







Quality of life of nursing students: analysis in light of the Pender's model

Qualidade de vida de acadêmicos de enfermagem: análise à luz do modelo de Pender

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ABSTRACT

Objective: to understand the lifestyles of nursing students in the light of the Nola Pender's Health Promotion Model. **Methods:** qualitative study conducted with 11 nursing students through a focus group using a semi-structured script. Two analytical categories were obtained: Individual characteristics and experiences; Feelings and knowledge about the behavior to be achieved. **Results:** the short time and poor quality of sleep, sedentary lifestyle and inadequate diet, which are related to the university routine, were reported by the academics as main factors that affect quality of life. **Conclusion:** the use of this model was important to identify the factors that affect the students' lifestyles, biopsychosocial aspects and their correlations, demonstrating its relevance in pointing out the need for interventions that meet their reality.

Descriptors: Health Promotion; Nursing; Nursing Theory; Quality of Life.

RESUMO

Objetivo: compreender os estilos de vida dos acadêmicos de enfermagem à luz do Modelo de Promoção da Saúde Nola Pender. **Métodos:** estudo qualitativo, realizado com 11 acadêmicos de enfermagem por meio de um grupo focal a partir de um roteiro semiestruturado. Obtiveram-se duas categorias analíticas: Características e experiências individuais; Sentimentos e conhecimentos sobre o comportamento que se quer alcançar. **Resultados:** como principais fatores que repercutem na qualidade de vida os acadêmicos relataram baixa qualidade e pouco tempo de sono, sedentarismo e alimentação inadequada, que estão relacionados à rotina universitária. **Conclusão:** a utilização do referido Modelo foi importante para identificar os fatores que repercutem nos estilos de vida dos acadêmicos, em seus aspectos biopsicosocial e suas correlações, demonstrando a sua relevância ao apontar a necessidade de intervenções que atendam a sua realidade.

Descritores: Promoção da Saúde; Enfermagem; Teoria de Enfermagem; Qualidade de Vida.

Introduction

The conception of quality of life is complex and lacks consensual definition; it involves individual and subjective perceptions related to what each person understands as health. In view of its broad concept, it is argued that having quality of life involves the balance of biopsychosocial aspects⁽¹⁻²⁾.

In this sense, having quality of life permeates the autonomy of individuals' choices linked to the conditions in which they live and work. There are many situations that can influence the quality of life of human beings. Admission to college is one of these situations, because the university is a space where people stay during an important period of their lives, fundamental in their human and professional development. College demands changes in their routine that affects their lifestyle, and this may impact their academic performance⁽³⁾.

When entering college, the students are mostly young people who are in transition to adulthood, and bring with them various insecurities, as for example, in the adaptation to academic life, the anxiety to meet social and family expectations, and the stress with the many academic activities and commitments in the course of the studies, which will be faced according to the psychological maturity of each student. Thus, all this new routine can cause physical and mental strain and consequently compromise learning⁽⁴⁾.

In this sense, nursing, a professional group that establishes greater relationships with people and whose care is intrinsically related to the well-being and health promotion of these people, should enable students to adopt healthy choices, considering the impact of these choices in the emergence of problems, as for example loss of academic performance, absenteeism, among others that surround this context⁽⁵⁾.

The use of nursing models and theories offers the possibility to support nursing practice and help understand the complexity of the health-disease process. They provide the scientific basis for nursing care, enabling a broader understanding of the phenomena

that nurses face and also contributing to the construction of knowledge in the nursing area⁽⁶⁾.

Nola Pender's Model is one of the theories focused on health promotion developed in the US around the 1980s⁽⁷⁾. It is widely used as a framework for research aimed at predicting specific health-promoting lifestyles and behaviors. It is a theory of medium scope and its major concepts are: environment, health, nursing and person⁽⁸⁾.

Its major components and variables are: 1) Individual characteristics and experiences: covering previous behaviors, that is, past habits of the individual that must be modified, and personal factors divided into biological, psychological and sociocultural factors; 2) Feelings and knowledge about the desired behavior: perception of benefits for action, i.e., positive mental representations that reinforce the adoption of a given behavior; perception of barriers to action: negative perceptions regarding availability, convenience, expense, nature or time consumption, damage, personal costs and difficulties for a given action⁽⁷⁾.

The second component also includes the perception of self-efficacy: the judgment of the individual about his or her personal capacity and abilities to organize and perform a particular action; feelings about behavior: expression of positive or negative, pleasant or unpleasant emotions⁽⁷⁾; interpersonal repercussions: behaviors, interests, beliefs or attitudes of other people, such as caregiving family members, peers, spouse and social norms that may interfere with his or her behavior; and situational repercussions: environmental situations in which people live can directly affect behaviors⁽⁷⁾; 3) Results of behavior: comprises the commitment to the action plan, which is based on the proposed actions that allowed the individual to reach and maintain health-promoting behaviors expected from nursing interventions.

Commitment to the established plan involves communication to take specific action at a particular time and place, and with specific people or alone, regardless of competing preferences (which are those contrary to health behavior and identifying decisive

strategies to reinforce the behavior that can meet the requirements and preferences that need to be immediately modified). This will result in a health promoting behavior⁽⁷⁾. In the present study, the first two components were used, considering that no interventions were implemented.

This research aimed to defend the need for monitoring and evaluation of the life style and quality of life of university students so that interventions may be planned to promote the health of this public and support them to cope with their difficulties in the path of academic life⁽⁹⁾. In this study, we dealt specifically with nursing students. The objective of the study was to understand the life styles of nursing students in the light of the Nola Pender's Health Promotion Model.

Methods

This is a qualitative study carried out at a state public university in northeastern Brazil in the countryside of the state of Ceará. Of the 21 undergraduate nursing students, 11 who met the following inclusion criterion participated in the study: being properly enrolled in the eighth semester of the Nursing course. Students who did not attend the focus group were excluded. The choice for the eighth semester was due to the fact that at this point, the students had completed more than half of the period of integralization of the course completion (10 semesters), i.e., they spent more time in the university environment.

The students were contacted in the classroom and formally invited by the researchers to participate in the study. After acceptance, the meeting for the focus group was scheduled. In the group, there was a moderator and an observer. The session lasted approximately 60 minutes that took place in a reserved classroom in the facilities of the nursing course with adequate ventilation, brightness and acuity. A circular disposition of the participants was adopted, as it allowed their integration, with space for organization of a coffee break and collective discussions. The study was

guided by the following question: What factors affect the quality of life of nursing students?

The focus group technique allows the integration of a small and homogeneous group to discuss a particular subject and evaluate a proposed theme, from the perspective of apprehending perceptions, opinions, attitudes and social representations⁽¹⁰⁾. The individual characteristics, experiences, feelings and knowledge about the desired behavior were investigated based on the theoretical framework adopted and in the speeches of the students.

The focus group was held at a single time, in October 2018, and before starting the group interview, participants were asked to respond in writing about sociodemographic data. The meeting was audio recorded, as authorized by the participants, and submitted for full transcription. The participants were coded to ensure anonymity under the following names: Student 1, Student 2, and so on. Participation was voluntary, upon signing the Informed Consent Form.

After transcription of the speeches resulting from the focus group, the obtained data were organized and analyzed from the content analysis⁽¹¹⁾, which is divided into three phases: 1) pre-analysis: it involves the understanding of the information collected from the reading of data and elaboration of hypotheses and objectives, interpretation of information with elaboration of indicators; 2) Exploration of the material: it consists of separating excerpts in the material collected as record units (words, sentences or paragraphs) out of which the keywords are identified through the grouping of themes and lines related to the categorization; 3) Interpretation: it comprises the treatment of results capturing the contents of the speeches according to the theoretical framework.

To conduct the research, the ethical aspects of Resolution 466/2012 of the National Health Council, which provides for direct or indirect involvement with human beings, were respected. The present study is part of a larger umbrella- or reference-project entitled Studies on Health Promotion in Educational and Work

Environments, approved by the Research Ethics Committee of the Regional University of Cariri through nº 1973,784/2017 and Certificate of Presentation and Ethical Appraisal nº 65520617,0000,5055.

Results

Ten female and one male students participated in the research. The age of the young people ranged from 20 to 26 years (biological factors), and six considered themselves white and five brown. With regard to income, four declared an average of two to four minimum wages and seven declared to have an income of less than one minimum wage (R\$ 954.00), a fact that was better clarified later through their statements (sociocultural factors).

Regarding housing, five lived with parents, two with friends and four with other family members. To identify some behaviors in advance, we asked about the practice of physical activity, and only one claimed to practice it.

This category presents the previous behaviors, that is, the life habits of the participants that do not favor their quality of life and need to be modified, as they may interfere with possible health-promoting behaviors. In addition, it expresses the personal factors, defined as biological, psychological and sociocultural, that predispose to certain attitudes.

The following are the results from the descriptive *corpus* produced in the focus group, from the students' speeches, organized into two categories: Individual experiences; and Feelings and knowledge about the desired behavior.

Category 1. Individual Experiences

To correlate these data and understand the factors that interfered with quality of life, according to the students' perception, it was sought first to ask how the students understand of what is to have quality of

life, which is the triggering question of the focus group. The participants stated that quality of life is subjective, that is, it is related to the individual experiences of each person, but in general, it relates to the World Health Organization's expanded concept of health and health promotion actions: *Quality of life concerns psychosocial, economic well-being* (Student 1). *It goes beyond the absence of disease* (Student 2). *Each person has what she believes to be quality of life. For example, for me quality of life is doing physical activity, or being in a group of friends, it can be going to a movie, doing other things* (Student 4). *Quality of life, it is also much of individual issues, it is how the individual is inserted in that social group and what are the conditions that that place offers to him* (Student 5). *So, health promotion comes into scene in this case, which are actions aimed at the social, political aspects, aimed at developing this quality of life. It gives tools for people, for the population, and for the communities to have subsidies to promote their own quality of life* (Student 3).

To identify their previous behaviors that needed modifications, the participants were asked what lifestyle habits interfered with their quality of life. Their reports pointed to poor quality of sleep and short time for sleep, sedentary lifestyle and unbalanced eating: *Wrong eating, sometimes a snack to replace lunch, skipping breakfast* (Student 2). *The hours of sleep, rest, study, which we could have extra, we have to get it done in the morning and in before the sunrise, so it interferes a lot in our quality of life* (Student 4). *Lack of physical exercise* (Student 7).

Regarding the psychological factors, we found stress, low self-esteem and anxiety, which were related to the academic routine: *Sometimes I had something going on in my family and I wouldn't go, I was taking care of some work, but I was stressed inside I'm not there at that time, and this was not helping with my studies, I just couldn't concentrate properly. Not to mention self-esteem, because when it's near the test, I can't wake up and get ready* (Student 7). *At first I would only give attention to college, as my own experience I started feeling anxiety, every end of semester I was in in a hospital, it was in a hospital with no exception. Because of this anxiety: Will it work? Will I move on to the next (semester). We are under this pressure because of both society and family* (Student 9).

Category 2. Feelings and knowledge about the desired behavior

This category allowed the understanding of the factors that led the students to adopt the identified lifestyle habits, as well as the emotional and cognitive factors involved in a possible process of change for health-promoting behaviors, from the following variables: perception of benefits for action, perception of barriers to action, perception of self-efficacy, feelings about the behavior, interpersonal and situational repercussions.

Students have recognized as benefits that can be achieved from changes in their habits: emotional, control of fat levels, improved conditioning and decreased predisposition to disease: *In the emotional, improving quality of life, decreasing, for example, triglyceride levels, cholesterol levels, from the moment you can reconcile college and going out. It is totally different, because you devote a little of your time to everything and that diminishes stress* (Student 2). *Even improving the conditioning* (Student 3). *Bodybuilding, right? I think it would avoid a lot of the genetic predispositions that are present in my family regarding hypertension, diabetes and breast cancer* (Student 8).

Regarding the barriers to perform these actions, they reported lack of focus, time, determination and the financial issue: *Lack of focus, lack of time, lack of determination* (Student 2). *Financial expenses* (Student 10). *I think we keep procrastinating everything, because, it's kind of, we blame the day of graduation, then comes a Masters or a marriage, I don't know a residence, a son, I don't know... and then you will always blame, blame something* (Student 11).

Regarding the perception of self-efficacy, they mentioned that they do not organize themselves to make changes in their habits at that moment because of little time and not knowing how to manage time, tiredness and lack of effort: *It is a lot at the same time happening and with little time available to all, so we just can't manage everything. We want score ten, but when we get ten, we go to practice. We go one day, do you understand?* (Student 5). *I do not change; I also see that it is my lack of effort, because even if it was at night I could go for a walk, a gym or whatever. But sometimes tiredness, routine, you*

end up not going (Student 2).

As for how they felt about their behavior, the participants pointed to feeling helpless and feeling bad for not being able to reconcile healthy habits with the academic routine, especially because they were unable to comply with the guidelines they give to users during their internship: *At least I feel helpless because of college, I feel helpless because I can't eat healthy, I can't accomplish it over time. I did physical activity and stopped* (Student 1). *I feel bad because I study all day here in college the importance and everything, but when I get home I like to eat fried food, salty stuff, and even though I know, I eat and think this is bad for me, but I do it... I don't change* (Student 2). *And for us in the nursing course it is even more complicated because we give these guidelines, we preach all this things and end up that we are unable to comply with them* (Student 3).

With regard to interpersonal repercussions, the students highlighted the influence of habits of family and friends, as well as the need to adapt them due to some illness of family members or friends, especially regarding food: *My mother likes very much fruit, she just does not do physical activity, she likes a healthy diet, if it depends on her, ok, but here in college there is no way* (Student 7). *My grandmother has diabetes, and about three months ago I think she did some glucose tests, and then it showed altered sugar levels, and she really needed to change her habits regarding eating sugar and there at home, everyone now uses sweetener and sugar* (Student 1). *My friend also has chronic kidney disease and then he cannot eat anything. We are changing our habits so as to include him in our social environment* (Student 9).

The academic routine, the full-time regime of the course, extracurricular activities, living away from parents, living alone, and the socioeconomic situation as a result of not working and depending on parents were identified as situational repercussions: *The food issue for many people who live far away from their parents is an issue, because you get home and have to make it yourself, as fast as you can to get back* (Student 8). *The time to prepare food is very short, because it is a full-time course, and so the time we spend at home is to study. The student who lives alone ends up having to cook* (Student 1). *So besides the things related to college, we still have the issues of the research group* (Student 7). *I think the financial issue has a big influence on this question; it is because we have to stay at the uni-*

versity all day long, full time, so we can't have a job, who doesn't live with their parents, they need to come from other cities and depend on parents to pay the rent here, or for food (Student 9).

Discussion

The limitation of this study was the implementation of two components proposed by the Health Promotion Model⁽⁷⁾, which points to the need for intervention and assessment of behavioral outcomes. However, the knowledge gained from this research may support the planning of interventions that promote the health of college students, considering their biopsychosocial demands.

In this research, the students reported on the factors that may affect their lifestyle in light of the Health Promotion Model⁽⁷⁾. It was identified, in general, that the main factors are related to the academic routine, for example, an unbalanced diet, physical inactivity, stress, anxiety and low self-esteem.

Regarding individual characteristics and experiences, a study of 146 nursing students from a public university in southern Brazil found that 89.0% of nursing students were female and 54.1% sedentary⁽¹²⁾.

Unhealthy habits, such as unbalanced eating, impaired sleep, and altered social and family relationships, are caused by academic obligations that produce anxiety, stress, and low self-esteem. Similar result, in a State University of Mato Grosso do Sul, also pointed out that involvement in academic commitments causes anxiety and stress among students⁽⁴⁾. Stress is a harmful factor to mental health and physical well-being, being associated with diseases such as cardiovascular, cancer and gastrointestinal disorders, as well as depression, poor sleep patterns and inability to effectively perform daily activities⁽⁷⁾.

Thus, healthy lifestyle habits, such as proper nutrition, are crucial to good health. A detailed assessment determines which interventions are most satisfactory for improving the nutritional status of nursing undergraduates⁽¹³⁾.

Depending on the theoretical model used, each

person has unique personal characteristics and experiences that will affect subsequent actions. The significance of their effect will be related to the target behavior one wishes to change, because its frequency and the way how this habit is rooted in one's life, as well as the possibilities and difficulties for change, will have implications on the likelihood of the individual to engage in health-promoting behaviors⁽⁷⁾.

The relationship between health and physical activity is considered relevant for health promotion and improvement of quality of life, as it prevents diseases, as well as help maintaining healthy habits at all stages of the life cycle⁽¹⁴⁾.

Thus, it is in the scope of higher education institutions that health promotion practices need to be incorporated, such as physical activities aimed at students in the university environment. These institutions must also conduct studies on lifestyles and associated factors among university students. The present study confirmed that risks related to the lifestyle to which students are exposed are evident, as it is the importance of developing educational measures to encourage the practice of healthy lifestyle habits⁽¹⁵⁾.

Regarding the feelings and knowledge about the desired behavior, the students realized the following benefits from changes in their habits: emotional benefit, control of fat levels, improved conditioning, and reduced predisposition to disease. It is important to emphasize that healthy lifestyles should be adopted and maintained mainly by health students, especially nursing students, because their profession requires a good physical and mental health to take care of others, as well as to encourage other individuals to achieve a healthy lifestyle⁽¹⁶⁾.

As for the barriers to perform the actions of changes in habits and perception of self-efficacy, the students reported lack of focus, time, determination and financial resources. In this context, it is necessary to seek, in a possible action plan, to develop strategies that enable students to cope with these difficulties to achieve quality of life⁽¹⁷⁾.

The Health Promotion Model proposes that

perceived self-efficacy is influenced by affect related to activity, that is, the more positive the affect, the greater the perceptions of efficacy, and this relationship must be reciprocal. Thus, the perception of self-efficacy influences the confrontation of perceived barriers to the implementation of the action. Thus, feeling effective and qualified motivates a health-promotion behavior and a possible commitment or persistence in the search for an action plan⁽⁷⁾.

The present study showed the need for the university institution to develop strategies to help the students in changing their lifestyle. In addition to environments for physical activity, it should be possible to provide healthy food at affordable prices for the students' consumption.

Concerning behavior, students reported negative feelings of helplessness because they are unable to reconcile healthy habits with the academic routine, especially because they are unable to comply with the guidelines they make to internship users. Similar results were found in another study, in which students reported the same feeling regarding this contradiction, because they did not put into practice what they advised their users in the internship field⁽¹²⁾.

According to the Model, every behavior is accompanied by emotions or problems, positive or negative affect. Previous behavior is proposed to shape all these specific cognitions and affects. Interventions in this context should help individuals shape a positive behavioral story for the future by focusing on the benefits of such behavior, teaching them how to overcome obstacles and achieve high levels of effectiveness and positive affect through a successful experience and positive feedback⁽⁷⁾.

Regarding interpersonal repercussions, for the students in the present study, family and friends had an important role in their lifestyle habits. According to the Health Promotion Model, this situation interferes with health-promoting behaviors and encourages adherence to a possible plan with actions to be implemented, because people are sensitive to the wishes, examples and compliments of others, although there

are variations. The extent of this influence is relevant for reinforcing healthy behaviors, as well as hindering the adoption of behaviors according to the socioeconomic and cultural context. Furthermore, individuals are led to perform more competently when placed in environments that they consider compatible with themselves and in which they feel safe. Moreover, it is emphasized that there is a reciprocal influence among family members, and the family is confirmed to be an important primary social structure for health promotion⁽⁷⁾.

The academic routine, full-time regime of the course, extracurricular activities, living away from parents, living alone, and the socioeconomic situation due to being unemployed and depending on parents were identified as situational repercussions. Thus, it is important that higher education institutions review issues such as workload and extracurricular activities, and adapt them to the living conditions of the students⁽¹⁸⁾.

Situational repercussions according to the Model directly and indirectly affect health behavior, and are considered an important key to the development of new and more effective strategies to facilitate the acquisition of health promotion behaviors in different populations. This assessment based on the Model can provide valuable insights for developing counseling strategies, so as to help people change negative behaviors or adopt new healthy behaviors⁽⁷⁾.

Given the above, there is a need for interventions to increase efficacy expectations and to understand how the concept interacts with other motivational determinants to improve health behaviors. The model is also based on proposed actions that allow individuals to reach and maintain the expected health promotion behavior.

Conclusion

It was observed that the students' environment, correlated to socioeconomic, individual, personal and social conditions, significantly influenced their lifestyle.

le, interfering with their quality of life. Having access to these data identified through the adopted framework helps in planning the necessary measures for change in order to promote the health of students based on the understanding of the causal relationships of their daily conditions with the adoption of healthy or unhealthy lifestyle habits. It is inferred that Pender's Model becomes necessary for nursing practice, being recommended by the results presented.

Collaborations

Lima RSSL and Cavalcante JL contributed to the collection, analysis, interpretation of data and writing of the article. Machado MFAS contributed to the project design, data analysis and writing of the article. Cavalcante EGR contributed to the analysis, interpretation of data and writing of the article. Quirino GS contributed to the relevant critical review of the intellectual content and writing of the article. Rebouças VCF contributed to the analysis and interpretation of data and final approval of the version to be published.

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