05 - PROPOSAL FOR A GENERAL INDEX OF QUALITY OF LIFE FROM THE INSTRUMENT WHOQOL-BRIEF IN ACADEMIC ENGINEERING OF UTFPR

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ABSTRACT

The Federal Technological University of Paraná State - UTFPR included in engineering courses in the humanities discipline Quality of Life to make their scholarly importance of healthy habits for the quality of life. This study seeks to these scholars propose a general index of quality of life (IGQV), than building a spreadsheet for calculation of scores and a table of percentiles for the analysis and comparison of data. The majority (89%) of students are males with a mean age of 19.7 years. Data were collected by the WHOQOL-BRIEF questionnaire to be fully answered. The analysis of correlation showed high correlation between the rate of GIQV and the four areas of the instrument (physical, psychological, social relationships and environment). With the results obtained and analyzed it appears that the GIQV can be used to represent the state of quality of life of the academic engineering courses of UTFPR.

KEYWORDS: quality of life, academic of engineering, health, lifestyle.

INTRODUCTION

Technological advance has allowed man to comfort never before experienced and, along with medicine, increased life expectancy. Nevertheless, the big challenge now is how to harness the available scientific knowledge or to search for the improvement of quality of life worldwide. Too much convenience and power last changed behaviors regarding diet and physical activity, which are the two major components of quality of life, drastically increasing cases of chronic diseases and degenerative origin hypokinetic or unbalanced diet. Of the population protected before, as women, due to the globalization equated into habits of men and now suffer the same ailments before most commonly found in men.

UTFPR, concerned about the quality of life for their future careers and the desire to form a vision engineer with diversified in various areas of knowledge included in the humanities elective for a living, trying to educate the students the importance of good habits lifestyle. The course consists of theoretical approaches and practical activities for students to experience the effects of physical activity in their lives.

Rosa (2002) proposes the restructuring of the provision of Physical Education in Higher Education so that besides providing the opportunity of regular physical activity combined with a more academic orientation concept, help change the behavior of the students to adopt a lifestyle more active, thus improving their quality of life.

Students in Campi Cornelio Procopio and Ponta Grossa in Paraná state, were evaluated by various protocols anthropometric, physical and psychometrics, among them the WHOQOL-BRIEF.

The aim of this study is to propose a General Index of Quality of Life (IGQV) derived from the WHOQOL-BRIEF represent a significant population of students of engineering UTFPR.

LITERATURE REVIEW

Currently, we see a somewhat different approach, showing an appreciation of factors inherent to the human being as satisfaction, achieving both professional and personal good relationship with society and access to culture and leisure as real examples of well-being. (TIMOSSI, 2009)

NAHAS (2006) after mentioning that the quality of life of individual character, changing throughout life and is influenced by multiple factors and defined as the perception of well-being resulting from a set of individual parameters and socio-environmental modifiable or not, that characterize the conditions under which humans live.

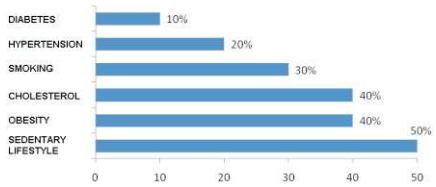
Quality of life is influenced by health and that the Lifestyle. According NAHAS (2006), the Lifestyle is one of the most important determinants of quality of life. For Paulino (2009), have a good quality of life and health depends, excluding uncontrollable factors such as heredity and the natural aging process, the choices made every day, or lifestyle practiced by the subject.

Seven Pillars of Quality of Life for MOREIRA (2006) are the areas where it has positively changed their habits are responsible for the complete well-being, mental, psychological and social, or health as defined by the World Health Organization The areas of the seven pillars of quality of life are: diet, physical activity, sleep, work, affection, sexuality and pleasure.

The life style can be changed in any of its components, it depends on the change of habits, so the quality of life can be improved depending on the decision of the people. The diagnostic pitfalls of the variables that affect quality of life become paramount for taking preventive characteristics, for example, physical activity is the main factor of disease in the Brazilian population as shown in Chart 01

According to Moreira (2006), there are many factors that influence the quality of life and unable to give rise to changes in all it is necessary to make a choice and this can be determined by subjective assessment of quality of life through the diagnosis of poor size by means of WHOQOL-BRIEF. To TIMOSSI, (2009), the importance of assessing the quality of life of persons, groups or communities is to identify the possible factors affecting their own QOL and health, and possible action to bring about a change.

Chart 01 - Key factors of disease in Brazil.
Source: MOREIRA, 2006



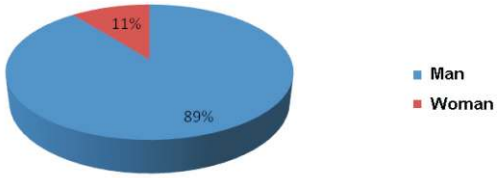
To FLECK (2007), the mental health department of the Federal University of Rio Grande do Sul (UFRGS), the term Quality of Life was first used by President of the United States of North America, Lyndon Jhonson in 1964 to refer to the social character of the goals at the expense of financial, resulting in the importance of giving more life to years not just years to life. The meaning of quality of life than to be individual and subjective will also depend on the context where it is used, gaining different connotations. Thus, in health, there is the need to quantify the quality of life of patients with survival rates increased with the advancement of science. To solve this problem, several assessment tools were created, but the characteristics of their home countries did not maintain the same consistência.Após be translated, the World Health Organization (WHO) established a group to draft an instrument of global trend, resulting then the World Health Organization Quality of Life (WHOQOL-100) a questionnaire with 100 questions (4 for each of the 24 facets two more general questions, divided into 6 domains (physical, psychological, level of independence, social relationships, environment and spirituality / religion / personal beliefs.

Acceptance and validation of the created the need for a shorter version that maintains the characteristics of the original, so did the WHOQOL-BRIEF consisting of 26 questions (representing the 24 original facets), two more general questions divided into 4 domains (physical, psychological , social relationships and environment). In Brazil, the instruments were translated and adapted by FLEK (1998). According to Pedrosa, (2008), the program Statistical Package for Social Sciences (SPSS). Is indicated by the WHOQOL Group for the achievement of the evaluations, it is difficult for the software is not free distribution and also difficult to handle, requiring some statistical knowledge.

METHODOLOGY

The study sample was composed of 75 scholars from campuses Cornelio Procopio and Ponta Grossa mean age of 19.7 years. Male participation was 89%, characterizing the course as mostly male, as Chart 02.

Chart 02 - Gender of academic engineering UTFPR, registered in the discipline of Quality of Life



The students of engineering course at Quality of Life Federal Technological University of Parana in the fields of Cornelio Procopio and Ponta Grossa responded to the questionnaire WHOQOL-BRIEF individually without help from the interviewer, and were instructed to answer all the questions, because the questionnaires were not complete were discarded. The questionnaire as table 02 consisted of 24 separated into groups called domains shown in table 1.

Physical Domain - Seven Questions
1. To what extent do you think your pain (physical) prevents you from doing what you need?
2. How much do you need any medical treatment to bring your daily life?
3. You have enough energy for your day-to-day?
4. How well are you able to get around?
5. How satisfied are (a) you are with your sleep?
6. How satisfied are (a) you are with your ability to perform activities of their day-to-day?
7. How satisfied are (a) you are with your ability to work?
Psychological Domain - Six Questions
1. How much you enjoy life?
2. To what extent do you think your life has meaning?
3. How can you concentrate?
4. You are able to accept your physical appearance?
5. How satisfied are (a) you are yourself?
6. How often do you have negative feelings such as blue mood, despair, anxiety, depression?
Domain Social - Three Questions
1. How satisfied are (a) you are with your personal relationships (friends, relatives, acquaintances, colleagues)?
2. How satisfied are (a) you are with your sex life?
3. How satisfied are (a) you get the support you get from your friends?
Domain Environment - Eight Questions
1. How safe (a) you feel in your daily life?
2. How healthy is your physical environment (climate, noise, pollution, attractive)?
3. You have enough money to meet your needs?
4. How available are you for the information you need in your day-to-day?
5. To what extent do you have opportunities for leisure activity?
6. How satisfied are (a) you are with the conditions of where you live?
7. How satisfied are (a) you are with your access to health services?
8. How satisfied are (a) you are with your means of transportation?
General Inquiries - Two Questions
1. How would you rate your quality of life?
2. How satisfied are (a) you are with your health?

Table 01 - List of areas and issues of the WHOQOL-BRIEF.
Source: FLECK (1998)

Answers contemplating the options for evaluation, intensity, frequency and capacity, as shown in Table 02

0	25	50	75	100
very bad	Bad	neither bad nor good	good	very good
very unhappy	unhappy	neither satisfied nor dissatisfied	satisfied	very satisfied
nothing	very little	more or less	very	extremely
nothing	very little	medium	very	quite
never	sometimes	often	too often	always

Table 02 - Ranges of responses used in the WHOQOL-BRIEF.
Source: FLECK (1998)

Upon completion of the responses were tabulated data in the spreadsheet Excel Microsof Office 2007 as follows:

First Phase: The value of each response will be equal to the number (1,2,3,4 or 5), emphasizing that questions 3, 4 and 26 the values of the issues are inverted (1 = 5, 2 = 4 , 3 = 3, 4 = 2 and 5 = 1), calculate the average per domain and multiply by 4: Average Domain 1 (q3, q4, q10, q15, q16, q17, q18) * 4.

Average Domain 2 (q5, q6, q7, q11, Q19, Q26) * 4

Average Domain 3 (Q20, q21, q22) * 4

Average Domain 4 (q8, q9, q12, q13, q14, q23, q24, q25) * 4

Average General Questions (q1, q2) * 4

Second Phase: The Index Domain (ID) in scores is obtained by subtracting the previous result of 4, multiplied by 100 and divided by 16:

ID1 = ((Area 1 - 4) * 100) / 16

ID2 = ((Area 2 - 4) * 100) / 16

ID3 = ((Area 3 - 4) * 100) / 16

ID4 = ((Area 4 - 4) * 100) / 16

IQG = ((General Questions - 4) * 100) / 16

Stage: After obtaining the desired ratings for scores have been proposed for determination of the General Quality of Life (IGQV) from the average between the fields and the weighted average of the open questions in the proportion of 96% for areas and 4% for open questions which maintains the ratio of the original WHOQOL-100:

IGQV = ((Average (ID1 + ID2 + ID3 + ID4) * 96) + (Average QG * 4)) / 100

The IGQV is proposed in this study is not present in the original WHOQOL methodology.

RESULTS

Responses from the questionnaire allowed us to obtain the following averages for domain, General Questions (GQ) and General Index of Quality of Life (GIQV) (Table 03):

	D 1	D 2	D 3	D 4		
	Physical	Psychological	Social Relationship	Environment	General Questions	*GIQL*
Mean	73,7	71,1	76,0	65,5	68,1	71,5
SD	11,5	13,7	15,1	12,7	14,9	10,0

Table 03 - Results of the assessment of areas and issues in general scores.

The values of minimum and maximum results are shown in table 04

	D 1	D 2	D 3	D 4	General Questions	GIQL
	Physical	Psychological	Social Relationship	Environment		
Mínimo	35,71	33,33	41,67	34,38	25,00	52,43
Máximo	100,00	95,83	100,00	93,75	100,00	96,50

Table 04 - Value of minimum and maximum values.

DATA ANALYSIS

Use a scale proximate with partitions in fifths, the first of which corresponds to a classification corresponding to poor, according to the poor, the middle third, fourth and fifth good to excellent down by 5 in the median scores (10, 30, 50, 70 and 90), TIMOSSI (2009) comments that the zero score represents the worst quality of life and 100 the best according to table 05

Classification	Terrible	Bad	Medium	Good	Excellent
Score	0 - 20	20 - 40	40 - 60	60 - 80	80 - 100

Table 05 - Scale of classifications.

Statistical analysis for the correlation between the results was performed using the analysis tool of Excel spreadsheet Microsof Office and achieved high correlation between the variables presented. (Table 06)

	Physical	Psychological	Social Relationship	Environment	General Questions	*GIQL*
Physical	1					
Psychological	0,973	1				
Social Relationship	0,960	0,963	1			
Environment	0,980	0,982	0,963	1		
General Questions	0,964	0,956	0,942	0,969	1	
GIQL	0,971	0,974	0,974	0,984	0,962	1

Table 06 - Analysis of correlation between data.

All values of the data obtained are in the range of classification called good, since the maximum values are inserted into the excellent rating and minimum values among the poor and middle range.

CONCLUSION

Quality of life is the condition for the survival of individuals or group of persons implies respect for cultural differences, historical, religious and personal choice, is determined by meeting the basic needs of human beings, enabling self-esteem, and the projection achieving their goals.

Who does not benefit from healthy habits early can now opt for change, improving the quality of life and ensuring an aging above the threshold of disability.

Proposals for evaluation of subjective quality of life for the most part do not include scores of indices aimed at the

general recovery of the areas or dimensions of quality of life, with the proposition of GIQV not want to abandon the sector analysis, as these are extremely importance for changes in lifestyle, the general indexes do not identify areas in which the dimensions that must be improved.

The table of percentile and GIQV derived from the WHOQOL-BRIEF, be useful in the performance of teachers of the discipline of Quality of Life in undergraduate engineering UTFPR, placing the students in relation to their population of reference data and not the foreign population its context.

The strong correlation with GIQV areas and open questions follows that it can be used as a tool for predicting subjective overall levels of Quality of Life of academic engineering UTFPR.

The spreadsheet model used in this study is available at www.cp.utfpr.edu.br/pafe/avaliacao or through a request via email and the test can be done on line at www.cp.utfpr.edu.br/pafe/whoqol-breve-igqv.

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ABSTRACT

The Federal Technological University of Paraná State - UTFPR included in engineering courses in the humanities discipline Quality of Life to make their scholarly importance of healthy habits for the quality of life. This study seeks to these scholars propose a general index of quality of life (IGQV), than building a spreadsheet for calculation of scores and a table of percentiles for the analysis and comparison of data. The majority (89%) of students are males with a mean age of 19.7 years. Data were collected by the WHOQOL-BRIEF questionnaire to be fully answered. The analysis of correlation showed high correlation between the rate of GIQV and the four areas of the instrument (physical, psychological, social relationships and environment). With the results obtained and analyzed it appears that the GIQV can be used to represent the state of quality of life of the academic engineering courses of UTFPR.

KEYWORDS: quality of life, academic of engineering, health, lifestyle.

RÉSUMÉ

L'Université Technologique du Paraná - UTFPR inclus dans leurs études d'ingénieur en sciences humaines, la discipline de la qualité de vie, afin conscientizarl son importance académique de saines habitudes de vie avec plus de qualité. Cette étude académique de ce cours est de proposer l'utilisation d'un index général de la Qualité de Vie (IGQV) à l'évaluation subjective structurée de la qualité de vie connue sous le nom WHOQOL-brief, et vérifier sa corrélation avec les domaines de la même, trop ont été construits une feuille de calcul pour le calcul des scores et une table percentile pour l'analyse et la comparaison des données. La majorité (89%) des étudiants sont de sexe masculin avec un âge moyen de 19,7 ans. Les données ont été recueillies au moyen du questionnaire WHOQOL-brief, l'analyse de corrélation a révélé un taux élevé de correspondance entre le IGQV et les quatre domaines de l'instrument (physique, psychologique, relations sociales et environnement).

MOTS-CLÉS: Qualité de la Vie, Académie de l'Ingénierie, de la santé, habitudes de vie.

RESUMEN

La Universidad Tecnológica de Paraná - UTFPR incluido en sus cursos de ingeniería en las humanidades, la disciplina de la calidad de vida para concientizarla su importancia académica de hábitos saludables para una vida con más calidad. Este estudio académico de este curso es la de proponer la utilización de un índice general de Calidad de Vida (IGCV) para la evaluación subjetiva estructurado de la calidad de vida conocida como WHOQOL-breve, y comprobar su correlación con los dominios de la misma, también se construyeron una hoja de cálculo para el cálculo de las puntuaciones y una tabla de percentiles para el análisis y comparación de los05 datos. La mayoría (89%) de los estudiantes son varones con una edad media de 19,7 años. Los datos fueron recolectados através del cuestionario WHOQOL-resumen, el análisis de correlación indica una alta tasa de correspondencia entre la IGCV y los cuatro dominios del instrumento (físico, psicológico, relaciones sociales y medio ambiente).

PALABRAS CLAVE: Calidad de Vida, Académico de Ingeniería, Salud, Estilo de Vida.

RESUMO

A Universidade Tecnológica do Paraná – UTFPR incluiu em seus cursos de engenharia, na área de humanidades, a disciplina Qualidade de Vida, visando conscientizarl seus acadêmicos da importância de hábitos saudáveis para uma vida com mais qualidade. O presente estudo realizado com acadêmicos desse curso visa propor a utilização de um índice Geral de Qualidade de Vida (IGQV) para o instrumento de avaliação subjetiva da Qualidade de Vida conhecido como WHOQOL-BREVE, e verificar sua correlação com os domínios do mesmo, Também foram construídas uma planilha para cálculo dos escores e uma tabela de percentil para a análise e comparação dos dados. A maioria (89%) dos acadêmicos é do sexo masculino com idade média de 19,7 anos. Os dados foram coletados por meio do questionário do WHOQOL-BREVE, cuja análise de correlação indicou alta taxa de correspondência entre o IGQV e os quatros domínios do instrumento (físico, psicológico, relação social e meio ambiente).

PALAVRAS-CHAVE: Qualidade de Vida, Acadêmicos de Engenharia, Saúde, Estilo de Vida.

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