

RESEARCH ARTICLE (ORIGINAL) 

Student Transition to higher education: a study on self-efficacy, stress, and psychological well-being

Transição do estudante para o ensino superior: um estudo sobre autoeficácia, stresse e bem-estar psicológico

Transición de los estudiantes a la enseñanza superior: estudio sobre la autoeficacia, el estrés y el bienestar psicológico

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Abstract

Background: The transition to higher education is a critical period with many new and demanding challenges that can trigger adjustment difficulties and imbalances in students' mental health.

Objective: To describe the relationship between sociodemographic/academic variables and general self-efficacy, perceived stress, and psychological well-being in first-year undergraduate nursing students.

Methodology: This descriptive-correlational study used a non-probability convenience sample of 263 first-year undergraduate nursing students. Data were collected during the 2019/2020 academic year using the following instruments: Sociodemographic/Academic Questionnaire, General Self-Efficacy Scale, Perceived Stress Scale (PSS-10), and Psychological Well-Being Manifestation Measure Scale (EMMBEP).

Results: The study revealed a negative correlation between general self-efficacy and perceived stress and between perceived stress and psychological well-being. A positive correlation was also observed between general self-efficacy and psychological well-being among nursing students.

Conclusion: The transition to higher education is complex and highly impactful for students, therefore it is essential to develop facilitative strategies to reduce the impact of stress-inducing factors and emotional distress in this population.

Keywords: nursing; higher education; students; self efficacy; stress; psychological well-being

Resumo

Enquadramento: A transição para o ensino superior (ES) representa uma etapa crítica, com múltiplos novos e exigentes desafios, que podem precipitar dificuldades adaptativas e desequilíbrios na saúde mental dos estudantes.

Objetivo: Descrever a correlação entre variáveis sociodemográficas/académicas e autoeficácia geral, stresse percebido e bem-estar psicológico em estudantes do primeiro ano da Licenciatura em Enfermagem (LE).

Metodologia: Estudo descritivo-correlacional, amostra não probabilística, tipo accidental de 263 estudantes do primeiro ano da LE 2019/2020, instrumentos: Questionário Sociodemográfico/Académico, Escala de Autoeficácia Geral, Escala de Stresse Percebido-10 Itens, Escala de Medida de Manifestação de Bem-Estar Psicológico.

Resultados: Verifica-se existência de correlação negativa entre autoeficácia geral e stresse percebido, entre stresse percebido e bem-estar psicológico, constatando-se ainda correlação positiva entre autoeficácia geral e bem-estar psicológico nos estudantes da LE.

Conclusão: O ambiente de transição para o ES é complexo e impactante para os estudantes, sendo fundamental desenvolver estratégias facilitadoras, que diminuir o impacto de fatores indutores de stresse e o sofrimento emocional nesta população.

Palavras-chave: enfermagem; ensino superior; estudantes; autoeficácia; stress; bem-estar psicológico

Resumen

Marco contextual: La transición a la educación superior (ES) representa una etapa crítica, con múltiples retos nuevos y exigentes, que pueden desencadenar dificultades adaptativas y desequilibrios en la salud mental de los estudiantes.

Objetivo: Describir la correlación entre las variables sociodemográficas/académicas y la autoeficacia general, el estrés percibido y el bienestar psicológico en estudiantes de primer curso de Enfermería (LE).

Metodología: Estudio descriptivo-correlacional, muestra no probabilística, tipo accidental de 263 estudiantes de primer curso de LE 2019/2020. Instrumentos: Cuestionario Sociodemográfico/Académico, Escala de Autoeficacia General, Escala de Estrés Percibido-10 Ítems, Escala de Medición de Manifestaciones de Bienestar Psicológico.

Resultados: Se observó una correlación negativa entre la autoeficacia general y el estrés percibido, entre el estrés percibido y el bienestar psicológico, y una correlación positiva entre la autoeficacia general y el bienestar psicológico en los estudiantes de LE.

Conclusión: El ambiente de transición a la ES es complejo e impactante para los estudiantes, y es esencial desarrollar estrategias facilitadoras para reducir el impacto de los factores que provocan estrés y angustia emocional en esta población.

Palabras clave: enfermería; enseñanza superior; estudiantes; autoeficacia; estrés; bienestar psicológico

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Introduction

The transition to higher education (HE) is considered a critical period, likely to create a vulnerable environment that accelerates the development of adjustment difficulties. This favors the occurrence of disorders and imbalances in students' mental health (MH), and represents a potential threat to their health and well-being (WB; Candeias et al., 2019).

The relevance of our study is based on the existence of a high prevalence of MH problems (stress, anxiety, and depression) in HE students, due to the greater exposure of this population to challenging situations and their vulnerability to stress-inducing events (Almeida, 2014). According to Silveira et al. (2011), students may perceive these moments of challenge and greater instability (changes in role performance, self-esteem, insecurity, anxiety, and depression) either as opportunities for individual growth or as moments of crisis that may lead to a partial or total loss of adequate levels of functioning during considerable periods of time.

Therefore, it is essential to obtain a broader and deeper knowledge of the MH of HE students, especially in terms of general self-efficacy (GSE), perceived stress (PS), and psychological well-being (PWB). This will enable educational institutions to develop conditions that facilitate and enhance students' abilities to make smooth and successful transitions. Our study aims to explore the relationship between three factors that influence and are integrated into the transition process to HE, namely GSE, PS, and PWB, and their association with socioeconomic/academic factors. Thus, the objective of our study is to determine the relationship between sociodemographic/academic characteristics, GSE, PS, and PWB in first-year undergraduate nursing students.

Background

In recent decades, HE in Portugal has gone through multiple changes, becoming increasingly diversified and massified, with new institutions, new institutional admission requirements, new programs and fields of education and training, and the admission of students with characteristics different from those traditionally observed (e.g.: age, socioeconomic background, and position in the labor market; Sá et al., 20-21).

Over the past years, the MH of HE students has progressively deteriorated (Silveira et al., 2011), with this population displaying a high prevalence of MH problems (26%; Hussain et al., 2013), such as: eating disorders, depression, sleep disorders, obsessive-compulsive disorders, post-traumatic stress disorders (Kang et al., 2021), anxiety (Hussain et al., 2013), suicidal ideation (Mortier et al., 2018), panic disorders, and self-harm behaviors (Eisenberg et al., 2013).

HE students belong to the age group in which the first manifestations of MH problems tend to occur (Akram et al., 2020), and it is particularly during the first year of study that there is a higher incidence of adjustment

and academic performance problems. These can lead to academic failure and dropping out (Teixeira et al., 2022). The Education at a Glance report shows that around 12% of HE students drop out during their first year, rising to 20% during the estimated duration of the course, and 24% over a period of 3 years in addition to the estimated duration of the course. These numbers are in line with the mean observed in the countries of the Organization for Economic Cooperation and Development (Organization for Economic Cooperation and Development, 2019). Lopes (2019) also points out that the first year of the course is when the highest number of HE students cancel their registration, mainly for personal (19.55%), professional (19.23%), economic (16.83%) and academic (16.03%) reasons.

Throughout the life cycle, people are faced with various changes from a particular previous state or condition to a future one (whether intended/planned or unexpected/uncontrollable) that trigger internal adaptation processes known as transitions (Meleis, 2007). Meleis (2007) defines these processes of individual adaptation to a change in state, condition or environment (related to a person's health, WB, and self-care capacity) as transitions and regards them as a focus of nursing action. Therefore, transitions can be considered as complex processes triggered by significant events or changes (from the moment the person anticipates them) that involve different dynamic states and significant moments for the person (Meleis, 2007). Moreover, transition processes are moments that are likely to have an impact on the subjective WB of the person, with effects that may persist for several years (Luhmann et al., 2012). If properly managed, transition processes tend to result in relatively rapid and positive adaptations, whereas less effective transitions tend to take longer to process and may even be maladaptive (possibly preventing the recovery of the previous levels of WB) (Lucas, 2007).

Bandura (1997) believes that people need to be able to learn and develop skills to meet the challenges they face throughout their life cycle, and underscores the role of educational institutions as a means of promoting their development. Self-efficacy beliefs are an essential aspect in the adjustment processes of students, since they determine the influence that individuals have on their actions, their ability to organize and execute, and the resilience they show when faced with difficulties (Bandura, 1997). As such, it is a dimension that interferes with students' adaptation, academic performance, and motivation (Teixeira & Ferreira, 2018).

Stress is a concept that is common to all people, resulting from the threats they face and their ability to protect themselves from them. When stress is present at a level that is considered acceptable, it allows people to cope with adverse situations, gives them a greater ability to process information and solve problems, and increases their motivation and productivity (Serra, 2011). However, high levels of stress can interfere with people's adequate functioning and WB, and can lead to the development of MH problems that affect their quality of life and productivity.



PWB in HE students is a relevant indicator of the overall functioning and MH of this population. It results from a balance between students' individual characteristics and behaviors and their socio-family network and living conditions. PWB is also essential for the development and academic success of students (World Health Organization, 2012). However, it is a dimension that has not been sufficiently studied in Portugal, as most Portuguese studies mainly address the negative dimensions of PWB. This raises doubts about the significance and predictive value of the sociodemographic, academic, and WB variables of students.

Hypotheses

H1 - There is a relationship between sociodemographic/academic characteristics and the variables GSE, PS and PWB in first-year undergraduate nursing students;

H2 - There is a relationship between sociodemographic/academic characteristics and PS in first-year undergraduate nursing students;

H3 - There is a relationship between sociodemographic/academic characteristics and PWB in first-year undergraduate nursing students;

H4 - There is a relationship between the variables GSE, PS and PWB in first-year undergraduate nursing students.

Methodology

In this descriptive-correlational study, a non-probability convenience sampling method was used to select 263 first-year undergraduate nursing students (out of a total of 380 students) from a Portuguese Nursing School in the 2019/2020 academic year. Students who were not enrolled in the first year of the undergraduate nursing program at the Nursing School in question and who did not show up to complete the data collection instrument were excluded from the sample. The questionnaires were self-administered and completed in person in the classroom on dates set by the researchers.

The data collection instrument consisted of a Sociodemographic/Academic Questionnaire (SDQ), the General Self-Efficacy Scale (GSES), the Perceived Stress Scale (PSS-10), and the Psychological Well-Being Manifestation Measure Scale (EMMBEP).

The SDQ included information on students' age, sex, marital status, and household composition, as well as questions on whether entering HE meant leaving home, who they lived with while at school, whether they participated in extracurricular activities (ECA), whether they worked, how they described their financial situation, satisfaction with the course and adaptation to the HE institution, and whether they needed psychological support.

The GSES was chosen to analyze GSE. It is a self-administered instrument based on the Self-Efficacy Scale developed by Sherer et al. (1982) to assess perceptions of GSE in young people and adults. This instrument was originally created to analyze GSE beliefs in the con-

text of a specific situation, as it has been demonstrated that experiences of self-control or mastery in certain situations enhance the beliefs of success. In addition, it was verified that the use of this instrument could be extended to other circumstances. Originally composed of 23 items, the adapted 15-item version consists of a seven-point Likert scale, with responses ranging from "strongly disagree" (one point, or seven points if the items are reversed) to "strongly agree" (seven points, or one point if the items are reversed; Pais-Ribeiro, 1995). The results can be evaluated globally (total sum of all items) or through a profile analysis of each of the three subscales that comprise it. In other words, a higher score in the responses obtained indicates a better feeling of GSE, and a lower score indicates a lower GSE belief (Pais-Ribeiro, 1995). The analysis of the psychometric qualities of this instrument revealed an overall Cronbach's alpha coefficient of 0.84, indicating a good internal consistency (Pais-Ribeiro, 1995).

The PSS-10 was used to analyze PS. This scale was developed by Cohen et al. (1983) and translated and adapted by Trigo et al. (2010) for the Portuguese population. It is a self-report stress instrument that allows to determine the extent to which life events are perceived by the person as sources of stress, considering their unpredictability and unmeasured or uncontrollable nature (Trigo et al., 2010). Internal consistency, as determined for the general population, yielded a Cronbach's alpha coefficient of 0.87 (compared to 0.78 for the original scale) (Trigo et al., 2010).

The EMMBEP, developed by Massé et al. (1998) and later translated, adapted and validated for the Portuguese population by Monteiro et al. (2012), was used to analyze the PWB. It has 25 items and can be divided into six subscales: self-esteem (four items), balance (four items), social involvement (four items), sociability (four items), control of self and events (four items), and happiness (five items). Responses are provided on a five-point Likert-type scale ranging from "never" (one point) to "almost always" (five points), where the higher the score obtained by summing all items, the higher the perceived level of PWB (Massé et al., 1998). The analysis of psychometric properties in the original study revealed that this instrument has a high level of reliability, with an overall Cronbach's alpha coefficient of 0.93 (Massé et al., 1998).

Regarding the ethical procedures, permission was obtained from the authors of the instruments, as well as the approval of the Ethics Committee and the President of the Nursing School involved in our study (Opinion No. 569/03-2019). Participants gave their free and informed consent and were assured of the confidentiality and anonymity of the data collected. They were also thanked for their cooperation.

Data were processed using IBM SPSS Statistics software, version 27.0 for Windows.

The statistical analysis of the results included descriptive statistics and the use of nonparametric statistical tests (Mann-Whitney/Kruskal-Wallis test) and parametric tests (Pearson's correlation coefficient) to present confirmed and rejected hypotheses. First, to determine the relation-

ship between sociodemographic/academic variables and GSE, PS and PWB, the averages for GSE (GSES_avg), PS (PSS-10_avg) and PWB (EMMBEP_avg) were calculated (for each individual). The Mann-Whitney or the Kruskal-Wallis test was then used, with a significance level of less than 10% (p -value < 0.1). The use of nonparametric tests, namely the Mann-Whitney or the Kruskal-Wallis test, was due to the fact that the variables under study did not follow a normal distribution (Kolmogorov-Smirnov test with a significance level of less than 0.05 [$p < 0.05$]). Finally, considering that these are quantitative variables in which it is assumed that there is a linear relationship between them and that the strength of the relationship between them can be measured, Pearson's correlation coefficient was used to analyze the correlation between GSE, PS and PWB, considering for this purpose the averages for GSE (GSES_avg), PS (PSS-10_avg) and PWB (EMMBEP_avg).

Results

The sample consisted of 263 students - 213 women (81%) and 50 men (19%), with a mean age of 18.86 years and a median age of 18 years. Of the students in the sample, 97.3% were single, 2.3% were married or in a *de facto* union, and 0.8% were divorced; 3% had children, and the household of most students consisted of parents and siblings (59%). For 89% of the students, it was their first time at HE and 68% had to leave home to study (of these, 78% visited their families every weekend and only five said they did so only during holidays). During the semester, 60% of students lived with friends/colleagues and 32% with their families.

About 35% of the students participated in ECA (especially sports and recreational activities), spending an average of 4.52 hours per week.

Of the participants, 62% considered their financial situation to be average, 27% considered it to be good, and 8% considered it to be bad or very bad. In addition, 8% of the respondents worked.

Regarding the adaptation to the HE institution, 67.3% of the students considered themselves as adapted and 16.3% as totally adapted, while 0.8% classified themselves as not adapted or totally not adapted. Regarding the need for psychological support, the vast majority of students (86%) reported that they had never sought

psychological support.

Following the application of the Mann-Whitney or the Kruskal-Wallis test (p -value < 0.1), statistically significant differences were found between GSE and the variables indicating who they lived with while at school, whether entering HE involved leaving home, their participation in ECA, their work situation, the level of adaptation to HE and the level of satisfaction with the course. With regard to PS, there were statistically significant differences in the following variables: sex, whether entering HE involved leaving home, who they lived with while at school, their participation in ECA, level of adaptation to the HE institution, level of satisfaction with the course and need for psychological support. Regarding PWB, there were statistically significant differences in the following variables: sex, whether entering HE involved leaving home, who they lived with while at school, their participation in ECA, financial situation, level of adaptation to the HE institution and level of satisfaction with the course. In order to determine the relationship between GSE, PS and PWB, Pearson's correlation coefficient was calculated between the three variables - GSES_avg, PSS-10_avg and EMMBEP_avg. In this analysis, $p = 1$ indicated a perfect positive correlation between the two variables, $p = -1$ indicated a perfect negative correlation between two variables and $p = 0$ indicated that the two variables were not linearly dependent on each other (there could be a non-linear dependence, but the result should be further investigated using other means).

The results shown in Table 1 suggest the existence of a moderate negative correlation between GSE and the level of PS ($r = -0.584$; Table 1). This shows that higher levels of GSE reflect lower levels of PS, confirming that "There is a relationship between GSE and PS in first-year undergraduate nursing students". There was a moderate positive correlation between GSE and PWB ($r = 0.686$), with the higher the average level of GSE, the higher the average level of PWB (Table 1), confirming that "There is a relationship between GSE and PWB in first-year undergraduate nursing students". The analysis of these results also showed that there is a strong negative correlation between PS and PWB ($r = -0.769$), with the lower the level of PS, the higher the level of PWB, confirming that "There is a relationship between PS and PWB in first-year undergraduate nursing students".

Table 1

Pearson's correlation coefficient between GSES_avg, PSS-10_avg and EMMBEP_avg

	GSES_avg	PSS-10_avg	EMMBEP_avg
GSES_avg	1.000	-0.584	0.686
PSS-10_avg	-	1.000	-0.769
EMMBEP_avg	-	-	1.000

Note. avg = average; GSES = General Self-Efficacy Scale; PSS-10 = Perceived Stress Scale (10 items); EMMBEP = Psychological Well-Being Manifestation Measure Scale.



Discussion

Our study used a methodology considered appropriate. Its sample size was also adequate because it included the majority of students enrolled in the first year of the undergraduate nursing program at the selected Nursing School. However, our study is limited by the fact that the sample included students from only one HE institution and only one subject area. For this reason, it would be interesting to replicate the study with a larger sample size and a greater number of HE institutions from different fields of knowledge.

The cross-sectional nature of our study is another limitation since students' beliefs about GSE, PS, and PWB are changeable and may vary during the year of entry, during the course, or even after graduation, making the results obtained in this study applicable only to the time of data collection. Therefore, it would be of interest to replicate this research in the final year of the undergraduate nursing program or after its completion to determine if there are any changes in the results obtained.

The choice of data collection instruments was deemed appropriate, as they were duly validated for the Portuguese population, showed high levels of internal consistency and reliability, and allowed for adequate self-assessment and honesty in the responses obtained.

The results obtained show that there is a moderate negative correlation between GSE and the level of PS, such that the higher the average level of GSE of HE students, the lower the average level of PS. According to Burger and Samuel (2017), the higher the level of GSE, the lower the person's perception of stress, considering that high levels of GSE tend to neutralize the way people perceive stress and the negative effects it has on their lives.

On the other hand, there was a moderate positive correlation between GSE and PWB, considering that the higher the average level of GSE, the higher the average level of PWB. According to Şahin and Çetin (2017), GSE is a predictor of how people perceive stress and can be considered as one of the main determinants of students' adequate adaptation to HE.

Regarding the relationship between PS and PWB, the results obtained indicate the existence of a strong negative correlation between the two variables. In this analysis, stress can positively condition students' growth and motivation when they perceive experiences as challenges rather than threats (Tedeschi et al., 1998). However, it can also negatively affect students by making it more difficult for them to adapt to the academic context (Gall et al., 2000). It is therefore pertinent to consider the results obtained in this study, bearing in mind that the focus of the intervention should not be only to reduce the negative effects of stress, but also to promote the enhancement of positive aspects and successful experiences (Keane & Morgan, 1991), in order to foster personal WB and the academic, social and professional success of students.

Conclusion

The results of our study allow us to conclude that there are sociodemographic and academic factors that condition students' levels of GSE and PWB and the way they perceive stress. We also observed a negative correlation between GSE and PWB, as high levels of GSE condition the way stress is perceived by the person, neutralizing its harmful effects. However, if the person has fewer strategies for dealing with adverse events (lower levels of GSE), this tends to increase their vulnerability.

The negative correlation between PS and PWB leads to the conclusion that if students perceive moments of greater vulnerability as opportunities for growth (rather than threats), they will be more capable during their transition to HE, thereby increasing personal development and levels of PWB. In addition, students with high levels of PWB find it easier to cope with difficulties and thus have lower levels of PS.

The positive correlation between GSE and PWB allows us to conclude that when students have a positive perception of GSE, they consider themselves capable of responding to the challenges they face, thus increasing their levels of PWB. Therefore, how people perceive stress can affect their MH and WB. For this reason, it is crucial to develop strategies that enable students (especially first-year students) to cope with stress-generating events (inherent in the transition to HE), enhancing their levels of GSE, minimizing their levels of stress, and promoting higher levels of PWB.

In this context, it is essential to highlight the differentiating action taken by the Nurse Specialist in Mental Health and Psychiatric Nursing (EESMP), who provides therapeutic support to students, favors the development of a consistent therapeutic relationship, and contributes to the improvement of health literacy and the promotion of students' MH, helping them to develop their self-awareness to understand the imbalances that make it impossible for them to reorganize and grow personally.

Author contributions

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