

**ORIGINAL ARTICLE** 

https://doi.org/10.1590/1980-220X-REEUSP-2021-0209

# Role of sociodemographic factors and self-efficacy in the perception of social support of nursing students

Papel dos fatores sociodemográficos e da autoeficácia na percepção de apoio social de graduandos de enfermagem

Rol de los factores sociodemográficos y de la autoeficacia en la percepción de apoyo social de estudiantes de graduación en enfermeira

#### How to cite this article:

Ferreira RT, Gonçalves JS, Oliveira JL, Santos MVDR, Baldassarini CR, Souza J. Role of sociodemographic factors and self-efficacy in the perception of social support of nursing students. Rev Esc Enferm USP. 2021;55:e20210209. https://doi.org/10.1590/1980-220X-REEUSP-2021-0209

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### **ABSTRACT**

Objective: To analyze the role of sociodemographic factors and self-efficacy in the perception of social support by nursing students of the first years of nursing school. Method: This is a quantitative cross-sectional research, developed with 121 undergraduate students from the early years of the course. A sociodemographic questionnaire, the Higher Education Self-Efficacy Scale and the abbreviated version of the Social Support Questionnaire were used. Spearman and Mann-Whitney correlation tests were performed using software for statistical analysis. Results: It was identified that students with better self-efficacy and who are self-declared black or brown reported, respectively, greater satisfaction with the support and a smaller number of supporters. Conclusion: Considering that the race/color factor had a negative influence and self-efficacy a positive influence in the perception of social support, it is recommended that mental health promotion strategies be conducted that permeate both affirmative action policies and improvements in the teaching-learning process, especially in the first years of the nursing course.

### DESCRIPTORS

Self Efficacy; Social Support; Students; Nursing; Mental Health; Health Promotion.

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Received: 05/04/2021 Approved: 07/26/2021

Rev Esc Enferm USP · 2021;55:e20210209

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## **INTRODUCTION**

Higher education entry is marked by numerous affective, cognitive, and social challenges, but it is also an important provider of useful experiences, both for personal development and for professional training<sup>(1-2)</sup>.

Passing the entrance exam, especially in public universities, represents an important achievement; however, it is also inevitable that freshmen face difficulties in dealing with situations such as moving to another city to attend the chosen college, homesickness, autonomy and responsibility when dealing with finances, adaptation to the new environment, the new people, and the new routine and way of studying, which will require greater dedication and more independent decision-making<sup>(1-2)</sup>.

Despite the general challenges, this transition is unique for each student and the development of healthy coping mechanisms is of paramount importance. In this regard, social support and self-efficacy have been described as facilitators of the adaptation process of individuals during transition periods, as they promote improvements in mental health and increase the sense of safety and well-being, besides favoring processes of resilience<sup>(2-4)</sup>.

Student support networks are of great importance for the management of stressful situations, both in the transition period and in academic adaptation, and the lack of supporters can contribute to worse time management and less planning and organization of studies, involving issues related to autonomy, self-regulation, academic motivation, and success at the end of the first year<sup>(5-7)</sup>.

Several studies with students, nationally and internationally, have considered the role of both social support and self-efficacy in well-being<sup>(4)</sup>, in the adoption of healthy lifestyle habits<sup>(5-6)</sup>, in coping with negative situations<sup>(8)</sup>, academic performance<sup>(9-10)</sup>, in physical<sup>(11)</sup> and mental health<sup>(3)</sup>, with some of these studies being developed with students of primary education or high school<sup>(5-6,8)</sup>. Among the recent studies that are based on this idea of synergy between social support and self-efficacy and that were developed with university students<sup>(3-4,9-11)</sup>, some considered several courses together<sup>(4,9)</sup> or students from courses other than nursing<sup>(3,10-11)</sup>.

Thus, the need to increase studies on this topic, specifically involving nursing students, is an important aspect, given the particular stressors of this course, namely, the curriculum that includes theoretical activities, laboratory practices, and immersion in the practice scenario, performance of care actions to different populations, constant evaluation, continuous contact with human suffering, and the still culturally low prestige of the occupation<sup>(1,8)</sup>.

Another specificity to be considered is related to the characteristics of the first-year students in the course, as researchers have emphasized the period of adaptation to the environment, curriculum structure, schedule, and the nuances of health work as important challenges in the early years of the course<sup>(12–13)</sup>.

Furthermore, these studies on the phenomenon in question have focused on the synergy of self-efficacy

constructs as an internal resource and social support as an external resource, without necessarily contextualizing such resources in relation to cultural background (such as ethnicity) or other sociodemographic aspects (such as the students' gender and age group).

Given this gap, this study aims to analyze the role of sociodemographic factors and self-efficacy in the perception of social support by nursing students of the first years of nursing school.

# **METHOD**

# **DESIGN AND LOCAL OF STUDY**

This is a cross-sectional quantitative study, carried out on a campus of a public university in an inland city of the state of São Paulo, Brazil.

# POPULATION, SELECTION CRITERIA AND SAMPLE

The study population consisted of students from the first and second years of the undergraduate nursing course at that institution. Eligibility criteria were: students enrolled in the initial years of the undergraduate nursing course and who were over 18 years. The invitation to participate in the study was made in person in the classrooms, through a written invitation given to students during classes breaks.

During the period of the study, the total number of nursing students was 591; of these, 240 students made up the listed population. All students of this population were invited to participate in the study (N = 240), 8% of them were under 18 years of age and 54.8% of those eligible accepted the invitation. Regarding refusals, the alleged reason was lack of time or participation in another research in the same period. Thus, the final sample consisted of 121 students.

# **DATA COLLECTION**

Data collection was carried out from April to June 2019 by three nursing students (two undergraduates and one doctoral student) previously trained for this purpose. The self-reported questionnaires were distributed among the students in the sample (n = 121) along with the Free Informed Consent Form. All students returned the completed questionnaires.

Information on the sociodemographic profile, social support, and self-efficacy was collected through the instruments: sociodemographic questionnaire, the short version of the Social Support Questionnaire (SSQ6) $^{(14)}$  and the Higher Education Self-Efficacy Scale (AEFS) $^{(15)}$ .

The sociodemographic data questionnaire was designed by the researchers considering the minimum indicators described by the Brazilian Institute of Geography and Statistics<sup>(16)</sup> and contained information on participants' sex, age and color.

The SSQ6 consists of six questions analyzing the number of people who make up the individual's social network (SSQN score) and the degree of satisfaction with the perceived social support (SSQS score)<sup>(14)</sup>. The individual shall list up to nine people per question, and may also answer "no one", and rate their satisfaction with the support in each

situation listed in the questions based on a six-point Likert scale, in which six corresponds to "very satisfied" and one to "very dissatisfied". This instrument has high values of internal consistency, assessed by Cronbach's alpha, which ranged from 0.90 for the SSQN and 0.93 for the SSQS, and has been validated for use in Brazil<sup>(14)</sup>.

The AEFS, developed and validated in Brazil, contains 34 items related to the trust perceived by the participant in five dimensions: academic, training regulation, social interaction, proactive actions, and academic management<sup>(15)</sup>. Cronbach's alpha obtained in the different dimensions were, respectively, 0.88, 0.87, 0.80, 0.85, and 0.80.

Each item has as an answer option a Likert scale from 0 to 10. The calculation of the average of the items corresponding to each dimension composes the scores per dimension. The overall score was obtained from the score average of the different dimensions, with a mean value of 5.5. That is, means below this value would indicate weak self-efficacy beliefs; between 5.5 and 6, fragile beliefs; and means above 7 would suggest strong beliefs<sup>(15)</sup>. Appropriate authorizations were obtained for the use of the scales by the research group.

### **DATA ANALYSIS AND TREATMENT**

The data obtained were tabulated in an Excel for Windows spreadsheet and double-entered by the researchers involved, to validate and obtain reliable and error-free data. Following this first step, the spreadsheet was taken to a definitive database in the IBM® SPSS software, version 23.0, in which the analyses were conducted.

At first, the characterization of the participants' profile was carried out, with the description of the sociodemographic data of the study population, using descriptive statistics, such as simple frequency, measures of central tendency (mean and median) and measures of variability or dispersion (standard deviation, minimum and maximum).

Subsequently, the normality test was performed to obtain the distribution of the scores of the instruments used. Since the distribution of the analyzed variables was not normal, non-parametric tests were used, namely: Spearman's correlation, considering the social support scores (number and satisfaction) and the global scores and the different dimensions of the self-efficacy scale; and Mann-Whitney test for social support scores (number and satisfaction), age (dichotomized in up to 20 years and more than 20 years), color (dichotomized in white/yellow and black/brown) and sex (male or female). An alpha of 0.05 was adopted.

# **ETHICAL ASPECTS**

The project was submitted to the Research Ethics Committee of the Nursing School of Ribeirão Preto of the Universidade de São Paulo and was approved by Opinion No. 20 of February 06, 2019. The research development followed the guidelines and regulatory standards for research involving human beings, as established by Resolution No. 466/2012 of the National Health Council.

**Table 1** – Difference among social support scores according to the participants' sociodemographic characteristics – Ribeirão Preto, SP, Brazil, 2019 (n = 121).

Variables	n (%)	satisfact	re of ion with support	Score of number of supporters		
		Rank mean	<b>p</b> *	Rank mean	<b>p</b> *	
Sex						
Female	103(85.1)	61.99	0.442	63.37	0.073	
Male	18(14.9)	55.36	0.443	47.42		
Age range						
Up to 20 years	79(65.8)	60.69		60.85	0.878	
More than 20 years	41(34.2)	60.14	0.931	59.83		
Color <sup>†</sup>						
White/Yellow	93(76.9)	62.04	0.536	64.51	0.043	
Black/Brown	28(23.1)	57.54	0.336	49.34	0.043	

<sup>\*</sup> Mann-Whitney test; † White/Yellow Students – average number of supporters referred to 6.28; minimum 2; maximum 13; Black/Brown – average number of supporters referred to 5.21; minimum 1; maximum 9.

# **RESULTS**

As for the sociodemographic characteristics of the 121 study participants, there was a predominance of women; age ranged from 18 to 28 years, with a mean of 20.1 years (sd = 2.30); 76.9% self-declared being white and, regarding financial dependence, 95% (n = 115) depended on their parents to stay on the course.

Students showed an average of 6.03 supporters (sd = 2.41) and an average score of satisfaction with support of 5.21 (sd = 1.12). The number of supporters was statistically different only in relation to color, that is, students who self-declared being black or brown had fewer supporters (Table 1).

Regarding self-efficacy, the mean global score was 8.14 (sd = 1.30) and minimum and maximum values, respectively, 3 and 10. The specific mean scores for each dimension are shown in Figure 1.

Self-efficacy, in all dimensions evaluated, was positively correlated with satisfaction with social support (Table 2), with emphasis on the academic dimension (perceived confidence in the ability to learn, demonstrate, and apply the course content). Despite this, there was no correlation between self-efficacy and the number of supporters (Table 3).

## **DISCUSSION**

Despite some authors pointing out that the interpersonal relationships that make up a social network tend to be homogeneous in several aspects such as sex, age, education, religion, and ethnicity<sup>(17–18)</sup>, in the group studied, only the participants' ethnicity showed to be relevant in relation to the perception of social support.

Considering that the number of black/brown students in public universities is still small, this result may reflect the finding of a previous study developed with medical students,

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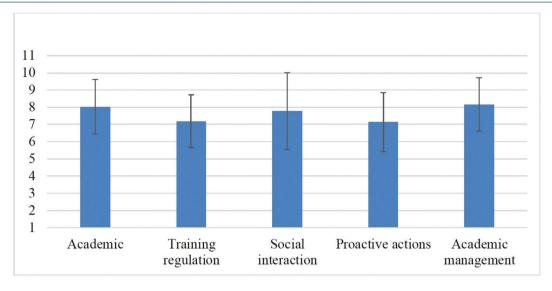


Figure 1 – Mean and standard deviation of the score of the dimensions of the self-efficacy scale – Ribeirão Preto, SP, Brazil, 2019 (n = 121).

**Table 2** – Correlation between the social support satisfaction score and the dimensions of the self-efficacy scale – Ribeirão Preto, SP, Brazil, 2019 (n = 121).

	Score of satisfaction with social support	Academic dimension	Training regulation dimension	Social interaction dimension	Proactive actions dimension	Academic management dimension	AEFS score*
Score of satisfaction with social support	1.000						
Academic dimension	0.337+	1.000					
Training regulation dimension	0.205 <sup>‡</sup>	0.543 <sup>+</sup>	1.000				
Social interaction dimension	0.301 <sup>+</sup>	0.663 <sup>†</sup>	0.671 <sup>†</sup>	1.000			
Proactive actions dimension	0.229 <sup>‡</sup>	0.541+	0.573 <sup>+</sup>	0.576 <sup>+</sup>	1.000		
Academic management dimension	0.257 <sup>+</sup>	0.558 <sup>+</sup>	0.521 <sup>†</sup>	0.595+	0.504 <sup>+</sup>	1.000	
AEFS score*	0.295+	0.811+	0.814 <sup>+</sup>	0.795+	$0.696^{+}$	0.637+	1.000

Spearman's correlation; \* AEFS = Higher Education Self-Efficacy Scale; † Correlation is significant at the 0.01 level (two-tailed); † Correlation is significant at the 0.05 level (two-tailed).

**Table 3** – Correlation between the number of supporters and the dimensions of the self-efficacy scale – Ribeirão Preto, SP, Brazil, 2019 (n = 121).

	Score of number of nupporters	Academic dimension	Training regulation dimension	Social interaction dimension	Proactive actions dimension	Academic management dimension	AEFS score*
Score of number of supporters	1.000						
Academic dimension	-0.004	1.000					
Training regulation dimension	-0.165	0.543 <sup>†</sup>	1.000				
Social interaction dimension	-0.017	0.663 <sup>†</sup>	0.671 <sup>†</sup>	1.000			
Proactive actions dimension	-0.050	0.541+	0.573 <sup>†</sup>	0.576 <sup>†</sup>	1.000		
Academic management dimension	0.021	0.558 <sup>+</sup>	0.521†	0.595+	0.504 <sup>+</sup>	1.000	
AEFS score*	-0.106	0.811+	0.814 <sup>+</sup>	0.795 <sup>†</sup>	$0.696^{+}$	0.637+	1.000

Spearman's correlation; \* AEFS = Higher Education Self-Efficacy Scale; \* Correlation is significant at the 0.01 level (two-tailed).

in which the authors identified a tendency to "homophily" in the constitution of the participants' support network, that is, they often named people of their own ethnicity as part of their support network<sup>(17)</sup>.

The black students' interpersonal relationships were also indicated, in a previous study, as source of stress, as they felt underrepresented in relation to their specificities, an also because of the low sensitivity on the part of employees and teachers regarding sociocultural differences related to the question of race/color<sup>(18)</sup>.

Thus, it should be noted that, in the sample studied, only 23.1% of the participants self-declared being black/brown and, even considering the fact that we had a convenience sampling, a reflection about the insertion of this group in the university is urgently required, as it is still well behind the representation of this population, since 34.5% of São Paulo residents are black<sup>(19)</sup>. These data support the premise that affirmative action policies related to admission to public universities, as well as student permanence policies with prioritization of this group, would certainly provide the strengthening of black students' identity, contributing to peer recognition and, consequently, for the possible expansion of their support networks.

Such policies are legitimized by the recognition of structural racism as a determining factor permeating these students' life history. Structural racism results from the normal functioning of society and is constituted in political, economic, legal, and family relationships<sup>(20)</sup>. Thus, it is important to evaluate how racial violence, a consequence of this racist social structure, can be reflected in the establishment of interpersonal relationships that can also be perceived as a source of social support<sup>(21)</sup>.

In addition, considering that most participants were women, this discussion shall include the issue of intersectionality, which specifically concerns the way in which racism, patriarchy, class oppression, and other discriminatory systems create basic inequalities, structuring social positions<sup>(22)</sup>. This fact is evidenced when these systems place black and brown students in a difficult situation, forged by race and gender, of lack of social support.

Given the above, one can understand that this result may reflect the scarcity of support networks for black and brown students, evidencing an important psychosocial need to be considered at the university level, which can unfold in negative experiences of this group throughout its academic pathway, and even reflect in fewer opportunities after they finish the course, based on the results pointing to the importance of support networks also for insertion in the labor market<sup>(23–24)</sup>. Thus, this important finding highlights the relevance of further research on how support networks specifically for black and brown students are formed, as well as the proposal of mental health promotion strategies that sensitively address the specificities of this group.

In contrast, when considering the total sample, it was identified that most students were satisfied with their support networks and, in this regard, there was no difference among the participants according to the analyzed sociodemographic characteristics. The fact that the variable "satisfaction with

support", although being part of the same construct, is different from "number of supporters", was considered controversial, given that the number of supporters is described by classical researchers on this topic as an important predictor of satisfaction with support<sup>(14,25)</sup>. Some recent studies with other populations reinforce this evidence, pointing out that networks with more supporters increase the chances of the individual having more confident, interested, and less directive people<sup>(26–27)</sup> to count on. Nonetheless, there are also results in recent literature that are similar to those of the present study, which have suggested that satisfaction with support assumes greater relevance as an analysis variable in studies on quality of life and health<sup>(8,28)</sup>.

Therefore, future studies are recommended that make an in-depth identification of current support satisfaction predictors, considering specific groups, especially with black or brown nursing students who, in the case of the present study, stood out in terms of reduced number of supporters. In addition, it is recommended that investigations on the subject also consider other characteristics that possibly act as mediators or moderators of the variables adopted in this study, in view of the numerous evidences on the importance of mediation and moderation relationships in processes related to provision and perception of social support<sup>(7,29–30)</sup>.

As for self-efficacy, most students had average scores above eight, indicating strong beliefs about their abilities to deal with everyday demands, corroborating the findings of other studies that identified a good perception of self-efficacy in the population of university students in general<sup>(1,2)</sup>. It is understood that this is an important indicator of the psychosocial health of nursing students in the new context of life, as self-efficacy is one of the dimensions that make up the psychological resources for coping and problem solving<sup>(1,2)</sup>.

The results of this study also showed a positive correlation between satisfaction with social support and the dimensions of self-efficacy, especially the academic one. That is, the greater the students' self-efficacy, the greater their satisfaction with social support. A study developed with medical students analyzing these variables<sup>(3)</sup> did not present results on the correlation among them, emphasizing the need for future studies that undertake such analyses to contribute to a more robust body of evidence.

Regarding the particularity of the population in this study, first-year nursing students, it should be noted that the candidate/vacancy ratio in courses of the health area tends to be higher than in other areas, such as humanities and sciences; therefore, the low percentage of black or brown students in the studied sample may, in a way, reflect the issue of access specifically to this undergraduate course. In contrast, considering the specific stressors of this course, this phase of the course, and even of this profession, it is understood that students have overcome the challenges at the expense of the resources they have to face them, denoting nuances of a resilient profile for this phase of the life cycle. However, it can be observed that nursing students could benefit even more from a more qualified support network, given its consequences in self-efficacy, as well as its protective role in mental health and in the coping with adversities (5-7,9-11).

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Important contributions to practice shall be taken from this study, especially with regard to possible institutional strategies aimed at improving supportive relationships in the academic context.

The findings point to the need to know the profile and characterization of students, both in relation to sociodemographic factors and psychosocial factors (self-efficacy, social support network, among others), as university students have particularities and specific stressors related to the undergraduate studies context. Mental health promotion strategies for such students shall be sensitive to such factors.

The limitations of the study refer to data collection in a single institution and the sample size resulting from the large number of refusals. For future studies, the development of research with designs allowing the comparison of students from different stages of the nursing course is suggested, so that more accurate evidence on the specificities of these subgroups is provided. We also suggest the inclusion of a qualitative step that could investigate the feelings and

perceptions of black nursing students about their support networks and psychosocial health in academic contexts.

## **CONCLUSION**

The present study started from the proposition that self-efficacy, color, sex, and age would play a relevant role in the perception of social support in a sample of students from the early years of undergraduate course in nursing. It was identified that higher self-efficacy and the question of race-color assumed a relevant role regarding the perception of social support of the group studied. That is, students with better self-efficacy and self-declared black/brown reported, respectively, greater satisfaction with the support and less supporters. It appears that proposals focused on improving the social support of the students in question shall permeate both affirmative policies and actions promoting the increase in the ability to learn, demonstrate, and apply what was learned in the course.

### **RESUMO**

Objetivo: Analisar o papel dos fatores sociodemográficos e da autoeficácia na percepção de apoio social de estudantes dos anos iniciais da graduação em enfermagem. Método: Pesquisa transversal quantitativa, desenvolvida com 121 graduandos dos anos iniciais. Utilizouse questionário sociodemográfico, a Escala de Autoeficácia no Ensino Superior e a versão abreviada do Questionário de Suporte Social. Foram empreendidos os testes de Correlação de Spearman e de Mann-Whitney por meio de software para análise estatística. Resultados: Identificou-se que os estudantes com melhor autoeficácia e que se autodeclararam pretos ou pardos referiram, respectivamente, maior satisfação com o apoio e menor número de apoiadores. Conclusão: Considerando que o fator raça/cor influenciou negativamente e a autoeficácia positivamente a percepção de apoio social, recomenda-se que sejam conduzidas estratégias de promoção da saúde mental que perpassem tanto as políticas afirmativas quanto melhorias do processo de ensino-aprendizagem, sobretudo nos primeiros anos do curso de enfermagem.

### **DESCRITORES**

Auto eficácia; Apoio social; Estudantes; Enfermagem; Saúde Mental; Promoção da Saúde.

### RESLIMEN

Objetivo: Analizar el rol de los factores sociodemográficos y de la autoeficacia en la percepción de apoyo social de estudiantes de años iniciales de la graduación en enfermería. Método: Investigación transversal cuantitativa, desarrollada con 121 estudiantes de graduación de los años iniciales. Se utilizó encuesta sociodemográfica, la Escala de Autoeficacia en la Enseñanza Superior y la versión sucinta de la Encuesta de Soporte Social. Fueron emprendidos los testes de Correlación de *Spearman* y de *Mann-Whitney* a través de software para análisis estadístico. Resultados: Se identificó que los estudiantes con mejor autoeficacia y que se auto declararon negros o pardos relataron, respectivamente, mayor satisfacción con el apoyo y menor número de apoyadores. Conclusión: Teniendo en cuenta que el factor etnia/color influyó de forma negativa y la autoeficacia de forma positiva la percepción de apoyo social, se recomienda que sean conducidas estrategias de promoción de la salud mental que aporten tanto las políticas afirmativas como mejorías del proceso de enseñanza-aprendizaje, sobre todo en los primeros años del curso de enfermería.

### DESCRIPTORES

Auto eficacia; Apoyo Social; Estudiantes; Enfermería; Salud Mental; Promoción de la Salud.

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### **Financial support**

Conselho Nacional de Desenvolvimento Científico e Tecnológico – CNPq [422244/2018-0] and Coordenação de Aperfeiçoamento de Pessoal de Nível Superior – Financing Code 001.

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www.scielo.br/reeusp Rev Esc Enferm USP · 2021;55:e20210209