

Health: bioecological analysis of subjective well-being in teaching

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ABSTRACT. Reflect on the concepts that go through the history of people with disabilities, in the context of their rights, as the processes involving their education is an emerging theme. The objective of this work was to understand the conceptions about health of university professors based on the Bioecological Theory of Human development. This is an exploratory case study research with a mixed approach carried out with professors from a public university in the State of Rio Grande do Sul. The method of data collection was the interview and the self-administered questionnaire. 73 professors and 6 interview participants from different fields of knowledge, selected at random participated answering to the questionnaire. It was observed that the systems that constitute the organizational basis of the participants' lives were similar and that their life stories, their culture, the media and the relationships they establish at work are factors that influence their conceptions about health and about the relationship established with people with disabilities in Higher Education. The participants' conception of health, however, still runs through the biomedical model, but has been undergoing a progressive change. It is concluded that the conceptions about health are linked to life history, when then one starts to subjectivity. Combined with the contextual issues of a particular place, the concept of health has been progressively detaching itself from the concept of disease.

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Introduction

Professional training to work with the diversity of students and situations that permeate Higher Education, which involve not only people with disabilities but also aspects related to race, gender, religion, culture and color, in an inclusive perspective, have been discussed especially in the areas of Education and Health. Thus, teacher training has been rethought, so that they appropriate conditions for conducting a pedagogical practice at this level of education, which offers real conditions for the students' learning, who suffer from the refractions of the social issue (Iamamoto, 2012), in particular for people with disabilities.

The concept of health and the perception of adequate conditions for a satisfactory life permeates different aspects, which involve human life. Although the current public policies are focused on a concept of health that goes beyond the disease, but that considers different factors involved in health conditions and individual perception of it, based on a biopsychosocial model, this apparent overcoming does not reproduce in the speeches. This aspect has been already pointed out by Battistella (2007, p. 51), who observes that "[...] the view of health, understood as the absence of disease is widely spread in common sense, but it is not restricted to this dimension of knowledge [...]", being reproduced in spaces that work with health policies. This argument is reinforced by the study by Damiance, Tonete, and Daibem (2016), who observed, in the practice of health professors, a tendency to reproduce biomedical techniques in teaching practices, with a disconnection between theory and practice. This aspect demonstrates the need for research that can contribute to a change in conceptions about human health, in a progressive disconnection.

These discussions are organized in a social context, in which socioeconomic and environmental changes are important influencers of human conceptions about phenomena and, mainly, about public policies. In this way, man, in a process of constant development throughout the life cycle, is vulnerable to the influence of different spaces and interpersonal relationships that he establishes for his survival. The Bioecological Theory of Human Development (BTHD), by Urie Bronfenbrenner, comprises human development in an organization

of embedded systems (originally proposed as Russian dolls), which influence the biopsychological constitution of people from interactions with the environment and with relationships interpersonal, direct and indirect (Bronfenbrenner, 2011). This theory can contribute to understanding how relationships and the environment influence the concepts established in society, about both disability and the health that borders it and, therefore, the education of people with disabilities, within an inclusion paradigm.

In this discursive and applied movement of inclusion, especially for people with disabilities, the question is: Do the health concepts of university professors still permeate the biomedical model? Therefore, having this research problem as a reference, the objective of the study was to understand the conceptions about health of university professors based on the Bioecological theory of human development.

Material and methods

The study was carried out with professors from a public university in the State of Rio Grande do Sul. Its approach was the mixed method, combining quantitative and qualitative data and techniques in the perspective of complementarity; this integration guarantees the achievement of results, as it does not depend on just one of the aspects that make up the approaches. When combining the interview and the semi-structured questionnaire, in the context of the case study, theoretical, conceptual, empirical and epistemological similarities were found that allowed to develop inferences about the research problem. The importance of using the mixed method or multimethod in this study is emphasized, since, by enabling the expansion and deepening of the analyzes, it responds robustly to the research question, based on the systems referred to by BTHD.

To carry out the quantitative step with the participating professors, a sample calculation was performed, with a 95% confidence level and a margin of error of 11%, which resulted in a minimum sample of 73 participants. In this way, the research is restricted to the units of the campus-headquarters of a public Higher Education Institution (HEI), with higher education degrees, using the HEI's selection criteria, the ease of access to teachers.

Two research instruments were used, an online questionnaire and an interview script. Both were elaborated by the researchers based on the studies of Bronfenbrenner (2011) and Krebs (1995), the Organic Law of the Unified Health System (Brasil, 1990), the works of Almeida Filho (2011) and Czeresnia, Maciel, and Oviedo (2013), which deal with both the concept of health and the social determinants of health; the work of +Lobo (2015), which deals with the history of people with disabilities; the National Policy on Special Education from the perspective of Inclusive Education (Brasil, 2008); and the Brazilian Inclusion Law (Brasil, 2015). The pilot test was carried out in the second half of 2017, with five university professors in the areas of health and education, linked to HEIs. The test did not show the need for adaptations to the instruments.

The online questionnaire aimed to know the conception of teachers about health, within the context in which they are inserted, in this study it was the HEI. The instrument consisted of 70 questions and, divided into four parts, which contain open and closed questions. The interview guide with seven guiding questions deals with the conceptions of health and disability with a focus on the biomedical and biopsychosocial models, the understanding of the clinical diagnosis and the challenges of the pedagogical practice with people with disabilities, all these guiding axes based on the understanding of the environment and its contexts, as directed by the BTHD of Urie Bronfenbrenner (1996, 2011). As for this organization, each dimension of the theory was considered to understand the environmental influences in the teaching concepts.

To develop the research, two concurrent and complementary strategies were used that aimed to understand the teachers' understanding of health concepts, according to the context in which they are inserted, as suggested by the BTHD. The use of this theory sought to recognize the organizational tendency of the ecological systems of which these teachers are part and how these systems can influence the teaching concepts. For this, the first strategy was to send teachers, who received a greater number of students with disabilities since 2008, an online questionnaire, that is, 780 professors. The Data Processing Center provided the number 780, referring to the number of teachers from the three centers with e-mails registered in the system and active in 2018.

The conception identified, from the questionnaire, was used as a basis for the analysis of the conceptions from the subsequent interviews with the selected professors. The instrument was sent to all professors at the three centers, through the questionnaire system of the HEIS Data Processing Center, made available on the Professors' Electronic Portal, as well as by notification via the Data Processing Center's notification system.

Quantitative data collection was carried out between the months of January and June 2018, with the data being sent by the Data Processing Center carried out once a month for two months. The acceptance of participation was conditioned to the marking of the item 'accepted' with the questionnaire and the origin of the answers, in compliance with the precepts of research with human beings (Brasil, 2012).

The second concomitant strategy consisted of an extended recorded interview, using a Sony® digital voice recorder. The recording was stored on a pendrive. The interview was conducted individually, with six higher education professors (two from each center), from the three selected centers. New contacts were made when the guests did not accept to participate in the research, until the expected number of participants totaled (six participants, two from each center). The interview took place at the HEIS headquarters campus, in a location chosen by the participant, that is, in an environment in which he was familiar, avoiding the interference of the structural environment on the research, as suggested by Bronfenbrenner (1996) and Yin (2014). This phase aimed to identify the factors that can influence their conceptions about health and disability.

The selection of teachers had the main criterion of having had experience with students with disabilities in the teaching career. The search for teachers took place from the survey of enrollments of students with disabilities (physical, visual, hearing, multiple and intellectual disabilities, autism and high skills / giftedness, according to the National Policy on Special Education in the Perspective of Inclusive Education (Brasil, 2008)), consulted in the registry of the sector responsible for this registration (accessibility center) at the Institution, without identifying the student. From there, we sought teachers who taught subjects for students with disabilities. To this end, the secretariats of the undergraduate courses were consulted to obtain the contacts (e-mails) of the professors.

With the return of the questionnaires, the analysis of the information was carried out in a transformative incorporated way, in which the quantitative data were initially submitted to descriptive statistical analysis. The results generated were analyzed concurrently with qualitative data, creating the theoretical-methodological categories, as suggested by Bardin's content analysis (Bardin, 2011).

The interview responses were analyzed by the 'classical content analysis', proposed by Bardin (2011). Content analysis went through the three steps suggested by Bardin (2011): a) pre-analysis: consisting of fluctuating reading and constitution of the corpus based on listening to the interviews and formulating hypotheses, b) the exploration of the material: it basically consisted the coding of the collected data, excluding information that did not correspond to the research objectives; and c) the treatment of the results obtained and the interpretation of the data: in this phase, the collected data will be signified and interpreted.

As Yin (2014) advises, there is no fixed analysis, so it is possible to use different methods that are consistent with the depth and rigor required for the case study. The general analysis of the research was carried out incorporating the quantitative data to the qualitative data and vice versa, which justifies the presentation of the information within the analysis categories arising from the categorization by content analysis.

The study was based on a sample considered statistically significant, since it was over 30 participating professors, which allows estimation of population proportions. Thus, for the statistical analysis of the data, the computer application SPSS 2.3® was used, with descriptive statistics as an analysis resource and perceptions about their health and concepts generated from them as variables of interest. The non-parametric Chi-square tests ('p' value) were applied, which check if there is an association between the variables, that is, if the probabilistic model is adequate to the proposed data set, the Mann-Whitney test (U test), the Kruskal-Wallis test and Student's 't' test.

To present the results, the respondents were assigned the letter 'E' and a numerical algorithm '1,2,3,4,5,6' at random. The questions related to the online questionnaire received 'S' codes for the sections in which the instrument was divided and 'Q' for the sequential question, for example, the code S01Q01, that is, session 1 question 1.

It should be noted that all those involved in the quantitative and qualitative collection agreed to participate by signing the Free and Informed Consent Form (ICF), both in the printed version for the interview and in the online version, marking the option 'Accepted' for enter the questionnaire. As well, the HEI provided authorization for the research, following the ethical precepts of research with human beings from Resolution No. 466/2012, being approved by the Research Ethics Committee of the Federal University of Santa Maria (UFSM), under the CAEE registration: 94330218.3.0000.5346 and approval number: 2,883,231.

Results and discussion

The data show that most of the teachers who participated in the study are female and consider their health to be good (56%). The participants in this research have an average age of 43.47 (± 12.72) years, are married (57%, 1.57 ± 0.76), have children (53%, 1.53 ± 0.50), meets weekly with his parents (30% 2.72 ± 1.39), semiannually with siblings (32%, 3.22 ± 1.33), weekly with friends (31%, 2.32 ± 1.13) and maintain friendships with the smallest part of co-workers (41%, 2.88 ± 1.22). In addition, professors declared to have studied in public schools (48%, 1.75 ± 0.81), most of them have a doctorate level (68%, 3.98 ± 0.72), have an average of 14, 95 (± 10.04) years of teaching in Higher Education, with 69% (1.31 ± 0.46) reported having academic experience with people with disabilities and 47% (1.53 ± 0.50) with people with special educational needs (SENs).

The qualitative research developed based on BTHD, was carried out with six professors, two from each center and with ages varying between 30 and 54 years, with an average of 44 years and had an average duration of 60 minutes. The analysis of the information allowed the elaboration of two methodological categories, namely: Constitution of the participants' systems and Conceptions about health, which include the qualitative and quantitative data presented here.

Constitution of participants 'systems

The information collected made it possible to characterize the micro and mesosystem in which teachers are inserted and how they can influence their conceptions. Quantitative research made it possible to analyze the exosystem and macrosystem in which these teachers are inserted. The quantitative data allowed to verify the teachers' conceptions about the themes in question, recognizing, in the sample, how they are interpreted.

After analyzing all the information collected, it was possible to identify the constitution of the HEIS teachers' systems, which can influence the teaching concepts. Teachers' systems are characterized by microsystems formed by nuclear families (parents and children), whose mesosystem consists of parents, siblings, friends, departments and the teaching center. In the exosystem, there are HEIS guidelines and regulations, and professors are not directly involved in it, although they are influenced by their organization, the municipality in which they live, the work of spouses, close family members, friends and colleagues from other health centers teaching, department and graduate programs to which they are linked. The macrosystem is formed by the country, since the context of the HEI is a federal public and it is conditioned to the processes that involve federal decisions and legislation. In addition, the State of Rio Grande do Sul is listed, where HEIS is located, with its own culture. The chronosystem is formed by the socioeconomic system that governs governmental and global actions and, in particular, by the current paradigm of inclusion (Figure1).

With regard to the organization of bioecological systems, it can be observed that the individual systems of the participants were similar, just as Bronfenbrenner (2011) had already alerted, within a society, the systems of Russian dolls (fitting of dolls of the minor for the largest, in which one fits inside the other) they seem to be constituted of the same model, making them work in a similar way in your organization. Therefore, the presentation of the constitution of these systems occurs from the microsystem, culminating in the general representation of the information.

Professors who participated in the survey through the online questionnaire have ecological systems similar to those of the interview participants. However, it is worth mentioning that this is only an estimate, since the systems are particular to each person and it was not possible to recognize each of its particular dimensions through online questionnaires. Therefore, it was decided to conduct an interview that offers better conditions to characterize more deeply the systems in which they are inserted in general and considering the guidelines of Bronfenbrenner (2011) regarding the organization of the studies.

The microsystem of the teachers who participated in the online questionnaire consists of their families, since most of them are married (57%, 1.57 ± 0.76), have children (53%, 1.53 ± 0.50) and has help from domestic workers (53%, 1.53 ± 0.50). Similarly, the teachers interviewed presented microsystems with the composition of nuclear families, with differences only for a teacher who does not live daily (microsystem) with his family, who resides in another country. Among the rest, spouses and children or parents and siblings form microsystems.

In this study, the professors had, for the most part, the same family configuration as the Brazilian population. Bronfenbrenner (1996) considers the family and the workplace as the most powerful primary environments in human societies, implying in the developmental trajectories, patterns that maintain motivation and engagement in the activities developed, being, therefore, a source of support and motivation.

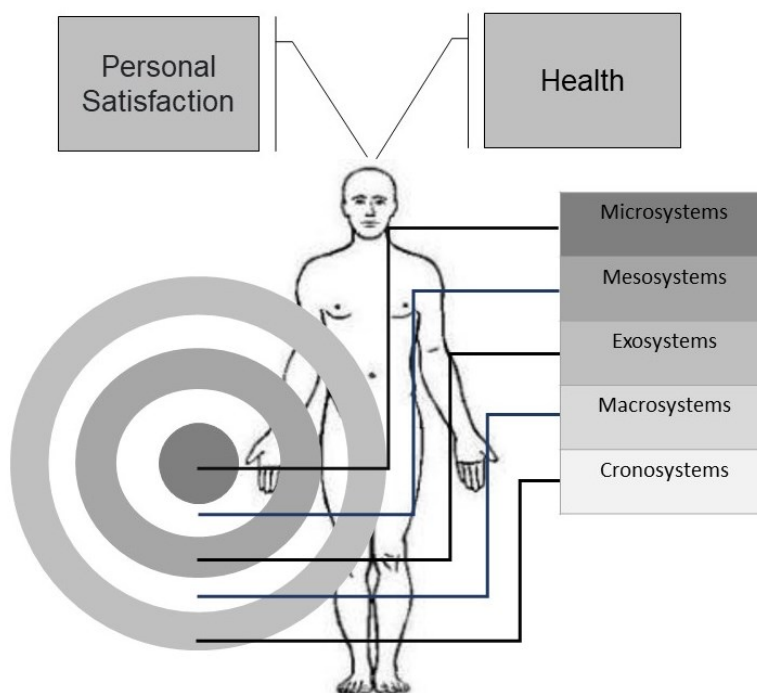


Figure 1. Conceptual dynamics of health, Santa Maria, RS, Brazil, 2020. Description of the figure: Drawing of the human body linked to the left side by a circle with five layers. Each layer is representative, from outside to inside the chronosystem, macrosystem, exosystem, mesosystem and microsystem. In the upper part of the drawing of the human figure, two pictures, in which the word subjective well-being appears and in the other, health. The figure seeks to illustrate what the human being and his health and well-being are subject to in the ecological view. How systems influence these conditions.

These influences directly affect human development, whether for children or other members, since everyone is in constant development. Thus, the ethnic and cultural configuration will influence the composition of the family, both with regard to economic and social resources, as well as the habits of life and the way the family perceives the world Papalia & Feldmann, 2013).

In addition, microsystems are formed by the workplace, as they are configured as potential development sites, due to the interactions that make them possible, both positive and negative, but that require malleability and learning in interpersonal relationships and in the structure itself. They are potential sites for development, since the actions developed in them and by the people who integrate them, influence the conduct of all those involved.

In this interaction between microsystems, teachers' mesosystems are formed. The participating teachers' mesosystems are basically made up of family members (parents and siblings), friends and, in some cases, but less frequently, by co-workers. The constitution of the mesosystem with assumptions of solidarity and trust is fundamental to exercise university teaching practice (Sampaio, Caldas, & Catrib, 2015).

Social interaction is a fundamental factor for the development of human beings from the first months of life. Social interaction is a fundamental factor for the development of human beings from the first months of life.

Due to the configuration of microsystems, teachers' mesosystems, in some cases, are also formed by spouses' co-workers, with whom they maintain friendships, constituting new mesosystems that will directly influence the course of their development (Bronfenbrenner, 1996).

The exosystem has a significant importance in development, because, although it does not directly involve people, it offers other significant to life (Bronfenbrenner, 2011). As an example, one can mention the stress generated by work, which implies withdrawal from leisure activities and the family itself, as explained by ED. Furthermore, in the exosystem, the institution as a whole and federal policies, for example, can influence family living conditions.

Thus, the professors' exosystem is basically formed by the work of their spouses, family and friends, in which they are not present, but whose dynamics imply the organization of the family, that is, their microsystem, and the municipality in which they live.

In addition, teachers are included within an exosystem formed by HEIs, which have their own operating characteristics, based on internal resolutions and the Institutional Development Plan (IDP). The researched

HEI, due to its characteristic of a federal public institution, is inserted in a macro-system context, which follows federal legislation, under the aegis of a country with its own and diverse characteristics and culture.

Therefore, in this research, the macrosystem consists of the country and the state of Rio Grande do Sul, public policies, legislation (federal and state), culture and environment that characterize the country as a whole. This macrosystem involves a transformative experience, which can be recognized both as the transformation of the means of capitalist production to neoliberalism and more specifically, as the change in the paradigm from segregation to that of integration and then from integration to that of inclusion.

The chronosystem is understood, in this study, as the global economy and the socioeconomic and demographic transitions that influence the development of public policies in the countries. In the educational context, world bodies are included, such as The United Nations Educational, Scientific and Cultural Organization (UNESCO), the United Nations (UN), the World Health Organization (WHO) and others that work with the perspective of analyzing these changes and suggesting ways of conducting public policies. It is important to mention the necessary delicacy when mentioning these world bodies, remembering that they, for the most part, operate within a capitalist perspective that governs global interests.

The chronosystem, therefore, deserves a separate section, given its complexity and the various factors that imply the constitution of subjects within society and the global economy, as basic parts of social organization. However, considering the characteristics of this study, it is limited to understanding where the conceptions of health and disability originate from the history of health and illness.

Conceptions on health

The analysis of online questions based on the graduation attributed by the Likert scale showed that 69.1% of respondents fully agree with the concept of health attributed by WHO in 1978, at the Alma-Ata Conference, under the aegis 'Health for all in the year 2000', that is, they agree with the concept that health is a state of complete physical, mental and social well-being, and not merely the absence of disease (Feio & Oliveira, 2015). Among the interviewed participants, this was also the trend, excluding from this WHO definition the fragment 'merely the absence of disease'. This understanding is entangled in a conception based on the biomedical model of health, which deals with health as the absence of disease. This fact can be observed in the statements of EC, "[...] health for me is not feeling bad, not feeling sick, for me this is health, not having pain [...]", and ED:

[...] health for me, I think it's you feeling good, you know ... besides those traditional exams that you have to be well, I think it's much more that you feel good about yourself, you know, why sometimes you have a little extra weight, but it's ok, it's a set, for me health is a set, why don't you have the tri-triglyceride cholesterol and don't have a good head, so I think it's a set [...].

The interviewed participant EE presents a similar position, stating: "[...] in fact it is you being in physical, emotional and psychological well-being, so it is you being healthy in all these areas, more or less". This conception can also be observed in EB's speech: "I think that a little bit about your organism itself, about being in order, about not having to bump into something, about blocking you from doing anything". For Canguilhem (2011, p. 38), "[...] health and disease are not essentially different ways [...]", there is no struggle between the two to remain in the body, they are ways that are distinguished by excesses, disproportion, disharmony of normal phenomena, which constitute sick states. Thus, everything that changes this pattern, previously established by the Health area, as a way of regulating the organism, can be considered as a disease, which suffers the action of different influencers.

The health concept of the interviewed participants did not consider biopsychosocial factors, pointing only to psychological factors and the presence or absence of disease. It is interesting to note that when the interviewed participants were asked about some aspect related to health that was marked in their lives, everyone, without exception, deals with the presence of diseases that happened to themselves or to family members, reinforcing the concept of health based on the model biomedical.

The general influences on the conceptions were crossed to identify if there is a difference between the participants of the three centers surveyed, and the value of 'p' was not significant for any variable, that is, the responses of the teachers of the three centers showed no relationship, or that is, they think similarly. It is understood, therefore, that the area of operation was not a determinant of these influences. However, using the Kruskal-Wallis test for independent samples, only the variable "I consider that the experiences I had during childhood influence the concepts of health and disability" showed a difference between the averages of the centers surveyed (Table 1).

Table 1. Teaching centers at HEI.

Likert Scale - S04Q15	Health	Human	Exact	Others
I totally disagree	6.2%	2.5%	4.9%	0.0%
Partially disagree	7.4%	1.2%	1.2%	0.0%
I do not agree nor disagree	7.4%	3.7%	2.5%	4.9%
Partially agree	13.6%	12.3%	4.9%	1.2%
I fully agree	7.4%	13.6%	2.5%	2.5%
Total	42.0%	33.3%	16.0%	8.6%
p value				0.74
Kruskal-Wallis Test				0.48

However, if the statement ‘health is the absence of disease’ is analyzed, 37% totally disagree with it, demonstrating the interlocution with the WHO concept, which considers health not as a mere absence of disease. This theoretical-conceptual change, implied in changes in conceptions and paradigms, in order to offer new responses to health needs, reflects on the perception that people have about their health, but does not necessarily imply a broader view, linked to social determinants (SD), which permeate the understanding of health.

Health professionals still perpetuate the biomedical model of health conception, especially with regard to the health services offered, including those linked to the Unified Health System (SUS), which deals with health in a broader perspective (Bomfim, Goulart, & Oliveira, 2014; Fertoni, Pires, & Biff, 2015). Fertoni et al. (2015), mention that the training of health professionals is still linked to the biomedical paradigm, even though the National Curriculum Guidelines of the Ministry of Education, based on international documents, have guided a tendency for a paradigm shift. Therefore, expecting the other areas to present a broader view may be a mistake, given that little or nothing stops with studies involving the theme of health.

Subjective well-being and satisfaction with life are related to several factors, intrinsic, such as personality type, affections, interpersonal relationships, and extrinsic, such as work, leisure, housing conditions, among others. These factors vary according to the ideal standard of living established individually (Papalia & Feldmann, 2013). It is, therefore, a particular subjective conception that is closely related to the conception of health, from a biopsychosocial perspective. This satisfaction with life for the interviewed participants goes mainly through the absence of illness, but also aspects related to work, financial condition, in some cases, and relationships with others.

In this sense, the study of Bomfim et al. (2014), with health professionals who work in the training for Collective Health, observed that the biomedical model of health conception still exists, in addition to attributing to the system, to the party politics, to the teams and to the users themselves, the source of health problems. This fact is interesting because it is expected that health professionals are attentive to the expressions of the social issue, as the biopsychosocial health model suggests, to develop their practice in a broad sense. Therefore, the need for work that invests in new perspectives on health is visible.

The WHO concept of health also brings up the discussion about the psychological factors related to the favorable health condition. In this sense, the study participants make clear the relationship between emotional aspects and the concept of health, according to the transcript of the statements of two participants:

[...] there are two types of health, physical and spiritual health, we have physical health when we are well, there is no problem, I think full health is when you are well physically and spiritually well [...] (EA).

[...] a lot is said about mental health and I think that mental health has a little to do, with the fantasies that you create or not or that create in you, about that, how it goes through, the story that I said before, I had asthmatic bronchitis, that was something that prevented me from doing things, another thing I am all crooked but I don't care about it anymore, in terms, ah, but you still have back problems, but it is not affecting me to do the things I want, it is not a serious health problem that is affecting me, but it is a health problem [...] (EB).

The professors' concept of health encompasses aspects related to mental health and considers them fundamental to the perception of each one about their health condition and about their potential to develop activities. Therefore, the professors' conceptions make clear the importance of favorable psychological conditions both for their perception of health and for the execution of activities.

Regarding the expansion of the concept of health, only two professors interviewed deal with social factors in the conception of health, moving through the current concept of health, which includes aspects about the environment and society (Almeida Filho, 2011; Czeresnia et al., 2013). The interviewed participant EB

mentions that health goes beyond physical and emotional well-being, both “[...] and the environment you live in, not feeling cornered or pressured to do something, or the other way around”. EF, on the other hand, refers, when asked about the concept of health, that

[...] health is a very complex thing, whose concept has evolved over the years, including some that have been overcome by others that are more comprehensive and more modern, but I think it is a state of well-being, ‘psychological, physical, social’ [...] maybe philosophical, gives a meaning to life and have energy and joy to get involved with life goals, philosophically if the person is not convinced of what they are doing, where they are going to, they have no goals, there is no use the organic part working well because she is not in well-being, right ... so this state of multiple well-being, of multiple factors [...] (EF, emphasis added).

It is interesting to note that this professor points to the philosophical conception of health, addressed by Canguilhem (2011). The conception of health is related, for most of the teachers interviewed, directly to their well-being, as can be seen in the statement of EB: “I think it is well-being, your well-being, the type of you are feel good and get the things you need to do, in a way I think it impacts your well-being, you can move things forward”.

The term ‘health’ encompasses several interpretations, according to the particular understanding of each one. The concept addressed by Canguilhem (2011), in a more philosophical perspective, opens space for particular interpretations about the concept and about the perception of each person about their health condition to be one of the most appropriate understandings.

People's development, regardless of the stage of the life cycle they are in, occurs due to the influence of different factors, including biological, environmental and social factors. In addition to this individual development and direct interference in the process, there are aspects related to the culture and organization of the State that interfere in development (Bronfenbrenner, 1996, 2011). These factors are included in the macro or exosystem context in which individuals live. Regarding the influence of culture on conceptions about health and disability, the questionnaire participants partially agree (39.6%) that it can influence these conceptions; however, there is a significant difference between the sexes regarding the statement regarding culture, both by the Mann-Whitney Test ($p < .001$) and by the value of $p < .004$.

Bronfenbrenner (1996, 2011) affirms the importance of the action of the culture of each community as an influencing factor of human conduct. The conceptions that permeate the lives of participants in general are also influenced by the historical and cultural processes (macrosystem) that involve people with disabilities and the concepts of health and disability widely discussed (Almeida Filho, 2011; Czeresnia et al., 2013; Lobo, 2015). In addition, there is an attempt, through legislation (macrosystem), which has the power to reach different spaces, to change paradigms, trying to guarantee rights and therefore change conceptions.

In the relationship between the factors that influence the conceptions, there is the perception of each person about their health. In the questionnaire, there was a question that addressed this element, and most considered their health to be good (55.6%) or very good (34.6%). The HEI under study presents, through the Pro-Rector of People Management (Progep), the Health and Quality of Life Coordinator of the Server, responsible for implementing programs aimed at the physical, social and mental health of the servers, offering attention to their workers. In addition, Progep organizes itself to offer training courses in different areas, including teacher training and health care.

When associating this perception of (good) health with the variables that were related to the concept of health, it was observed that there was an association between considering good health and considering that people are influenced by the media, at a significance level of 5%, whose objective was to identify the influence of the media with the influences of the concept of health. An exception was also the variable considering the influence of culture on conceptions, whose ‘t’ test demonstrated that there is a significant difference between the responses (Table 2).

Table 2. Perception of health and its variables.

	S01Q05	N	%	M	DP	P	Teste ‘t’
S04Q08	MB	28	38	4.50	.745	.000	.783
	B	45	62	4.29	.727		
S04Q14	MB	28	38	3.46	1.503	.431	.001
	B	45	62	4.11	.959		

MB: very good health; B: good health. S01Q05: How do you consider your overall health today? S04Q08: I believe that people in general are influenced by the media; S04Q14: I consider that my culture influences my conceptions about disability and health.

Most professors who answered the online questionnaire (49.4%) fully agree that the media influence people's conceptions, that is, that the media have the characteristic of being able to manipulate people's way of thinking. Among the participants in the questionnaire, 49.4% totally agree that the media influence people, 37% of women totally agree and 14.8% of men partially agree with the statement. This statement was confirmed both by the significant 'p' value, demonstrating that there is an association between the gender variable, and in the Mann Whitney Test ($U = 0.40$), at a 5% significance level, stating that the distribution of responses is different between the genders, that is, that women, in this case, have a greater tendency to affirm that the media influence the conceptions.

Although BTHD takes personal interactions as a potential basis for development, through dyads and molecular and molecular activities that interact to influence the environment, it is known that, due to the available technology, people are influenced, even if unconsciously, by the mass media and especially by the media, which may be allocated at the level of the exosystem. In the child in particular, the media acts as a normative influence, which ends up regulating its functioning through technological resources, if the proper care with high exposure is not being taken by adults. In addition, this access is often made by adults as role models for children, being treated as a second order effect (Bronfenbrenner, 1996). Among adults, the media influences especially the aspects involved with consumption in its different faces and means.

Culture is inserted within the teachers' macrosystem and has distinct characteristics, in a relationship of continuity. However, Bronfenbrenner (1996) lists characteristics that are common in the organization and its functioning, the types of environment in which people enter the stages of their lives, the content and organization of molar activities, roles and relationships in each environment, extent and nature of connections between environments that affect a person's life.

Culture is one of the elements widely discussed among researchers as an important influence on human development, since it permeates the constitution of families, delimiting customs, traditions, beliefs and values, knowledge, language, behavior and attitudes learned and shared with others, among other aspects common to each society. However, culture, especially when it meets others, undergoes constant transformation processes, a fact nowadays facilitated by the media and the internet (Papalia & Feldmann, 2013). Therefore, the concepts of health and disability bring strong cultural elements, which tend to be modified, especially with public policies. However, the present research did not allow a deepening on the influence of this element in the conceptions.

Conceptions are influenced by the various factors involved with human development in its different phases. Problems related to health from a biomedical point of view are inherent to human life, that is, no human being is immune from suffering, at some point in life, from some alteration related to the functions and structures of the body. Among the teachers interviewed, all went through situations that involve the presence of disease in their microsystems at different stages of life, which implies the way in which people deal with each situation, based on their experiences.

According to Fráguas, Almeida, and Soares (2018), each family has a way of perceiving the disease, being influenced by the environment, its values and culture, which, in turn, will imply in the way that each one has to take care of its members. In addition, for the aforementioned authors, the presence of the disease within the family involves a change in attitudes, perceptions and relationships, influencing the way they care. Each family is structured with different interpretations of health and disease. This reinforces the importance of health and education professionals, who work with families, to know the context and the processes involved with each one of them.

Participants interviewed EA, EB and ED point to the importance of family relationships as factors of satisfaction and support at different stages of life. For them, the family constituted by their microsystems is the support for their constitution as subjects. It is important to mention that this family constitution is not restricted to the nuclear ones, consisting of father, mother and children, but encompasses the relationships of affection, care and attention that define a family context, regardless of who are the people or the gender that defines them.

Bronfenbrenner (2011) reports that the most immediate environmental events, such as, for example, living with the disease or people with disabilities, can significantly affect development, are those that happen with it or in the presence of the developing person. This shows that the experiences lived, for the author, can influence the conceptions that people have about certain themes.

As mentioned, Bronfenbrenner (1996, 2011) states that the relationships established between people as dyads developed as molar activities are potent influencers of development. Thus, teachers were asked if they understand that they are influenced by interpersonal relationships in their opinion about health and disability, and most of them, 38.3%, partially agreed with the statement.

Among the participants in the questionnaire, 32.1% partially agreed that the experiences they had during childhood influence the conceptions about disability and health. In this same aspect, the participant ED gives an account of his childhood and the fear of acquiring some disease, considering the fact of living close to a neighborhood with unfavorable living conditions.

[...] because the neighborhood ... it was like a slum, so I was even friends with the street kids, because I had a dog and whenever he ran away the street kids found it and brought me back, and I always got along well with them, the ones from the street I knew, but the ones in the back were very degrading, and at the same time that I felt sorry and wanted to help, I was afraid to get something, I think it's a common way of a child too, or not, or at home who said that we had to wash our hands [...].

Health conditions, which involve, among other factors, basic sanitation, are fundamental aspects for the prevention of diseases and for the establishment of favorable health conditions. Within the scope of social determinants of health, the third level deals with prioritizing public policy actions of different sectors of public administration over people's material and psychosocial conditions, ensuring adequate conditions of access to clean water, sewage, housing, healthy food and nutritious, safe employment, healthy work, quality health and education services, among others (Carrapato, Correia, & Garcia, 2017).

These aspects are considered as refractions of the social issue, that is, as factors resulting from the conflict arising between the purchase and sale of the workforce, as mentioned by Yamamoto (2012). These aspects are directly related to health, considering that its expanded concept considers adequate working conditions, decent income, housing, food, access to essential goods and services, such as education and health, access to leisure, among others (Souza, Silva, & Silva, 2013).

Regarding these expressions of the social issue, which imply health conditions, it is worth noting that the recent changes in society, governed by the capital system, have provided the maintenance and, in many cases, the expansion of the inequality and social exclusion indexes. Transformations that occur not only in Brazilian territory or in peripheral capitalism, but also in large capitalist centers that are constituted and / or present themselves as developed countries.

This reality, resulting from the economic model centered on the new liberalism, in which the rates of return on capital always remain higher than those of return to work, as pointed out by Piketty (2014), has strengthened old and generated new manifestations of the social issue. These, nonexistent or rarely seen in such depth in contemporary history, are especially evident through unemployment, which is central because it presents itself in a transversal way, implying extreme and absolute poverty, hunger, reinforced illiteracy, social exclusion, inadequate conditions housing, basic sanitation, among other aspects that impact people's lives.

In this regard, participant EA points out that “[...] the State must be present in this issue of health education [...]”, a factor that is consistent with that referenced in Law No. 8,080, of 1990, whose Article 1 states that health “[...] is a fundamental human right, and the State must provide the necessary conditions for its full exercise”. According to Law No. 8,080, the State is responsible for formulating and implementing economic and social policies to reduce health problems and diseases, but stresses the responsibility of each person and family in health care (Brasil, 1990).

Conclusion

The bioecological analysis in teaching, allows us to infer that the conceptions about health are linked to life history, when then one starts to subjectivity. Combined with the contextual issues of a particular place, the concept of health has been progressively detaching itself from the concept of disease.

In the field of teaching, ecological systems have been structured similarly to each other; but, it cannot be said that they are analogous, since each part of this system has its own functioning, due to the particular characteristics of each and every family, based on their habits and values.

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