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Interdisciplinarity in healthcare education: the preceptor's view of family health

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Evidence of inadequacy regarding family health strategy preceptors' actions in relation to interdisciplinarity led to a proposal to examine how these professionals are working. This was a descriptive study with a qualitative approach that was developed in the Second Health District of Maceió, Alagoas, Brazil, among a population of nine subjects. Open or in-depth interviews were conducted from the perspective of content analysis. From this analysis, the registry units were: activities developed in day-to-day work within the family health strategy; experience from daily professional practice; meaning of interdisciplinarity; professional/academic education in relation to interdisciplinary practice; benefits of interdisciplinary practice for students' teaching-learning process. The data pointed towards the need for continuing health education as a powerful strategy for improvement of interdisciplinary practice.
Keywords: Healthcare education. Preceptor. Interdisciplinarity. Family Health Strategy.

Introduction

The traditional pedagogic model of health teaching stimulates early specialization with education targeted at a biological and medicalizing approach[1]. Thus, interdisciplinarity has become a possibility for a new posture, as the development of scientific knowledge and the technical advances are not sufficient to satisfy the amplitude of possibilities that the health area needs[2].

To understand the meaning of "interdisciplinary", it is necessary to know what "discipline" is. This author believes that talking about interdisciplinarity means talking about an interaction among disciplines[3]. Discipline has the same meaning of "science", of "disciplinarity", which is

characterized by the mastering of the objects of study which it investigates, by its specificities and by the way in which it predicts and explains phenomena[3].

Therefore, interdisciplinarity is the encounter of different disciplines, both in the pedagogic and epistemological perspective, for the construction of new knowledge. This knowledge, in turn, is produced by the intersection of different types of knowledge/disciplines. An interdisciplinary view should be present both in the field of theory and in that of practice, no matter if it is a social intervention practice, a pedagogic practice or a research practice[4,5].

Concerning the practice of interdisciplinarity, it is important to reflect on the concept of "integrality", which is one of the guidelines of the *Sistema Único de Saúde* (SUS – Brazil's National Health System), instituted by the 1988 Constitution. The SUS is organized around three guidelines: decentralization, integral assistance, and community's participation. Thus, to the fulfillment of integrality (integral assistance), there is the effective need of an interdisciplinary practice[6-8].

In the perspective of Health Teaching/SUS, the new National Curriculum Guidelines of the undergraduate health programs state that the education of the professional in this area must focus on the health system that is in force in the country, teamwork and integral health care. Therefore, they reaffirm the practice of being oriented towards the SUS[9-12].

In this perspective of Health Teaching, the university becomes responsible for educating professionals who establish a relationship of reciprocity to society[13-15].

In the field of Health Teaching focusing on the SUS, which uses the *Estratégia de Saúde da Família* (ESF – Family Health Strategy) as a tool, some specific forms of teaching and learning should be prioritized. The ESF is fundamental to the operationalization of the Primary Care Policy[16], as it focuses on the family and does not view health only as the absence of diseases; rather, it considers factors such as food, housing, basic sanitation, the environment, work, income, education, transport, leisure and access to essential goods and services[17]. The ESF prioritizes teamwork, shared responsibility for the planning and execution of actions, and *interdisciplinarity* and *integrality*, which must be present in such actions[18].

In the context of ESF teaching, the preceptor is the professional who does not belong to academia but to the service, has a higher education degree in the area of health, and plays the role of narrowing the distance between theory and practice in the students' education. This professional has the functions of guiding, supporting, teaching and sharing experiences that improve the student's competence[19]. It is expected that the relationship between preceptor and student is horizontal, that the act of thinking and constructing hypotheses is stimulated, and that the student discovers, in this relationship, the importance of collective work[20].

The preceptor must be concerned, mainly, about the students' clinical competence and about the teaching-learning aspects of professional development. In addition, the preceptor must foster the students' acquisition of skills and competences at the scenarios of practice in which they are included. Furthermore, the preceptor is responsible for creating the necessary conditions so that changes are implemented in a satisfactory way during the students' education process[19].

In this perspective, one of the main challenges for higher education in Brazil is the attempt to overcome concepts that are linked only with technical and biological knowledge, which favors evolution towards an interdisciplinary and integral care practice[21- 23].

To achieve this, the exercise of interdisciplinarity enables the education of professionals who are able to work in a team and to create conditions for providing care that is more integrated and integrating for the SUS users[24]. It is necessary to transform the health concepts and practices that guide the process of academic and professional education in the area of health[25,26].

Simultaneously with the fragmentation and excessive specialization of knowledge as a result of technological advance and of disciplines' isolation, interdisciplinarity has been placed in the center of discussions about the development of science and of sanitary practices[27].

In this context, it has become viable to ask the question of this study: How have the preceptors of the family health units of the 2nd Sanitary District of the city of Maceió been acting regarding interdisciplinarity?

Methodological Path

The present study, developed in the area of health teaching, corresponded to a descriptive study with a qualitative approach. The research was carried out at the 2nd Sanitary District (SD) of the City of Maceió (Northeastern Brazil). Maceió is currently divided into seven SD, geographical areas that are organized under a territorial basis with similar epidemiological and social characteristics.

This study enabled to approach the central object of study – *interdisciplinarity* – through the information collected during the investigation process.

It aimed to analyze how interdisciplinarity is operationalized by preceptors in the health actions of the ESF of the 2nd SD of Maceió. The specific aims were: to learn about the preceptors' practices related to interdisciplinarity; to understand the preceptors' academic/professional education concerning interdisciplinarity; to analyze the benefits of interdisciplinarity practices in the students' teaching-learning process; to propose suggestions to the Higher Education Institution and to the Municipal Health Department regarding the interdisciplinarity practice.

The data collection instrument was selected based on the theoretical investigation of the object of study. We decided to utilize the data collection instrument "open or in-depth interview"[28] with guiding questions, which enabled the interviewer to broadly explore the desired questions.

After the stages of theoretical investigation and development of the data collection instrument, the subjects were recruited. The inclusion criteria were: being an ESF preceptor who works at one of the units that form the 2nd SD of Maceió; being a health professional with a higher education degree; be receiving higher education students during the period in which the research was carried out. Failure to comply with any of the criteria was considered as a single exclusion criterion. Thus, four of the five ESF teams of this district were included in the study.

All the subjects accepted to participate in the study after having signed a consent document. Overall, nine subjects distributed among four ESF teams of the 2nd SD of the city of Maceió participated in the study, which was conducted from July to August 2012.

The universe of subjects is presented on Tables 1 and 2 (see below), which contain personal identification data (characterization of the research subjects) and complementary data about their professional practice.

Table 1. Characterization of research participants in relation to age, sex and academic education

Subject	Age	Sex	Academic Education – Undergraduate Course	Year of Completion	Complementary Education
1	45	F	Medicine	1991	Residency in Pediatrics; Residency in Medical Clinic
2	41	F	Physiotherapy	1993	Master's degree in Public Health
3	44	M	Medicine	1991	Residency in General Surgery and Urology; Specialization in Family Health
4	58	M	Medicine	1978	Residency in Medical Clinic
5	54	F	Nursing	1978	Master's degree in Health Sciences
6	35	F	Social Work	2000	Postgraduate degree in Management and Social Control of Public Policies
7	54	F	Nursing	1979	Specialization in Family Health; Specialization in Urgency-Emergency
8	40	F	Nursing	1991	Specialization in Hospital Administration; Specialization in Auditing; Specialization in Urgency-Emergency
9	44	F	Medicine	1995	Specialization in Pediatrics

Source: The author, 2013.

Table 2. Characterization of research participants in relation to qualification courses for preceptorship and to workplaces

Subject	Received qualification for the job of preceptor (yes/no) / Institution that offered it	Characteristic of the qualification (Theoretical, Practical, theoretical-practical)	Works as a teacher at a Higher Education Institution - HEI (yes/no) / Institution	Other workplaces
1	No	---	No	---
2	No	---	Yes/ Public HEI	Private Hospital, Public HEI and Private HEI
3	No	---	No	Public Hospital
4	No	---	Yes/Public HEI	Private office
5	No	---	Yes/ Private HEI	Public HEI and Private HEI
6	Yes/ Municipal Health Department of Maceió	Theoretical	No	---
7	No	---	No	---
8	No	---	No	---
9	Yes/ Hospital Sírio Libanês	Theoretical-practical	No	Public Hospital and Private office

Source: The author, 2013.

To analyze the data, we chose Thematic Analysis, which uses the "theme"[29] as a central concept that can be graphically presented through a message; this can be a word, a sentence or a summary[28]. To analyze the content of these messages, Record Units (RU) [28] were employed.

All the recorded interviews were fully transcribed. This material was extensively read, so that the content could be appropriated, following the model of treatment, reduction and analysis, as recommended by the literature[28,29]. For data interpretation, the results were compared to the theoretical framework about Interdisciplinarity, ESF and Health Teaching, in the search for coherent, singular or contradictory contents.

After analyzing the content of the answers given by the participants, identifying common reports and comparing them to the object of this study, the Record Units (RU) that were entitled were the following:

RU 1. Activities that the preceptor develops in the daily routine in the Family Health Strategy

RU 2. Experience in the daily professional practice

RU 3. The meaning of Interdisciplinarity

RU 4. Academic/professional education concerning the interdisciplinary practice

RU 5. Benefits of interdisciplinary practices in the students' teaching-learning process

RU 6. Suggestions to improve the interdisciplinary practice

Results and Discussion

In the first RU (RU1), which is related to the *Activities that the preceptor develops in the daily routine in the ESF*, we noticed that actions targeted at curative assistance were present in the majority of the discourses, and no report approached either teamwork or these health teams with actions of disease prevention and health promotion as a priority. It should be highlighted that such educational actions of prevention and promotion are recommended by the ESF and enable the integration of the different professional categories that form the health teams; therefore, they should be present in the daily routine of these ESF teams.

> Subject 2. As we have a repressed demand, we also provide home care.
>
> Subject 3. Here in the ESF, we deal with consultations directed at the coverage of the different programs that are included in the ESF, like consultations for hypertensive and diabetic individuals, women's health […].
>
> Subject 6. In our daily routine we provide individual assistance; in these assistances, I'm also responsible for referrals.
>
> Subject 7. I'm responsible for the strategy's programs, okay? Women's health, prenatal assistance, growth and development, and I perform home visits.
>
> Subject 8. I provide prenatal assistance and I deal with growth and development, childcare, hypertensive and diabetic patients, family planning, cytology, visits and lectures.

Interdisciplinarity is one of the elements, or one of the paths, that enables to promote an Integral Health Care practice[30]. Integrality must be connected with the need of modifying a fragmented and unarticulated way of acting in the field of health, as it can be seen in RU1. To modify this unarticulated and individualistic practice, the ESF emerged as an action tool of the SUS

that would possibly be efficient to operationalize the health practice with an interdisciplinary view. These interdisciplinary practices, in the scope of teaching, are fundamental to health education.

Therefore, it was observed that interdisciplinary actions following the guiding principles of the SUS, such as integrality, are challenges for Health Teaching. One of these challenges is to offer a counterpart to the influence of the fragmented model of work organization, in which each professional performs parts of the work without integration with the other areas involved.

In another study, the authors have argued that, in the National Curriculum Disciplines, health is considered an interdisciplinary area, as its object, which would be the human health-disease process, involves social relations, biology and emotional expressions[31]. Other authors, in turn, have pointed to the importance of collective actions and of valuing the knowledge of the other[32]. Thus, it is understood that knowledge is a process of shared construction that enables a better understanding of interdisciplinary actions in the area of health.

RU2 deals with *Experience in the daily professional practice*. The research participants provided data focusing on the interpersonal relationship among the teams' members. The subjects justified the fact that they did not prioritize interdisciplinary activities due to the population's large demand for individual assistance, that is, for specialized assistance. The results of this RU showed that the interviewed professionals do not experience interdisciplinary health actions in their respective ESF teams.

> Subject 1. No, I don't have problems with the team.
>
> Subject 3. Every daily work situation that I have, I'm the person who does the planning, based on the needs that we find at the workplace. […] the relationship with the other professionals, nursing technician, nurses, etc. is guided by respect to each professional's space. That's it.
>
> Subject 4. Sometimes I catch myself performing the traditional medicine, because the population is anxious for medical consultations, the demand, and they want us to provide assistance […] and we've been gradually trying to work in teams, we've been even trying to investigate how a family health team should be, but there's so much suffering, so much necessity!
>
> Subject 7. But I think that I experience difficulties in my daily work. Many difficulties, mainly in interacting with the other professionals. We get along well, but each one performing their duties, without invading the space of the other.

> Subject 9. I have a good relationship with my team, you know? With the nurse in my team, with the health agents, right?

The results of this study have shown that, in the professional practice that values teamwork, the health professionals who were the subjects of this study do not prioritize interaction among different disciplines, mainly when this communication is directed at interdisciplinary health practices. Most of the times, this fact was justified by the subjects as lack of time for dialog. This lack of time can suggest that there is an obstacle to the interaction among disciplines, as they need mutual cooperation so that interdisciplinary actions can happen in a concrete way.

Communication happens through the interdisciplinary methodology, which means, above all, "talking about operating and cooperating disciplines"[3]. This points to the importance of the dialog among different professional categories so that the interdisciplinary practice can occur.

Reflection spaces for health actors are essential as spaces for exchanges, interactions and communication. Thus, the subjects reported the need to reorganize the work in the ESF, so that there can be a possibility of interaction among the professional health categories[33].

In RU3, which deals with *The Meaning of Interdisciplinarity*, we observed that the preceptors were unfamiliar with the concept of *interdisciplinarity*. Some professionals confused it with *multidisciplinarity*, and others were close to the meaning of interdisciplinarity. However, in this case, interdisciplinarity is seen as something that is only theoretical, without connection with interdisciplinary practice.

> Subject 1. Inter-what? What do you want to know? […] working with other professionals? […] we work together.

> Subject 3. (laughs) Interdisciplinarity... I understand that it is, ahm… interdisciplinarity… Let me see… I believe that interdisciplinarity would be a… a range of professionals working in different activities that complement one another. We, doctors […]. We want the immediacy of the thing, but the thing doesn't work with immediacy. So we suffer a lot in this process of interdisciplinarity.

> Subject 4. But I haven't been able to achieve yet - perhaps due to the dynamics of the education process - this same meaning: educating Medicine students based on this interdisciplinarity. There's the relationship among the categories, but I haven't been able to join them, to make Medicine students experience this also in their practice, although they feel that we do this.

> Subject 6. It means that we do a single work that is fractioned so that the user understands what we're talking about.
>
> Subject 7. Interdisciplinarity? Interdisciplinarity? I believe that it happens when there's teamwork, right? These concepts are very complicated! Each person will say it means something. But I think it's when we are able to do a joint work, many professionals, right?
>
> Subject 8. I believe that it's the set of many professionals... the doctor, the nurse, the dentist. Everybody together. Is that it? I'm not sure. [...] so we do this work together.
>
> Subject 9. You do your part, but and then? For some things you need the contact of the other professional, right?

Another study has shown that the subjects have difficulty in conceptualizing interdisciplinarity when it is related to practice, with a tendency to confuse it with multidisciplinarity. In multidisciplinariry actions, there are different professional categories that do not necessarily interact with one another[33]; on the other hand, so that interdisciplinarity can happen, it is necessary that the disciplines interact around a common objective in the construction of new knowledge[3].

Other issues also emerged in RU3, like the fact that the majority of the professionals know that working in an interdisciplinary way is essential in the ESF; in addition, as preceptors and, therefore, professionals who are present in the students' education, they recognized that they are responsible for transmitting the interdisciplinary practice in the ESF to the students. However, they identified the limitations of their academic education regarding the theory and practice of Interdisciplinarity.

Other authors argue that the professionals' practice in the ESF is still grounded on a super-specialized education and on the isolation of the professional categories[34]. The isolation of the disciplines can be visualized in the fragments of the subjects' discourse, mainly when we observe that health actions are reduced to curative and individual practices and that the professionals have distanced themselves from actions of health promotion and disease prevention, which are primordial in the ESF and essential to the understanding of interdisciplinarity.

It is possible to notice that the limitations of the preceptors' academic background take us to their qualifications. These professionals must recognize their leading role concerning the students' curriculum practices as regards Interdisciplinarity.

Therefore, when professionals and future professionals in the area of health learn only the technical aspects of their profession and do not understand how to articulate with other professional categories, university education alone is not able to promote interdisciplinary action[35].

Thus, it is believed that scientific knowledge and technical advances are not sufficient to meet the needs of the health area. Interdisciplinarity is presented as a facilitator of the construction of a broader view that is guided by the integration of different professional categories, with the aim of developing new knowledge.

In RU4, which approached *Academic/professional education concerning the interdisciplinary practice*, most of the subjects did not mention having learned about and experienced interdisciplinarity during their academic education. In professional education, in turn, the search for knowledge about interdisciplinarity proved to be an individual initiative.

> Subject 1. At the time, no one talked about it. My education was totally different from today's education.
>
> Subject 4. My education [...] was medicine, and medicine focusing on diseases. Just medicine. Although the program said that the aim was to educate generalist physicians, in practice, this didn't occur, because we only had disciplines, and each discipline talked about its own diseases.
>
> Subject 5. But I didn't learn this in my education and we see this kind of practice neither at universities, nor in the services themselves, right?
>
> Subject 7. In my undergraduate program I didn't learn anything about it, not that I remember. It was only nursing with nursing. Only. In the postgraduate program that I attended, we only had theory. I didn't have anything practical about teamwork. Even in the specialization course that I attended with other professional categories, it was each one doing their own work and talking about their area.
>
> Subject 8. I never learned anything about it, neither in the undergraduate program, nor in the postgraduate program. I don't think I know what interdisciplinarity is.

These professionals reported that they work in teams; however, they showed that they have difficulties in executing this practice in the ESF and in transmitting this interdisciplinary education to the students. It was possible to notice that the majority of the preceptors in this

research are not familiar with the theory/practice of interdisciplinarity, and they confuse it with other concepts, such as multidisciplinarity and disciplinarity.

According to the characterization data of the subjects in this research (Tables 1 and 2), most of them did not have any specific education to work in the Family Health Strategy (ESF). Focusing on data such as age, graduation year and complementary education, it can be observed that the professionals are not prepared for an interdisciplinary practice of an integrative nature, in light of their deficient undergraduate and postgraduate education.

Other authors argue that today's society requires that the university not only prepares students for future qualifications in the traditional specializations, but also develops their competences and skills based on new knowledge that is produced and that requires a new type of professional, without separating theory from practice[36]. This new knowledge mainly concerns the capacity to work in the perspective of interdisciplinarity.

The knowledge that derives from other professions broadens the view inside the field of health and, consequently, promotes the integrated construction of new knowledge. This knowledge, in turn, is developed by the intersection of different professional categories. This integration of disciplines/professions can only be understood in a concrete way when interdisciplinary theory and practice are linked. Thus, the scenario of practice, during the students' academic education, is the best place to understand interdisciplinarity, mainly when this scenario is the ESF, one of the fields of operationalization of the principles and guidelines of the SUS.

Therefore, it is necessary to provide interaction spaces within the scenarios of practice, and it is also necessary to raise the preceptors' awareness in relation to their leading role in the students' curriculum practices as regards interdisciplinarity[30].

The preceptor, in this space of service and academic education, must become one of the main facilitators of interdisciplinary practice. This benefits both the population assisted by means of integrated health actions, and the students' education. Furthermore, the student's education must also be seen in an integral way by the educating institution.

Integral education facilitates the construction of a relationship of cooperation between teacher/preceptor and student. It is believed that this enables the opening of paths toward the recognition of the importance of interaction with other areas of academic education. "Education can only be viable if it is the integral education of the human being. Education that is directed to the open totality of the human being and not only to one of his components"[37].

In RU5, which approached the *Benefits of interdisciplinary practices in the students' teaching-learning process*, the subjects recognized that interdisciplinarity is important and that it can be a desirable difference in the education of future professionals to the SUS, even though the previous RUs showed that the subjects themselves do not practice and/or do not know much about interdisciplinarity.

> Subject 1. Yes, there are benefits. Each one must see the professional value of the other, right?
>
> Subject 3. The colleagues who come from other specialties, from other professions, see us as adversaries, but we aren't adversaries, we just want things to be done according to what must be done. So, I'm not against it, provided that my competence is neither usurped nor invaded.
>
> Subject 4. I think there are benefits, and one of the things I always say and try to do is that the doctor is not the almighty god in a team, and that each professional has their importance in what we propose to do.
>
> Subject 6. It's very, very important. We have to know the following: we are [...] a team. Ideally, everybody should think like this. [...] this is very important for the students' education, they must learn about this. I think that medicine is very individualistic, right?
>
> Subject 7. [...] working in a team, seeing what the other professional does. There is resistance inside the field of medicine, too. Mainly on the part of the students... I think it's because of their education. So, there are these barriers that hinder the process.
>
> Subject 8. Yes, I believe there are benefits, right? Working together with the agents, with the dentist, at least performing the visits must be a great gain. It's an impact for them to arrive here at the community and communicate with the other professionals.
>
> Subject 9. My medicine students don't participate in the interdisciplinary actions, unfortunately. If they did, they would have benefits, right?

The professionals seem to think that the main benefit of interdisciplinarity to the students' education is connected only with interpersonal relationship. It is believed that the benefits go beyond this relationship, as it enables the integrated construction of health actions and the recognition of the other professional categories in the construction of a new method/object. Thus, interdisciplinarity can be an alternative to the excessive fragmentation of knowledge and aid the development of new knowledge[5].

Another issue that was observed in the results of this study was the medical category's resistance against a possible interdisciplinary work. This fact was brought mainly by the medicine

and nursing professionals. The doctors themselves reported the difficulty in working with their professional category. They mentioned some points to justify this resistance, such as: deficient academic/professional education concerning interdisciplinarity; academic focus on curative practices; and excessive demand for outpatient assistances at health care units.

In another research, the authors concluded that the centrality of the biomedical model, focusing on technical-curative practices, hinders a close contact among different professional categories; in addition, the perspective of 'aid' among professionals is maintained, as well as the reference to "prejudice" and "arrogance"[31]. The centrality of the biomedical model is one of the reasons that hampers the fulfillment of a health care action that is more integrated, with better quality, both according to those who provide it and to those who use it[27,35]. In addition, interdisciplinary action can enable a differentiated alternative to education, guided by a broad view of the problems in the area of health and by the understanding that interdisciplinary knowledge and action do not exclude one another: they intersect each other.

The last Record Unit (RU6), whose theme was *Suggestions to improve the interdisciplinary practice*, showed that the professionals need qualification about interdisciplinarity in a theoretical-practical perspective. The preceptors suggested that the qualification should be an initiative of the Higher Education Institution that is responsible for the students in the scenarios of practice and, also, of the Municipal Health Department, which is responsible for health services such as the ESF.

The preceptors recognized that their academic and professional educations are deficient as regards interdisciplinary theory and practice. These subjects revealed that they feel the need to improve their actions both to enhance the health care services and to collaborate, in a more efficient way, with the students' academic education, concerning interdisciplinarity.

> Subject 2. Here is a suggestion: I think it would be interesting to offer a qualification course to the employees. A course approaching interdisciplinarity. Such a course has never been offered. How can this be transmitted to the students? There must be a qualification course. […] The person who should offer it should have experience in it, right? Someone from the municipality or the university, someone who has had practice in it.

> Subject 3. Something about interdisciplinarity. I don't know what ideas I could give. I'm not familiar with the practices. I don't understand it. I don't know how to promote this situation, you know? I think that, perhaps, we need the academia and the health department to qualify us about it and to receive these students, so that we can teach them, right?

> Subject 5. In relation to interdisciplinary practice, something to standardize the interdisciplinary and the health education practices. The university would have to offer something to the preceptors, a qualification course about it to standardize us, to help in students' education, right? Something common to everybody.
>
> Subject 6. The service needs to receive visits from the university. The university could qualify the preceptors in relation to this interdisciplinary work, but it doesn't even know what we do in the service with its students, does it?
>
> Subject 7. We never learned anything about interdisciplinarity. Couldn't the university qualify us? Take us there? Do something with everybody? And the Municipal Health Department too, it only thinks about diseases, so we teach the students what we learn, right?
> Subject 8. I think that what we need is the university here with us, taking a closer look at our work, and also the municipal health department. Our education did not focus on this. How can we help the students? They need to come here to decipher the issue of interdisciplinarity, holding meetings, discussing and explaining it. I can have ideas that are not what it really means. I need to know, right? And after they open the range of possibilities to us, I'll be able to know what to do to transmit it to the students.

The suggestions of a qualification course about interdisciplinary theory and practice must be considered. However, even though it is a potential suggestion, it is believed that qualification, as it was characterized by the professionals, will not solve the problems that involve an effective interdisciplinary practice.

The subjects may have mentioned qualification as the main point of this RU because they only know this format of work improvement at the health services. It is believed that a decontextualized qualification that is guided by specific experiences related to disciplinarity or multidisciplinarity will not reduce the distance between effective interdisciplinary practice and professional preparation to perform this practice in the ESF.

The results of this study have shown, similarly to those of another study[38], that the contact among the members of a health care team produces many questionings concerning the posture of these professionals, mainly in relation to the actions in common. To perform these actions, the qualification of the professionals involved in health care teams becomes necessary, in order to develop interdisciplinary practices.

For qualification to be offered, its need must be recognized by the professionals who are directly involved in integrated actions in health care teams, and also by the institutions that form and maintain the health care services. Qualification about interdisciplinarity is needed so that the importance of interdisciplinary work is recognized for the education of future health professionals to work in the SUS[39].

Thus, there must be a dialog between the Higher Education Institution, the Municipal Health Department and the practice scenarios that foster education, such as the ESF, represented by the preceptors. These professionals need to be permanently qualified, both to the function of preceptor, as they are present in the students' academic education, and to the health services, such as the ESF.

This strategy (ESF) of the SUS needs professionals who are able to work in a shared form, by means of the acceptance of other types of knowledge. It is necessary to advance beyond technical-scientific knowledge so that this integrated practice takes place. In addition to academic education targeted at interdisciplinarity, the qualification of the professionals who are working in the service becomes necessary – professionals who have already graduated and have not had this amplified health education. Permanent qualification becomes necessary, integrating the professional categories without segregation, in the search for interdisciplinarity.

Final Remarks

The data revealed that the preceptors in this study are not familiar with interdisciplinarity, both as regards interdisciplinary theory and practice. This unfamiliarity was perceived because the subjects did not have academic education targeted at interdisciplinarity; moreover, during their experiences in the professional field, they did not receive any type of qualification about interdisciplinary practice and theory.

The preceptors recognized the importance of interdisciplinarity for the education of future professionals, and also that they are not prepared to transmit interdisciplinary knowledge to students, as they were not educated with an amplified view of the concept of health. The conclusions at which we arrived in this research do not exhaust the subject. When we investigated how interdisciplinarity is operationalized by preceptors in the ESF, we aimed to show the importance of interdisciplinary practice and theory in work relations and in Health Education to the SUS.

The results of this study also showed the need of Permanent Health Education as a teaching-learning practice in the production of knowledge in the daily routine of health institutions. Thus, it is configured as a powerful strategy to improve the interdisciplinary professional practice.

In addition, other influences and other aspects can and must be considered in the study of interdisciplinarity. Therefore, this research points to further productive studies.

Collaborators

The authors worked together in all the stages of the production of the manuscript.

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