

Professional training in the context of food and nutrition security

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Background: Primary care is an important area in which to confront situations of food and nutrition insecurity. To undertake action in this area, well-prepared professionals are necessary. Courses of health training are not yet, however, equipped to offer the necessary preparation. **Aim:** To analyse the topics taught in nutrition graduation courses related to the abilities and competencies demanded by professional work in this area. **Methods:** The curricula of the nutrition courses offered in the municipality of São Paulo, Brazil were analysed. Nutritionists and teachers were interviewed. The triangulation of the data obtained was undertaken by means of a qualitative approach taking the theory of social representations as the frame of reference. **Results:** The concepts necessary to act within the context of food and nutrition security are related to a humanistic approach, the unity of theory and practice, the nutritionist's role as educator, teamwork and reflection on public health.

Key words: curricula; food and nutrition security; higher education; nutritionist; primary health care

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Background

Primary health care has been indicated as an important area in which to confront situations of food and nutrition insecurity (Cervato-Mancuso *et al.*, 2012; DeMartini *et al.*, 2013). To define action in this area, Brazil has included the recognition of adequate and healthy eating as a constitutional right. Thus, the theme of food and nutrition security (FNS) is integrated into food policies (Nascimento and Andrade, 2010).

In order to undertake action related to feeding and nutrition within this perspective, calls for personnel qualified to deal with this challenge to the health system.

However, schools offering training in the health field are not yet equipped to offer this training in this

specific area (Proença, 2010). This study analyses the topics present in the graduation courses of nutrition that promote the abilities and competencies necessary to enable the professional to work with FNS.

Methods

Given the exploratory nature of the study, a qualitative approach (Patton, 2002) was chosen and semi-structured interviews, focus groups and documentary analysis were conducted.

A total of 16 graduate nutritionists acting in FNS in the municipality of São Paulo, Brazil, as well as 23 teachers responsible for the administration of the courses (the coordinators) and six curricula (Teaching Projects – TPs) of graduate courses of nutrition in the municipality were investigated. The interviews were held with all of the participants, whereas the focus group consisted only of the nutritionists. The TPs of the nutrition courses offered in the municipality, available on the schools' sites, were analysed.

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The technique of the discourse of collective subject (DCS) was used for the analysis of the testimonials given in interviews and focus group. DCS is a technique of organizing discourse data by which the researcher searches for understanding of certain phenomena in a given universe, through depositions. This method involves the following steps: (1) reading every single testimony; (2) extraction of key expressions in each statement; (3) grouping of homogeneous key expressions; (4) extracting the central idea (CI) of each group of key expressions; and (5) composition of DCS corresponding to each CI (Costa *et al.*, 2014). The details of the phases of the research project for the identification of the sample population for the collection and analysis of the data are to be found in Vieira (2011).

The triangulation of the data obtained was undertaken by means of a qualitative approach, taking the theory of social representations as its frame of reference.

The present project was submitted to and approved by the Research and Ethics Committee of the Public Health School of the University of São Paulo (protocol no. 1889).

Results

From the DCSs conceived and the contents of the focus groups and the TPs analysed, it was possible to identify the distinctive features necessary for the nutritionist’s work in FNS (Table 1).

The constant presence of FNS emerged clearly in the TPs, as also in the statements. Discrepancies were found between statements given by the CI coordinators ‘FNS works with several disciplines’ (*‘During the course this is taught in a more general way, in many subjects, when we work on the basis of feeding and nutrition, of feeding as a human right’*) and ‘The fragmentation of contents makes it

Table 1 A summary of the principal themes involved in the training, which promotes the activity of the nutritionist within the food and nutrition security (FNS)

Themes	Nutritionists	Coordinators	Teaching projects
Constant presence of FNS in the course	Contents are considered fragmented during the course. A tendency to attribute greater value to specific contents for activity in FNS	Some observe that FNS exists in various disciplines, whereas others note a fragmentation of content	Interdisciplinarity is indicated as being among the guiding principles
Humanistic approach	Is recognized as important given the need to work with more vulnerable social groups. The importance of the approach’s focusing on nutrition	The need to expand this approach is emphasized	Humanistic approach arises in the professional profile proposed by institutions of higher education
Unity of theory and practice	Practical activities (including practical training periods) are recognized as important though they are considered to be few and with insufficient supervision on the part of the institutes of higher education	This unity is emphasized by the coordinators though there are criticisms as to the relative lack of practical training opportunities in the public sector	These indicate the unity between the principal guidelines
Training as educator	Nutrition education is inadequate, presenting overly technical characteristics	The importance of the great emphasis given in nutrition education is mentioned	Education and communication are cited among abilities and competencies
Teamwork	This is a fundamental aspect of the activities of the nutritionist in the present model of primary care	(Coordinators do not address this aspect)	This is mentioned among the abilities and competencies to be developed
Reflection on public health and public health policies	The treatment of the policy programme is limited. This context is perceived but does not receive owing to emphasis on the part of teachers	Discourse indicates both the existence of this content and its inadequacy. There is a lack of maturity, on the part of the students, for reflection on this	(No training related to the unified health system is to be found)

difficult to develop skills and competences' (*'The students are still travelling along a path of disconnected subjects... I have the impression that the students are unable to acquire these competences, because they are not made clear to them and our present TP is the same'*).

Although the TPs indicate that a humanistic approach is adopted in the courses, those interviewed stated the need for greater emphasis to be given to this aspect. The CI 'Increase the humanistic weight of the course' exemplifies this need: *'I would add a bit more [...] also in the humanities area [...]. And I know that we are not professionals in the humanities, but we have contact with people, so we must have a minimal training in order to act properly'*.

In another feature identified, the unity between practice and theory, contradictions were found among those interviewed: while nutritionists say, it is given insufficient weight and benefits from only limited supervision on the part of institutions of higher education (IHE), coordinators indicate that the courses contribute to FNS actions through internships, visits and extension courses. The conflict is clear in part of the nutritionists' discourse, whose CI is entitled 'Insufficiency of various practical activities'. (*'We don't have a practical basis for doing things, we only have the theory. We lack case studies, really taking the student "in loco", as well as the internships... even if only to observe, to go there and see how it works, do you get it?'.*). In addition, the coordinators' CI says 'Competences and skills are developed through activities outside the classroom' (*'And the university has some activities, taking the student into the community to really give nutritional counseling, checking on the conditions in which food is bought, and food security'*). It was positive to see that in most of the TPs, inserting this unity into the course goals meet the demands of present directives for nutrition courses.

Teamwork was mentioned by nutritionists as relevant in work areas such as the Centers for Support for Family Health, emphasizing also intersectoriality and social work (*'I believe it is important, in terms of education strategies. It is not easy for those who are graduating to make contact with other professional areas. Because in FNS the problem is not mine, the problem is ours!'*). This line of thought is also reinforced in the competences and skills of the TPs studied, even though coordinators did not mention the subject.

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The discussion about the training of the nutritionist as educator was mentioned in the TPs as a competence, and this was often repeated by the participants, with special emphasis on the restructuring and broadening of the approach to nutrition education in the CI of the course 'Emphasizing the nutrition education subject matter': *'Nutrition education [...] should be part of all the modules, I believe this discipline is the one that completes the nutritionist's training, so that he can put the theory of some disciplines that involve food security into practice'*.

Finally, the training in public health and public policies, mentioned as relevant, is not included in the TPs. Furthermore, although statements by the coordinators indicate its existence, the approach to it during the course is insufficient, with criticism about the students' posture towards the public health contents of the CI. 'The proposal by the course offered does not come up to the student's expectation' (*'I believe it is our student's degree of maturity [...]. Quite often I think they are not prepared, during their high school years, for what the health area really involves'*).

The themes identified for the training of nutritionists in FNS were the constant presence of the FNS in the curricula, the humanistic approach, the unity of theory and practice, the training as educator, teamwork, and reflection on public health and public health policies.

Discussion

Similarities were found between nutritionists and coordinators regarding the importance of practical activities, the constant presence of FNS, the reorientation of the approach towards nutrition education, and the increase in the content of the human sciences and public health with a view to promoting activities aimed at different components of FNS.

In-depth discussions stressed the need for greater articulation between theory and practice in the course and the need to approximate the components of the humanities and social sciences to the health area, so that the training will take the social, political and cultural reality into consideration, ensuring respect for human diversity (Haddad *et al.*, 2010).

There was a contradiction between the quality of the training offered and that obtained, indicating

that the proposals offered by the courses are not actually perceived by the students as being applied during their course, a lack which can influence their professional practice. Nutritionists mention insufficient practical activities, and limited discussions on public health and public policies during the course, whereas coordinators do, in fact, believe these questions are relevant in the preparatory courses for work in the FNS area. Furthermore, the teamwork, proposed in the TPs and viewed by nutritionists as deficient, was unknown to the coordinators, showing that the promises made in the project were not being fulfilled, although the relevance of this characteristic is already being discussed with regard to the professional intersections and limits of the various areas (Banduk *et al.*, 2009).

Decision making, management and leadership, indicated as abilities and general skills of nutritionists (Proença, 2010), were practically not mentioned at any time either in the interviews or the TPs, suggesting that such features are inadequately covered in the courses. Such a limitation may hinder the performance of graduate students in the proposal, management and evaluation of FNS policies and programmes.

The Brazilian policy view of the need for the reorientation of existing health practices demands professional involvement in this area, with a view to individual integrality, transcending the merely technical-professional training (Banduk *et al.*, 2009). However, the market is absorbing nutritionists who have not acquired the skills and abilities needed during their undergraduate course. The IHE courses in nutrition show that the schools are having difficulty in implementing their projects' contents, according to some coordinators' notes and training limitations reported by nutritionists. The appropriation, on the part of the IHE, of the recommendations contained in the National Directives varies, resulting in varying speed of applications (Banduk *et al.*, 2009).

The discussion of the nutritionists' training to prepare them to work in FNS leads to reflection on the educational training of other health professionals. Distinct elements elucidated in this study, such as training with emphasis on practical activities, are important to other areas, reinforcing the humanities content, teamwork and professional stance as educator.

Research into other FNS scenarios, such as food surveillance, institutional feeding and food banks,

is also necessary for the purpose of incorporating new elements into the discussion on training and, more importantly, to put elements that promote the remodelling of higher education into their due perspective.

In light of the results presented, it may be concluded that certain characteristics related to the training of the nutritionist in FNS are constantly repeated both in the interviews and the documents analysed, demonstrating their importance for the work of the nutritionist. The elements emphasized here highlight the need for the training of human resources apt to act within the sphere of FNS, but also call attention to the need for the IHE to receive greater support for the reorientation of the courses already offered. Measures arising from intersectorial policies between health and education are necessary so that the action of the health professional should succeed in translating conceptual complexity into actions, which address situations of food and nutrition insecurity. It will thus be possible to guarantee the quality of the health system.

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Conflicts of Interest

None.

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