

Representational Comparisons of Health Education for Alcoholics: a Study of AnCo-Networks

ORIGINAL

Tito Lívio Ribeiro¹, Cláudia Ribeiro Lopes²,
Ismar Eduardo Martins Filho³,
Márcia Aparecida Ferreira de Oliveira⁴,
Álissan Karine Lima Martins⁵, Thainara Araújo Franklin⁶,
Maria Lydía Aroz D'Almeida Santana⁷,
Alba Benemérita Alves Vilela⁸

- 1 Nurse. PhD student of the graduate program in nursing and health of UESB. undergraduate course teaching in UFCG of Nursing.
- 2 Accounting sciences. PhD in Diffusion of knowledge from UFBA. Professor of Information system course graduation of UESB.
- 3 Dental Surgeon. PhD in Dental Sciences from USP. Professor of the graduate program in nursing and health of UESB.
- 4 Nurse. PhD in social Sciences from PUC-SP. Professor of the graduate program in nursing of USP.
- 5 Nurse. PhD in Nursing from UFC. Professor of the graduate program in nursing of URCA.
- 6 Nurse. PhD student of the graduate program in nursing and health of UESB. undergraduate course teaching in UESB of Nursing.
- 7 Physiotherapist. PhD student of the graduate program in nursing and health of UESB. undergraduate course teaching in UESB of physiotherapy.
- 8 Nurse. PhD in Nursing from UFC. Professor of the graduate program in nursing and health of UESB.

Abstract

Introduction: The advancement of alcoholism on the population has already been characterized as a serious public health problem, requiring the development of actions and strategies to reduce the vulnerability of these individuals.

Objective: To know the social representations from the inducer term "health education for alcoholics", and also to identify sociodemographic and defining characteristics about alcohol consumption.

Method: This is a mixed approach of research, a type of transversal, census and exploratory, which included 121 students. We used the use of technique of free evocation of words to inducing term "Health education for alcoholics", and a questionnaire that identifies the aspects related to alcohol consumption and social issues involved.

Results: 56.2% of people have consumed alcohol, and 37.2% live with people that consume alcohol daily, and when asked about the knowledge of the parents towards the consumption of alcohol 46.3% respond positively, and 62.8% dialogue before the consummation, they were identified as core words: help, support groups, lectures or family.

Conclusion: Health education as practice should be represented by care networks in mental health of the Unified Health System - SUS, which are responsible for activities that provide reeducation to alcoholics, involving the family in the context.

Contact information:

Tito Lívio Ribeiro.

 thitolivio@gmail.com

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Introduction

Alcohol is a psychoactive drug which leads to dependence causing social and economic damage in society, determined by the volume consumed and the pattern of drinking. Some factors such as culture, the availability of alcohol, economic development and the effectiveness of public policies for this use are relevant factors in order to clarify historical differences in use [1].

The excessive consumption of alcohol among college students is a public health problem that has negative attitudes and can lead to poor care and prejudice before the alcohol dependent. In some continents, like Europe, Australia, South America and North America, two in five students are willing to a pattern of high-risk drinking, causing more than 200 diseases and injuries in individuals, the most evident are alcohol dependence, liver cirrhosis, cancer and injuries [2 to 4.1].

Thus, to be lawful and have easy access, alcohol is the most consumed drug by university students and it is considered the gateway to the consumption of other drugs, as many students report using at least one illicit drug in their life [5]. Therefore, it is necessary to implement educational activities in the university.

Health education meets with education, with a marked field by various political and philosophical views on man and society, which through communication and dialogue will be transference of knowledge and a search of the significance of meanings [6]. In the field of public health, guidance of new practices such as general aspects of a disease, disease prevention, health promotion, is important and a difference in educational activities. Therefore health education is a process that links the participation of the entire population looking for the dynamics of the search for a well-being and self personal fulfillment [7].

The importance of health education as an intervention in the university students' everyday life becomes fundamental because of the high rate

of alcohol consumption, so they are vulnerable to abuse and dependence [8], and these actions are recommended in the care of the Unified Health System - SUS.

Thus, this study aimed to identify the representations of a social group composed of university students of nursing and medicine courses, from inducing term "health education for alcoholics", in order to identify characteristics and meanings that surround this social environment on health education for alcoholics in order to point out ways for planning interventional actions in accordance with the relevant interpretations.

Methods

This study is a mixed approach of research, as the presence of quantitative and qualitative analysis [9], with crossing, census and exploratory character, with the participation of entering students of Nursing and Medicine courses of Universities and Colleges in a city of the middle region of Paraíba (Brazil): Cajazeiras-PB.

While quantitative study, we used the AnCo Network Theory as established [10], and analysis of sociodemographic variables (alcohol consumption, interaction with alcohol, contribute to income, knowledge and consumption dialogue with parents, sex, marital status, religion, ethnicity and age). As for the qualitative aspects we analyzed the content of social representations characterized by the central core, from the words evoked.

The inclusion criterion was enrollment in all subjects in the initial period in educational centers, and university; and the exclusion criterion was enrolled at other periods that coincide with the initial period. However, we recruited the total of 121 students and the research was approved by the Ethics Committee of Universidade Estadual do Sudoeste da Bahia, under the identification number 1063037/2015. The inclusion in the study occurred after the acceptance of the participants with the necessary signing of the Instrument of Consent.

Social representations are a set of concepts, propositions and explanations coming from the everyday life of the research subject about the research object [11], explaining how and why individuals differ among themselves in relationships, undergoing a cognitive and social logic [12].

The survey was conducted in April and May in private and public institutions in the city that offered vacancies in these courses. Qualitative information was arising through a technique of Free Evocation of Words Test, with the inductors terms "health education for alcoholics", oriented the production of up to five words that come to mind. After the recall it was requested to the subjects for reallocating the words in order of importance, which is used for analysis and production data, with investments in the theory of social representations.

The use of the words of Free Association technique in the field of social representations becomes differential by using the application of structural analysis in scientific research, as the structural approach establishes a social representation as an organization, a framework seen in different dimensions [13-16]. In this regard, the cognitive model for analysis of social representations entitled ANCO-NETWORK emerges as a possible way to identify the structure and representational content.

The AnCo-networks understands that the representations are built from the relationships established by individuals in a social group, according to the Social Representation Theory [10], defines a strategy using semantic networks built from the evocations for analysis of the structure and content of these representations.

Thus, the AnCo-networks model provides that each inductor term results in a word of analysis corpus of evoked words generating a semantic network of social representations. And, from analysis of the resulting network, we can identify each element that composes the structure of representations using metrics networks and defining characteristics.

Furthermore, this model also supports a qualitative analysis by the sense of groups generated by the thicker connections between words (vertices) that make up the network.

For identification of each representation element (central core, first periphery, the second periphery and contrast elements) the ANCO-NETWORKS model use network analysis metrics, such as average network degree ($\langle k \rangle$), and the centrality grade (C_g) and eigenvector (E_c). In the analysis, these metrics are evaluated together and not in isolation.

According to Lopes

The average degree indicates the average number of connections between the incidents between vertices (words) in the network, so it is one of the parameters that will determine the second edge of social representations. The centrality of degree (C_g) and eigenvector (E_c) are metrics used for the characterization of the elements of the structure of social representations, jointly analyzed and that will determine each performance element [10].

After the lifting of the database for analysis, we created a dictionary from the words evoked and when, for words with semantic approach, a common term was assigned to be used for analysis (e.g. the terms "gay" and "joy" were replaced by cheerful joy to every occurrence of the word "gay").

The word corpus of analysis was done in two stages. Initially we analyzed the corpus of words of all participants, consecutively a group of participants was isolated who responded positively to the question "coexistence with people who drink every day", obtaining a quantity of 41 subjects. Thus, we generated two analysis corpus, and consequently two semantic networks of evoked words. Therefore, the analysis was done watching every network generated individually in order to identify possible meanings attributed by those who lived with alcoholics.

As established [10], the metrics and limits that will identify each element that makes up the structure of a social representation are: as the central core _ vertex with $C_g > k$ and $E_c \geq 0.75$; First periphery _ vertex with $C_g > k$ and $0.60 \leq E_c < 0.75$; contrast elements vertex $C_g > k$, and $E_c \leq 0.45 < 0.60$; Second periphery _ all other vertices with $C_g < k$ or $C_g \geq k$ with $E_c < 0.45$. In this study, however, content representations from the central core will be discussed.

During processing and modeling phase of the corpus of evoked words as defined in AnCo-network model, an application developed was used [17] and for the calculation and visualization of semantic networks we used Gephi software [10].

Results

The analysis was developed in two ways: from the sociodemographic variables, in order to establish a profile of survey participants; through the structural approach in order to identify elements comprising representations of the structure and its contents.

In the analysis of alcohol consumption, it is observed that 56.2% of individuals consume alcoholic beverages and 37.2% live with people who consume alcohol daily. About 95 university entering students do not contribute to the family income (78.5%), and when asked about the knowledge of the parents towards the consumption of alcohol 46.3% respond positively, and 62.8% dialogue before the consummation, all described in **Table 1**.

By analyzing the entering students who live with people who drink alcoholic beverages daily, it is clear that factors such as alcohol consumption, contribution to family income, knowledge and dialogue with parents on consumption are similar to analyze all university students, what are willing in **Table 1**.

The research showed the prevalence of males (62%). However, as those who live with people who consume alcohol daily, the prevalence is women, with 57.8%.

Table 1. Distribution of survey participants according to data related to alcohol consumption. Mesoregion of Paraibano hinterland, Brazil, in 2015.

Variables	All university entering students		Live with consumption	
	F	%	F	%
Consumption of Alcohol				
Yes	68	56.2	29	64.4
No	53	43.8	16	35.6
Live with consumption				
Yes	45	37.2		
No	75	62.0		
Absents	1	0.8		
Contribute with Family income				
Yes	24	19.8	8	17.8
No	95	78.5	36	80.0
Absents	2	1.7	1	2.2
Parents know about their consumption				
Yes	56	46.3	26	57.8
No	12	9.9	3	6.7
Dialogue with parents about consumption				
Yes	76	62.8	30	66.7
No	45	37.2	15	33.3
Source: Research data				

In relate to the groups, the majority is single (87.6%; 84.4%), and the predominant age group is between 16-24 years-old (77.7%; 75.6%) and the predominant religion is Catholic (71.1%; 66.7%) and for ethnicity most are white (47.1%, 48.9%) as shown in **Table 2**.

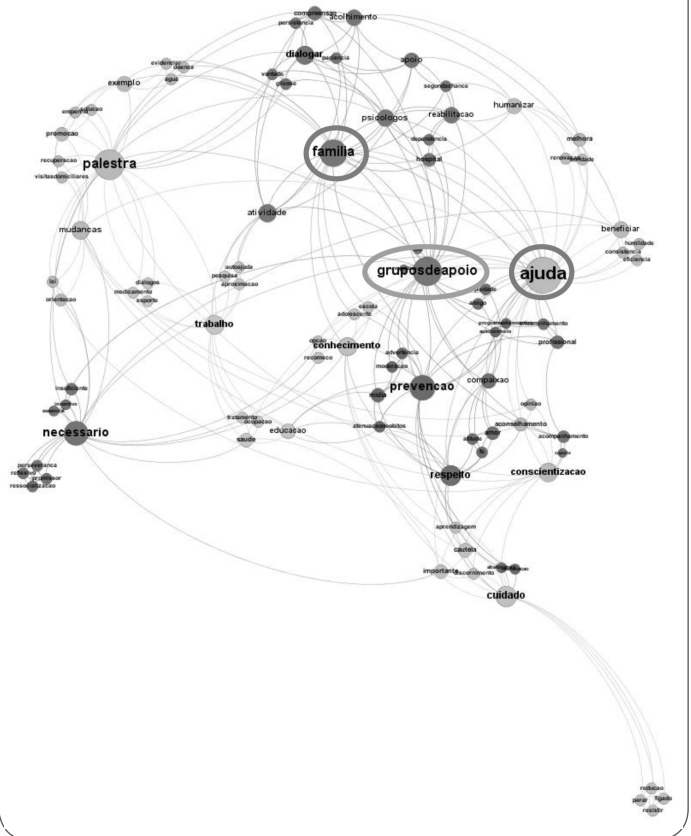
Table 2. Distribution of survey participants according to demographic data. Mesoregion of Paraibano hinterland, Brazil, in 2015.

Variables	All university students		Group that live	
	F	%	F	%
Gender				
Male	75	62	19	42.2
Female	46	38	26	57.8
Marital status				
Single	106	87.6	38	84.4
Married	10	8.3	4	8.9

Variables	All university students		Group that live	
	F	%	F	%
Marital status				
Divorced	3	2.5	1	2.2
Widower	1	0.8	1	2.2
Common-law marriage	1	0.8	1	2.2
Religion				
Catholic	86	71.1	30	66.7
I do not have	14	11.6	6	13.3
Protestant	13	10.7	4	8.9
Others	4	3.3	2	4.4
Spiritist	3	2.5	2	4.4
Absents	1	0.8	1	2.2
Ethnicity				
Caucasian	57	47.1	22	48.9
Pardo	51	42.1	18	40.0
Black	10	8.3	4	8.9
Indian	2	1.7	1	2.2
Others	1	0.8	0	0
Age group				
From 16 to 24.	94	77.7	34	75.6
> than 24.	27	22.3	11	24.4

Source: Research data

Figure 2: Network of entering students who live with alcoholics, especially the vertices/ words identified as the core of social representation, from the inducing term "health education for alcoholics"; Mesoregion of Paraibano hinterland, Brazil, in 2015.

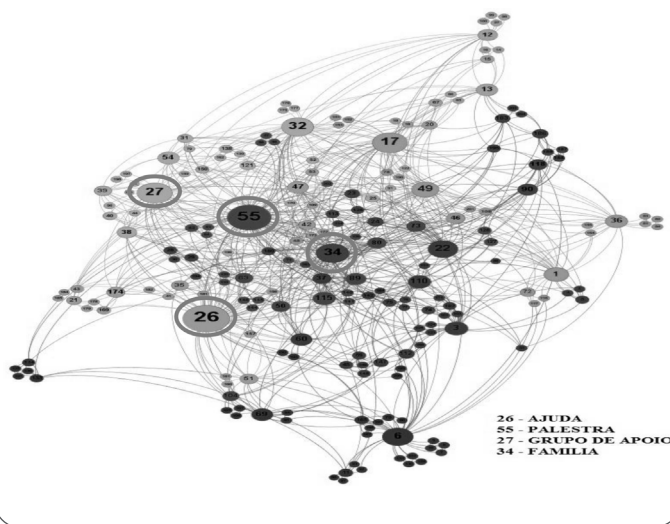


In the analysis of the structure and content of social representations from the data collected by the total participants, the university entering students produced a corpus with the presence of 542 words for inducing term "health education for alcoholics," and from these 204 words many different. Resulting thus in a semantic network consisting of 204 vertices, with 875 edges, or connections between the vertices.

By applying AnCo-network model we identified as core vertices/words: help, lectures and support groups, represented through networks in **Figure 1**.

By analyzing the group of entering students who live with people who consume alcohol daily, the corpus of terms evoked consists of 511 words, with

Figure 1: Total Network of entering students group, highlighting the vertices/words that make up the core of social representation, from the inducing term "health education for alcoholics"; Mesoregion of Paraibano hinterland, Brazil, in 2015.



these 96 different words, resulting in a semantic network consisting of 96 vertices, 310 edges, or connections between the vertices.

The core identified in this network was the words: help, followed by support groups and family, as seen in the network in **Figure 2**.

Discussion

According to the questioning about drinking alcohol once in a lifetime, several studies with college students in different contextualization also show that most students consume alcohol. In Colombia, 351 students (88.6%) reported they have consumed [8]. In Italy 42% of the students said they considered themselves frequent users of alcohol consumption [18].

From the results of the present study, the dialogue with parents against the consumption of alcohol is present in the majority, it is important the perception and orientation about exaggerated consuming before their child. Studies indicate that the bad relationship and/or lack of parental dialogue with their children are a factor that leads to consummation of alcohol [19].

Living with people who consume alcohol daily is marked by various social, emotional and psychological problems. The prevalence of females in this co-existence becomes a concern, as studies show that women have emotional disorders by socializing with people who have alcohol-related disorders [20], like the findings in this study.

Social representations emerge from the construction of a common reality to a social whole. Thus, a core zone, stable and consistent, is characterized by a collective memory reflecting the values of the group, obtaining a general and basic meaning of this representation via the homogeneity of the social group [21].

Health education is a multifaceted field, involving methods that promote health, relating social factors and their interference, tracing different states of

health and well-being built by the company. However, this broader definition covers the engagement of the entire population before their everyday life and not just people at risk of becoming ill [22].

Thus, the words that emerge on the network and classified as core represent the social values that entering students live in their daily lives. The word "help" infers health education as a catalyst reduction front of continuous consumption and providing a better quality of life.

The term "support group" emerges from the observations of independent entering students from living in their daily lives with alcoholic or not. However, health education activities are represented from support groups such as Anonymous Alcoholics or religious groups. The meeting of support groups is a time where individuals share their personal experiences with the aim of support to prevent the consumption of alcohol, with a re-education [23].

The representational content in "lecture" infers to these students that the promotion of health education is obtained from activities where a professional or person with proper knowledge will provide information on the consequences of continue consumption of this substance, re-educating the alcoholic. Therefore, the realization of strategies such as lectures is a practice carried out for health education, being viewed in various health care settings with diverse audiences [24-26].

By highlighting the university subgroup that live with people who consume alcohol daily (shown in Figure 2) it is possible to perceive the movement of the term "lecture" to the first periphery while the term "family" is identified in this group as the core. This result shows that the meaning of health education for the entering students who live with alcoholic people is marked by the need to support, care, (re) education, persistence, and these interventions resulting by living with alcoholic.

Results that are corroborated [27] affirm that alcoholism causes social, financial, psychological and

health problems to those who consume and for all their family, which is the stabilization of relations between alcoholic and society.

Conclusions

Social representations of university entering students on health education for alcoholic people are linked to health education practices identifying its importance to the alcoholism. However, health education and practice should be represented by care networks in mental health of the Unified Health System - SUS, which is responsible for activities that provide the (re) education of alcoholics, incorporating actions of promotion and prevention, and it is a key element in the care and support for the family.

From the results it is clear that the meaning assigned by the entering students in nursing and medicine courses, in regard to the subject "Health education for alcoholics", differs when they live with an alcoholic person and there is a movement of meaning as an intervention of a preventive practice for the professional care with the alcoholic and for who live with this person.

Thus, it is necessary to encourage the promotion of mental health care network in order to be a reference in health education practices, ensuring primary health care as one of the first quest by the alcoholic people.

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