

Original articles

Quality of life of students in Speech, Language and Hearing Sciences

Qualidade de vida de estudantes de fonoaudiologia

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Source: Projeto financiado pelo Programa Ensinar com Pesquisa da Pró-Reitoria de Graduação da Universidade de São Paulo (RUSP).

Conflict of interest: non-existent

Received on: April 28, 2016

Accepted on: July 05, 2016

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ABSTRACT

Purpose: to compare the quality of life (QoL) of speech therapy students in different undergraduate semesters and identify proposals for improvement.

Methods: this is a cross-sectional, exploratory and descriptive study using a convenience sample. A total of 117 undergraduate students participated in the study and they were divided according to the undergraduate semester: G1 (n = 24) second semester, G2 (n = 33) fourth semester, G3 (n = 34) sixth semester and G4 (n = 26) eighth semester. The WHOQoL-Bref was the instrument used, which also included an open question: "How can the coordination of the Speech and Language Therapy Course contribute to the improvement of your quality of life?" The non-parametric statistical Kruskal Wallis test was used at significance level of 5% ($p < 0.05$). The absolute and relative frequencies of responses to the open question were calculated and categorised by specific and general content.

Results: QoL was predominantly good (53.84%) and health satisfactory (49.57%). There was no statistically significant association between the groups ($p > 0.05$). QoL decreased in all domains from G2 to G3, increasing in G4. G3 had the worst QoL perception. Social relations and environment were the domains with the highest and lowest mean values, respectively. The highest percentage (40%) was in the category "5-year undergraduate course".

Conclusion: There were no significant differences in the QoL between the undergraduate semesters, with the sixth semester being the worst. Social relations had the highest mean value, whereas environment the lowest.

Keywords: Quality of Life; Students; Speech, Language and Hearing Sciences

RESUMO

Objetivo: comparar a qualidade de vida (QV) dos estudantes de Fonoaudiologia em diferentes períodos de graduação e identificar propostas para sua melhoria.

Métodos: estudo transversal, exploratório e descritivo a partir de amostra por conveniência. Participaram 117 estudantes (segundo semestre de 2012), subdivididos pelo período de graduação: G1 (n=24) segundo, G2 (n=33) quarto, G3 (n=34) sexto e G4 (n=26) oitavo. Utilizou-se o instrumento WHOQOL-bref, acrescentando-se uma questão aberta: "Como a Coordenação do Curso de Fonoaudiologia poderia contribuir para a melhoria de sua qualidade de vida?". Utilizou-se o teste estatístico não paramétrico Kruskal Wallis, nível de significância de 5% ($p < 0.05$). Calculou-se a frequência absoluta e relativa das respostas da questão aberta, categorizadas pelo conteúdo, e gerais.

Resultados: predominou boa QV (53,84%) e satisfação com a saúde (49,57%). Não houve associação estatística significativa entre os grupos ($p > 0.05$). A QV diminuiu em todos os domínios, do G2 ao G3, aumentando no G4. G3 foi pior. Obteve-se maior média no domínio relações sociais e menor, no meio ambiente. Verificou-se maior percentual (40%) na categoria "aumento da formação para cinco anos".

Conclusão: não houve diferenças discrepantes da QV entre os períodos, sendo pior, o sexto. Relações sociais apresentou melhor domínio e o meio ambiente, o pior.

Descritores: Qualidade de Vida; Estudantes; Fonoaudiologia

INTRODUCTION

Quality of life (QoL) can be defined as the “individual’s perception of life in the context of culture and value system in which he or she lives and in relation to his or her goals, expectations, standards and concerns” (1). This is a broad concept consisting of at least six domains: physical, psychological, independence level, social relations, environment and spirituality¹, encompassing different meanings which reproduce knowledge, experiences and individual and collective values².

The period of transition from secondary school to higher education coincides with the end of adolescence and beginning of adult life, which is characterised by many biopsychosocial changes³. In fact, this period is marked by conflicts, attitudes and decisions, such as choice of career and higher education institution (HEI), all interfering with the student’s life trajectory⁴.

Adaptation, integration and accommodation of academic experiences at HEI in view of the university demands are different among the youth and may not occur satisfactorily in novel modes of learning and socialisation⁵.

The university setting is marked by experiences demanding greater mobilisation of cognitive abilities, study autonomy⁶, responsibility and sociability⁴, which can expose the students to potentially stressful situations as already evidenced with nursing students, regardless of the undergraduate semester⁷.

Vulnerability and psychic suffering of a significant portion of these students should be taken into account, since deficits in the stress management repertoire in association with academic demands and possibilities can contribute to the emergence of unhealthy patterns⁸.

Therefore, the experiences of undergraduate students of various courses can interfere negatively with their QoL^{3,4,7,9-17}.

In view of this, both the HEI and its faculty become co-responsible for caring the QoL of their undergraduate students. It is essential to provide pedagogical, social and psychological support to these students on a full basis in a context of social inclusion and cultural multi-diversity, which are increasingly present in the Brazilian universities¹⁶.

The study of the students’ quality of life is relevant to delineate strategies aimed to identify difficulties experienced and to contribute to solving them¹⁴, thus favouring the improvement of health and QoL as well as the development of the potential skills of this population⁸. In view of this perspective, the objectives of the

present study were to compare the QoL of students enrolled in different semesters of the speech and language therapy course at a public HEI in the State of São Paulo and to identify propositions for improvement.

METHODS

This is a cross-sectional, exploratory and descriptive study using a convenience sample which was authorised by the local commission of undergraduate studies and approved by the local research ethics committee according to process number 147953. All the participants, who signed a free informed consent form, were students enrolled in the speech and language therapy course in the second semester of 2012. By using the Jupiterweb system for undergraduate management, it was possible to invite 120 undergraduate students to participate in the study. Of these, three were excluded because they did not sign the free informed consent form. Therefore, 117 undergraduate students participated voluntarily. The mean age was 21 years old and the participants were divided into four groups according to the undergraduate semester: G1 (second semester), G2 (fourth semester), G3 (sixth semester) and G4 (eighth semester). The groups are listed in detail in Table 1.

Data collection was performed by using the World Health Organisation Quality of Life Instrument (WHOQoF-Bref), which is already adapted and validated¹⁸. This instrument had been used in research with health undergraduate students^{9-12,19}. In order to identify propositions given by students for improvement of their QoL, an open question was added to the list of questions of the instrument: “How can the Coordination of the Speech and Language Therapy Course contribute to the improvement of your quality of life?”¹⁶.

The WHOQoF-Bref consists of 26 questions on the two last weeks of the respondents, including two on general issues regarding their QoL perception and health satisfaction. The other 24 questions are related to four domains of QoL: social relations (three), psychological (six), physical (seven) and environmental (eight). The option answers are of Likert type, with score ranging from zero to five depending on type of answer and variations as follows: intensity (not at all to extremely), capacity (not at all to very much), frequency (never to always) and evaluation (very bad to very good). The questionnaire takes a few minutes to complete and maintain the satisfactory psychometric characteristics of the full version (i.e. WHOQoL-100)¹⁸.

Table 1. Characterisation of the participants.

Groups	Enrollment year	Male (n)	Female (n)	Total (n)	Percentage
G1	2012	02	22	24	20,5
G2	2011	0	33	33	28,2
G3	2010	02	32	34	29,1
G4	2009	0	26	26	22,2
Total		04	113	117	100,0

The questionnaires were given to each participant to complete after they signed the free informed consent form. Data collection was conducted in the classrooms of the HEI, with no interruption or communication between examiner and examinees that might interfere with the answers.

The questionnaires were read and separated by undergraduate semester (groups). The resulting data were entered into electronic spreadsheets and tabulated with Excel for Windows XP®.

The scores were calculated according to the WHO recommendations and by using the software Statistical Package for Social Sciences (SPSS, version 17.0) based on the syntax of the questionnaire. In this way, each domain was scored independently to obtain final scores ranging from 4 to 20 points, which were then converted into a linear scale ranging from 0 to 100 points, representing the lowest and highest values of QoL, respectively.

Next, statistical analysis was performed by using the SAS/STAT® software (version 9.0)²⁰ and the non-parametric Kruskal Wallis test was applied to independent samples in order to compare the mean scores obtained by the students of different semesters in each domain. Significance level and confidence level were set at 5% ($P < 0.05$) and 95%, respectively. The statistical data were presented as mean, minimum and maximum scores and standard deviation.

The data obtained from the two general questions about QoL were calculated and analysed separately, since they are not conceptually inserted in the questions as shown in the questionnaire instructions.

The answer to the open question, included in the end of the questionnaire, was rated by analysing the content based on the following categories: I) 5-year undergraduate course; II) change in the workload; III) change in the stance and attitude of faculty and supervisors towards the students; and IV) no answer. The data from this question and general questions were

organised separately by using electronic spreadsheets (Excel for Windows XP®), with absolute and relative frequencies being calculated from the total number of participants ($n = 117$).

RESULTS

The answers to the general questions of the instrument WHOQoL-Bref have shown that QoL was considered “good” by 53.85% of the respondents, with 65.38% in G4, 62.50% in G1, 50% in G3 and 42.42% in G2. With regard to health satisfaction, it was identified that the majority of the respondents were unsatisfied. There was a decreasing score for health satisfaction depending on the undergraduate semester (i.e. G1 = 58.33%; G2 = 51.52%, G3 = 47.06% and G4 = 42.31%). Only one student enrolled in the sixth undergraduate semester perceived QoL as “very bad”, also indicating to be “very unsatisfied” with health (Table 2).

By comparing the mean QoL scores in the different undergraduate semesters regarding all domains investigated, it was found that social relation was the domain with the highest mean score, being higher in the fourth semester ($G2 = 73.74$, $SD \pm 18.41$), followed by second semester ($G1 = 72.22$, $SD \pm 13.38$), eighth semester ($G4 = 68.91$, $SD \pm 21.67$) and sixth semester ($G3 = 64.46$, $SD \pm 20.95$). Environment was the domain with the lowest mean score as follows: G3 = 57.17, $SD \pm 28.13$; G1 = 59.51, $SD \pm 15.04$; G2 = 60.04, $SD \pm 14.14$; and G4 = 62.26, $SD \pm 12.96$).

There was a decrease in the mean QoL score from the fourth to the sixth semester regarding all domains and an increase in the last semester, but with no statistically significant association between these mean scores and undergraduate semesters ($p > 0.05$). The lowest mean scores were obtained by the sixth-semester students for environmental (57.17, $SD \pm 13.2$), psychological (57.23, $SD \pm 18.67$), physical (57.46, $SD \pm 11.71$) and social relation (64.46, $SD \pm 20.95$) domains (Table 3).

Table 2. Answer scale of general questions on QoL for different undergraduate semesters in the speech and language therapy course.

Perception of QoL		1	2	3	4	5
		N (%)	N (%)	N (%)	N (%)	N (%)
G1	24	0 (0)	1 (4.17)	4 (16.67)	15 (62.50)	4 (16.67)
G2	33	0 (0)	1 (3.03)	12 (36.36)	14 (42.42)	6 (18.18)
G3	34	1 (2.94)	5 (14.71)	9 (26.47)	17 (50.00)	2 (5.88)
G4	26	0 (0)	4 (15.38)	5 (19.23)	17 (65.38)	0 (0)
Total	117	1 (1.17)	11 (9.40)	30 (2.56)	63 (53.85)	12 (10.26)
Satisfaction with health		N (%)	N (%)	N (%)	N (%)	N (%)
G1	24	0 (0)	5 (20.83)	2 (8.33)	14 (58.33)	3 (12.5)
G2	33	0 (0)	6 (18.18)	6 (18.18)	17 (51.51)	4 (12.12)
G3	34	1 (2,94)	5 (14.70)	11 (32.35)	16 (47.05)	1 (2.94)
G4	26	0 (0)	3 (11.53)	4 (15.38)	11 (42.30)	8 (30.77)
Total	117	1 (1,17)	19 (16.23)	23 (19.65)	58 (49.57)	16 (13.67)

G1= Second semester; G2= Fourth semester; G3= Sixth semester; G4 = Eighth semester

Table 3. Mean, minimum, maximum scores and standard deviation (SD) regarding the QoL domains (WHOQoL-Bref) of the speech therapy students (n = 117).

Domains	Groups (N)	Average	SD	Minimum	Maximum	P Value (Kruskall-Wallis Test)
PHYSICAL	1 (N=24)	63.39	13.62	42.86	96.43	0.30
	2 (N=33)	59.85	14.59	21.43	85.71	
	3 (N=34)	57.46	11.71	21.43	82.14	
	4 (N=26)	62.36	14.04	28.57	85.71	
PSYCHOLOGICAL	1 (N=24)	65.1	13.67	33.33	91.67	0.45
	2 (N=33)	63.51	10.62	41.67	83.33	
	3 (N=34)	57.23	18.67	20.83	91.67	
	4 (N=26)	61.06	16.33	8.33	83.33	
SOCIAL	1 (N=24)	72.22	13.38	33.33	91,67	0.34
	2 (N=33)	73.74	18.41	33.33	100	
	3 (N=34)	64.46	20.95	16.67	100	
	4 (N=26)	68.91	21.67	16.67	100	
ENVIRONMENTAL	1 (N=24)	59.51	15.04	34.38	93.75	0.49
	2 (N=33)	60.04	14.14	37.5	93.75	
	3 (N=34)	57.17	13.2	28.13	78.13	
	4 (N=26)	62.26	12.96	21.88	84.38	

The results obtained by each group regarding the different domains are listed in Table 3.

In the open question “How can the Coordination of the Speech and Language Therapy Course contribute to the improvement of your quality of life?”, 40% of the students suggested a 5-year undergraduate course (category I), 16.3% suggested a change in the workload (category II), 11.78% suggested a change

in the stance and attitude of faculty and supervisors towards the students (category III), and 10.6% gave no answer (category IV).

DISCUSSION

The comparison between the mean QoL scores obtained by the students in all domains during different semesters of the speech and language therapy course,

despite the lack of statistically significant difference, has revealed a decrease in QoL from the fourth to the sixth semester. Such a finding was also observed in first- and fourth- semester students of nursing course⁹. This result, in association with the fact that the lowest mean QoL scores regarding physical, psychological, social and environmental domains were limited to the sixth semester, could be explained by the need to (re) adapt to the beginning of professionalising disciplines. This happens because these students train in several practice scenarios from the fifth semester on, working with different health and education teams under different supervisions, which requires responsibility and professional and ethical attitudes as well as refining of the clinical reasoning to understand the needs of the people involved in the process. For the students, training represents a period of construction of their personal identity and development of healthy coping strategies in view of the stresses inherent to healthcare professions, thus being interpersonal competencies needed for personal and professional life with serious repercussions to their QoL and target populations of their professional choice²¹.

The transition from the role of student to that of trainee (i.e. professional training) has already been reported elsewhere to explain a decrease in QoL^{22, 23} and health, which would involve psychological aspects resulting from the pressure to meet demands. The new routines needed for professionalisation is intense and involves further responsibilities, ethical stance and adoption of new habits and behaviours²³. The proximity of the professional practice awakens in the trainees feelings involving psychological, ideological and ethical dimensions of their interaction with the future profession, including workplace, university and professor-supervisor²¹.

Third-year undergraduate students of nursing, computing sciences, law and arts were those who had more health mental problems, presenting psychic stress, lack of confidence regarding performance/self-efficacy, sleep disturbances and psychosomatic disorders, whereas the first-year undergraduate students had significantly less emotional problems compared to the others²⁴.

By comparing the QoL between the different undergraduate semesters of various courses, only the course of pharmaceuticals had worse scores in the initial years, whereas the courses of nursing, speech therapy and medicine had worse scores in the final years, a fact which may be related to the increased workload¹⁵.

In the present study, although the majority of the speech therapy students answered positively to the general questions of the WHOQoL instrument by indicating predominantly good QoL and satisfaction with health, as shown with nursing students¹², one should point to a decrease in the satisfaction with health as the semester advances. The trainee's health is closely related to the human relationship, that is, how one experiences the contact with patients, teams and supervisors²¹.

Coping with potentially stressful situations resulting from the academic demands experienced by undergraduate students can lead to a poor healthy lifestyle^{7, 15, 25}. Changes in the eating patterns, decrease in the physical and leisure activities, increase or onset of alcohol, drug and/or tobacco use were found to be health risk factors to this population^{26, 27}.

On the other hand, these academic demands are also opportunities of interpersonal learning, thus contributing to the development of social skills strongly related to the adaptation process^{5, 6}. For instance, the stress and contradictions experienced in the first undergraduate year favour the nursing students' learning²⁸.

Our results evidence the adaptation of the speech therapy students to the academic demands in the final undergraduate year, since there was an improvement in QoL in the eighth semester regarding all domains, which is in agreement with the answers given by the nursing students²². Also, the fact that social relation (which consists of personal relationships, social support and sexual activity) configures into the best domain in the perception of all groups investigated and students of nutrition¹⁹ and nursing¹² can help coping with the above-cited difficulties, thus favouring the adaptation process. The university environment is characterised by a context of learning and improvement of social competence, and supposing that relationship skills are at the same time necessary for adaptation, it also establishes demands for improvement of such a repertoire⁵. Therefore, having a social competence, which is a facilitator for academic experiences, personal satisfaction and commitment with learning⁵, may have also contributed to the adaptation of the speech therapy students to the academic environment, considered the worst domain in their perception.

The environment consists of physical security and protection, home setting, financial resources, health and social care, opportunity to acquire new information and skills, participation in recreation and leisure activities, physical environment and transportation, which

was considered the worst domain in the perception of nursing⁹ and nutrition¹⁹ students.

In view of the several adverse situations faced during the development and (re)construction of the teaching-learning process, it becomes necessary that educators, students, educational institutions and organised society for academic formation do not spend time and do not pass over the steps required to understand new concepts based on ethical principles, self-criticism and social responsibility in the interdisciplinary relations²⁹.

Therefore, one should highlight the answers given by the students to the specific question “How can the Coordination of the Speech and Language Therapy Course contribute to the improvement of your quality of life?”, whose category “5-year undergraduate course” was more frequently scored (40%), followed by change in the workload (16.3%) and change in the stance and attitude of faculty and supervisors towards the students (11.78%).

Lack of satisfaction with these aspects and the fact that environment was the worst domain actually represent negative health and QoL indicators, which can impair the learning process of the speech therapy students who are more vulnerable.

Academic learning requirements and intense course workload, which shorten the time for practicing sport and leisure activities (a facet of the domain of environment) and sleeping well^{25, 26}, in addition to experiencing the pain, suffering and death of patients^{13, 15}, were some of the already known risk factors to health and QoL.

Academic and psychological support made available by the HEI is an alternative for maintaining the QoL and health of undergraduate students in the coping with potentially stressful situations. Students feeling emotionally supported are more likely to develop psychologically, which can lead to a better personal, interpersonal, institutional and vocational adaptation in the academic context⁵, thus interfering positively with their QoL and learning process. The professor-student relationship has already been identified as a situation which promotes QoL, whereas lack of support by faculty and professionals in the practice scenarios and lack of integration between teams and students are negative indicators³⁰. In view of this and considering that 11.78% of the speech therapy students suggested a change in the stance and attitude of faculty and supervisors towards the students, it becomes necessary to establish a sufficiently strong link between faculty/

supervisor and trainee based on motivational, rational and conscious aspects in order to overcome the difficulties experienced by the student²¹.

For instance, taking care of the health of medical students should begin early in their admission as freshmen so that potentially vulnerable students could be identified by knowing their life conditions, including presence of chronic diseases and availability of social support¹⁷.

Therefore, the data obtained in our study showed evidence that difficulties and responsibilities found during speech therapy course had negative repercussions on the students' QoL, mainly affecting the sixth-semester ones, in addition to indicating their adaptation to the new demands from the fifth semester on.

It is important to reflect the results found in studies like this one to identify the difficulties experienced by undergraduate students and to contribute to solving them¹⁴, thus allowing a better support policy for students by means of interventions suitable for their biological, social and psychological needs as well as by guiding and planning the pedagogical goals and strategies³.

CONCLUSION

The majority of the speech therapy students scored positively for QoL perception and health satisfaction, with no statistically significant difference between QoL domains and undergraduate semesters. Social relation was the best domain, whereas environment the worst. The sixth semester had the worst QoL. In the students' perception of propositions for improvement of the QoL, the category “5-year undergraduate course” had the highest percentage.

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