

Quality of life of masters and doctoral nursing students

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ABSTRACT

This study aimed at analyzing the quality of life and its predictors among masters and doctoral nursing students. A cross-sectional study with 129 graduate students of three public universities of the South Region of Brazil. For data collection, a questionnaire was used for characterization and the *WHOQOL-Bref*. The data was analyzed using descriptive and multiple statistics. The physical quality of life had the highest median value, and the social relationships had the lowest. Sedentarism, dissatisfaction with the research theme, difficulty to conciliate studies and social life, smoking, consumption of alcoholic beverages, concern with the deadline to finish the program and, dissatisfactory relationship with professors were significantly associated with lower quality of life perceptions. There were indications that the *stricto sensu* training had a negative impact on the quality of life of interviewed students, considering most associated factors negatively that influenced it were variables related to the academic context.

Descriptors: Quality of Life; Education, Nursing, Graduate; Students, Nursing.

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INTRODUCTION

The *stricto sensu* nursing graduate program started in the United States of America (USA) in the decade of 1930, with the creation of the first masters and doctoral programs. During these eight decades, the expansion of this educational level for nurses has been a global phenomenon. In Brazil, it emerged in 1972, with the creation of the master's course in the Nursing School Anna Nery, of the Federal University of Rio de Janeiro. In 1981, the first doctoral course stated: the Inter-units Nursing Doctoral Program, a partnership of the Nursing School with the Ribeirão Preto College of Nursing, both from the University of São Paulo⁽¹⁻³⁾.

At the beginning of 2018, there were 76 Graduate Programs in Brazil related to Nursing (PPGEnf), which offered 112 courses, being 51 academic master's, 38 doctoral and 51 were professional master's programs⁽⁴⁾. These programs aimed to deepen the knowledge in the field and to qualify nurses for teaching, research and nursing assistance⁽³⁾.

With such goals to achieve, masters and doctoral students are inserted in many activities, such as: to take credits related to theoretical disciplines; to teach classes to other levels of education; to participate in research groups and in projects of their supervisors, as well as, to participate in the supervision of students taking scientific initiation under their supervisors and course conclusion work; to publish research results as scientific papers and presentations in scientific conferences; to elaborate their dissertation/thesis, within others. Thus, the *stricto sensu* training, due to its numerous activities requested from students, many times in concomitance with their work and domestic tasks, can overload students and to cause a negative repercussion in their physical and mental wellbeing and, as consequence, to interfere in their quality of life (QoL)⁽⁵⁻⁶⁾.

The QoL definition is broad, multidimensional and should be interpreted according to the subjective perception of each person, regarding satisfaction with many aspects of life, including physical and psychological conditions, social relationships and living environment⁽⁷⁾. Considering its scope, there are many concepts for this expression. Therefore, in this study the adopted concept was proposed by the World Health Organization (WHO) that conceptualizes QoL as "the individual's perception of their position in life in the context of the culture and value systems which they live and in relation to their goals, expectations, standards and concerns"⁽⁸⁾.

Studies about people's QoL have brought up the interest of researchers, in paths related to clinical conditions, occupational classes and in the process of professional training, as it is temporal and influenced by experienced circumstances. In the scope of professional training in the nursing field, only studies including undergraduate students were found⁽⁹⁻¹¹⁾. In this context, the QoL was associated to the satisfaction of basic human needs (health, leisure, rest) and of individual expectations, of pleasure and well-being, as well as the experience lived at the university⁽¹⁰⁾. Besides, the personal satisfaction during the training process seems to be strictly related to the QoL perception⁽¹¹⁾.

Thus, to investigate the QoL of master's and doctoral nursing students will provide information about their well-being perspectives, needs, difficulties, within other important factors that are little known due to the lack of studies with these individuals⁽⁵⁾. The knowledge generated from this study will be able to subsidize the development of strategies to promote QoL of these graduate students, to produce a favorable learning environment and, academic training for researchers.

Facing these considerations, this study objective was to analyze the quality of life and its predictors among masters and doctoral nursing students.

METHODS

This is a cross-sectional analytical-descriptive study conducted between November 2014 and February 2015, in the academic courses of masters and doctoral levels of three PPGEnf of public universities located in the South Region of Brazil. All included programs in this investigation are recognized by the Brazilian Coordination for the Improvement of Higher Education Personnel (CAPES).

The study population was constituted by masters, and doctoral students enrolled in the referred PPGEnf programs. To select participants, the following eligibility criteria were adopted: to have an undergraduate degree in nursing and to be enrolled in credits of theoretical disciplines and/or in the elaboration phase of the dissertation/thesis.

During the data collection period, there were 165 nurses enrolled in the referred courses. Based on this number, the sample was calculated with an error margin of 5%, level of significance of 95% and proportion of 50%, which resulted in a minimum number of 115 graduate students. Considering the proportional stratification by course, it was defined the minimal participation of 72 master's and 43 doctoral students.

To characterize the participants, a semi-structured questionnaire was created with socio-demographic (sex, marital status, children, age, family income), academic (daily hours destined to study, partial or exclusive dedication to the course, satisfaction with the research theme, difficulty to balance studies and personal life and concern with the deadline to conclude the course), occupational (work bond and work location) and life habit variables (physical activity, consumption of alcoholic beverages and smoking). This questionnaire was refined by three professors, who were doctors in nursing and researchers of the QoL theme, who verified the clarity, objectivity, and pertinence of questions related to the study objective.

To analyze the QoL, the World Health Organization Quality of Life Assessment Instrument – Bref (WHOQOL-Bref) was used, an instrument developed by the QoL Group of the WHO and validated in Brazil in 2000, that presented good reliability, with a Cronbach's alpha coefficient of 0.91⁽⁷⁾. This is a self-reported questionnaire constituted by 26 items, and two items refer to the general QoL (QoL assessment and health satisfaction – overall) and the other domains relate to four domains: physical, psychological, social relationships and environment, which answers are provided in a 5-point Likert-type scale. After re-coding the negative responses into positive, the domain scores are individually transformed through the expression: $((\bar{x} \text{ domain} * 4) - 4) * (100/16)$, resulting in a linear scale varying from zero to 100. Thus, the higher the scoring, the better the QoL.

The two questionnaires constituted the research instrument, and they were published on an internet site. An e-mail was sent to all graduate students with the invitation to participate in the study, already providing the link to direct them to the Free and Informed Consent Term and, after, to the online data collection instrument. During the stipulated period for completion, 79 master's and 50 doctoral students participated in the study, totalizing 129 students.

The data were analyzed using the software Statistical Package for the Social Sciences, version 20.0. For qualitative variables, absolute and relative frequencies were calculated. For quantitative ones, medians and dispersion measures were calculated, considering their non-normal distribution, according to the Shapiro-Wilk test. For the association between general QoL (overall) and the independent numerical variables, the Mann-Whitney and Kruskal-Wallis tests were used. In sequence, multiple linear regression with the forward method was

conducted, including all independent variables presenting $p < 0.20$ in the bivariate analysis. In the final model, the group of variables which better explained the outcome was kept.

The study was developed according to the national norms for research involving human beings, including the approval of the Ethics Committee in local Research, according to the protocol n.º 798.093 and CAAE: 35451514.6.0000.5231.

RESULTS

Of the 129 research participants, 116 (89.9%) were females, 76 (58.9%) were in a stable relationship and 81 (62.8%) without children. The median age was 31 years, varying between 22 and 61 years. The monthly family income ranged between R\$1,500.00 and R\$40,000.00, with a median of R\$7,600.00 (US\$526.00, US\$14,035.00 and US\$2,667.00, respectively, in February 2015).

Regarding the academic characteristics, 79 (61.2%) were masters students, and 50 (38.8%) were doctoral candidates, designating up to 15 hours per day to study, in a scale from zero to 10, 113 (84.6%) of the graduate students referred to a score equal or higher than seven points. Regarding their dedication to the graduate program, 46 (35.7%) gave exclusive dedication to the course while others conciliated study and work, being 48 (37.2%) working on nursing assistance and 35 (27.1%) were undergraduate professors or teaching in technical courses.

Concerning life habits, 62 (48.1%) participants practiced regular physical activity, with a frequency of one to three times per week. Regarding the use of alcohol, 50 (38.8%) referred to consume alcoholic beverages at least four days in a month, 18 (14%) affirmed to drink weekly and, two (1.6%) reported to drink daily. About tobacco, seven (5.4%) were active smokers, of those, three (2.4%) smoked more than ten cigarettes daily.

In Table 1, it was verified that between the QoL domains, the lowest median obtained by participants was in the social relationships domain.

Table 1: Descriptive quality of life measures of masters and doctoral nursing students. South Region, Brazil, 2015.

WHOQOL-Bref	Median	Interquartile range (p25-p75)	Minimum-Maximum
Overall QoL	90.0	82.5 – 98.0	46-100
Physical QoL	67.9	57.1 – 75.0	25-96
Psychological QoL	62.5	54.2 – 70.8	25-92
Social Relationships QoL	58.3	50.0 – 75.0	17-100
Environment QoL	59.4	53.1 – 68.7	25-94

Regarding the items composing the domains, the lowest medians were for “sleep and rest” (physical domain), “positive feelings” (psychological domain), “sexual activity” (social relationships domain) and “participation in and opportunities for recreation/leisure activities” (environmental domain).

Table 2 presented the analysis model for multiple linear regression for general QoL. The model was statistically significant ($p < 0.001$), presenting a multiple correlation coefficient of $R = 0.600$ and a determination coefficient of $R^2 = 0.360$. It was evident that the variables difficulty to conciliate studies and personal life, deadline to conclude the course, smoking and consumption of alcoholic beverages were inversely associated with overall QoL, that is, they predict lower perception of QoL. On the other hand, the better the relationship with course

professors, the satisfaction with the research theme and to perform physical exercises, the better was the QoL perception.

Table 2: Predicting quality of life factors of masters and doctoral nursing students. South Region, Brazil, 2015.

Model	Beta	P value
Physical activity	3.365	0.058
Satisfaction with the research theme	1.142	0.031
Difficulty to conciliate studies and personal life	-4.832	0.009
Smoking	-12.243	0.003
Alcoholic beverages consumption	-4.641	0.013
Concern with the course conclusion deadline	-9.164	<0.001
Relationship with professors	2.477	0.074

DISCUSSION

The socio-demographic characterization revealed that young women, in a stable relationship and without children were prevalent. It indicates that nurses have opted to start *stricto sensu* graduate programs just after concluding their undergraduate studies, as well as, they have delayed constituting a family with children, probably due to the time dedication that this level of education requires. Besides, for the contemporary woman, the professional career is strongly connected to self-realization as much as maternity⁽¹²⁻¹³⁾.

It was verified that most students partially dedicated themselves to the graduate program because they had a job, which could have occurred due to the low number of scholarships granted to programs by sponsoring agencies. Despite the National Graduate Plan having an estimate of, up to 2020, to duplicate the number of granted masters scholarships and to triple the doctoral ones, being the values of scholarships practiced in 2015 - R\$1,500.00 (US\$526.00) for masters degree and R\$2,200.00 (US\$772.00) for doctoral level –not sufficient to provide for these graduate students, who end up relying on family financing⁽¹⁴⁻¹⁷⁾.

The many roles performed by these graduate students related to study, work and family, can be linked to lower satisfaction means for sleep and rest, energy and fatigue, sexual activity, participation in leisure and positive feelings (to enjoy life). In a study conducted in the USA about the well-being of 194 doctoral students, it was demonstrated that they decrease the time destined to rest and for physical exercise, to be able to meet the graduate demands⁽¹⁸⁾. Therefore, it is supposed that sexual activity and leisure are also left in the second plan due to lack of time.

The master's and doctoral students presented inferior QoL perceptions when compared to undergraduate students and other occupational groups of nurses^(11,19-20), suggesting that this educational level has demands negatively interfering in the QoL of these people.

It is supposed that these students bare the impact in their QoL because they believe that the intense lifestyle has a deadline. Besides, like in a job, to study is permeated with pleasure and satisfaction experiences, that can motivate individuals to continue^(9,21), such as the privilege to be enrolled in this educational level, the recognition of their scientific talent, the professional growth and better opportunities of financial gains⁽²²⁾.

The deadline to conclude the program and, the difficulty to balance the graduate life with the personal one were already indicated in other studies⁽¹⁵⁻¹⁶⁾, such as common concerns between master's and doctoral students and, in the present study, there were inversely associated to QoL. Thus, to administer the time facing the many

difficulties of this individual is a challenge. Time management can be determining in the adjustment of this process and also in the individual's well-being, as it allows the balance between studies and personal life, not being needed to abdicate from pleasure activities as leisure, to be in the company of family members and friends, which is as essential as the title of master or doctor.

It was verified that sedentarism, smoking, and consumption of alcoholic beverages predicted lower perception of QoL. Research developed in New York with 2,508 graduate health sciences students demonstrated that master's and doctoral students who practiced physical activity regularly presented better QoL and physical and mental health⁽²³⁾. This study also indicated that alcohol and tobacco are the most used psychoactive substances by these students to alleviate tensions and stress⁽²³⁾. Therefore, these habits cause loss to the academic life as they are related to learning difficulties⁽⁶⁾. Also, the use of psychoactive substances by individuals can be related to a compensatory mechanism to resist the psychic pressures, as a trial to ward off illness and suffering⁽²¹⁾.

The interpersonal relationship with members of the teaching group of the course created a positive impact in the QoL of master's and doctoral students of this research. This satisfactory relationship is comprehended, by most students, as one of the most relevant aspects in their academic experience, that favors the QoL inside the university, for the *strictu sensu* level, as well as, in the undergraduate level. Additionally, the professors can offer students the opportunity to gain new information and ability, and intellectual and emotional support to cope with their academic difficulties^(10,24-25).

The satisfaction with the research theme was also favorably associated with the QoL, that is, the more satisfied with this item, the better was the QoL perception. The research theme is the primary object of the dissertation/thesis, that will require more involvement of the graduate student, as it has a more complex level when compared to other studies conducted by the student⁽⁵⁾.

Therefore, this study indicated that to research the subject considered relevant, with which one had an affinity, was the favorable QoL factor among the masters and doctoral students. Thus, supervisors and students should dialogue about the research theme and the trajectory to be taken in the investigation, and the student should expose his affinity, yearnings, and difficulties, which favors the establishment of a consensus, besides promoting a favorable environment for academic training. It is also recommended that those who have an interest in this level of training should establish the previous contact with a possible supervisor before enrolling in the program, who work with common research lines.

Although the objectives of this study were met, there were limitations related to the cross-sectional design, that does not allow causality inferences. The collected data were self-reported, a situation where can occur the influence of socially acceptable standards in answering the instrument. Besides, the sample was restricted to masters and doctoral nursing students of three PPGEnf of public universities of the South Region of Brazil; which, in reason of the specificity, limitate the generalization of its findings. Despite these limitations, the results obtained in this study will be able to subsidize the execution of policies and programs for QoL promotion in the university level.

It is recommended to replicate this study in other regions of the country, and still, to conduct investigations with the professors of these programs, as there is a likelihood of them experiencing similar situations that could be harmful to their QoL.

CONCLUSION

There were indications that the *stricto sensu* training negatively impacted the QoL, considering its unfavorable perception among studied master's and doctoral students, which was overall associated with daily aspects of the academic routine. Regarding the predictors, it was revealed that to perform physical activity, the good relationship with the professors of the program and the satisfaction with the research theme favors QoL, while the difficulty to conciliate studies and personal life, deadline to conclude the program, smoking and, consumption of alcoholic beverages were unfavorable to QoL.

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