

Perceived stress and coping strategies among nursing students at the Higher Institute of Nursing Professions and Health Techniques of Beni Mellal in Morocco

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Abstract

This cross-sectional study aims to assess the level of perceived stress and coping strategies utilized by nursing students at the Higher Institute of Nursing and Health Techniques (ISPITS) in Beni Mellal. A total of 199 students were selected using stratified sampling to ensure representation from each academic year. Data was collected through a self-administered questionnaire comprising a socio-

demographic section, the Perceived Stress Scale (PSS-10), and the French version of the Ways of Coping Checklist (WCC).

The findings revealed a predominance of female students (83%) and a majority (76%) within the 18-20 age groups. Moreover, a significant proportion of students reported high stress levels: 74.46% and 70.90% for the second and third years, respectively. The majority of students

(61%) employed emotion-focused coping strategies to deal with stress, while a minority of first-year students relied on social support.

This study has established that a considerable number of students experience high levels of stress and primarily utilize emotion-focused coping strategies. Thus, we hope that this research serves as a foundation for future studies, particularly in exploring perceived stressors and the coping strategies adopted by nursing students.

Keywords: Perceived stress; Coping strategy; Nursing students; ISPITS; Beni Mellal region.

* **Introduction**

Stress is a societal issue affecting an increasing number of individuals, regardless of age or social status. The pressures to achieve, compete, and strive for perfection in today's society amplifies the magnitude of stress [1, 2].

Hans Selye, in 1936, introduced the concept of the body's response to stress as the systemic adaptation syndrome. It implies that when confronted with challenging situations that disrupt the body's equilibrium, individuals strive to maintain balance and adapt to limited changes. These demanding situations evoke a range of

emotions such as anxiety, fear, panic, concern, and worry [3]. According to the European Agency for Safety and Health at Work (2009), stress occurs when there is a disparity between an individual's perception of their environment and the resources available to cope with it.

Engaging in academic studies is vital for personal development, but it also brings about significant periods of stress [4], especially when it comes to relational training, which acts as an additional stressor [5]. Nursing students face higher stress levels compared to students in other fields [6]. Throughout their training, they encounter various stress-inducing situations, including professional requirements, assessment periods, training schedules, and heavy workloads. Moreover, their limited knowledge of stress management methods makes them more susceptible to psychosocial risks [7]. In light of this context, several surveys have been conducted in France regarding stress among nursing students. Notably, a study by Lamberton and Pelège (2008) focused on interruptions and dropouts in nursing training. The study revealed that students who leave the apprenticeship program early often

experience extreme stress, leading to a range of clinical symptoms ranging from irritability to exhaustion [8].

A survey conducted by Lamaur et al. (2011) shed light on the stressful experiences encountered during nursing training, which progressively worsen as students advance in their academic careers. The surveyed students mentioned several reasons for this, including the fast pace of instruction, inadequate quality of training, and challenging learning conditions [9].

In another study conducted in France in 2017 by the National Federation of Nursing Students, it was revealed that 72 students were experiencing physical, psychological, and financial exhaustion. These figures tend to rise as students' progress through their studies, with 66.2% of students in the first year and 85.9% in the third-year reporting exhaustion [10].

In Switzerland, approximately 24% of students pursuing health-related programs at universities perceive their health status as fairly good, bad, or very bad [11]. When it comes to stressors, they can be categorized into internal factors, which stem from an individual's own

experiences, beliefs, and thoughts, and external factors, which are associated with the workplace, school, personal circumstances, or social environment[12].

School burnout is a type of exhaustion specifically related to academic settings. It shares similarities with professional burnout and is characterized as a psychological syndrome that arises when individuals experience persistent interpersonal pressures within their educational environment [13]. Burnout results in diminished emotional, cognitive, and physical resources among students, affecting their cognitive functions such as concentration, memory, and problem-solving abilities. Decision-making becomes challenging as learners constantly doubt themselves. Emotionally, individuals become more sensitive and develop a strong sense of incompetence. They are also more prone to negative emotions such as anger and fear. Furthermore, burnout becomes chronic; leading to disrupted sleep patterns and the potential emergence of various physical disorders such as pain, sleep disturbances, skin issues, and infections [14].

The individual does not passively endure acute or chronic life events; instead, they attempt to "cope" with them [15]. Coping refers to adaptive efforts made when faced with situations perceived as stressful, whether genuinely threatening or not [16]. Coping strategies can manifest in various forms, including cognitive approaches (evaluating stressful situations, assessing personal resources, seeking information), emotional responses (expressing or suppressing fear, anger, distress), and behavioral actions (problem-solving, seeking assistance) [15].

The concept of coping, initially introduced by Richard Lazarus in his book in 1966, refers to a set of reactions and strategies developed by individuals to navigate stressful situations. Coping serves two primary functions: addressing the root cause of stress and modulating the associated emotional response [17]. Additionally, some authors acknowledge a third coping strategy focused on seeking social support, aiming to obtain assistance and encouragement from others [18]. Effective coping strategies empower individuals to regain control over challenging circumstances and safeguard their physical,

psychological, and mental well-being[15].

The aim of this study is to assess the level of perceived stress among students enrolled at the Higher Institute of Nursing Professions and Health Technology (ISPITS) in BeniMelal, as well as to provide a description of the coping strategies employed by these students.

*** Methods**

*** Design**

This descriptive quantitative study aims to evaluate and depict the perception of stress and coping mechanisms utilized by nursing students at the Higher Institute of Nursing Professions and Health Technologies (ISPITS) in BeniMellal.

*** Instruments**

A student questionnaire survey was chosen as the data collection method. It includes a section on the socio-demographic characteristics of the participants and two psychometric scales Perceived Stress Scale, [PSS-10]. In addition, self-efficacy was measured on a scale of 1 (never) to 5 (often).The score obtained can be of three types Individual scores on the PSS can range from 0 to 40 with higher scores indicating higher perceived stress.

1- Scores ranging from 0-13 would be considered low stress.

2- Scores ranging from 14-26 would be considered moderate stress.

3- Scores ranging from 27-40 would be considered high perceived stress.

The French version validated in 1996 by Cousson et al, of the WCC (Checklist for Coping) was used to evaluate coping strategies. This scale includes 10 items that measure problem-focused coping, 9 items related to problem- and emotion-focused coping, and 8 items that measure seeking social support [19].

The data collection method chosen for this study was a questionnaire survey administered to the students. The questionnaire consists of multiple sections, including socio-demographic characteristics of the participants, as well as two psychometric scales: the Perceived Stress Scale (PSS-10) and the Checklist for Coping (WCC) validated in its French version by Cousson et al. in 1996[20].

*** Ethical considerations**

Ethical considerations were duly addressed in this study. The students were provided with prior information regarding the study's objectives and data collection methods. They were also assured of the confidentiality and

anonymity associated with their personal information. Furthermore, they were informed of their voluntary participation in the survey and their right to withdraw at any time. Additionally, permission was obtained from the ISPITS administration as an added measure.

*** Samples and participants**

The participants in this study were nursing students enrolled at ISPITS Beni Mellal, including those specializing in general practice nursing, family health nursing, community health nursing, and mental health nursing.

*** Sample**

In order to obtain a sample that is as representative as possible of the target population, the use of sampling techniques is essential. The chosen method for this study is proportionally stratified random probability sampling, which involves selecting students who meet specific inclusion and exclusion criteria. However, due to time constraints, difficulties in obtaining permission to collect data, and some students' lack of cooperation in completing questionnaires, it was not feasible to include the entire student population (100%). As a result, a sample size of 199 students was

selected, distributed as follows: 96 first-year students, 61 second-year students, and 42 third-year students. All students in the nursing program who willingly participated in the study were included.

*** Data collection process**

The study was conducted at the ISPITS in Beni Mellal over duration of 15 days, specifically from April 15 to April 30, 2022.

*** Data analysis**

Microsoft Excel was employed for both data analysis and the graphical representation of the findings.

*** Results**

*** Demographic characteristics of the participants**

The participants' socio-demographic characteristics are outlined in Table 1. The majority of participants identified as female (83%), and approximately 76% of the students were aged between 18 and 20. Additionally, a significant portion of the students (68.34%) reported living away from their families during their studies.

Table 1. The socio-demographic profiles of the participants (N=199)

Demographic characteristics	Y1 students N (%)	Y2 students N (%)	Y3 students N (%)	Total N (%)
Gender (n=199)				
Female	79(82.3)	48(78.7)	38(90.5)	165 (83)
Male	17(17.7)	13(21.3)	04(9.5)	34 (17)
Age (years) (n=199)				
18-20	85 (96.6)	49(92.5)	17(29.3)	151(76)
>20	03 (3.5)	04(7.54)	41(70.7)	48(24)
Residence during the studies (n=199)				
With family	21(27.63)	19(28.8)	21(36.4)	61(30.65)
Rental accommodation	55 (72.37)	47(71.2)	34(59.6)	136(68.34)
University campus	00 (0.00)	00(0.00)	02(3.50)	02(1.00)

*** Sources of stress**

A majority of the students (85.93%) reported experiencing stress, with 99.99% attributing the main cause of stress to the workload of the study program. Additionally, 77.77% of second and third-year students mentioned that practical training was a significant contributor to their stress levels.

*** Associations between Perceived Stress Levels and Participant Demographics**

A considerable proportion (60.93%) of students reported experiencing high levels of stress. Female students exhibited higher stress levels (66.03%) compared to their male counterparts (36%). Among the students experiencing high stress, the majority were in their third year (74.46%) and sophomore year (70.90%). Additionally, 56.78% of students residing in rented accommodations reported feeling stressed, while the percentage was

lower (42%) for students living with their families.

Table 2. Associations between Perceived Stress Levels and Participant Demographics

Demographic characteristics	Low (%)	Medium (%)	High (%)
Gender			
Female	12.33	31.44	60.03
Male	2.51	51.51	36
Level of education			
First year	6.66	45.55	47.77
Second year	1.81	27.27	70.90
Third year	2.12	23.40	74.46
Residence during the studies			
With family	23	35	56.78
Rental accommodation	14.39	28.81	42

*** Participants' coping strategies**

The majority of students (61%) employed emotion-focused coping strategies to manage their stress. Among male students, a significant proportion (81.81%) utilized problem-focused strategies, whereas among female students, the majority (56.55%) relied on emotion-focused strategies. Furthermore, among students residing in rented housing, a notable percentage (56.18%) employed problem-focused strategies, whereas among those living with their families, a considerable proportion (45.06%) utilized emotion-focused strategies.

Table 3. Participants' coping strategies

Coping strategies	Emotional-focused coping strategy	problem-focused strategy	Social support coping strategy
Gender			
Female	56.55	40.25	3.14
Male	12.12	81.81	0
Residence during the studies			
With family	46.61	45.06	8.33
Rental accommodation	56.18	43.81	0

*** Discussion**

Following the presentation of the findings gathered from nursing students, this section of the paper focuses on discussing the key results pertaining to the identified concepts in the study. It also includes relevant references to describe the coping strategies employed by nursing students.

The findings revealed that a significant majority (85.93%) of nursing students at ISPITS reported elevated levels of stress. This outcome aligns with the research conducted by the French National Federation of Nursing Students (2017), which found that 78.2% of nursing students frequently experienced stress[10]. Nursing students face substantial academic pressures, which contribute to their perceived or actual stress levels. The survey conducted among ISPITS students identified multiple

sources of stress in their academic journey.

Estryn-Behar et al. identified the most frequently mentioned factors by students as the volume of the program and clinical teaching[21]. These findings can be explained by various academic aspects such as the duration of assessments, the length of theoretical and clinical training, and the disparity between practical and theoretical aspects. Additionally, the lack of secure supervision conditions contributes to students' feelings of apprehension and insecurity.

Our findings indicate that the stress levels of ISPITS students are not influenced by age, which aligns closely with the results of a study conducted by Gilles (2006), where age was found to have no significant impact on stress levels [22]. However, contrasting results were observed in another study by Josse (2003), which revealed that younger and middle-aged individuals tend to experience higher levels of stress compared to older individuals[23].

In terms of gender, our survey findings indicate that women (66.03%) are more prone to experiencing stress. This observation aligns with the notion of women being more vulnerable and

sensitive, while men exhibit greater strength and resilience. These results are consistent with the findings published by OVE in 2016, where 66.9 % of men reported being in good or very good health compared to 57 % of women [24]. However, it is worth noting that a different study conducted in 1989 by Aucoin found no significant association between gender and stress levels [25].

Our research findings indicate that stress levels vary depending on the academic year of the nursing students. Third-year and second-year students reported higher stress levels at 74.46% and 70.90%, respectively, while first-year students had a lower rate of 47.77%. This difference can be attributed to the timing of data collection, as we began collecting data before first-year students completed their internships. This finding is supported by Lamourt et al. study, which demonstrated that internship duration accounted for 50.72% of the stress experienced by nursing students [26]. Similarly, the French National Federation of Nursing Students reported an increase in stress levels as students progressed through the program, with 66.2% of first-year students and 85.9% of third-year

students experiencing stress [27]. However, other studies, such as Fornés et al. (2016), provide mixed results. The authors of that study noted that students nearing the end of their training experienced less stress, which could be attributed to increased knowledge, skills, and adaptability gained during the training process [28].

The findings of our study indicate that students who live away from home (renting a house) experience higher levels of stress compared to students living with their families. These results align with a study conducted by Côté in 2008, which highlighted that student often face significant changes, such as their first experience of shared housing and new financial responsibilities, which can lead to moments of significant tension [29].

In terms of coping strategies employed by students to manage stress, the findings of this study revealed that the majority of students (61%) utilize emotion-focused coping strategies. This aligns with the findings of a previous study conducted by Fornés et al. in 2016, which indicated that nursing students tend to rely more frequently on emotion-focused coping

strategies throughout their educational journey [28].

Based on the findings of this study, it can be inferred that there is a correlation between the coping strategies employed by students and their perceived stress levels. Specifically, it was observed that students who reported lower stress levels (81%) tended to employ problem-focused coping strategies when faced with challenges. Conversely, the students experiencing higher levels of stress (52%) relied more on emotion-focused coping strategies to manage their stress. This observation may provide an explanation for the elevated stress levels observed among ISPITS students.

In contrast to the findings of Gibbons (2010), which indicated that students who employed positive coping strategies demonstrated improved clinical performance, enhanced learning outcomes, and higher levels of happiness [30]. This study revealed no significant relationship between coping strategies and these variables. The present study did not support the notion that students utilizing active coping strategies outperformed those utilizing passive

strategies. The majority of participants (81.81%) employed problem-focused coping strategies, while women predominantly utilized emotion-focused coping strategies (56.55%) to manage stress. Interestingly, the study findings indicated that neither education level nor place of residence had an impact on the choice of coping strategy.

* **Conclusion**

This cross-sectional study revealed that nursing students at ISPITS face elevated levels of perceived stress, which can adversely affect their health and competence in delivering quality patient care. To mitigate this, implementing coping strategies like relaxation techniques, exercise, and meditation can prove beneficial in reducing perceived stress among nursing students. It is crucial for educational institutions to prioritize the provision of resources and support systems that aid students in effectively managing stress and enhancing their overall well-being.

* **Disclosure statement**

No potential conflict of interest was reported by the authors

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