



## Psychology Freshmen Knowledge about Brazil's Public Health System

### Conhecimentos de Calouros de Psicologia sobre o Sistema Único de Saúde

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**RESUMO** | A atuação do psicólogo no Sistema Único de Saúde (SUS) demanda habilidades e competências desenvolvidas desde a formação, sendo importante o contato com a prática e a articulação com a teoria envolvendo o SUS ao longo da graduação. O estudo buscou descrever os conhecimentos de estudantes calouros de um curso de psicologia, que estão inseridos na prática em Atenção Primária à Saúde (APS), acerca do SUS. Trata-se de um estudo descritivo de natureza qualitativa realizado com 16 estudantes do primeiro período de um curso de graduação em psicologia. A coleta de dados foi realizada em duas etapas, a primeira sendo um questionário autoaplicável que teve seus resultados analisados e descritos na forma de frequências absolutas e percentuais das respostas, e a segunda etapa consistiu num grupo focal, norteado por questões abertas, cujas respostas foram submetidas à Técnica de Análise de Conteúdo. O estudo revelou que as metodologias ativas nos cursos de psicologia auxiliam no aprendizado dos estudantes sobre o SUS, e dão a oportunidade desses estudantes se perceberem como futuros profissionais em constante aprendizado, voltando-se também à saúde pública.

**PALAVRAS-CHAVE:** Sistema Único de Saúde. Conhecimento. Formação profissional. Estudantes universitários.

**ABSTRACT** | The performance of the psychologist in Brazil's Public Health System (SUS) makes his demand and the training sessions, being important the contact with the practice and the articulation with the theory in contact with the SUS throughout the graduation. The course sought the knowledge of freshman students from a psychology course, which are part of the practice in Primary Health Care (PHC), about SUS. This is a descriptive study of a qualitative nature carried out with 16 first-year undergraduate students in a psychology degree. Data collection was performed in two stages, once a self-administered questionnaire, which had its participation in a focal study, had a number of focal responses and a number of responses. To the Content Analysis Technique. The student, with the purpose of training activists in the courses of assistance psychology, did not learn what it is about the SUS, and the opportunities to leave a life course as a continuous professional, turning to public health.

**KEYWORDS:** Brazil's Public Health System. Knowledge. Professional education. College students.



## Introduction

Brazil's Public Health System (SUS) was the greatest achievement of the Brazilian society in the field of health and social policies, and one cannot speak of it without trying to rescue its trajectory. The SUS was established through the Federal Constitution (1988), which brought healthcare in Brazil as a right of all citizens and a duty of the state; and regulated by Laws No. 8,080 and No. 8,142 (1990), with the goal of promoting equality in the health care of the population, offering public service to any citizen and aiming at the promotion, protection and recovery of health. The SUS was constituted as an organized and articulated set of health services and actions, so that the person should be looked at in a holistic way, not only relating health with the biological condition, but also with the biopsychosocial aspects (Romano & Scatena, 2014). Law No. 8,080 (1990) brings guidelines and principles to SUS; some of them are: universality, integrality, equality of health care, community participation, and preservation of autonomy.

According to Paim, Travassos, Almeida, Bahia and Macinko (2011), there have been advances in the implementation of the SUS in the last 20 years, among which: institutional innovations through decentralization, attributing greater responsibility to cities in the management of health services; promotion of social participation; expanding access to health care for a large part of the Brazilian population; raising the population's awareness about the right to health; and expansion of human resources and health technology. Nevertheless, the literature (Campos, 2007; Almeida-Filho, 2013; Paim et al., 2011) points out that the SUS goes through a crisis based on the distance between the elements brought in its creation and its practical functioning.

Campos (2007) affirms that the implementation of SUS has been occurring in a heterogeneous way, showing inequality in attending the needs and utilization of health services, there are problems in financing, system management, and health work, among others (Campos, 2007). In agreement, Almeida-Filho (2013), states that the crisis of the Brazilian health system is composed of many aspects. Besides the sub-financing and management problems, there is an inability to comply with the concepts of integrality, social valorization, and equity, which reveals inequalities in quality and suffering from distortions in health training models.

Paim et al. (2011), point out that the challenges faced by the SUS originate from the regional and social inequalities that exist among Brazilians, thus characterized as political challenges, that cannot be solved in the technical sphere, but only through group efforts between individuals and society. Almeida-Filho (2013), in addition to bringing the importance of the political, social and economic spheres, points as a key issue for the health crisis in Brazil the deformation of health education. For him, the ideal workforce for service in the SUS, i.e., qualified professionals, oriented to good practices, well trained and committed to health equality, does not correspond to the profile of professionals who currently operate the system, being necessary to generate and promote a political-pedagogical culture oriented to SUS (Almeida-Filho, 2013).

As maintained by Reis, Garuba, Pereira, Quintão, Cândido and Silva (2014), compliance with the principles of the SUS, especially the integrality, can only happen through the interdisciplinary work of the health teams, which is defined as the interaction of specialists of several areas with the same objective, in an exchange and interdependence based relationship. Interdisciplinarity must be experienced in the practice of professionals, besides provoking a sharing between theories, because it also involves the development of important skills and attitudes such as respect, tolerance, flexibility, commitment, ethics and horizontal communication (Reis et al., 2014). Teamwork and interdisciplinarity are important for SUS, and due to this requirement of a flexible performance, it is crucial to prepare the health professional, including the psychologist, since academic education.

Thus, the curricular grids need changes to prepare the entrance of the psychologist in the SUS. Therefore, in the resolution No. 5 (2011), the Ministry of Education brings the National Curricular Guidelines (DCN) of the undergraduate courses in psychology. The DCN guide the theoretical and practical development of a pedagogical project and orientate what should enter higher education institutions all across the country. The DCN bring structuring axes, of which it is possible to highlight: professional practices focusing on ensuring a basic core of competencies that allow professional performance, and the insertion of the graduate student in different institutional and social contexts, articulated with professionals from related areas. In addition, the DCN also include in

the academic planning visits documented through reports to institutions and places where work is being developed with the participation of psychology professionals.

The mentioned elements of the DCN value the student's contact with the professional practice in psychology through its insertion in different contexts, which further drives the achievement of skills, competencies, and knowledge by the undergraduate, being also possible to emphasize the importance of having this relationship with practice throughout the course. The guidelines of the DCN enable the improvement of the training of the psychology professional to the requirements of various areas and places of activity, including public health.

The inclusion of the active learning methodologies in the higher education institutions facilitates students' contact with practice throughout the psychology undergraduate course. Active methodologies are innovative pedagogical practices that relate knowledge with analysis, studies, research, and individual or collective decisions, in order to find solutions to a particular problem. It is a way of developing the process of learning and conducting the critical-reflexive formation of future professionals, involving practice because learning is based on real or simulated problems and situations for which students will have to present solutions. The problems are similar to those that students will experience later, in professional life (Sobral & Campos, 2012).

The objective of this new pedagogical proposal in the field of psychology is to form, from an innovative educational model, qualified professionals with a formation based on values and practices that target the other person, making them capable to interfere effectively, critically and creatively in any social context where they are. Among the current active methodologies are the case study, Problem-Based Learning (PBL), and the Problematization Methodology (MP) (Queiroz, 2012). Given the new possibilities arising from the inclusion of the active methodologies in the curricula of the psychology courses, the aim of this study was to describe the knowledge about the SUS of students from the first period of a psychology course that adopts a Problem-Based Learning (PBL) methodology.

## Methods

This is a descriptive study of a qualitative approach. However, with the purpose of complementing the study, elements of quantitative character were used, always respecting the qualitative aspect of the data. As stated by Minayo (2004), the qualitative methodology is able to incorporate meaning and intentionality, inherent to acts, relations and social structures in significant human constructions.

The qualitative approach allows the understanding and interpretation of the meanings and significations given by the subjects about the studied object (Turato, 2008). The descriptive character is justified by the aim to create greater familiarity with the theme investigated, enhancing discoveries of induction. This feature in the research, according to Gil (2002), focuses on the discovery of meanings, allowing the consideration of many different aspects of a problem situation.

The study sample involved undergraduate students aged 18 to 39 years, on the first semester of the psychology course of a health higher education institution in the state of Pernambuco, Brazil. This institution uses as teaching methodology the Problem-Based Learning (PBL) and proposes to emphasize the articulation between theory and practice from the insertion of the student in the psychologist's workplaces.

To characterize the place of study, it is important to cite the curriculum of the psychology course of the university in which this research was conducted, which consists of tutorials groups, laboratories, workshops, and practices, setting students' knowledge during the school semester. The workshops and practices represent the basic internships of the psychology course, directly articulating the theoretical contents with the students' experiences in the practice places, providing a gradual insertion in various contexts of professional practices in psychology, under supervision and follow-up of professors of the institution and professionals from the workplace.

The students participating in the present research were included in the public health workshop of the first period of the psychology course, which aims to: develop in the student skills and competencies to know and analyze the psychologist's performance in public health from observing the practice in the Family Health Support Center (NASF).

Throughout the development of the workshop, students go to practice environments that are part of the context of Primary Health Care (PHC). Students accompany the psychologists and other health professionals who work in these services and have the opportunity to know about the multiprofessional mode of action that happens in PHC and learn about fundamental matters of public health. The professor of the workshop closely monitors this practical experience by offering dialogical learning spaces, based on active methodologies, thus facilitating the construction and consolidation of knowledge of these students about the SUS. Even students who have never had contact with content referring to public health before entering higher education are expected to, from the insertion of practice in PHC and from contact with the health professionals of the NASF or other places, have their knowledge expanded and solidified throughout the public health workshop.

This study had the participation of students older than 18 years who regularly registered in the first semester on 2016.2, voluntarily agreed to participate in the research, and had at least 80% of attendance in the public health workshop, not considering students that were repeating the class. There were 30 students in the class, but throughout the research, there were two losses by exclusion criterion, because one student was repeating the first period and the other was not 18 years old yet, and of the 28 freshmen left, only 16 volunteered to participate in the research.

The instrument of the first stage of the study consisted of a questionnaire with questions about the SUS, involving: meaning of the acronym, origin, principles, levels of health care and performance of the psychologist; and a socio-demographic questionnaire addressing the following variables: age, nationality, gender, race, marital status, previous education and family income. Data collection happened in October 2016, after the explanation of the research objectives. The application of the questionnaires was in an individual, anonymous and self-applicable way, in the classroom with students who volunteered to participate in the study, shortly after the meeting of the public health workshop. Data typing and processing were performed in the SPSS (Statistical Package for the Social Sciences) program in version 15.

In the second stage, the collection procedure was the realization of a focal group, which, according to Sehnem, Alves, Wilhelm and Ressel (2015),

is a qualitative research technique that collects information through group interactions, allowing the participants to exchange opinions and experiences, enabling discussions and becoming a valuable resource for exploring poorly investigated subjects. It had the participation of students that were part of the first stage. It was communicated, in the first stage, that the participation of the 16 respondents in the focal group would be crucial, however, only 6 students were available to the group, which was conducted by the following guiding questions: (a) How do you understand Brazil's Public Health System (SUS)?; (b) Talk about some experiences with the SUS; (c) What do you understand about the health care levels of the SUS?; (d) How would the psychologist act in the SUS according to your conception?; (e) Is there any difference in the performance of the psychologist among the health care levels of the SUS?. The answers were recorded, transcribed and analyzed based on the content analysis technique (Minayo, 2004).

The focal group was recorded in audio, using prior authorization from the interviewees by signing the consent form (TCLE) according to resolutions 466/12 and 510/16 of the National Health Council (CNS). Data transcripts were kept in a safe place, in addition, as a way to safeguard the anonymity of the interviewees, codenames were used. All participants were informed about the confidentiality of the information collected, as well as the right to withdraw from participation at any stage of the research. The study was a research of scientific initiation and was submitted and approved by the research ethics committee, through the CAAE 58756416.6.0000.5569.

## Results

The study had the participation of 16 students, who attended the first period of psychology in a higher education institution of health, located in Recife-PE. The class consisted of 30 students, but 2 of them could not participate because one of them was repeating the semester, and the other was not 18 years old yet. Of the 28 freshmen left, only 16 agreed to participate in the research. Regarding sociodemographic data, the majority of students were 18-20 years old (62.5%), others were 21-30 years, and only one interviewed student was 39 years old (6.25%). Also in the characterization of the sample, 5 students (31.25%) were male and 11

(68.75%) of the female sex. As for the students' monthly family income, the highest income concentration was around 4 minimum wages. Regarding the education level of the students, 13 of them (81.25%) did not have previous higher level education, while 3 (18.75%) have reported having previously a higher level education distinct from the health area. When questioned about the use of the SUS, 12 participants (75%) claimed to have already used the SUS services at some point in their lives.

### Stage 1

The sample of the participants who answered the questionnaires added up to 16 students, 5 (31.25%) males and 11 (68.75%) of the female sex. The data indicate that, although the students are still beginning their higher level education in psychology, all participants (100%) have already heard about the SUS at some point. When questioned about the origin of the SUS and the justification for its creation, 10 students (62.5%) responded correctly. Regarding the health care levels of the SUS, 8 students (50%) answered that they knew the three levels, but when questioned about what these levels were, only 2 participants (12.5%) mentioned correctly the three levels of health care, which are, respectively: Primary Health Care (PHC), medium complexity and high complexity.

**Table 1.** Distribution of students according to the number of those who answered correctly the questions regarding the theoretical knowledge about the SUS (n=16)

<i>Topic of the question</i>	Responded correctly	
	N	%
Acronym SUS	16	100
Origin of SUS	10	62,5
Levels of health care in SUS	8	50

Regarding the doctrinary principles of the SUS, only 5 students (31.25%) answered that one of them was universality. The most quoted principle by the students was equity, as can be seen in table 2:

**Table 2.** Distribution of students according to the number of those who answered correctly the questions about the doctrinary principles of the SUS (n=16)

<i>Doctrinary principle</i>	Responded correctly	
	N	%
Universality	5	31,25
Integrity	9	56,25
Equity	10	62,5

Another point to be highlighted refers to the students' responses about the different types of disciplinary interaction in the SUS. 9 students (56.25%) affirmed that the professionals' performance is multidisciplinary, which according to Gusberti, Dorneles, Dewes and Cunha (2014), is the individual analysis and synthesis of each discipline, allowing a scientific evolution through different visions, in an additive way, and not an integrative one. From the students' responses, we can perceive how challenging it is to see an interdisciplinary performance within the SUS, which ultimately reflects the deficiencies still found in the

education of health professionals, that despite having in their curriculum guidelines disciplines focused on the SUS, still organizes the disciplines separately and with few theoretical-practical articulations between the various areas of healthcare.

All students (100%) affirmed that the psychologist is an active part of the SUS; about the SUS services where the psychology professionals act, all (100%) cited the Family Health Support Center (NASF), which had a direct relation with the knowledge obtained during the practice in the NASFs, as shown in table 3:

**Table 3.** Distribution of students according to the number of those who answered correctly the questions regarding the services where the psychologist can work in SUS (n=16)

<i>Work areas of the psychologist in SUS</i>	Responded correctly	
	N	%
Basic Health Unit (UBS)	5	31,25
Immediate Care Unit (UPA)	4	25
Family Health Support Center (NASF)	16	100
Psychosocial Care Center (CAPS)	15	93,75
Outpatient Care	3	18,75
Small Hospital	5	31.25
Medium Hospital	6	37,5
Large Hospital	9	56,25

## Stage 2

The sample of the participants who composed the focal group consisted of 6 students. At the time of the questionnaire application, it was emphasized that the participation of the 16 respondents in the focal group would be crucial, but only 6 were available for the group. From the content analysis of the answers given to the guiding questions held in the focal group, it was possible to extract two categories: 1) The SUS from students' perspective; 2) The importance of the inclusion of psychology students in practice in PHC for the development of praxis in the SUS.

### 1) The SUS from students' perspective

The fact of knowing, to a greater or lesser extent, the SUS, reveals similarities about the characteristics

that professionals who will work with public health should have.

It was very common, in the speeches of the participants, the appearance of expressions that characterized the SUS based on its principles and guidelines, according to the experience that each one had during the contact with the SUS in the practice of PHC, performed in the first semester of the course. Relating to this, the student Assis states that the SUS "is a unified system", and for the student Coralina, the SUS is a system that ensures the accessibility to health in an integral way, based on its principles:

*It is a public system of accessibility to health in an integral way, based on principles that were defined in the Constitution, that is duty of the State to assure the right to health, but before that, there was a world*

*conference, and then were created these guidelines and the SUS is the realization of what was agreed.*

For two other students, SUS must attend all social classes, thus guaranteeing access to the system and perceiving the individual in all of its dimensions. As the participant Lispector affirms, SUS "aims at all social classes, accessibility". For the subject Amaral, "It is a system of integralization, integral".

Still about the students' perspective on the SUS, some students brought some of the history of the SUS and the change in the classical definition of health, aiming to break the biological vision to an unabridged perception of the individual. It was possible to identify in the report of the student Lispector, the knowledge about the new health concept related to SUS:

*I find it interesting the concept of health in SUS, it is very broad, and is not only the punctual concept of "health being the absence of the disease". However, when it reaches this issue of education and prevention, it views the human being in an integrality, which is one of the concepts, one of the bases of the SUS and for me is one of the most interesting things.*

Another point to be highlighted concerns the students' perspective regarding the doctrinary principles of the SUS, it was possible to see that most of them managed to bring more elaborate answers in relation to the principles of the SUS. As student Coralina portrays, for her the principle of universality was a great achievement for the population since access to health provided citizens with dignity and citizenship:

*And the coolest thing is that with universality everyone is entitled. Before, when it was social welfare, only those who were workers, so who didn't work wasn't able to access the SUS, different from today, today any person can, any citizen, this gives protection of dignity, citizenship.*

According to the interviewed Assis, the concept of integrality is understood as an articulated and continuous set of actions and services that permeate the promotion and prevention of health, as well as the provision of assistance to the individual in a holistic way, in different health care levels of the system:

*Also, the cool thing is that integrality happens: before, during and after. Because before when it was social welfare, you'd get sick and go to the hospital, not now,*

*now they focus on before, during (you're sick and go to the hospital), and then if you need medicine, they give you medicine, there's this follow-up.*

Something in common in the discourse of some participants was a concern that perhaps the SUS is not functioning according to its norms and principles. As depicted by the participant Telles' speech, "the fact of having these very cool, very beautiful definitions, but unfortunately, by several issues, does not work as it should", in this way she brings out that although the definitions of SUS are quite interesting, they are not put into practice.

The non-effectiveness of the SUS was experienced by the student Assis, based on an experience that his aunt had with the SUS, depicting the delay in the service:

*Also my aunt, the same thing, she's an old woman, she is 70 years old, and then she said: "I went to schedule the thing (medical consultation) in Areias, and it was for three months later, but I need it now, three months later or I'll be dead, or the situation will actually be very bad". I think it's bad, this whole delay thing.*

2) The importance of the inclusion of psychology students in practice in PHC for the development of praxis in the SUS.

Batista and Gomes (2015) understand praxis as the articulation between theory and practice, which do not overlap but interact with each other, through a theoretical reflection that happens simultaneously to the practical reality where it is placed. In this category, the students' statements showed systematic knowledge about the inclusion of psychologists in SUS. The participant Coralina came to report the advancement of psychology within the SUS and the importance of this professional's look to the health team in PHC.

*In some places, the performance of the psychologist will have a clinical quality, which is funny, because the psychologist always had that stigma of being something superfluous: "rich people's thing". Nowadays you can go to therapy in the SUS, people of various classes go, so it is no longer that luxury thing, the accessibility to clinical psychology. However, the psychologist of the NASF has more of an articulator, educative way, he will do a punctual intervention, he will not perform a clinical therapy there, he will not make a clinical care, but he will make a screening, he will be accompanying*

*the work of other professionals, with the perspective of the psychologist, bringing that point of view.*

It was also identified that the students' presence on the PHC practice places helped a lot by contributing and facilitating their theoretical knowledge. For Coralina, her insertion in practice helped her to better articulate the concepts related to SUS, she states that "this helps not only in the workshop but also in tutoring because I saw a lot in NASF situations of depression and such, which facilitated my learning also in tutoring".

In addition, the student Meireles affirms that the theoretical-practical articulation allowed a breakdown of stigmas that she had about SUS and provided her with another vision about its functioning:

*The workshop is interesting because when you go to an environment, when you know something, you already take a little bit of the stigma of what is the SUS. It breaks this matter of you not knowing the service, so you already get there with a pre-judgment, but when we have the theoretical safety; it already gives another vision for us to enter these places.*

Finally, it was noticed, through the participants' reports, that the practice in PHC helped the students to know even more about the performance of the psychology professional in this context. Also, in addition, collaborated with their knowledge about the insertion of psychologists in the different health care levels of SUS.

## Discussion

Because it is a two-step study, the discussion of the obtained results will happen simultaneously.

With the consolidation of the SUS, from the Federal Constitution (1988), the need to train human resources through the effective participation of universities as trainers and stimulators of critical and productive thinking became even more fundamental to transform sanitary practices still prevalent (Pinheiro, Diogenes, Figueiras, Abdon & Lopes, 2009).

The training of professionals, from the moment of their graduation, to work in SUS has become a repeatedly raised matter, being the target of debates in various

instances such as unions, universities, student movements, and government. Which affirm the need to form a new profile of professionals, who deal with the demand of the SUS with resolutivity and quality (Cotta, Gomes, Maia, Magalhães, Marques & Siqueira-Batista, 2007). Thus, the Ministry of Health has invested efforts to integrate public policies with health services, also seeking to relate the practice in undergraduate courses with the assistance provided to the population (Ceccim & Feuerwerker, 2004). Therefore, several important steps were given, for example, the elaboration of National Curriculum Guidelines for all courses in the health area, considering the need for academic education based on and directed to the SUS. The guidelines aim at a more generalist and humanistic formation, providing academics with critical and reflective thinking that emphasize the training of the student to comply with the health demands (Machado, Monteiro, Queiroz, Vieira & Barroso, 2007).

Apparently, the consensus surrounding the need for curricular changes expresses, on the other hand, the identification of flaws in the training process of psychology professionals. The literature points out that despite the advances, the professional education of the health area still faces fragmented curricular models, not incorporated in public health services and, in general, poorly integrated to public health (Machado et al., 2007). The undergraduate curriculums cannot only be limited to the transmission of knowledge, but it should also provoke the inclusion of these students in the practical field, which could be done through partnerships with services linked to the SUS. The students would have the opportunity to experience and witness the routine of the service, perceiving relevant aspects of reality and creating alternatives to improve it and refine it, within its possibilities (Pinheiro et al., 2009).

According to Ceccim and Feuerwerker (2004), the professional who will work in the field of public health should be able to create, plan, implement and evaluate policies and actions that aim at the general well-being of a particular community, besides having skills that can transform the technical practice into basis to provide a good reception and care in a humanized and integral way the health needs of people. However, these skills that are appropriate and expected of all health professionals should be built during graduation, so that the subject, as a student of the first or as an alumni, can already bring his/her competences beyond a technical-scientific prevalence, thus allowing



the apprehended content to be transmitted and incorporated by the citizens, in a constant situation of empowerment of the population (Saupe, Cutolo, Wendhausen & Benito, 2005).

For the acquisition of such skills and competencies, the active learning methodologies are pertinent to stimulate the teaching-learning process of students, in which the student assumes the role of instituting his/her knowledge and not only being a receptor of information, as traditional teaching advocates (Kuenzer, 2000). Thus, through this process in which the subject is the builder of his knowledge, the student becomes able to acquire the aforementioned skills, that are so necessary nowadays in terms of health practice (Berbel, 1998).

In the present study, the freshmen could mention that from the opportunity, which they had during the practice in APS when performing interventions in the contexts where they were and being able to monitor closely the performance of professionals, they felt like active subjects in both assistance and learning. From this affirmative, we perceive the experience as a key concept in health training: learning by doing, which presupposes the inversion of the classical sequence theory-practice in the production of knowledge, assuming that this production happens in a dynamic way, through action-reflection-action, a space that was possible during the classes of public health workshop. It is also noteworthy that throughout the workshop, problematization was present as a way of guiding the students' search for knowledge and building skills that support interventions to work with the issues presented, from the point of view of both the specific professional of psychology specifically and the multidisciplinary team (Brazil, 2007).

Nevertheless, not a lot of universities adopt active methodologies in the psychology undergraduate course. According to Seidl and Costa Junior (1999), the psychologist, since his training, has not been systematically prepared to exercise the role that is requested by the health system. In this same sense, Miyazaki, Domingos, Valerius, Santos, and Rosa (2002) draw attention to our recent reality and, based on the patterns of morbidity and mortality, technology, the evolution of knowledge and the administration of the health system, refer that this favors new possibilities for the psychologist's action. However, the university must be prepared to provide an undergraduate course that meets the specific

needs of this area, with a view to the need for skills development and competencies to work in the SUS during professional training.

Thus, only the application of new teaching strategies does not guarantee that the student will actually learn the new content. For this to happen, two conditions are indispensable: willingness to learn and that the content approached is interesting and meaningful. Therefore, when a subject acquires, incorporates and, at the same time, transforms a new knowledge, in addition to acquiring skills and competencies that were not existent, there is the process of meaningful learning in which the student stores the new content and produces new related meanings, thus allowing the construction of desirable professional attitudes (Pelizzari, Kriegl, Baron, Finck & Dorocinski, 2002). Thus, the active methodology, known as "problem-based learning", is a tool for students to acquire knowledge in a meaningful way. Such processes are established as strategies in higher education to improve the quality of health education and, indirectly, improve health care for the population (Ratto & Silva, 2011).

This strategy reflected positively on the good performance of students with knowledge of the doctrinary principles of the SUS, besides demonstrating a good theoretical preparation when questioned about the origin and meaning of the acronym SUS. It was noticed that although they are still at the beginning of their formation, the knowledge demonstrated is directly related to the theoretical-practical articulation in which students are submitted from the first semester. Similar experiences have been happening in other institutions with the inclusion of practical theoretical disciplines in their curricula (Pineiro et al., 2009). This change provides the inclusion of psychology academics in different locations and expands their professional qualification (Pitombeira, Barroso, Xavier & Oliveira, 2016).

Another aspect that stood out in the participants' speeches was the concern that maybe the SUS is not working as it should. The students affirmed that the practical functioning of the SUS was not always consistent with the way it was planned, but despite this, they recognized that it is a constantly improving system. To achieve the optimal functioning of the SUS, it is necessary to have the participation of managers, servers, and professionals, as well as social participation. Moreover, there are programs

that were created precisely to improve the assistance provided by SUS. One of them is the Program for Improving Access and Quality of Primary Care (PMAQ-AB), instituted by Ordinance No. 1,645 (2015), which aims to induce the increase of informational access to health and improve the quality of primary care, in order to allow greater transparency and effectiveness of governmental actions directed to Primary Health Care. It is worth mentioning that the students did not cite programs such as the PMAQ-AB, which also shows how much the health system is complex and poorly explored in undergraduate studies.

The results also revealed the students' perceptions regarding the place that the psychologist occupies in public health and more specifically in the scope of APS. The students reported that, through their observation in the field of practice, it was possible to perceive the difficulties experienced daily by the psychology professionals who worked in the NASF, which provided them with the perception that the psychologist's performance in this context is still in the process of construction. In relation to this, according to Pitombeira, Barroso, Xavier and Oliveira (2016), the insertion of this professional in the scope of APS concerns a space that perhaps the psychologist is less tuned to act. While in hospitals, ambulatories and specialized clinics, the psychology professional has already built a more solid basis of insertion and practice, APS still remains as a field to be constructed, which corroborates the speeches and answers given by students.

It is interesting to emphasize that despite being recent the inclusion of the psychologist in these spaces, especially in the NASF, the total sample of students, when questioned about which were the areas of activity of this professional, responded that one of these sites was the NASF. This directly refers to the practical experience that students had within this context during the first period. Therefore, we emphasize the need for undergraduate and postgraduate courses in psychology to work in the training of professionals since the beginning of the course. There already are reports of experiences towards the concern of professionals and professors in this perspective (Ribeiro & Zimmermann, 2016; Sperandio & Torres, 2016), demonstrating new directions in the training of professional psychologists to work together with users and public health professionals since the beginning of graduation.

Pitombeira et al. (2016) states that the formative spaces and professional practices cannot, therefore, be dissociated, because they are realities that are constituted at the same time, both in the field of practices, as in conceptions of it and, if this does not happen, it creates an abyss resulting from the lack of articulation between health education and work in the SUS. Thus, it is necessary to understand the complex interactions between social and economic conditions; promotion, prevention, and recovery of health; the meanings and senses of health and disease for the subjects and the emotional dynamics involved in an effective performance of the psychology professionals.

Finally, it is possible to understand those discussions about the formation in psychology directed to the action in PHC, in order to open reflections about how the professional training and the practice of the psychologist) are fundamental to broaden the knowledge of students about the possibilities of understanding the political proposal of the psychologist's role inserted in primary care still in the first periods of graduation. It is understood that, by agreeing with Freire (1983), the man is unfinished and is aware of it, there is no total subject, that we are all inconclusive. With that being said, also the psychology as well as its formation are inconclusive and are constantly remade in the praxis. Therefore, it is important to be aware of this when we speak about professional training, whether in psychology or in any other area, because we are talking, at the same time, about psychology in training, in constant construction, transformation, invention.

## Conclusion

In this study, it was found that the knowledge of psychology students, although still in the first semester, was significant in relation to the history of the SUS, but less significant in relation to the functioning of it. It was perceived that this moment of the course, the beginning of training, is a time when students receive a large number of new information, requiring a curriculum that involves the SUS throughout the graduation, with the main objective of consolidating the content. Today there is a need for health training to seek a non-normatizing and non-authoritarian education, emphasizing problematization as part of the construction of knowledge.

Therefore, it is necessary to have a curricular flexibilization in order to insert new methodologies, opening space to enable contact with learning scenarios that cause an impact on the training of professionals. It is sought a formation that goes beyond technical-scientific knowledge, which allows the development of skills and competencies in relation to professional practice, and that forms more than skilled professionals, but citizens capable of following the principles of SUS and compromise to act in the best possible way, seeking the improvement of Brazilian public health. Finally, it is important to develop new research about the knowledge of students, especially in other health areas, about the SUS, and also about the relation between health education and active learning methodologies, so that is provided an evolution in the formation of future Brazilian health professionals.

### Authors' contributions

Sousa, M. R. participated in the conception, design, data collection, data interpretation, search and statistical analysis of the research data, interpretation of results, writing and forwarding of the scientific article. Felix, J. R. L. participated in the conception, design, data collection, search and statistical analysis of the research data, interpretation of the results and writing of the scientific paper. Melo, M. C. B. participated in the design and review of the scientific article. Tarquino, M. G. participated in the conception, design, interpretation of the data, interpretation of the results and review of the scientific article.

### Competing interests

No financial, legal or political conflict involving third parties (government, corporations, and private foundations, etc.) has been declared for any aspect of the work submitted (including but not limited to grants and financing, participation in council, study design, manuscript preparation, statistical analysis, etc.).

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