know how to get out of this mess" P3

Socio-demographic factors

The other factors which have proven to have a psychological impact on student nurses are socio-demographic factors such as relationships and place of residence (Timmins and Kaliszer, 2002). The participants of the current study also outlined these as factors that contribute to their stress. This is evident in these direct quotations from the transcripts of the interviews:

"I am unable to balance my academic life with my social life and I find myself compromising my academic life because of this imbalance, leaving me stressed" P7.

"Relationships are a major source of my stress. They leave me heartbroken, frustrated and unable to concentrate on my studies and this affects badly my academic performance".P1

According to Hales and Lauzon (2011:38), students living on campus were at slightly higher risk for levels of stress compared to students living off campus. This study was not an exception; this is evident from the participant in this study, who explained:

"Living on campus comes with a lot of stress. I'm unable to study well because of the living situation (noise and crowding). It is also difficult to go to the library during the late hours because it is not safe and this affects my

Table 3. Perceived effects of psychological distress

Theme	Sub-themes
Perceived effects of psychological distress	<ul style="list-style-type: none"> • Effects on Academic Performance • Physical effects • Emotional and psychological effects • Spiritual effects

academic performance because I'm not able to prepare for my studies"P6.

Theme 2: Perceived effects of psychological distress

The overall perceptions of student nurses regarding the effects of psychological distress are described under the theme and subthemes as it was identified by the data analysis and are listed in Table 3.

Effects on Academic Performance

This sub-theme describes the effects of stress on academic performance. According to Alyousef (2019:63), stress has an effect on learning and excessive stress is harmful to a student's performance. In line with what Alyousef (2019) put forth, in this study the participants also explained that stress has an effect on learning. This is evident in the following quotations:

*"When I'm stressed, I'm unable to concentrate so usually if I have an exam or test while I'm still at this state, I go unprepared, for this reason my grades are badly affected"*P6

*"While I'm under stress, I find it hard for me to complete any school work tasks that demand my attention and concentration. Therefore I usually miss deadlines and even go to class or write tests unprepared. This has been affecting my grades so badly to a point where I think I might not make it to the next level"*P3

Physical effects

In this sub-theme participants described changes experienced secondary to stress. Somatic complaints and physical illness such as skin symptoms and functional gastrointestinal disorders were manifested by university students under stress (Soelch and Schnyde, 2020:138). The perception that psychological stress has physical effects is reflected in these direct quotations:

"Usually when I'm stressed, my face complexion darkens and a lot of pimples appears out of nowhere and this is

*when I will realize that I'm not okay"*P5

*"I tend to lose weight when stressed because stress decrease my interest in food (lose appetite) therefore pulling away few pounds"*P1

*"I usually sweat a lot and have a headache and this is an indication for me that I'm stressed. It usually does not go away regardless of every intervention I take"*P2

Emotional and psychological effects

The participants alleged that secondary to psychological distress, they find themselves depressed, anxious, and withdrawn and isolate themselves. These direct quotations reflect this:

*"Stress usually depresses me to a point where I tend to lose interest in everything, mostly in my studies and things I used to enjoy"*P1

*"Usually stress triggers my anxiety and leaves me anxious and unable to perform any task. With anxiety one is unable to rest let alone prepare for studies"*P7

*"I tend to isolate and withdraw from people when I'm stressed. This is because people tend to annoy me when I'm in that state and I always feel like I need my own space"*P3

Spiritual effects

Spirituality is not just about God and religion, it is something related to elite power, it is a faith which connects a normal being to their soul (Lee and Waters, 2003:45). The participants in this study further described effects of stress on their spiritual health. The participants reflect this in the following quotations:

"I began to doubt God's power, wondering whether he cares about me. And if He does, why does He let me suffer like this" P1.

*"I lose interest in all things including prayer when stressed, I usually feel hopeless and not able to pray"*P3.

Table 4. Coping mechanisms

Theme	Sub-themes
Coping Mechanisms	<ul style="list-style-type: none"> • Leisure activities • Motivation • Support system

Theme 3: Coping Mechanisms

The results of this study showed that nursing students were using a variety of strategies to cope with work-related stress in their academic life. The overall coping mechanisms as shared by the NUL nursing students were described under the theme and subthemes listed in Table 4.

Leisure activities

Research has demonstrated that, nursing students employ a variety of coping strategies (Jan and Popescu, 2014) such as; talking to friends, sports, crying, ignoring stress, feelings of sadness/misery and the use of alcohol, which may be adaptive or maladaptive (Reeve et al., 2013). The students in this study are no exception to this as indicated in the following direct quotations:

*"I usually listen to music, it helps me to relax and calm down. Music to me is my therapy, nothing heals me like music A good book never disappoints on a bad day also. It lightens my mood and usually helps me cope with stress"*P1.

*"Since I love working out, it also helps me to cope with stress. Whenever I'm a bit stressed and exhausted, I go for a workout and come back alive again"*P2.

*"Food becomes my comfort when I'm stressed. Nothing makes me feel better like eating when I'm stressed. I find myself pulling up few pounds whenever I'm stressed because of this"*P3

*"For leisure, I joined university basketball team and that is where I'm able to interact with other people and have peace..... else I normally enjoy long walks, either alone or with a friend for leisure"*P7

Motivation

Motivation, both intrinsic and extrinsic, plays a major role in education, students arrives at school with an already determined degree of motivation (Brown and Patton, 2017). The participants found motivation fundamental in overcoming stress that comes with nurse training. This is evident from the following direct quotations:

*"Being determined and wanting to become a nurse is what keeps me moving..... and for the fact that I know I'm likely to get employed upon completion motivates me"*P4

*"Having a family of my own serves as motivation for me, every time I think of giving up I remember my kids and their future then I get motivated to study."*P8

*"Passion to succeed always keeps me on my toes and motivates me to study"*P3

*"My family's living situation keeps me awake at night and for that reason I want to become a better person so that could help them in future"*P1

Support system

According to Bierman and Schieman (2020:3), social support is defined as an act that communicates caring; that validates the other's word, feelings or actions; or that facilitates adaptive coping with problems through provision of assistance or tangible resources. In this subtheme, participants described their support systems which help them to cope better with stress. The following answers were obtained from different participants:

*"Calling my mom usually helps me when I am stressed and depressed, because I know she's always there for me and listens to my entire problems. She even offers me advice on how to deal with some of my problems and therefore she always makes me feel better."*P1

*"My cycle is the craziest in this entire world, and I love them so much. Those people always support me every time I'm stressed and depressed. They always find a way to lighten up my mood and cheer me up"*P2

*"Since I'm a church girl, going to church is always therapeutic to me. We are more like a family and we are able to share our troubles and pray together for that reason I always feel better"*P3

DISCUSSION

It is evident that the qualitative data revealed that several factors and effects are associated with psychological distress among nursing students at the National

University of Lesotho. The three thematic areas derived from this study are the factors perceived to cause psychological distress, Perceived effects of psychological distress and the coping mechanisms. The participants in this study indicated that academic workloads were stressors of concern. A cross-sectional study by Reverté-Villarroya et al. (2021), in line with the current study, showed that the low level of psychological well-being was related to stress due to exams, seminars, clinical practices, group projects, and instructional methodologies. It seemed that those methods in which students are required to play an active role in the classroom are sources of greater stress than those where they have a passive role (Olape et al., 2017). Furthermore, inability to balance study time and leisure time was cited as a stressing factor by participants in our study. The findings of the current study are consistent with the findings of a study by Brown and Ralph (1999) who stated that academic stress is reduced and controlled through effective time management and study techniques. Macan et al. (1990) further found that students who perceived themselves in control of their time reported greater work and life satisfactions. Similar to the current study, clinical factors were among factors that respondents in Parveen and Inayat (2017) study identified as causing stress. The participants in the study of Eswi, Radi and Youssri (2013) expressed a challenge with maintaining a balance between clinical work and studying. One study (Nicolas et al., 2013) mapping stress among students of nursing during the clinical practice, undertaken at the University of Murcia between 2010 and 2011, revealed that lack of knowledge of the clinical practice environment and the fear of causing harm to the patient are the main stress factors for the students of nursing. In concurring with these responses on perceived factors, Parveen and Inayat (2017) stated that the financial position of nursing students was the factor mostly associated with psychological distress. Lack of financial stability was one of the factors that contributed to stress among university nursing students in Parveen and Inayat study. The participants of the current study also outlined socio-demographic factors such as relationships and staying off campus, as elements that contribute to their stress. In relation to this, Llapa-Rodriguez et al. (2016) put forth that one source of stress is routine occurrences and the people with whom the individual has to deal with on a day-to-day basis. To further support the current study findings in this regard, a study by Alyousef (2019) revealed that most participants were stressed as a result of interpersonal relationships.

The overall perceptions of student nurses regarding the effects of psychological distress were described under the theme: perceived effects of psychological distress. According to Alyousef (2019:63), stress has an effect on learning and excessive stress is harmful to a student's performance. In line with what Alyousef (2019) put forth, in this study the participants also explained that

stress has an effect on their learning. Chou et al. (2015:31) have supported these findings, suggesting that stress on nursing students inevitably influences problem-solving, memory, attention to detail, and learning processes hence poor academic outcomes. Somatic complaints and physical illness such as skin symptoms and functional gastrointestinal disorders were manifested by university students under stress (Soelch and Schnyde, 2020:138), which is not exceptional to the current study. When identifying physical stress manifestations among nursing students, Pacheco (2008) reported symptoms such as sweating, shaking, and physical weakness. In favour of what the participants of the current study are tabling with regards to emotional and psychological effects such as depression and anxiety, Soelch and Schnyde (2020:138) contends that stress among university nursing students is associated with increased mental disorders such as depression, anxiety, burnouts, suicidal ideations and self-injurious behaviors. These findings are also consistent with the work of Bahadır-Yılmaz (2016), who observed the impact of these factors among Turkish mental-health nursing students. The current study findings on spiritual effects of psychological distress are not unique to this study. This is consistent with Murff (2005) and Zhao et al. (2015) who confirmed spirituality is a social factor that can be negatively affected by psychological distress in nursing students. Zhao et al further stated that spirituality is a bridge between what training nurses are and where what training nurses want to reach or it can be hopefulness and stress on the other hand has deleterious effects on this bridge.

Research has demonstrated that, nursing students employ a variety of coping strategies (Jan and Popescu, 2014). The nursing students who participated in this study highlighted listening to music, working out and joining sporting codes as their key coping mechanisms. Consistent with this, Rafati et al. (2017) study indicate that in college or university life, positive use of leisure is linked to identity development and increased coping skills, stress reduction, activity innovation, increased physical activity, socialization academic and community engagement, well-being and health (Reeve et al., 2013). Consistent with Rafati et al. (2017) study; passion to succeed, being determined and having a supportive family was identified as what kept the participants resilient during stressful situations. Positive thinking or repeating positive sentences and self-motivation were among methods used to cope with stresses in Rafati et al study. These findings show that creating a cycle of supportive friends, strong relationships can be one's stress reliever. The participants further emphasised on having strong support systems, especially families, as a major coping mechanism. This result concurs with the findings of Lo (2002) who reported that the main social support sources of nursing students were their families, spouses and partners. Furthermore, the results of the

study by Karaca et al. (2019) showed that students who perceived social support positively were at a low risk for mental health problems. The results of other studies (Kapıkıran, 2013; Yalcin, 2014) showed a positive correlation between the well-being and psychological stability of students and social support.

RECOMMENDATIONS

The stress levels of nursing students should be monitored in order to facilitate their ability to cope with stressful situations during their training, and components for coping with stress should be included in the curricula of nursing training. There is also a need for periodic counselling for nursing students to help students cope better with the reality shock of nursing. Furthermore, programs that enhance the coping mechanism of the nursing students and increase their social support should be established. Practicing nurses at the clinical areas should be trained on how to treat students so as to improve interpersonal relationships and alleviate stress during clinical placement. Thorough career guidance is also necessary to prepare students psychologically for nursing courses before being enrolled. Further research is needed to identify more gaps and modalities to address those gaps.

LIMITATIONS

This study was limited to NUL nursing students. As with any qualitative method, there is no claim that the findings from this research can be generalized to the wider population of student nurses. It was also challenging for a researcher to build rapport with participants while conducting the interviews due to the regulations of COVID-19 pandemic which include wearing face masks and social distancing.

CONCLUSION

The study revealed that nursing students at National University of Lesotho are stressed and there are a lot of factors perceived to contribute to their stress levels. This in turn tends to have negative effects on their emotional, psychological, physical and spiritual wellbeing. Psychological distress is also the major reason for poor academic performance and high failure rate among nursing students.

CONFLICT OF INTEREST STATEMENT

Conflicts of interest: none.

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REFERENCES

- AL-Khatib H (2019). Exam anxiety among nursing students of Al-Ahiyya Amman University and its relationship with some variables. *Int. J. Appl. Psychol.* 9(4):110-116. Doi: 10.5923/j.ijap.20190904.03
- Alyousef S.M. (2019). Psychosocial stress factors among mental health nursing students in KSA. *J. Taibah Univ. Med. Sci.* 14(1):60-66.
- Anikina Z (2020). Integrating Engineering Education and Humanities for Global Intercultural Perspectives: *Proceedings of the Conference*. Springer Nature, Volume 131, pp581.
- Bahadır-Yılmaz E (2016) Academic and clinical stress, stress resources and ways of coping among Turkish first-year nursing students in their first clinical practice. *Kontakt3*(18): 145-151.
- Bierman A, Schieman S (2020). Social Estrangement and Psychological Distress before and during the COVID-19 Pandemic: Patterns of Change in Canadian Workers. *Journal of Health and Social Behavior* 61(4):398-417. doi:10.1177/0022146520970190
- Broderson LD (2018). Exit exam testing, stress and test anxiety in pre-licensure nursing education. MA Thesis. Microsoft Word - Brodersen Dissertation 04-14-18 Final (nursingrepository.org)
- Brown KV, Patton BA (2017). Early childhood: motivation and stress. *Int. J. Cross-Disciplinary Subjects in Edu.*, 8(4):3242-3253.
- Brown M, Ralph S (1999). Using the DYSA programme to reduce stress and anxiety in first year university students. *Pastoral Care* 17(3): 8-13.
- Butcher JN, Mineka S, Hooley JM (2007). *Abnormal Psychology*. Pearson Education, 13th edition. pp.146-149.
- Chou WP, Ko CH, Kaufman EA, Crowell SE, Hsiao RC, Wang PW, Lin JJ, Yen CF. (2015) Association of stress coping strategies with Internet addiction in college students: The moderating effect of depression. *Comprehensive Psychiatry* 62:27-33. doi: 10.1016/j.comppsy.2015.06.004. Epub 2015 Jun 9. PMID: 26343464.
- Criollo FP, Escobedo CJ, Ruiz GG (2018). Stress in Nursing University Students and Mental Health. *Health and Academic Achievement*, pp31-45. <http://dx.doi.org/10.5772/intechopen.72993>
- Doran MD (2010). *Nursing Outcomes: State of Science*. Janes and Bartlett Learning, 2nd edition, pp.289.
- Eswi AS, Radi S, Youssri H (2013). Stress/stressor as perceived by baalurate Saudi nursing student. *Nurse Education Today* 30:78-84.
- Hales D, Lauzon L (2009). *An Invitation to Health*. London, pp.30-381.
- Jan LK, & Popescu L. (2014) Israel's Nursing Students' Stress Sources and Coping Strategies during their first clinical experience in hospital wards-a qualitative research. *Revista de Asistența Socială* (4):163.
- Kapıkıran, S., 2013. Loneliness and life satisfaction in Turkish early adolescents: the mediating role of self-esteem and social support. *Social Indicators Research* 111(2):617-632.
- Karaca A, Yildirima N, Cangurb S, Acikgoza F, Akkusa D (2019). Relationship between mental health of nursing students and coping, self-esteem and social support. *Nurse Education Today* 76 (2019) 44-50. <https://doi.org/10.1016/j.nedt.2019.01.029>
- Lee SS, Waters C (2003). Impact of Stressful Life Experiences and of Spiritual Well-Being on Trauma Symptoms. *J. Prevent. Intervent. Comm.* 26(1):39-47.

- Llapa-Rodriguez EO, Marques DA, Neto DL, López-Montesinos MJ, Oliveira ASA (2016). Stressful situations and factors in students of nursing in clinical practice. *Invest EducEnferm.* 34(1): 211-220.
- Lo R (2002). A longitudinal study of perceived level of stress, coping and self-esteem of undergraduate nursing students: an Australian case study. *J. Adv. Nurs.* 39 (2):119–126.
- Macan TH, Shahani C, Dipboye R L, Phillips AP (1990). College student' time management: Correlations with academic performance and stress. *J. Edu. Psychol.* 82: 760–768.
- McCarthy B, Trace A, O'Donovan M, Brady-Nevin, C., Murphy, M., O'Shea, M. & O'Regan, P. (2018). Nursing and midwifery students' stress and coping during their undergraduate education programmes: An integrative review. *Nurse Education Today* 61, 197–209.
- Murff SH. (2005). The impact of stress on academic success in college students. *ABNF Journal* 16: 102.
- Nicolas MS, Sanchez SL, Marín CL, Rodríguez LI, Ruiz ML, Gomez SA. (2013). Stress perception in nursing students facing their clinical practices. *Global Nursing* 31:244-53.
- Olope, R.O., Lasiele, Y.A., Chaika, E.A. & Abidoye, K. (2017). Stress levels and Academic performance of university students in Kwara State Nigeria. *Makerere Journal of Higher Education* 9(1):103-112. DOI: 10.4314/majohe.v9i1.9
- Pacheco S. (2008) Stress and Coping in nursing students. *Reference Magazine* 2(7):89-95.
- Parveen A, Inayat S (2017). Evaluation of factors of stress among nursing students. *J. Adv. Pract. Nurs.* 2(2):1-4. DOI: 10.4172/2573-0347.1000136
- Rafati F, Nouhi E, Sabzevari S, Dehghan-Nayeri N (2017). Coping strategies of nursing students for dealing with stress in clinical setting: A qualitative study. *Electronic Physician* 9(12):6120-6128. DOI: <http://dx.doi.org/10.19082/6120>
- Ray BD (2017). A systematic review of the empirical research on selected aspects of homeschooling as a school choice. *J. Sch. Choice* 11(4):604-621. <https://doi.org/10.1080/15582159.2017.1395638>
- Reeve KL, Shumaker CJ, Yearwood EL, Crowell NA, Riley JB (2013). Perceived stress and social support in undergraduate nursing students' educational experiences. *Nurse Education Today* 33(4): 419-24. doi: 10.1016/j.nedt.2012.11.009.
- Reverté-Villarroya et al. (2021). Psychological Well-Being in Nursing Students: A Multicentric, Cross-Sectional Study. *Int. J. Environ. Res. Pub. Health* 18(6):3020. <https://doi.org/10.3390/ijerph18063020>
- Soelch C, Schyder U (2020). Resilience and Vulnerability Factors in Response to Stress. *Frontiers in Psychiatry*. <https://doi.org/10.3389/fpsyg.2019.00732>
- Stoddard H (2017). When Books Hit Back: Perceived Stressed in University Students Durban, South Africa. MA Thesis. https://digitalcollections.sit.edu/cgi/viewcontent.cgi?article=3721&context=isp_collection
- Timmins F, Kaliszer M (2002). Aspects of nurse education programs that frequently cause stress to nursing students-fact-finding sample survey. *Nurse Education Today* 23(2):203-211.
- van Breda A. D. (2018) A critical review of resilience theory and its relevance for social work. *Social Work* 54(1):1-19.
- Yalcin I (2014). Relationships between well-being and social support: a meta-analysis of studies conducted in Turkey. *Turk. J. Psych.* 26(1):21-32. <https://doi.org/10.5080/u7769>
- Zhao FF, Lei XL, He W, Gu YH, Li DW (2015). The study of perceived stress, coping strategy and self-efficacy of Chinese undergraduate nursing students in clinical practice. *Int. J. Nurs. Pract.* 21(4):401-9. doi: 10.1111/ijn.12273. Epub 2014 Apr 22. PMID: 24750234.