

Academic monitoring as a dialogical channel in the nutritionist training process

A monitoria acadêmica como canal dialógico no processo de formação do nutricionista

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Abstract

Purpose: To report the monitoring experience in the Axis of Collective Health of the Nutrition Course of the Federal University of Rio de Janeiro, *Campus* UFRJ-Macaé, Brazil, reflecting on this practice as a training strategy for nutritionists. *Methodology:* The monitoring in the Axis is delineated according to the conception of non-hierarchical education and reciprocity, worked respectively by Paulo Freire and Simone de Beauvoir. Content analysis of the experience reports of the authors in the scope of the monitoring was carried out, in a self-assessment perspective. *Results and Discussion:* This experience revealed the potential of monitoring as a pedagogical strategy in the training of nutritionists, by adding humanization and providing a dialogical channel of horizontal and reciprocal learning. Monitoring contributes to professor training, above all by encouraging professors to rethink their pedagogical practice to better guide the monitors. It also stimulates the protagonism of the students during their learning, being able to favor greater professional autonomy. Time mismatch to work as a team and little student adherence to the activities proposed by the monitors were the main obstacles identified. Within the scope of the courses, possible ways to overcome such difficulties have been tested, but with little success. *Conclusions:* It is imperative to discuss monitoring in higher academic spheres, aiming to adjust the curriculum of the courses, in order to incorporate a specific time for this purpose. This experience advocates the construction of a new institutional culture, in which monitoring is inserted in the academic routine, inherent to teaching, articulated to research and extension,

favoring the formation of autonomous professionals, freed and imbued with humanization in health care.

Keywords: Mentors. Education, Higher. Nutrition. Public Health. Health Human Resource Training. Teaching.

Resumo

Objetivos: Relatar a experiência de monitoria no Eixo Saúde Coletiva do Curso de Nutrição da Universidade Federal do Rio de Janeiro, *Campus* UFRJ-Macaé, refletindo sobre essa prática enquanto estratégia de formação de nutricionistas. *Metodologia:* A monitoria no Eixo está delineada segundo a concepção de educação não hierarquizada e de reciprocidade, trabalhadas respectivamente por Paulo Freire e Simone de Beauvoir. Realizou-se análise de conteúdo dos relatos de experiência das autoras no âmbito da monitoria, numa perspectiva autoavaliativa. *Resultados e Discussão:* Esta experiência revelou a potencialidade da monitoria enquanto estratégia pedagógica na formação de nutricionistas, por agregar humanização e proporcionar um canal dialógico de aprendizado horizontal e recíproco. A monitoria contribui com a formação docente, sobretudo por estimular as professoras a repensarem sua prática pedagógica para melhor orientar as monitoras. Também estimula o protagonismo dos estudantes durante seu aprendizado, podendo favorecer maior autonomia profissional. Incompatibilidade de horário para trabalhar em equipe e pouca adesão discente às atividades propostas pelas monitoras foram os principais obstáculos identificados. No escopo das disciplinas, têm sido testados possíveis modos para superar tais dificuldades, porém com êxito diminuto. *Conclusões:* É imperativo discutir sobre monitoria em esferas acadêmicas superiores, visando ajustar o currículo dos cursos, de forma a incorporar horário específico para esse fim. Esta experiência advoga a construção de nova cultura institucional, em que a monitoria esteja inserida na rotina acadêmica, inerente ao ensino, articulada à pesquisa e à extensão, favorecendo a formação de profissionais autônomos, libertos e imbuídos de humanização no cuidado em saúde.

Palavras-chave: Monitoria. Educação Superior. Nutrição em Saúde Pública. Formação Profissional em Saúde. Docência.

Introduction

Academic monitoring has been legally instituted in Brazil since 1969 and is provided for in the current Law on the Guidelines and Bases of National Education (LDB).¹ Present in the regiments and pedagogical projects of several higher education institutions (IES) in the country, monitoring is a pedagogical strategy in which undergraduate students help in the learning of colleagues less advanced in the courses, favoring the overcoming of difficulties and the deepening of the contents.^{2,3} It is up to the professors to give the monitors an opportunity to approach the teaching profession and share their teaching experience in the educational and administrative spheres. From the interaction among its agents (monitors, professors and students), monitoring allows for a more dialogued and contextualized learning to the students' reality, favoring the development of critical thinking.^{2,4}

It should be emphasized that in the area of health it is essential a vocational training rich in criticality and focused on the needs of society, especially regarding the demands of human resources for the Brazil's Unified Health System (SUS).⁵ The implementation of the Family Health Strategy (ESF) and the Family Health Support Centers encouraged the reorganization of health practices in Brazilian Primary Care and the reorientation of professional training in health, directing a greater focus on the humanization of the work process and multi-professional and interdisciplinary team learning.⁶

In line with these principles, the curricular guidelines for Nutrition undergraduate programs emphasize that a critical and reflexive humanist training that promotes professional performance in health teams is imperative.⁷ Among the obstacles for this differentiated training to occur, it is important to note that subjects that are essential for SUS, such as the social construction of health and the challenges of teamwork, have been little worked in undergraduate courses.^{5,8} It is added that the pedagogical training of the professors who teach in Nutrition programs needs to be improved, in order to be fine-tuned with the desired professional training.^{9,10}

The professional identity of the nutritionist, still considered diffuse,⁹ is another aspect that can interfere in the direction of the training in Nutrition, due to the lack of clarity on the role of the professional that is intended to form. The construction of this identity comes from a historical process, with origins in the search for professional autonomy, before the initial subordination of the nutritionist to the medical practice.⁹ It is emphasized that the acquisition of autonomy can contribute to the definition of professional identity, since it is essential for elucidate the roles of each professional in the health teams.^{11,12} In this sense, greater professional autonomy may favor the development of teamwork, which has been identified as a challenge for nutritionists,^{5,13} as well as for other health professionals.^{5,6,12} In the case of nutritionists, in addition to the need to redirect training to help build professional autonomy, attention should be paid to the gender issue and the oppression deriving from it,^{14,15} which, since it is essentially a feminine profession,^{16,17} may interfere with the expression of autonomy.

The monitoring has the potential to contribute to the needed education, as it creates a more humanized learning scenario, where it is stimulated the student to have a preponderant role, as well as their sensibility to team work. As they do so, students learn and teach among themselves, mediated by the professor and the world around them, being strengthened by the transforming and liberating character of education¹⁸ through an active pedagogy, mediated by inter-subjectivity and facilitator of knowledge construction at from everyday life.

However, the potential of monitoring to contribute to the education of nutritionists, as well as other health professionals, depends on a mosaic of aspects, including, for example, the support of IES, the design of the pedagogical projects of the programs and the perception of the different actors on education.⁴ In undergraduate programs implanted during the recent Brazilian conjuncture of the expansion of higher education,¹⁹ such as the Nutrition Course of the *Campus* UFRJ-Macaé Professor Aloísio Teixeira (*Campus* UFRJ-Macaé), the professors' team are newly constituted and the curricular matrices are found in clear formation.²⁰ Such a differentiated profile may be opportune to rethink the teaching practice and the structure of the matrices, being the monitoring a way of dialogue between the different actors involved in this process.

In the scenario of the Nutrition Course of the *Campus* UFRJ-Macaé, the objective of this article is to report on the experience of monitoring in courses of the Collective Health Axis (ESC), and to reflect on this practice as an education strategy for nutritionists.

Methodology

Context of the education in Collective Health in the Nutrition Course of the *Campus* UFRJ-Macaé

The undergraduate pre-professional Nutrition Course was implemented at the satellite *Campus* UFRJ-Macaé in 2009, becoming part of the expansion of the Federal University of Rio de Janeiro. It presents a pedagogical project that differs from traditional curricula, because it is based on the approach to the practical field from the earliest semesters and is structured in thematic axes, favoring the integration of contents and courses.²⁰

In particular, the courses of the ESC guide the education according to the consensus on the skills and competences of nutritionists in Collective Health,²¹ seeking, nevertheless, to value critical reflection on the reality of health and nutrition. The objective is to overcome the frequent dichotomy between theoretical training and professional practice, and between the understanding of health from biological phenomena as opposed to social phenomena. The chain in which the courses occur in the ESC offers a growing gradient of complexity and depth over reality, already shown to undergraduate students since the first semester (Chart 1).

Chart 1. Courses of the Collective Health Axis of the Nutrition Course of the *Campus* UFRJ - Macaé, according to the workload and the curricular insertion semester/2017.

Course	Hourly Load (hours)			Curricular semester
	Total	Theoretical	Practice	
Community Health	120	30	90	1º
Food, Nutrition and Society	45	45	-	3º
Applied Research Methods	105	90	15	3º
Integrated Practices	15	-	15	3º
Food and Nutrition Education (I, II and III)	90	30	60	5th, 6th and 7th
Health and Nutrition Policies and Programs	90	90	-	6º
Subtotal	465	315	165	
Supervised Internship in Collective Health	180	-	180	9º
Total	645	315	345	

Community Health (SC) course aims to narrow the distance between students, the context of health services in the SUS network and the community of Macaé. It is a freshman course, with several practical activities in the territorialized spaces of the ESF and reference centers of social assistance. The pedagogical methodology exercised by exposure to problem-situations refers to the assumptions of Popular Education in Health, from a dialog oriented, emancipating, humanistic, participatory and creative perspective of health work with users.²²

The course Food Nutrition and Society (ANS) has as its main theme to treat food as a social and political act, contextualizing the historical course of family cooking and the commodification that foods and feeding have been suffering under the aegis of modernity. Relying on philosophical and anthropological principles, the course encourages students' criticism of observing food as a principle of subjective realization, in which subjects become aware of their food choices.

Methods of Applied Research (MIA) and Integrated Practices (PI) are courses that articulate theoretical-practical contents of Biostatistics, Epidemiology and Nutritional Epidemiology.

Through the design of the diagnostic technique for action,²³ the students are invited to reflect on the methodology used in epidemiological studies, as well as on the social role played by them in describing reality and directing policies and interventions.

The field of Food and Nutrition Education (EAN), as presented in the Brazilian Framework of Reference in Food and Nutrition Education for Public Policies,²⁴ is worked on three courses, which discuss the pedagogical currents and allow students to plan and implement educational actions in different scenarios. The trio of EAN courses consolidates the Popular Education in Health²² training curriculum and adopts Paulo Freire's benchmark as the guiding line of their discussions and practices.^{15,18}

The Policies and Programs of Health and Nutrition course complements the approach on the public policies that are articulated with the field of Food and Nutrition, starting from the context of the health services of Macaé. The guideline of the training in Collective Health is completed in the Supervised Internship in Collective Health, a course in which students can exercise in a critical and autonomous manner the professional activities required for the nutritionist in this field.

Theoretical reference of monitoring in the Public Health Axis

It is in the aforementioned pedagogical scenario that is inserted the participation of monitors in the training process promoted by the ESC. The pedagogical work with monitoring seeks to follow the same program of training adopted by the courses, based on the valuation of the humanization of health care and the development of criticality. It is based on the Freire's theoretical reference of non-hierarchical education,^{15,18} seeking to give the monitors a close contact with the professors and students of the Course. Monitoring in the ESC also considers Antônio Gramsci's conception,²⁵ that in education lies the possibility of neutralizing the domineering and dominated roles, so characteristic of 'banking education'.

More important than the appropriation of the technical content of the subjects, it is sought to awaken in the monitoring in the ESC the interest for teaching and the link that is born among the participating actors. Based on the notion of reciprocity brought by Simone de Beauvoir,²⁶ cooperation is encouraged during learning. This philosopher discusses the idea of reciprocal construction of sovereignty in a relationship between persons, in which one abdicates momentarily from his/her ontological sovereignty and gives way to the other to be constituted. In light of this concept, the understanding arises that the dialogical channel provided by monitoring constitutes a space of exchange, without the dominance of one actor over the other, which encourages the deconstruction of conventionally hierarchical situations, such as professor-student and monitor-monitored.

Monitoring activities developed in the Public Health Axis

ESC courses began to integrate institutional monitoring and/or pedagogical support programs in 2011, initially with MIA and EAN. Currently, monitors are received in SC, MIA, ANS and in EAN courses.

The courses host scholarship and volunteer monitors and organize annual, customized work plans, which include weekly activities, developed at different times, according to the profile and the availability of the students. Among the activities commonly developed are those of theoretical training, such as: directed readings and discussion of texts on subjects of the courses and on pedagogy of higher education; in addition to activities of supervised teaching practice, such as: class planning, correction of exercises and elaboration of didactic materials. The monitors and students also meet after classes for conducting directed studies, discussions of readings and clarification of doubts. These sessions have taken place both in person and in virtual environment, where the monitors schedule synchronous “chats” and/or conduct asynchronous discussion forums.

Systematization of experience

The experience reported in this article refers to that lived by the present authors during the conduction of monitoring programs linked to the ESC concentration field of the Nutrition Course of the *Campus* UFRJ-Macaé. Among the authors are undergraduate students, who have acted as monitors; and professors, with degree in Nutrition, coordinators and/or collaborators in the courses SC, MIA, PI, ANS and EAN. In order to contemplate the experience of themselves as women, educators and apprentices, the authors place themselves here as observers of their own action, in a self-evaluating perspective.

Each of the authors individually answered in writing to seven guiding questions about their monitoring experience: (1) What was their expectation when initiating monitoring activities? (2) What activities have you done within the scope of monitoring? (3) How has the experience on what you have been doing? (4) What are the successes and the difficulties experienced? (5) What have you learned from living in monitoring? (6) Do you have suggestions for future experiences? (7) In your view, does monitoring contribute to the training of nutritionists? Why?

Later, one of the authors systematized the reflections, following a qualitative perspective of thematic content analysis.²⁷ Reflections were categorized and interpreted according to previous theoretical scope, especially in what touches three critical nodes of Nutrition training: humanization, professor training and professional autonomy.

Results and Discussion

The basic goals of monitoring are to allow the undergraduate student to experience the teaching activity, arousing his/her interest in teaching as a possibility of professional field; in the same way, seeks to bring the professors closer to the students in the teaching process.¹ Monitoring in the ESC has met these objectives, as it exposes the monitors to the world of professors and favors their relationship with the students. This exposition appears clearly in the following report of one of the present monitors:

[...] monitoring has shown me a bit of teaching work outside the classroom, researching, preparing classes, rethinking content and pedagogical methodologies [...]. All this work “behind the scenes” [of the course] supports my work with colleagues [...]. The approach with professors greatly broadens the vision about the teaching career and about the functioning of the university, clarifying better about this possibility of professional field (Monitor-A).

On the part of these professors, there is the understanding that the monitoring proves to be a facilitator of the learning process of students “and professors, why not?” (Professor-A), establishing a channel of dialogue about impressions and related doubts to the phenomena studied in each course. In this sense, the monitoring in the ESC differs from that observed in other contexts, where there is little knowledge on the part of the actors about the role of the monitor,³ which is sometimes limited to performing technical tasks, hampering the realization of the educational potential of the monitoring.

Once in the courses of the ESC the monitoring is fine-tuned developed, in design and practice, with the pedagogical principles of this educational strategy, it opens the possibility of reflection on the unfolding of the monitoring for teaching and training in Nutrition.

Monitoring: path of humanization and improvement of teaching

Humanization in health²⁸ is a central concept of discussion in the scope of Basic Attention, understood as a set of principles and modes of operation of the professionals' relations between themselves and with the users. The notion of humanization in health proposes to value the subjective dimension of human relations, encouraging reception and solidarity exchanges, committed to health promotion. It should be emphasized that humanization is one of the main characteristics foreseen in the training of nutritionists⁷ and other health professionals, and should therefore be exercised in the university daily life, favoring the training of humanistic professionals and caregivers of other people.

This experience in the ESC prompted the idea of monitoring as a space for the application of principles of humanization in the context of academic life. In the sense of valuing person, monitoring has been perceived by these professors and monitors as a practice that humanizes the teaching and learning process, making it more horizontal and prone to knowledge production and closer intersubjective relationships.

For example, the monitors in this experience reported that they commonly talk to students in the courses about the difficulties they face in academic life and the means used to overcome them. They seek, therefore, to develop students' self-confidence, who tend to perceive that overcoming obstacles is feasible. In the same sense, a study in private IES in Rio Grande do Sul² emphasized the identification of students with the monitors, who are seen as a model to be followed, which favors learning, as students gain self-esteem and perceive the possibility of reaching the same level as the monitor.

The monitors in this experience believe that close contact with students strengthens them emotionally, making them feel gratified and valued. This type of valuation, as the following report shows, is felt by these monitors also in their relationship with the professors:

I feel valued at monitoring [...]. When I realize that the professors include me in the activities of the course, they ask me for my opinion and also listen to what I have to say about various issues, I feel valued and useful in the activities I develop (Monitor-B),

The present monitors consider the proximity to professors an important emotional support for their academic performance and support for university stay. Studies in other IES also observed that the closeness with professors brings emotional benefits to the monitors, favoring the overcoming of the daily challenges of university life.^{3,4} It is pertinent to comment that the improvement of the life quality of Nutrition students depends on greater pedagogical, social and psychological support²⁹ and the monitoring is a possible way to contribute in this sense. It is also worth considering that, in contexts of university expansion such as that at the satellite *Campus* UFRJ-Macaé,^{19,20} support from human relations may acquire greater importance, due to the fact that social support equipment for the community, such as a university restaurant and student accommodation, not to be operative; and many students come from other, sometimes distant, cities.

The path of mutual support and humanization, paved by monitoring in this experience, also reached the professors. One of them commented that:

When I am with the monitoring students and I see their development and my own as an educator in this process, I regain the vitality and joy to develop my teaching activities (Professor-B).

This comment refers to the concept of lovingness developed by Paulo Freire, described as the potentiality and human capacity to place oneself as an ethical and cultural interlocution in the world and with the world.³⁰ Understood in this conception, besides helping in the teaching-learning process, monitoring can promote subjective construction, as intended by the principle of humanization.

The notion of lovingness could also be identified in the reports of the monitors who, as it appears in the following section, perceive themselves acting in the teaching role and sometimes have to put themselves in the place of the students, constituting a dance of roles that adds, of humanized and intersubjective way, learning to all.

I learned [in monitoring] how important it is to have someone who can give a differentiated attention to each student, because the monitor is someone who has passed through that course, someone who is not a professor, heal doubts without shame or any kind of concern [...] I learned to listen to the questions and always try to understand, even because I have already been in their place [students] (Monitor-C).

This report also gives light to the reciprocity²⁶ that can be constituted in the relations between groups or individuals, when subjects are allowed to stand as free consciences and construct together and mutually their learning without the domination of one individual over the other. In that perspective, the present experience allows to think of the monitor as a promoting agent of reciprocal learning, because it operates as a link between the actors involved and, in this way, can dilute possible hierarchies²⁵ and favor teaching. For example, due to their recent experience as students and their more in-depth knowledge of the subjects of the course, it was realized that the monitors are able to understand the obstacles faced by the students and to apply tangible and meaningful examples to them. In the same direction, Frison² heard from the students that the monitors helped them to understand the explanations given by the professors, and that the relations between contents and daily life established by the monitors made more sense to the matters.

Aspects of reciprocity and non-domination among agents of the learning process were present in this experience also in the relationship between professors and monitors. Their meetings, in order to rethink the courses, have allowed to enlarge the vision of both parties. At those meetings, professors can hear the considerations and proposed adjustments suggested by the monitors, based on their own experience and listening to the students. The monitors, in turn, listen to their former professors, now advisors, the obstacles and difficulties of putting such suggestions into practice. From that humanized and oppression-free sharing of points of view has given rise to new knowledge and ideas for the improvement of training in Collective Health, as well as, as will be discussed below, for the improvement of teaching and professor training.

Contribution of monitoring to training of Nutrition professor

It was noticed in this experience that, in guiding the monitors and reorienting their didactic methods, the professors were able to rethink their roles. This exercise of looking at its performance was, in itself, considered a unique contribution of monitoring to the training of the present professors.

They emphasized that the dynamics brought about by monitoring to the course prevents “accommodation that tends to occur when similar activities are carried out for a long time” (Professor-B). The monitors make the course take the form of a “living thing” (Professor-A), which requires continuous care. According to these professors, the constant productive interference of the monitors brings a different rhythm to the course, making the preparation of classes happen as uninterrupted action, not just punctual in the days next to the class to be taught. In addition, the contact with the monitors has helped the professors to know the world view of the students, “to better understand what they like, their interests” (Professor-B). This pedagogical potential of the monitoring has helped the professors to develop with more property the curatorship of the knowledge.³¹

Faced with the contemporary scenario of abundance of information and ease of access to them, it is essential that professors seek to become curators, selecting subjects, contents and educational techniques that make sense in the reality of their students; and assisting them in the quest to learn what is in fact important.

Contributing to a better curatorial practice, this monitoring experience has helped professors to identify critical points in the courses, such as topics that could be more easily taught. The professors recognize that, unlike the monitors, they do not share the same difficulties as the students; and that “it gives them [monitors] an interesting ‘advantage’ in the process of teaching and learning” (Professor-B). This advantage also helps to improve materials and pedagogical strategies, making “classes dynamic and well evaluated by students” (Professor-C). In addition, the monitors facilitate communication between professors and students, which favors teaching by, for example, encouraging student participation in extracurricular activities.

The professors also reported that living with the monitors makes them more concerned about the quality of the work they do and, therefore, seek to improve their training. In order to meet the students’ expectations, “it is as if, in a way, I were being policed to give my best as a professor to be a good example” (Professor-B).

The monitor asks for differentiated commitment because he/she questions what to do as a monitoring activity, and then the professor needs to go after moving in him/herself this teaching ability that, at first, does not recognize in his/her activities. And so occurs the movement of constructing the strategy of teaching-learning, in demand of both, professor and monitor, which simultaneously experience the interest, the doubt and the charm that involves the process of learning to teach (Professor-A) .

Now, from the point of view of professors, this report reinforces that the hierarchical walls historically current among students and professors²⁵ can become more permeable through complicity and the human link from monitoring. The report also retakes the question of informality among the persons, which favors that the learning takes place horizontally, reciprocally and in an intersubjective relation.²⁶

Also in the report of the Professor-A, a crucial point is highlighted: professor training (or lack thereof). It was identified in this experience that the challenge of developing monitoring activities has been put to the professors, without specific training to do so. It should be mentioned that the training of professors who teach in undergraduate Nutrition courses, as well as in other courses in the health area, lacks pedagogical improvement.^{5,10} Most professors have academic expertise in their specific fields, but there is a large gap in training to become a professor and educator.

That is a serious problem, especially when considering the responsibility of professors in the direction of vocational training. Government programs have been developed to reorient the training of health undergraduates in order to include greater criticality and adaptation to social demands.^{6,20} However, in order for the desired formation to take place, it is necessary to review the training of professors included in the process.

The monitoring and the autonomy in the education of the undergraduate student in Nutrition

This section discusses the potential of monitoring to contribute to a differentiated training of Nutrition undergraduate students, in terms of the autonomy of learning and the resulting skills that can last in the professional life.

The reports from the monitors point out that the learning that emerges from monitoring is extremely relevant to them as students and future nutritionists and health professionals. Such learning has been multidimensional, adding domain of specific contents; teaching skills, such as orality and didactics; as well as knowledge related to personal maturation and world-wide enlargement. It has been realized from this experience that, in comparison with students who have only studied the subject, the monitors are more focused on the content, which expands their critical vision and ability to integrate subjects with each new semester in which they review, specialize and teach.

Monitors of the health area of other Brazilian IES, both public,^{4,32} and private,^{2,3} also highlight this breadth of learning, derived from monitoring. For example, Frison² stresses that as the monitor acquires teaching-related skills, it also maximizes its academic potential in terms of deepening specific themes. Santos and Batista⁴ observed in IES in the state of São Paulo that the monitor experiences situations that prepare him to act in health services, such as interdisciplinary work, group living together and collective search for solutions to problems.

Looking back at Nutrition monitors, one can consider that monitoring provides a set of differentiated skills and competences, which articulates with the reality and the singularities, not only of the professional contexts in Collective Health,^{5,8,21} but in all areas of nutritionist practice. For example, teaching skills, such as orality and professional posture, are applicable and desired subsidies in the general education of the nutritionist.⁷ In addition, the monitoring experience may cooperate with the practice of the ethical function of the nutritionist to assist in the trainee precepts; as well as strengthen the role of educator in Food and Nutrition, which the nutritionist can play in all areas of his/her work, with a view to promoting self-care.

The monitors, in this experience, commented that monitoring requires constantly rethinking the needs of the students, which forces them to reflect on their own experience as a student. In this direction, they stressed that monitoring altered the way they study, incorporated more critical content, better ability to select them, more organization in terms of rhythm and allocation of study time. This awareness of their own learning process is a key contribution of monitoring to the training of these monitors.

On this subject, Frison² approaches the notion of self-regulation of learning, which refers to the contributions of monitoring so that the students have more autonomy in their learning process, being able to reflect on their way of studying. According to the author, monitoring encourages self-regulating procedures, favoring, for example, that students plan their tasks better and are able to identify more easily the subjects in which they have the greatest difficulty. Via the dialogic channel of monitoring, self-regulation of learning is encouraged not only in the monitors, but in all the students involved. In the exercise of their practice as educators, the monitors share their experiences and difficulties with their colleagues, which contributes to both the monitor and the student, acquiring greater criticality, responsibility and autonomy over their learning process.²

The monitoring sessions in which students study together, independently, with the professor's curatorship,²⁵ allow to think about the autonomy of student learning also in a collective dimension. In this perspective, autonomy in learning develops "between equals," with students among themselves, holding the command that lead and direct them to where they want to go through what they learn. Seen from this angle, monitoring is in accordance with the Freire's conception of a pedagogy that favors the autonomy of the person.¹⁸ Education is a continuous movement that, increasing over time, adds autonomy, protagonism and freedom to the life of the subjects, as they act as pupils and educators between themselves and for themselves. In this sense, it can be glimpsed that the independence and the self-regulation of the learning provided by the monitoring during the college life favor the formation of nutritionists with greater protagonism and autonomy in the professional life.

Still from the Freire's perspective of the liberation of the oppressed,¹⁵ it is important to consider the female profile of nutritionists in Brazil.^{16,17} Regarding professional autonomy, there is a relevant gender issue to be considered in the training of nutritionists,¹⁶ in terms of female oppression and passivity in a world historically constituted by men.¹⁴ In the perspective of the construction of autonomy by giving opportunity thru the dialogue and subjective protagonism, monitoring can represent an important (female) exercise for professional development in the direction of an emancipatory practice.

(Dis)hindrance to the full development of monitoring

In the present experience, two difficulties were identified, which correlate with each other and prevent the monitoring to be fully developed: shortage of time to carry out the activities; and low student frequency in the activities proposed by the monitors. In this section, we discuss these problems and the means that have been used to overcome them.

The shortage of common free time, which allows the joint work between professors, monitors and students, was the main limitation felt in this experience. In particular, the monitors commented on their difficulties and their colleagues to engage in extracurricular activities because of the full-time schedule of the Nutrition program. The professors, on the other hand, reported that the multiple academic demands inherent in their profession make it difficult to work together with the monitors. It should be noted that difficulties in monitoring time, due to the inflated schedule of required courses, were already identified at the State of Rio de Janeiro University in the 1990s.³³

To minimize this difficulty, professors have sought to include the monitors in their daily work. "This was a way I found to be able to pay attention to them [monitors], even when I am troubled by other academic activities. If I cannot do activities with them that are designed for this purpose [monitoring], I will at least let them be by my side, following what I am doing" (Professor-B). The interesting thing about this alternative is that it allows the participation of the monitors in teaching activities, which may not be included in a traditional monitoring plan, such as: faculty meetings, academic thesis defenses and meetings of research teams and/or extension for the discussion of results and design of actions and publications.

This articulation between teaching, research and extension widen the possibilities of learning and encourages the monitors to continue performing the monitoring. It is worth noting that LDB provides that monitors develop research and extension activities linked to teaching,¹ because such integration, as observed by Albuquerque et al.,³² favors university education as a whole. Mention is also made of the study by Borsatto et al.,³³ in which students were observed to be evaded of the monitoring programs, due to frustrations with the impasses of their routine as a monitor and the interest in integrating research activities. These studies reinforce the pertinence of the

articulation of monitoring in the context of the academic tripod teaching-research-extension, since this triad cooperates among them, indissociably, strengthening the university and, consequently, the provision of services to society.

Another obstacle identified in the present experience was the low student frequency in the activities proposed by the monitors. Monitoring sessions have taken place in the late afternoon or evening, which is inevitable and perceived by all as unproductive. The monitors reported that students often come to meetings only to resolve doubts; “they arrive already wanting to leave” (Monitor-A), possibly due to the volume of other academic tasks that they must finish and to the inherent fatigue. The monitors also commented that “who comes in the monitoring likes and participates” (Monitor-B), but the frequency of students is commonly low, “except in the periods before the tests” (Monitor-A).

On the one hand, it is understandable the difficulty of the students to remain in the university after their classes; on the other hand, this impasse is discouraging for the professors and monitors, who strive to turn the monitoring sessions into a space for mutual learning. One of the monitors reported that her “initial fear of not being able to meet the demands of her newcomers to the course was replaced by concerns about their low adherence to the resources offered.” (Monitor-A). The monitors realized that this “initial fear” could be overcome with study, but that the low adherence of students was a complicated hindrance, even with the built human link.

In an attempt to address this problem, the use of virtual learning environments can be a promising feature.³⁴ However, both in this experience and in Soares et al.,³⁴ the “online monitoring” sessions and distance discussion forums have been considered insufficient to increase student participation.

In addition to the unavailability of time, low student adherence may be due to other factors, such as shortage of interest associated with lack of knowledge about the role of monitoring.³ The monitors themselves reported that before they started monitoring, they imagined that it “was only about meeting with the students [...] to clear the most frequent doubts and/or to explain some part of the subject again” (Monitor-B). In part because of this limited understanding, the monitors did not usually participate in monitoring in the subjects they attended. They also highlighted that they did not have an interesting experience when participating in monitoring activities in basic biomedical required subjects, which occur in the first semesters of the Nutrition program.

This previous experience was considered negative and a possible factor that discourages student participation in the activities proposed by the ESC monitoring. Associated with this is the baggage of educational experiences with which students arrive at the university, commonly filled with elements that are the result of a ‘banking education’, little reflexive and exempt from the recognition that learning is built in the interaction between educator-student and social environment-educator-student.¹⁵

In order to stimulate the frequency and interaction of the students in the monitoring activities in the ESC, some courses have adopted the assignment of participation grade in these activities. It is hoped, therefore, to encourage students to participate in monitoring and to realize their goals and benefits for vocational training. The intention is to build a new institutional culture about monitoring, so that it can be inserted in the academic routine, not as an ancillary activity, but in an inherent way to teaching, favoring the education of autonomous professionals, freed and imbued with humanization in the health care.

Conclusions

This experience revealed the potential of monitoring as a pedagogical strategy in Nutrition training, mainly for adding more humanization and autonomy to the teaching-learning process, characteristics strongly required for the nutritionists.

The dialogical channel provided by monitoring at the ESC has contributed to the improvement of teaching in the Nutrition program and to the strengthening of the training, not only of the monitors and the students, but also of the professors involved. The critical, humane and articulate way in which the monitoring in the ESC has been carried out makes it a useful space for the cooperative development of the teaching-research-extension triad.

The lack of time for collective work and low student adherence were the main obstacles to the development of monitoring identified in this experience. Some alternatives have been applied internally in each course to overcome such obstacles, but successes are still timid.

Since the origin of the identified difficulties, as well as a great deal of their governability, is outside the domain of the ESC concentration, it is pertinent to seek ways to broaden the discussion about monitoring in the different academic spheres, in an attempt to guide the demand for changes in the organization of the curricular required schedule.

Similarly, to what has been thought contemporaneously in Brazil about the inclusion of extension in the formal required curriculum of undergraduate programs,³⁵ one could consider the inclusion of a specific agenda for monitoring activities within the weekly course load. The current situation of change in Brazilian higher education may be an opportune moment for curricular changes, especially in a new *campus*, where tends to have more flexibility for reformulations. Thus, not only would the challenge of scheduling be minimized, but especially a larger group of male and female undergraduate students could experience the benefits of monitoring.

Collaborators

Lourenço AEP, Botelho LV and Viana MR were responsible for the design and delineation of the study. Lourenço AEP was responsible for analyzing the qualitative data. All the authors contributed with the report of the experience and with the writing of the manuscript.

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References

1. Brasil. Lei Federal nº. 9.394/96 de 20 de dezembro de 1996. Lei de Diretrizes e Bases da Educação Nacional (LDB). Diário Oficial da União 23 dez. 1996.
2. Frison LMB. Monitoria: uma modalidade de ensino que potencializa a aprendizagem colaborativa e autorregulada. *Pro-Posições* 2016; 27(1):133-153.
3. Natário EG, Santos AAA. Programa de monitores para o ensino superior. *Estud Psicol.* 2010; 27(3):355-364.
4. Santos GM, Batista SHSS. Monitoria acadêmica em formação em/para saúde: desafios e possibilidades no âmbito de um currículo interprofissional em saúde. *ABCS Health Sci.* 2015; 40(3):203-207.
5. Rossoni E, Lampert J. Formação de profissionais para o Sistema Único de Saúde e as Diretrizes Curriculares. *Bol Saúde* 2004; 18(1):87-98.
6. Brasil. Ministério da Saúde. Ministério da Educação. Programa Nacional de Reorientação da Formação Profissional em Saúde - Pro-Saúde: objetivos, implementação e desenvolvimento potencial. Brasília: MS/ME; 2007.
7. Brasil. Resolução nº 5/CNE/CES. Institui as Diretrizes Curriculares Nacionais do Curso de Graduação em Nutrição. Diário Oficial da União 7 nov. 2001.
8. Recine E, Gomes RCF, Fagundes AA, Pinheiro ARO, Teixeira BA, Sousa JS, et al. A formação em saúde pública nos cursos de graduação de nutrição no Brasil. *Rev Nutr.* 2012; 25(1):21-33.
9. Banduk MLS, Ruiz-Moreno L, Batista NA. A construção da identidade profissional na graduação do nutricionista. *Interface Comun. Saúde Educ.* 2009; 13(28):111-120.
10. Costa NMSC. Formação pedagógica de professores de nutrição: uma omissão consentida? *Rev Nutr.* 2009; 22(1):97-104.
11. Guimarães RGM, Rego S. O debate sobre a regulamentação do ato médico no Brasil. *Ciênc Saúde Coletiva* 2005; 10(Supl.):7-17.
12. Almeida MCP, Mishima SM. O desafio do trabalho em equipe na atenção à Saúde da Família: construindo “novas autonomias” no trabalho. *Interface Comun. Saúde Educ.* 2001; 5(9):150-153.
13. Boog MCF. Atuação do nutricionista em saúde pública na promoção da alimentação saudável. *Revista Ciência & Saúde* 2008; 1(1):33-42.

14. Beauvoir S. O segundo sexo. v. 2: a experiência vivida. Rio de Janeiro: Nova Fronteira; 1980.
15. Freire P. Pedagogia do Oprimido. 46ª ed. São Paulo: Paz e Terra; 2005.
16. Souza LKCS, Campos FM, Kraemer FB, Machado PAN, Carvalho MCVS, Prado SD. Gênero e formação profissional: considerações acerca do papel feminino na construção da carreira de nutricionista. Demetra: Alimentação, Nutrição & Saúde 2016; 11(3):733-788.
17. Brasil. Conselho Federal de Nutricionistas. Perfil de atuação profissional do nutricionista no Brasil. Brasília: CFN; 2006.
18. Freire P. Pedagogia da autonomia. 12ª ed. São Paulo: Paz e Terra; 1996.
19. Brasil. Ministério da Educação. Secretaria de Educação Superior. A democratização e expansão da educação superior no país 2003-2014. Brasília: SESu; 2015.
20. Lourenço AEP, Cordeiro AA, Capelli JCS, Oliveira RBA, Pontes PV, Almeida MFL, et al. Programa de Educação Pelo Trabalho para a Saúde (PET-Saúde) e a formação do nutricionista num campus de interiorização. Demetra: Alimentação, Nutrição & Saúde 2017; 12(1):41-58.
21. Recine E. Consenso sobre habilidades e competências do nutricionista no âmbito da Saúde Coletiva. Brasília: Observatório de Políticas de Segurança e Nutrição; 2013.
22. Brasil. Ministério da Saúde. Caderno de educação popular e saúde. Brasília: Ministério da Saúde; 2007.
23. Thiollent M. Metodologia da pesquisa-ação. 18ª ed. São Paulo: Cortez; 2011.
24. Brasil. Ministério do Desenvolvimento Social e Combate à Fome. Marco de referência de educação alimentar e nutricional para as políticas públicas. Brasília: MDS; 2012.
25. Gramsci A. Cadernos dos Cárcere. 2ª ed. Rio de Janeiro: Civilização Brasileira; 2001.
26. Beauvoir S. Pour une morale de l'ambiguïté. 2ª ed. Paris: Gallimard; 1947.
27. Bardin L. Análise de conteúdo. Lisboa: Edições 70; 1995.
28. Brasil. Ministério da Saúde. Política Nacional de Humanização. Brasília: Ministério da Saúde; 2004.
29. Baraldi S, Bampi LNS, Pereira MF, Guilhem DB, Mariath AB, Campos ACO. Avaliação da qualidade de vida de estudantes de nutrição. Trab. Educ. Saúde 2015; 13(2):515-531.
30. Fernandes CMB, Viola SE. Autonomia e conhecimento: algumas aproximações possíveis entre Antônio Gramsci e Paulo Freire a partir da análise de práticas pedagógicas emancipatórias. Educ Rev. 2004; 20(2):99-108.
31. Cortella MS, Dimenstein GA. A era da curadoria: o que importa é saber o que importa! Campinas: Papirus 7 Mares; 2015.
32. Albuquerque MAC, Amorim AHC, Rocha JRFC, Silveira LMFG, Neri DFM. Bioquímica como sinônimo de ensino, pesquisa e extensão: um relato de experiência. Rev Bras Educ Med. 2012; 36(1):137-142.

33. Borsatto AZ, Oliveira NECC, Silva PDD, Rocha PR, Assis F, Lopes GT. Processo de implantação e consolidação da monitoria acadêmica na UERJ e na Faculdade de Enfermagem. *Esc Anna Nery* 2006; 10(2):187-194.
34. Soares ALAG, Dias CP, Vidal EIO, Coeli CM, Almeida LM, Camargo Júnior KR. Utilização de um serviço de monitoria virtual voltado para o ensino de epidemiologia na graduação médica. *Physis* 2003; 13(1):39-58.
35. Brasil. Lei Federal nº. 13.005 de 25 de junho de 2014. Aprova o Plano Nacional de Educação – PNE e dá outras providências. *Diário Oficial da União* 26 jun. 2014.

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