



Factors that affecting nursing students quality of interpersonal relationships

Fatores que interferem na qualidade dos relacionamentos interpessoais de alunos de enfermagem

Factores que interfiere en la calidad de las relaciones interpersonales de alumnos de enfermeira

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ABSTRACT

Aims: to evaluate gender, age, undergraduate year, and grades affecting the quality of their interpersonal relationships of nursing students. **Method:** Cross-sectional quantitative study. We used characterization questionnaire and the Interpersonal Relationships Inventory - friendly version. **Results:** The sample was of 184 nursing students with an average age of 23.4 years old (± 5.3). There was a statistically significant difference in the sex comparison with the Support factor (p -value = 0.01) and with the Depth factor (p -value = 0.02). **Conclusions:** Scholar grades affecting the choice of friendships since most of them were due to similarity and did not interfere in the quality of relationships. The year in undergraduate program did not affect the quality of relationships.

Keywords: Interpersonal Relations; Students, Nursing; Nursing.

RESUMO

Objetivos: Avaliar se sexo, idade, ano de graduação e notas acadêmicas interferem na qualidade dos relacionamentos interpessoais de alunos de enfermagem. **Método:** Estudo transversal quantitativo. Foi utilizado um questionário de caracterização e o *Inventário da Qualidade dos relacionamentos interpessoais - versão amigo*. **Resultados:** A amostra foi constituída por 184 alunos de enfermagem com média de idade de 23,4 anos ($\pm 5,3$). Houve diferença estatisticamente significante na comparação sexo com o fator Suporte (p -valor=0,01) e com o fator Profundidade (p -valor=0,02). **Conclusões:** As notas acadêmicas influenciaram na escolha das amizades visto que a maior parte se deu pela semelhança e não interferiram na qualidade dos relacionamentos. O ano em curso na graduação não interferiu na qualidade dos relacionamentos.

Palavras-chave: Relações Interpessoais; Estudantes de Enfermagem; Enfermagem.

RESUMEN

Objetivos: evaluar si sexo, edad, año de graduación y notas académicas interfieren en la calidad de las relaciones interpersonales de alumnos de enfermería. **Método:** Estudio transversal cuantitativo. Se utilizó un cuestionario de caracterización y el Inventario de la Calidad de las relaciones interpersonales - versión amigo. **Resultados:** La muestra fue de 184 alumnos de enfermería con promedio de edad de 23,4 años ($\pm 5,3$). Se observó una diferencia estadísticamente significativa en la comparación sexo con el factor de soporte (p -valor = 0,01) y con el factor de profundidad (p -valor = 0,02). **Conclusiones:** Las notas académicas influenciaron en la elección de las amistades ya que la mayor parte se dio por la semejanza y no interfirieron en la calidad de las relaciones. El año en curso en la graduación no interfirió en la calidad de las relaciones.

Palabras clave: Relaciones Interpersonales; Estudiantes de Enfermería; Enfermería.

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INTRODUCTION

Interpersonal communication is a process in which two people emit meaning sending and receiving symbolic messages simultaneously. The issues of interpersonal communication are similar to other types of communication: people exchange meaning throughout verbal and non-verbal messages. Emitter and receiver do not act freely in the process of inter-personal communication; they are influenced, positively and negatively, by positions they occupy in the socio-cultural context, as well as the influence of personal characteristics.¹

The inter-personal relationship process is complex, continuous and permanent, and it evolves thoughts, feelings, and mental and physical relationships, being the most frequent way of human interaction.²

Interpersonal relationships are meaningful in the life of human beings and through them; a set of systems that organize the society is formed. Harm in interpersonal relationships can originate harm in social relationships. Beyond that, these relationships define the way of living among these individuals with the environment. Thus, the quality of these relationships can make a difference between well-being and suffering, that is why it is so relevant.³

Feeling well in a context can interfere directly the way an individual reacts in that environment. The good interpersonal relationship in the classroom can be considered a challenge because there are people with different characteristics and motivation in the same environment to fulfill academic obligations.⁴ Friendship in the undergraduate context is an important relationship to the adult life, at times, it is a complement to an absence of strong family bonds.⁵ It is also a meaningful relationship that involves help, trust, self-revelation, self-validation, respect, loyalty, availability and partnership.⁴

Partnership is one of the most remarkable aspects of friendship. Friends have an important role in the vital cycle of individuals, most of the time, to improve the quality of life.⁶ At the university, people with different characteristics, experiences and expectations can unite around a common goal, thus it is natural that there are conflicts of different origins and magnitude. Thus, institutional actions or interpersonal relationship programs can have positive effects to improve interpersonal relationships and self-esteem and reduce depression in students.⁷

However, it is important to understand that conflict is part of the human experience and it appears when the individuals do not share the same ideas and do not accept foreign ideas, as well as behaviors, but the way they are treated and resolved is what results in growth and maturation of people.²

Conflict or proximity among students can emerge from the exposition and valorization of academic grading. Teaching institutions are used to evaluate the performance of their students through grades or concepts. However, it is not adequate to minimize the evaluation of academic performance to only grades.⁴

Thus, the aim of this study was to evaluate whether genre, age, year of graduation and academic grades interfere in the quality of the interpersonal relationships of nursing students.

METHOD

Cross-sectional quantitative study having the quality of interpersonal relationships as a dependent variable and the current year of graduation, proximity with similar or different people and evaluation of academic grades as independent variables.

The study was developed in a private teaching institution in the city of Dourados, Mato Grosso do Sul. Inclusion criteria were: (1) adults from 18 to 60 years old and (2) nursing students registered in the institution.

The representative sample was calculated for the population of 240 students of the Nursing course in the statistical program STATS 2.0. Considering the maximum acceptable percentage of 5%, the estimated percentage level of 50% and the level of confidence of 95%, the minimum representative sample was 148 students.

The period of data collection was from November 2014 to March 2015. In the data collection, a characterization questionnaire for participants and the *Quality Inventory of Interpersonal Relationships (IQRI) - friend version* was used.⁸

To characterize the participants, a questionnaire with the variables: year that s/he is studying in the undergraduate program, dependency in any discipline, exam in any discipline, proximity to similar or different people, age, genre, were used. Participants evaluated academic grades related to self-evaluation; grade evaluations of a close friend and of people who are not so close in great, good, reasonable or bad.

IQRI - friend version aims to evaluate the quality of perception of an individual related to a determined person, it has 24 items distributed in 3 factors: Support, Conflict, and Depth. Answers to the items are measured through a Likert scale: (1) Never or Nothing, (2) Few times or a little, (3) Many times (4) Always or a lot. There is not a reverse codification. The total score varies from 24 to 96 and the higher, the better the quality of relationships with friends.

The *missing data* were substituted by the mode of each affirmative from the scale, adopting the input technique, this because the mode is the number that appears more in the group. The substitution by the mode done with criteria of no more than 20% of unanswered data, without compromising the final score from the instrument. Beyond that, missing data could bring out meanings when analyzed in instruments that measure psycho-emotional issues. Participants with more than 10% of unanswered data, that is, more than 2 items of the IQRI, were excluded from the study.

Descriptive and inferential analysis of the answers was developed. *IQRI - friend version* factors did not present normal distribution by the Kolmogorov-Smirnov test; that is why non-parametric tests were used. For the analysis of factor's comparison with independent variables, the Mann-Whitney test was developed with two categories, and Kruskal-Wallis test was used with variables with 3 or more categories. To compare numeric variables, we used the Rô Spearman coefficient. The software used in this analysis was IBM SPSS (*Software Package used for Statistical Analysis*) version 21 and the probability of error

adopted in tests were $p < 0,05$.

The study was approved by the Research Ethics Committee under the feedback number 391.859 and attended the national and international ethical norms in research involving human beings.

RESULTS

Sample was composed by 184 nursing students with an average of age of 23,4 (± 5.3) and the majority were women ($n=152$; 82.6%). Students distribution in relation to the school year was: 1° school year ($n=60$; 32.6%), 2° ($n=31$; 16.8%), 3° ($n=33$; 17.9%) and 4° ($n=60$; 32.6%). The average quantity of exams (tests developed to recover a grade not reached by the average) was 3.9 (± 3.3), being that 84.8% ($n=156$) already did the exam and 65.2% ($n=120$) were already on summer school in some disciplines during the data collection.

Related to relationships, 82.6% ($n=152$) of students referred they had a close relationship with people from the classroom who had similar grades to them. This fact was verified in academic grades in which 65.8% ($n=121$) of students evaluated their own academic grades as good and their best friend's as good ($n=103$; 56%), however with a lower relative frequency.

Average score of participants' answers in relation to *IQRI - friend version* was of 61.9 (± 8.81), very close from the instrument midpoint (60), demonstrating that students have a moderate perception of support, conflict, and depth in relation to a determined friend (Table 1).

Descriptive analysis of participants' answers in each item of the *IQRI - friend version* showed in the factor Support that participants' average was higher in the item that they can count on a friend to give an honest opinion, the lower average reveals that they do not have this friend's availability out of the university context. Related to depth, even though the participants consider this relationship important for their lives, they do not consider themselves dependent on this person (Table 2).

In the factor Conflict, participants considered the friend moderately critical in relation to himself or herself and referred that never or a few times felt angry or that these people try to control or influence their lives (Table 2).

There were 34 missing data in the *IQRI - friend version*. In this study, we opt to analyze missing data because in studies about behavior and perception, missing data can be considered as results. Items 6, 14 and 16 present the biggest numbers of missing data ($n=5$), indicating that participants preferred not answering

how often they need to "compromise" in this relationship, as they are convict that the friend would be available and how often they depend on this person.

Comparing studied characteristics with the students' answers in each factor (Support, Conflict and Depth), we found statistically significant differences on the variable genre with support factors ($p\text{-valor}=0.00$) and depth ($p\text{-valor}=0.02$) demonstrating that male feels more support and depth in the interpersonal relationship with a determined friend (Table 3).

Associations of the current year and evaluation of academic grades were the statistically significant (Table 3).

In the correlation of the scale factors with age, there were no statistically significant differences. We found statistically significant difference on the comparison between depth and support factors, it was presented a strong and positive correlation, that is, the more support is perceived by the student, the deeper and longer s/he considers the relationship (Table 4).

DISCUSSION

In this study, students represent a moderate perception of the quality of interpersonal relationship in relation to a determined classmate. Through the frequent and constant coexistence of the students in the university environment, they were expected to be more open and more involved in this relationship with the individual classified as a best friend.

Beyond that, in the results referred to the support and depth factors, participants reported that they can count on a friend to give an honest opinion, however they do not have the friend's availability out of university context; they considered this relationship important in their lives, but they do not consider themselves dependent on this person.

However when we compare the moderate quality of interpersonal relationships with this contradiction between support and depth, results seem to converge because the relationships seem intense in the period they are together and directed to the same goal, but this is restricted to the university context, establishing an empty space out of the university context.

Considering that many students travel to other cities or states seeking training in this empty space of meaningful relationships, it can be representative and, in some cases, unbearable. The perception of lack of support from the university was also found in another study, Authors⁹ concluded that students from the Medical Sciences University from Iran perceived little social support from family members, friends or neighbors and that this

Table 1. Total score description and score by factors description of the *Quality Inventory of Interpersonal Relationships - friend version*. Dourados, 2015.

Factor	Items number	Score variation	Average	Standard deviation	Median
Support	7	7-28	23.2	4.3	24.0
Conflict	11	11-44	20.0	5.1	20.0
Depth	6	6-24	18.6	3.7	20.0
Total score	24	24-96	61.9	8.8	63.0

Table 2. Descriptive analysis of participants' answers to the *Quality Inventory of Interpersonal Relationships– friend version. Dourados, 2015.*

	Questions	Average	DP
Support	4- How often can you count on someone to give you an honest opinion, even if you do not want to hear it?	3.5	0.8
	2- How often can you count on this person to help you when you have a problem?	3.4	0.8
	17- How often can you count on this person to listen to you when you are angry with someone else?	3.4	0.9
	21- How often can you really count on someone to distract you from your worries when you are under stress?	3.4	0.9
	1- Until when can you be advised by this person on several problems?	3.3	0.8
	7- In case of a very close family member dies, how often can you count to this person to help you?	3.3	0.9
	14- If you want to go out tonight and do something, how sure are you that this person is willing to go out with you?	3.0	0.9
Conflict	13- How critical is this person about you?	2.3	0.8
	6- How often do you have to "compromise" in this relationship?	2.1	0.9
	24- In this relationship, until when do you give more than you receive?	2.1	0.9
	3- How often can this person upset you?	1.9	0.8
	8- How often does this person wishes you to change?	1.9	1.0
	18- How much do you wish this person would change?	1.9	1.0
	19- How often does this person can make you angry?	1.7	0.8
	5- How often does this person can make you feel guilty?	1.6	0.8
	20- How often do you argue with this person?	1.6	0.8
	22- How often does this person make you feel angry?	1.5	0.7
Depth	23- How often does this person try to control or influence your life?	1.5	0.8
	10- How is this relationship important?	3.5	0.7
	9- How positive is this person's role in your life?	3.4	0.8
	12- How much would you miss this person if both could not see or talk to each other during a month?	3.3	0.8
	11- How close will the relationship with this person be 10 years from now?	3.2	0.8
	15- How do you feel responsible by this person well being?	3.0	0.9
	16- How much do you depend on this person?	2.2	0.9

has an important impact, but different, mainly depending on the contextual and structural factors of this individual. Authors⁹ also reported the importance of social support on reducing stress and academic failure and of strategies from teaching institutions to promote efficient support for students.

Interpersonal relationships with classmates are vital and important. Authors¹⁰ identified that students that described positively the relationship with classmates referred to perceive cooperation, friendship, and bonds that surpass institution's frontiers. However, there were those who evaluated negatively the relationship with classmates, due to differences in values and lifestyles, being these disagreements fundamental factors for evasion.

Social relationships are important to the student's satisfaction with the university context. In a study¹¹, 52% of university students answered that they seek to cultivate friendships are satisfied with relationships obtained in this context, and consequently positioned themselves as more flexible on social dynamics. Authors' findings¹¹ showed satisfaction with relationships in the majority of interviewees, however, 52% is not an expressive percentage and can raise questions related to a problem that is not very explored.

Other researchers found that the quantity of young adults' friendships is correlated positively with the perception of social support and coping resources of this individual.¹²

Results obtained in this study indicated that even though

Table 3. Comparison of the participants' characteristics, proximity in the relations and academic grades with the factors of the *Inventory of Quality of Interpersonal Relationships scale – friend versions. Dourados, 2015.*

Characteristics, proximity, and grades	SUPPORT			CONFLICT			DEPTH		
	Average	DP	p-value	Average	DP	p-value	Average	DP	p-value
Genre			0.00			0.46			0.02
Female	21.22	4.02		20.66	5.08		17.13	4.25	
Male	23.20	4.35		20.08	5.19		18.63	3.72	
Year			0.34			0.66			0.15
1st	23.29	4.62		20.10	6.07		19.58	2.99	
2nd	24.03	3.64		19.55	5.26		18.67	3.89	
3rd	23.75	3.55		19.92	5.02		18.27	2.70	
4th	23.20	4.35		20.08	5.19		18.63	3.72	
Proximity in the relationships			0.90			0.11			0.89
Similar	23.28	4.35		21.53	5.96		18.94	2.86	
Different	23.20	4.35		20.08	5.19		18.63	3.72	
Self-evaluation of academic grades			0.40			0.49			0.16
Bad	23.43	4.19		19.60	5.96		18.23	4.63	
Reasonable	23.18	4.35		20.07	4.92		18.57	3.47	
Good	23.14	3.18		20.73	5.32		19.86	2.96	
Great	23.20	4.35		20.08	5.19		18.63	3.72	
Evaluation of academic grades of the friend with higher proximity			0.76			0.24			0.46
Bad	22.59	5.10		19.44	5.12		17.52	4.83	
Reasonable	23.49	3.80		19.61	4.94		18.66	3.42	
Good	22.82	4.96		21.22	5.67		19.20	3.52	
Great	23.20	4.35		20.08	5.19		18.63	3.72	

Note: Questions used to evaluate the proximity in the relationship and academic grades were adapted from the study of Trentino, Cavalheiro, Silva, and Puggina.⁴

Table 4. Correlation factors of *Quality Inventory of Interpersonal Relationships scale – friend versions. Dourados, 2015.*

PEERS	Support		Conflict		Depth		Age	
	r	p-valor	r	p-valor	r	p-valor	r	p-valor
Support	--	--	-0.11	0.11	0.70	0.00	-0.08	0.26
Conflict	-0.11	0.11	--	--	0.19	0.80	-0.03	0.62
Depth	0.70	0.00	0.19	0.80	--	--	-0.16	0.24
Age	-0.08	0.26	-0.03	0.62	-0.16	0.24	--	--

Note: Rô de Spearman coefficient.

many students consider friendship important, they also consider those relationships to be ephemeral and without depth and involvement. Thus, the relationship between the students interviewed seems to be due to a social need for interaction and coexistence, although there is still not enough maturity to recognize the real importance of this friendship and the roles expected by the other in this relationship.

Associated to the importance of students' expectations related to new interpersonal relationships when starting the university

can be another factor that interferes this process and predisposes the negative or positive experience. Researchers¹³ describe the academic experiences of Psychology University students and students' expectations related to experiences. Students that better evaluated the interpersonal relationship were those who had "very high" expectations related to academic experience, these expectations have influenced on these students' disposition to relate with colleagues and create affective bonds.

Authors¹⁴ identified that students' academic expectations and

social abilities can directly influence their training and academic performance. However, fluid intelligence does not present itself as a determinant in the results of an academic evaluation.

In addition, interpersonal relationships in the university context may interfere with the formation of this individual. Authors¹⁵ discovered that the more and the better quality of interpersonal relationships experienced in university life, more social abilities were developed by undergraduate students in nursing that participated in the study. This finding found by researchers¹⁵ reinforces the importance of interpersonal relationships on the ethical and professional training of the individual because interpersonal relationships elucidate a different kind of learning.

Other intrinsic factors have been studied and seem to influence the quality of relationships; such as self-esteem and the way the individuals position themselves versus each other's performance in academic activities.

Researchers¹⁶ studied the relationship between self-esteem and violence that occur in the university. Results indicated that students with low self-esteem related in a worse way with classmates and professors that their peers with an elevated self-esteem, in addition of putting themselves in a victim position of violence in school and having more difficulty of feeling good in the school space.

Studies developed by another group of researchers¹⁷ examined if the type of criticism (hostile versus non-hostile) of people's genre thinks the criticism affect the satisfaction with the relationship. Undergraduate students and community couples participated in the study. The findings showed that hostile criticism was negatively associated with the relationship dynamic while non-hostile criticism was positively associated with the relationship. People do not receive and accept criticism in the same way and in the academic context this can be an important conflict factor, so in planning the activities the professor must be aware of this potential problem.¹⁷

Relationship problems among nursing students can trigger stress, poor quality of sleep, anxiety, and depression, especially when individuals are unable to cope effectively with the uncomfortable situation. Relationship problems are frequent; they represent significant sources of stress among students and deserve special attention from educational institutions to ensure well being in the academic environment.¹⁸

In the present study, students referred they had a closer relationship with people from the classroom with academic grades similar to theirs. There was no interference of academic grades in the quality of relationships. The option for the similar reduces the possibility of conflict, however, the individual does not work the ability to deal with the different, is more peaceful and stable interpersonal relationships. In the relations of friendship, differences are more easily softened between people close, the approach is often due to the similarity with the other⁴.

Authors have investigated the characteristics of young adult friendship relationships. Results showed homogeneity in relation to some characteristics among the closest friends, especially for genre, signaling the existence of a filter of similarities. However,

they also found that such homogeneity does not take place so comprehensively, there are aspects that would escape this tendency, such as religion.⁶

Authors¹⁹ evaluated the effect of diversity attributes in the university environment, in interpersonal relationships and in the academic performance of a private superior teaching institution. Most of the students consider it important to have common values in education and training, interest in studying, habits and leisure in the students' approach and in the formation of social groups and in the classroom.

In this study, men perceive more positively than women the support and depth in interpersonal relationships with classmates.

A study¹⁷ already reported about the type of criticism and students' genre found that hostile criticism can be strongly associated to the process of negative relationships on women, while the non-hostile criticism can be strongly related to processes of positive relationships for men. Men and women seem to have different involvement in interpersonal relationships in the academic context and perceive and interpret critics differently, women tend to be more negative than men.

Regarding these considerations, it is observed that in the analysis of human behavior, interpersonal relations can and often acquire a high degree of complexity, involving many factors. As interpersonal relationships become more complex, psychological phenomena take on new contours and do not constitute specific relationships between responses and stimuli, but rather a cluster of various intertwined relationships, with phylogenetic, ontogenetic, and cultural components.²⁰

CONCLUSION

In general, students presented moderate quality of interpersonal relationships with the classmates. Male students realized that they could count more actively on their friend and evaluated this relationship in a more profound, important and lasting way.

Students evaluated their academic scores as good as those of their best friend, this perception indicates that academic scores influenced the choice of friendships since most of them were due to similarity, and for this reason, the academic notes did not interfere in the quality of the students' relationships.

The current year of graduation and age did not interfere with the quality of relationships.

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