HEALTH AND ENVIRONMENT: SUBSIDES FOR REFLECTION IN THE ACADEMIC FORMATION IN THE HEALTH AREA

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ABSTRACT
The study aimed to know how the environmental thematic are being discussed in the process of professional formation in the health area. Characterized as qualitative, of the exploratory-descriptive type and it developed with academic students of the health area of a public higher education institution. The data collected through a semi-structured interview and analyzed based on the orientation of content analysis. The results pointed to the urgent need to broaden the debate on health and environment interface, since it is a contemporary demand. In addition, revealed that the approach of the health and environment interface, when it happens, is superficial and guided by causality notions and centered in the linear process of health and disease. Similarly, not realized the development of academic experiences related to the topic. We conclude that the health area courses do not approach appropriately the topic, what brings negative repercussions for the future professionals, in terms of socio-environmental responsibility.

Keywords: Nursing; Environmental health; Higher education; Environment; Health Sciences.

INTRODUCTION

One of the concerns, typical of the contemporary context, which has required a placement of individuals, related to the current environmental problems. The society is experiencing an ecological crisis, whose proportions not yet fully known, but it has required, in different spheres, the adoption of protective measures on the environment. This section, means it is essential to use environmental resources sustainably, rethinking the need unbridled consumption and consequent production of pollutants, which is exhausting not only these features, but also human health, with a view to the secondary position that the quality of life has taken, to the detriment of seeking financial gain, for standard maintenance of contemporary life (1).

Despite the importance of the topic, the discussion about the interrelation between health and the environment, especially in Brazil, still needs to move forward. This perspective becomes even more relevant, being this a still incipient debate in the field of health and which have centrality in epidemiological bias, with a focus on communicable diseases, scientific productions on the subject (2). It understood the environmental theme needed to discuss in the context of training and professional practice. However, beyond a conceptual debate, which defends itself is an in-depth discussion, refer the subject to an ethical reflection on the topic, hoping to get the required accountability with the environmental cause, in the scenarios of teaching and work in the field of nursing and health (3).
From this overview, it becomes inevitable that questions arise about how this issue has addressed within the framework of the courses of the health area, although the curriculum guidelines of several of them, mention the ecological aspect approach as fundamental in the formation of health professionals. This perspective reinforced by studies that point out the fragility that exists in the thematic approach, the importance of achieving this interrelation health and environment in vocational training and, at the same time, enriching initiatives with respect to the report objective (4, 5, 6).

Given the above, the study developed, guided by the following research question: how environmental issues have addressed in health professional education? To this end, constituted itself as goal of research: knowing how environmental issues have addressed in the process of professional training in the area of health.

**METHODOLOGY**

It is a study of qualitative approach, since it is the most suitable for investigations that address issues related to subjective phenomena (7). The investigation classified as descriptive-exploratory, having held with twenty-four scholars from the health area of a public institution of higher education in southern Brazil.

The data collected during the months of August and September 2010, seeking to keep a certain proportionality between the subjects, which drawn from a previous listing obtained from coordination of each course. In this sense, were conducted interviews with four of the course of nursing scholars, five, five of physiotherapy, speech therapy, three four of Pharmacy and three of dentistry. Had consisted in inclusion criteria: be one of the academic courses of the health area of the institution researched and attending the last year of their course. The closure of data collection obeyed saturation criterion data, marked by the presence of repetition of information in contents of interviews, as well as for the observance of range of responses for the purpose of the study.

The obtaining of data occurred through semi-structured interview with guiding questions about the conception of the subject: the environment; the environmental problem; development of environmentally responsible actions; the relation health and environment; the interface approach health and environment on academic training and environmental responsibility. Interviewers trained previously in placeholder, recorded and subsequently transcribed by the interviewers, conducted the interviews. The subjects identified according to the undergraduate program and the number corresponding to the interview.

Data were analyzed according to the proposed reference to content analysis (8), in accordance with the following steps: meeting of corpus data, reading achievement, accomplishment finds floating of in-depth reading in order to constitute categories of analysis, and interpretative analysis of the categories and discussion with the relevant literature.

In order to corroborate the findings, analysis of the Educational Projects of the courses to which the subjects linked. To do this, after capture of documents available on the pages of the virtual courses, held a precise reading, particularly as regards professional profile, objectives of the courses and curriculum.

The study followed the precepts given to research with human beings, only going on after data collection institutional approval and approval by the Research Ethics Committee of the institution (CAAE nº 0014.0.243.000-10).

**RESULTS AND DISCUSSION**

The study, in General, reveals that the current ecological issues impact academics, insofar as they demonstrate the seriousness of the effects get a sense of environmental crisis. Also visible is the belief in the close interface between environmental problems and health problems, which would affect more economically underprivileged populations. However, it is understood that the information on the topic are obtained through the media disclosure, considering that, are little emphasized and discussed in the process of professional training in the field of health, as categories described below.

**Superficial approach on health and environment interface**
The data reveal that the approach to the health and environment interface, when it occurs, is superficial and driven by a notion of causality, linear process-centered health and disease. In this manner, the following report shows the time when graduation themed contact offer.

Had, at the beginning of the course, we have public health discipline, but few topics are in part of the environment [...] the approach is a little small. (Physiotherapy 05)

As can be noted, the approach to the health and environment interface occurred at the beginning of the academic training, mainly on subjects linked to the field of public health. This finding reinforced when we refer to academics of nursing course, for whom the approach conducted in a discipline that although it proposed to deepen the debate occurs punctual.

In general, the results point to the absence, or at best, superficiality in addressing health and environment interface, in the process of professional training in the area of health. This perspective is also evidenced in another academic study of nursing degree from a higher education institution of the State of São Paulo, where he noted that, although the subject to draw up concepts about environment and its relationship with the professional performance, these seem superficial and not refer the most critical discussions or future professionals effective interventions.

So, enlarge the health conception in order to incorporate other dimensions, particularly the environmental aspect, it is essential, in order to seek out effective commitment to the quality of life of the populations, with sustainable development and with the preservation of the planet. This implies reflect on health, conceiving it as historically and socially constructed, what characterizes his social determination, which has on your life object, which threatened by the current mode of production and consumption.

See also, through the association between the environment and the occurrence of diseases, on the part of the subject, that the approach is, in some courses, performed with an emphasis on disease. This fact is evident in the following statement:

As I recall, just not too, just as I said before, some pathologies that have the cycle related to the host, environment, has reviewed something, but not specifically. (Medicine 03)

It should note that the relationship between the environment and the cause of diseases does not understand a misconception. However, in view of the need to implement a targeted training for a broader notion about the health-disease process, based on the multidimensionality of factors that are involved in the process of healthful living, the existence of still approaches guided by linear cause-and-effect relationship is something to discuss.

According to the results of this study, the proposition of thoughts on the subject, through isolated disciplines, does not seem to be enough to mobilize the subject for the environmental cause. This fact marks the importance of environmental issues be considered a crosscutting issue, to be addressed throughout the formative process. In addition, the maintenance of a formative orientation aligned with link between health and environment, based on constrained approach to pathologies, translates the paradigm that has guided, yet, training in health, anchored in the positivist side, biologist, with a focus on disease, healing, on hospitalization and medicalization.

Despite the curricular changes, the vocational training model still comes away from the idea of a full look upon the subject and the context in which it operates, as well as distance themselves the conceptions about health promotion and quality of life. With regard to environmental issues, although it conceived as an important factor for human development, it seems that in professional practice does not occupy a position of relevance, and this absence is present in the studies that associate health promotion strategies and relationship between man-environment.

Thus, between the environmental perspective approaches and health promotion, when they occur, still settled to a certain tendency to understand quality of life and health as the mere absence of disease. It is necessary, then, to stimulate reflection on health promotion, as a set of strategies, which include intersectoral and interdisciplinary focus in environments favorable to the quality of life of individuals and families in healthy spaces.

Gaps in the approach to the health and environment interface
According to those interviewed, is the expressive still existing gap in approach on health and environment interface on vocational training in health.

No, no, over four and a half years, I almost never heard, not even health care disciplines, public health disciplines, in discipline of health policies, I never heard any teacher, at least in this area, mention something about it. Never noticed in my course, concern regarding the disposal of materials by teachers. Never noticed also careful about the economy, the conscious use of water inside the hospital. I never heard any teacher; for example, raise an issue within a classroom across this type of conversation, relating, for example, environmental problems, global warming, the pollution issue, never, never. (Physiotherapy 04)

This demonstration depicts a scene of little or No appreciation of the environment as an integral part of the process of live human and therefore the health-disease process. The evidence that, in different courses of the health area, this issue not addressed or, at best, held in a punctual, with emphasis in health approach as absence of disease, is something of the utmost significance.

However, stands out among the testimonies, a scholar who notes the need for adaptation to environmental issues, denoting a certain conformity with environmental changes and, consequently, the impact of these on the health of populations:

I think this is a natural consequence of urbanization, the changing epidemiology of diseases, increased incidence of some, and decreased others. Therefore, I guess we like that; we have to adapt, to know that it exists, which is a natural process, inevitable, there is no turning back [...] trying to do prevention, I think that is more important, trying to prevent. (Medicine 05)

On the basis of the above, it appears that the professional future is not having adequate instrumentation to act in order to contemplate the environmental issue as inherent part of your do serious repercussions, bringing professional, both with regard to the development of preventive actions and health promotion, as the Congregation of efforts to minimize the environmental impacts arising from the health working process.

In General, the data point to a glaring gap in the approach to the health and environment interface on vocational training in health, which can translate into difficulties in achieving the purpose of leveraging a process of awareness of scholars during the graduation, which is extremely relevant in the current social context.

However, it is recalled that it is not enough to educate students about environmental problems and their consequences for living beings, but it is necessary to establish concrete actions for understanding and decision-making for their confrontation. That obviously translates into effective actions in the community and in the construction of citizenship instrument (13). In this sense, assuming the posture of form for completeness of the care entails revisiting the thinking and doing, revealing the pedagogical conceptions of education determine the educational praxis. However, it is necessary to build models of training of health professionals, pedagogical practices that allow the understanding of the totality as an assumption to build, in the course of teaching. To this end, education needs to be comprehensive and interdisciplinary also based on critical-reflective benchmarks, allowing the acquisition of competencies and skills that ensure an act focused on the human being, in order to enhance their subjectivity (13).

Already relations between subjectivity and pedagogical practices eco-often named as environmental education – draw attention because take care of themselves and the environment, as part of the formation of a subject, in harmony with yourself and the environment. These practices put in evidence the relations between nature and culture, which have been building inside the ecological thinking (14).

In this regard, reiterates the importance of inserting the discussion on environmental issues in the training of the health professional, both with the inclusion of disciplines that address directly the subject, in the condition of crosscutting issue, allowing bond more clear and objective. In this way, the performance during the process of formation of these new professionals will occur in a more integrated and updated, allowing them to realize the application content contextualized healthcare in theorists environment “”real” (1).

Thus, it can be observed that, although some subjects establish some kind of relationship or
interface between your academic experience and environmental issues, for others, it is evident the fact of not being able to establish connections between the two, or at most a very vague notion about it, evidencing a distance between environmental problems and the academic experience, which reinforces the existence of a reflection and approach regarding disabled actions on the part of these future professionals:

Because as this problem of the environment is above us, there is no way you solve that, you understand. (Medicine 01)

We see that has multiple problems, one hears all the time talking about the problems we have, we only does next to nothing for it, we just think you have to have larger actions, we don't do these actions that can help. (Dentistry 03)

This finding concerning a fragility in approach on the development of environmentally responsible actions on vocational training, is reinforced by the following statements, that relating the development of environmental preservation actions, during the academic experience.

A discipline so short and also at the same time she contextualized with the course, she got more, just for a discipline like that now, you need to meet, not that she did with us to see how change agent, or agent to preserve, or how this can be related to health. (Physiotherapy 02)

However, I do not remember anything type of preservation during college does not. (Medicine 01)

No, as I said just now, we worry is with the oral health of people, we look at the mouth of the people and see what has to be done. (Dentistry 03)

Most of the respondents expressed that the development of environmental preservation actions in academic life, fact perfectly understandable, given the fact that there is, in General, an approach on the topic. However, one should highlight the manifestation of Physiotherapy, 02 remember that there were theme approach, by means of a discipline, but it was not enough to awaken the learners to develop actions. In addition, the manifestation of dentistry 03 's scathing, demonstrating that the emphasis of the training process is directed to specific issues of the profession, overshadowing a contextualized look at about the many aspects that make up human existence and the process to be healthy or not.

Another issue that deserves attention is the manifestation by one respondent, emphasizing that, apart from the lack of incentive and instrumentalization of the course and his teachers; he also did not care about the topic.

Never promoted any action never developed. Now, an important detail, I am not putting any responsibility that in my faculty, and the University itself, I have not bothered with that. Why did you stay long, you end up becoming a puppet of the system knows, you end up conforming, you end up accepting everything good, except you just hang yourself about it, in function of this immediacy, you're worried about your today, and you will see the profit in that function, so I never experienced anything in academia. (Physiotherapy 04)

On the other hand, an academic of the same course, does comment that depicts a contrasting with the previous scenario, betting that this issue has nothing to do with individual initiatives:

Has no specific job, but we always guides when we work with patients, because we have a very close contact [...] we live with these people, so we talk about various subjects, covers various subjects, and when we see that it is necessary to us addresses some things to be careful with nature, with where they live, and things, but specific environmental preservation. (Physiotherapy 03)

The statement above shows that the development of a commitment to the environmental cause also has relationship with a personal desire of individuals. Thus, regardless of the formalized approach on vocational training, the development of preservation actions also has relationship with values and personal beliefs.

Still with regard to the development of environmental preservation actions, evidence that in some courses, especially in nursing, speech therapy, and pharmacy, the solid waste disposal at the place of practice seems to be a concern.

The only thing I know you quote directly would be the disposal, environmental action, the disposal of materials, the appropriate disposal of hygiene and cleaning materials in the health sector. “[...]” So I believe have developed actions to, I have done my part. Therefore, I always tried to have a
vision bound to preserve the environment, to develop actions on health. (Nursing 02)

In this sense, some respondents stressed that, despite knowing about the importance of health waste segregation, still has doubts and lack of knowledge about the process as a whole. The subject’s point, especially, the lack of knowledge about the final destination of the waste, which puts in doubt the validity of his action of waste segregation.

It is worth noting that even if the segregation of waste at sites of practice cited like preservation action, this does not mean that there is a systematic work of academic orientation, since many other interviewees even mentioned this aspect. In the case of hospital institutions, that issue is something that has structured under the services especially, because of the legislative support which requires health services to maintain a solid waste management plan in force (15). Academics in practical activities inevitably end up contacting the specific standards of services. In the case of nursing that, a question that has been increasingly present, considering the nurse actively participates in the elaboration of such plans and has had the responsibility to assist in this process, in different services.

The results obtained through the interviews supported by data obtained from the analysis of curriculum of courses investigated. In this sense, it evidenced that only the Nursing course has a discipline intended to discuss specifically the issues related to the environment. It should note that all the investigated courses went through a recent curriculum reform process, guided by specific legislation and based on the respective Curricular Guidelines, approved between the years of 2001 and 2002.

The analysis of those documents leaves no doubt about the importance of addressing ecological dimension in formative process. In most courses, the guidelines include under the contents related to social sciences and Humanities, the importance of addressing the ecological aspect for understanding the determinants of health-disease process of individuals and collectivities.

In General, it appears that there is a need to promote the debate on the environmental theme among the different social actors that comprise the field of health, including academics, teachers and nursing workers. The deepening of knowledge about the subject, both in the sphere of vocational training as through permanent education for healthcare workers, it is essential to seek a revaluation of visions, positions and actions, so as to lead them to the development of more responsible actions for the environment (16).

Still there is a long road ahead, in an attempt to get the social and environmental responsibility, however, some propositions are strategies that can leverage the reach of that goal: enhancing the debate on environmental health in schools and communities; promote environmental education initiatives related to minimize the risks of interference of man on the environment; strengthening discussion on the National Environmental Education Policy in all levels of education, across the Board, as a mechanism for health promotion; promote continuing education on environmental health; strengthen education and research policies in environmental health (17). In addition, as already mentioned, the environmental theme needs constitute crosscutting issue, as a way to promote the maturation of the reflective process educating and sedimentation of values consistent with the necessary social and environmental responsibility in the area of health.

CONCLUSION

The study reveals that the approach of the health and environment interface not yet consistently debated in undergraduate courses. Also shows that, when this approach occurs, is usually restricted to the area of public health disciplines, driven by a bias of causality. Because of this, there is the development of academic environmental theme-related experiences, which can considered extremely negative for the formative process.

The results point to the urgent need to broaden the debate about the health and environment interface, since it is a contemporary demand that health sector requires the establishment of theoretical bases and practices compatible with ethical assumptions related to responsibility with the preservation of the planet for this and for future generations. The inclusion of the subject in the curricula of undergraduate courses in the area of health, both through specific disciplines, as crosscutting issue is
fundamental to get the reflective process required for solidification/construction of values consistent with a posture of social and environmental responsibility on the part of future professionals.

In this sense, presents itself, as a suggestion, the development of further studies related to environmental issues, as a way to foster the debate within the framework of training and practice in health care. The idea is that, from these discussions, the health sector can direct themselves to the pursuit of the development of concrete actions towards convergence between health education and environmental education, necessary for environmental sustainability.

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**SÁUDE E MEIO AMBIENTE: SUBSÍDIOS PARA REFLEXÃO SOBRE A FORMAÇÃO ACADÊMICA NA ÁREA DA SAÚDE**

**RESUMO**

O estudo objetivou conhecer como a temática ambiental vem sendo abordada no processo de formação profissional na área da saúde. Caracteriza-se como um estudo qualitativo, do tipo descritivo-exploratório, realizado com acadêmicos dos cursos da área da saúde de uma instituição pública de ensino superior. Os dados foram recolhidos por meio de entrevista semiestruturada e analisados sob a orientação da análise de conteúdo. Os resultados apontaram para a necessidade urgente de se ampliar o debate sobre a interface saúde e meio ambiente, visto ser uma demanda contemporânea. Revelaram, ainda, que a abordagem da interface saúde e meio ambiente, quando ocorre, apresenta-se superficial e orientada por uma noção de causalidade, centrada no processo linear saúde e doença. Da mesma forma, não se percebeu o desenvolvimento de experiências acadêmicas relacionadas ao tema. Conclui-se que os cursos da área da saúde não abordam suficientemente a temática, trazendo repercussões negativas no que tange a responsabilidade socioambiental, por parte dos futuros profissionais.

**Palavras-chave:** Enfermagem; Saúde ambiental; Educação superior; Meio ambiente; Ciências da Saúde.

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**LA SALUD Y EL MEDIO AMBIENTE: CONTRIBUCIONES PARA LA REFLEXIÓN SOBRE LA FORMACIÓN ACADÉMICA EN EL ÁREA DE LA SALUD**

**RESUMEN**

El estudio tuvo el objetivo de conocer cómo la temática ambiental viene siendo abordada en el proceso de formación profesional en el área de la salud. Se caracteriza como estudio cualitativo, del tipo descriptivo-exploratorio, realizado con alumnos de los cursos del área de la salud de una institución pública de enseñanza superior. Los datos fueron recogidos por medio de entrevista semiestructurada y analizados bajo la orientación del análisis de contenido. Los resultados señalaron para la necesidad urgente de ampliarse el debate sobre la interacción salud y medio ambiente, visto ser una demanda contemporánea. Revelaron, aun, que el abordaje de esta interacción, cuando ocurre, se presenta superficial y orientada por una noción de causalidad, centrada en el proceso linear salud y enfermedad. De la misma forma, no se percibió el desarrollo de experiencias académicas relacionadas al tema. Se concluye que los cursos del área de la salud no abordan suficientemente la temática, trayendo repercusiones negativas en lo que se refiere a la responsabilidad socioambiental, por parte de los futuros profesionales.

**Palabras clave:** Enfermería; Salud ambiental; Educación superior; Medio ambiente; Ciencias de la Salud.

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