Representations of resident professionals regarding the pedagogical strategies used in the multiprofessional residency training process

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How to cite this article: Machado LDS, Tamboril ACR, Machado MFAS, Maia ER, Lopes MSV. Representations of resident professionals regarding the pedagogical strategies used in the multiprofessional residency training process. Rev Esc Enferm USP. 2018;52:e03386. DOI: http://dx.doi.org/10.1590/S1980-220X2017024803386

ABSTRACT
Objective: To evaluate the social representations of residents regarding the pedagogical strategies of a Multiprofessional Health Residency program. Method: A case study with a qualitative approach supported by the Theory of Social Representations. Data collection was performed by applying a questionnaire to the resident professionals. ALCESTE software was used for the lexical content analysis. Results: Questionnaires were applied to 15 resident professionals. The analysis showed the educational potential of a Distance Education tool, the need to prioritize theoretical content and its planning, aligning it with the experience in the territory, and the preference of the subjects for dynamic spaces that favor communication and critical-reflective analysis of day-to-day routines. Conclusion: There is a need to value strategies and teaching-learning methodologies that are significant for the resident professional and which contribute to health education.

DESCRIPTORS
Internship, Nonmedical; Education, Graduate; Learning; Interprofessional Relations; Health Personnel.

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Received: 06/28/2017
Approved: 06/04/2018
INTRODUCTION

Changes in the process of socio-cultural, economic and political organization of the territories have required changes in training health professionals, guiding the formulation of curricula in order to prioritize current health needs and which are capable of contributing to strengthening the healthcare system[1]. This system increasingly demands a critical-reflexive positioning of professionals to face problems, which presupposes acquiring technical and relational skills that stimulate the professional and personal development of the subjects[2].

Some initiatives and experiences emerge as possibilities for professional training with the expectation of attending the political and cultural changes for building populational healthcare. In this scenario, Multiprofessional Residencies in Health (MRH) represent a lato sensu post-graduation modality aiming to strengthen training and health work. This modality surpasses disciplinary logic by providing formative spaces connected with life and the social context, since the learning takes place collectively and is based on experiences in the territory. These experiences must take place in significant spaces under the technical and professional supervision of instructors and preceptors and encompass activities which seek to contemplate the axes of teaching, research, extension and management from recognizing loco-regional needs and realities[3-5].

Evaluating the complex reality of the formative moments of a Multiprofessional Residency in Health enables approaching a training modality and learning in a work context that presents the possibility of applying theoretical knowledge to practical experiences, thus enhancing the education transformation process in health and in training competent professionals.

Therefore, the objective of this study was to evaluate the social representations of resident professionals regarding the pedagogical strategies of a MRH program.

METHOD

STUDY DESIGN

This is a cross-sectional, qualitative study of a single descriptive case study which adopted the Theory of Social Representations as theoretical reference in order to capture the symbolic reality constructed by the residents, based on the capacity of this theory to mobilize reality by generating and guiding behaviors and attitudes[6-7]. Applying the Theory of Social Representations enables a union between subject and object, thought and action, reason and emotion, individual and collective, and offers innumerable possibilities for not only understanding the actions of the subjects, but the meanings attributed by them to these actions, considering the contexts in which they are inserted and justifying the individuals’ options in facing the realities to which they are presented[7-9].

SCENARIO

The study scenario comprised the Integrated Health Residency program of the Public Health School of Ceará (Escola de Saúde Pública do Ceará – ESP-CE), Brazil, and more specifically the community component with emphasis on Collective Mental Health, Family Health and Community and Collective Health, due to the representativeness of this component in the decentralization process of permanent education and internalization of multiprofessional residence in health in the State.

INCLUSION CRITERIA

The participants were selected intentionally based on the inclusion criteria: to be a resident and participant of the First Residents’ Forum of the Cariri Macrorregion, composed of 48 municipalities. The forum was held in a public auditorium and was attended by 15 residents of the region. All residents who attended the event were consulted, presented to the study proposal and accepted to participate voluntarily, and their testimonies are identified by letter “R”.

DATA COLLECTION

The data were collected in March 2016 through the application of a questionnaire composed of open questions, which contemplated the residents’ evaluation of the pedagogical strategies experienced in the training process. Among the questions covered in the data collection instrument are: What are the contributions of the theoretical, theoretical-practical and practical moments for their training in the residence? And what tools have been used in these moments that have most contributed to your training as a resident?

DATA ANALYSIS AND TREATMENT

The material from the questionnaires was fully typed into the Microsoft Word® program, constituting the corpus of the study, and saved in the Rich Text format, after which it was processed by the ALCESTE (Analyse Lexicale par Contexte d’un Ensemble de Segments du Texte) software program, version 2015.

The corpus (size 26 K0) was titled ‘Evaluation_Residents’. The software processed the corpus with 78% utilization and divided it into Initial Context Units (ICUs), meaning the units from which the initial fragmentations were made. Then, each ICU was processed, giving rise to the Elementary Context Units (ECUs), forming classes and describing them[10].

ECUs are linguistic statements defined by propositions and phrases in which thought is expressed. The corpus processing generated a dendrogram with descending hierarchical classification, which illustrates the relationships between the classes and serving as a guideline for data analysis. This dendrogram brings together the classes formed by the ECUs with greater statistical and lexical affinity, thus demonstrating a connection of meanings between the grouped themes.

We chose to interpret through content, naming and interpreting each class as categories from the information provided by the software. Four classes/categories were generated: Class 1 – Potential contributions of the EaD (Distance Education; in Portuguese: Educação a distância) platform in the MRH training; Class 2 – Potential and challenges of the process: content, frequency of meetings, communication and workload; Class 3 – Theoretical–presence modules: losses and
deconstruction; and Class 4 – Interaction spaces with the preceptors: field and nucleus discussion circles.

**ETHICAL ASPECTS**

The study complied with the national and international ethics requirements in human research recommended by Resolution no. 466/12 of the National Health Council. It was approved by the Ethics and Research Committee of the Universidade Regional do Cariri, under Opinion n. 1.500.946/2016. All the participants signed the Informed Consent Form (ICF).

The COREQ instrument was used in order to ensure that rigor and credibility were maintained; it is a checklist composed of 32 items designed to ensure a complete and transparent description of qualitative health research.

**RESULTS**

Fifteen (15) questionnaires completed by professional residents in the categories of nursing, psychology, social services and physical education were analyzed. Regarding participant characterization, 11 were female and four were male, their ages ranged from 25 to 36 years, and all were in the second year of specialization training courses in Collective Health, Collective Mental Health and Family and Community Health.

The training context of these professionals was the Integrated Health Residency Program of the ESP-CE along with the community axis with three emphases, present in 22 cities and in all macroregions of health in the state of Ceará, concentrating the largest number of program professionals.

The training process of the multiprofessional residency in health of ESP-CE is structured in practical, theoretical and theoretical-practical moments, guided by instructors and preceptors who are responsible for conducting and guiding these moments and following the profile of established competencies.

The software divided the corpus with the data from the questionnaires into 15 ICUs, performed the selection of 77 ECUs, and then from statistical calculations reduced the words to their roots, thus obtaining 1,044 words which in turn occurred 3,464 times. The ECUs were designated in four classes, according to the descending hierarchical classification (Figure 1).

![Figure 1 – Dendrogram of Descending Hierarchical Classification – Crato, CE, 2016.](image)

The dendrogram represents the product of the descending hierarchical classification and shows the relationship between the classes. The corpus was initially divided into two subcorpus; a process in which the first one gave direct origin to class 1. The second subcorpus was subsequently divided into two; one directly originated in class 2, and the other in classes 3 and 4, after the third partition. Thus, the program originated the four classes, understanding that they behaved in a stable way and presented similar vocabulary. The four classes generated by the descending hierarchical classification encompassed specific semantic contexts, and were named with a title. The sentences were organized into thematic categories and used to characterize the evidence of each class.

**CLASS 1 – POTENTIAL CONTRIBUTION OF THE EAD PLATFORM IN THE MRH TRAINING**

This class was more strongly constituted by the relationship between the words ‘planning’, ‘platform’ and ‘dialogue’, relating the use of the EAD platform with the dialogue between the different actors of the Multiprofessional Health Residency training process and with the activities planning, and thus revealing the contributions of this pedagogical strategy.

It is evidenced that the activities carried out at distance on a virtual platform have educational potential, and they have the ability to involve the various actors when they are organized to the content. The need to structure these activities and their horizontal conduct is highlighted through the testimonies, thus enabling discussions and knowledge exchange:

*When there was still activity on the platform, there were good discussions, activities were collected and posted. There was dialogue between the coordination and residents (R15). There is no activity planning at a distance, few discussions and no feedback and socialization of activities (R03).*
CLASS 2 – POTENTIALITIES AND CHALLENGES IN TRAINING: CONTENT, MEETING FREQUENCY, COMMUNICATION, AND WORKLOAD

Formed by the relationship between “content,” “times,” “workload” and “communication,” this class emphasizes such words in a context of dissatisfaction. The content of the significant speeches pointed out by the software demonstrates the need to prioritize the theoretical content in the Multiprofessional Residency in Health as a starting point to base the practices.

The nucleus discussion circles are recognized as fragile, mainly due to the absence/deficiency of dynamism, planning and the discussion spaces.

The preference by the residents for the field discussion is evidenced, as justified by the organization and creative and engaging conduction of these circles generating spaces for reflection on the practices in the contexts and territories. Nucleus discussion circles are recognized as fragile, mainly due to the absence/deficiency of dynamism, planning and the discussion spaces.

CLASS 3 – THEORETICAL-PRESENCE MODULES: LOSSES AND DECONSTRUCTION

Class 3 presents its semantic meaning in the context of the words “beginning”, “sense” and “process”, when the interviewees demonstrate a sense of loss in the meaning of the pedagogical proposals during the training process:

In the beginning of the residence I considered the modules important, because it lent theoretical support that helped in the work performed in the practical scenario. Currently I see no more sense in the modules, because they add nothing to the training process (R14).

This class is the references of the resident professionals toward the deconstruction and discontinuity character of the training process, especially regarding the theoretical modules. However, the residents recognize the potential for reconstructing the Multiprofessional Residency in Health:

For more than 6 months we experienced a lot of fragility in maintaining the Residence, and this directly interfered in the moment of the modules and in the lack of them. I currently believe that those moments have been productive (R02).

CLASS 4 – INTERACTION SPACES WITH THE PRECEPTORS: FIELD AND NUCLEUS DISCUSSION CIRCLES

In this class, the field and nucleus discussion circles are related to the preceptors, the possible contributions of these strategies and the challenges of conducting them, as illustrated in the statements:

The nucleus discussion circles are currently fragile, but the strengths are more evident in the field discussions, perhaps because of the conduction quality by the preceptor being a former resident and knowledgeable in policy training (R08). Theoretical–practical building strengthening space. We discussed the practices developed in the territory and tried to solve problematic scenarios (R04).

In the context of distance education, maintaining regularity in activities and discussions contributes to adherence to this pedagogical strategy, since incorporating new technologies has contributed to training human resources, enabling the materialization of the assumptions pointed out
by the National Policy of Permanent Education in Health (PNEPS)(9). The EaD modality goes beyond the presuppositions of public policy when adapting to the new contexts of teaching and work, associating the significant knowledge to the professional practice. When well delineated and implemented, this modality can produce similar results to face-to-face education(13).

Class 2 highlights the residents’ identifying the main challenges of the training process. The content quoted by the lexical analysis refers to the topics addressed in both the face-to-face modules and the EaD platform. The pedagogical plan should be designed with the aim of aligning theory and practice, in which the proposed readings and activities serve as a basis for action in the territory, overcoming the common disciplinary logic of graduation and generating formative spaces connected with life and social context of the resident student(1). However, the statements point to a distance between the use of tools and praxis due to the absence of the theoretical framework necessary for its improvement.

Residents do not recognize the themes of the curriculum as being significant for their education, saying that they do not fit the reality experienced in the field. Thus, the actions developed in the field of action must be consistent with the contexts of teaching and work, which presupposes initiatives appropriate to the contextual reality, enabling to develop desired skills and promoting constant updating for good professional performance(13).

The proposal for an integrated curriculum is the one that best suits the MRH profile, characterized by the organization in general modules with common axes to all professional categories, and specific modules composed of different designs based on professional skills. In this sense, the themes and curricula must strike a balance between multidisciplinary learning, educational objectives, model of competencies, pedagogical approaches and evaluation forms(14).

It is essential to reduce the distance between theory and practice in executing proposals in an integrated curriculum, strengthening the training proposal of the MRH to develop professional skills in work scenarios, thus overcoming the theoretical and political challenge of moving towards a critical understanding and articulated reality(15).

Still in Class 2, the residents cited communication as a weakness in the training process, pointing out the lack of contact with the training institution. Improving the communication mechanisms as well as strengthening the relations between residents and coordinators becomes a necessity, since this residency program is a pioneer in the strategy of internalizing the permanent education in the State, with an idealized territorial and care scope based on actions to intensify and expand basic health and sanitation services since the 1970s through proposals such as: the Program for the Internalization of Health and Sanitation Actions (Programa de Interiorização das Ações de Saúde e Saneamento – 1976), the Program for Internalizing the Unified Health System (Programa de Interiorização do Sistema Único de Saúde – 1993), the Internalization Program of Health Work (Programa de Interiorização do Trabalho em Saúde – 2001), and more recently, the Program for Valuing Basic Healthcare Professionals (Programa de Valorização dos Profissionais da Atenção Básica – 2001)(16).

Recognizing the role of the institution as a pillar for interdisciplinary training in the State, the plurality in the practice scenarios offered, the diversity of pedagogical resources and the wide territorial scope in the State, it can be affirmed that the fragilities evidenced by the representations of class 2 indicate gaps in the training nucleus of the Multiprofessional Residency in Health, at the administrative or pedagogical level. Conformity between theory and practice and safety in communication between residents and HEIs are primary requirements for the effectiveness of the residency’s pedagogical purposes.

The changes perceived by residents as gradual losses during the training process are represented in class 3. The most significant loss evidenced involves the interruption of the face-to-face modules for a few months, causing a break in continuity in the proposed schedule. The residents relate the words “beginning”, “sense” and “process” through comparisons, describing their expectations regarding the proposals of the Multiprofessional Residency in Health.

Losses in the training process may be partly related to weaknesses in the funding of residency programs, considering the lack of resources from government agencies to leverage the Multiprofessional Residency in Health through incentives to employees at all levels(17). Shortcomings in these incentives influence the program’s organization and functioning, producing challenges such as “difficulties in partnerships between educational institutions and the local health network, lack of interaction between instructors and preceptors, and lack of professionals with the profile and willingness to work as instructors and preceptors”(18).

Faced with this process, an imbalance in the performance of the theoretical moments that serve as a guiding thread for theoretical–practical and practical moments. The professional qualification is fragmented in this context, because without pedagogical support the teaching-learning process of the resident professional becomes fragile. The practice field alone does not meet the needs of the professional in training; theoretical support is needed to subsidize the practice in the territories. Theoretical-conceptual experiences should be valued as having the potential to foster and catalyze coherent and competent reflection, study and practice(5).

The lack of planning for face-to-face meetings, the conducting of these meetings by professionals who do not use active teaching methodologies, and the lack of agreement between the topics addressed and the practice are elements that characterize the loss in the sense of training, necessitating that the meetings be revised and revisited to ensure alignment with the real sense of residence in training professionals who are capable of building “a new reality of health for the population” by working in a multiprofessional team based on the principles and guidelines of the Unified Health System (Sistema Único de Saúde – SUS)(18).

In relating ‘field discussions’, ‘nucleus discussions’ and ‘preceptors’, Class 4 brings in essence the performance of the field and nucleus discussion circles as educational strategies, and the contributions and challenges to clearly
and efficiently solidify these. The discussion circles consist of a method of analyzing and managing people working together, thinking about the meaning and the way work is organized, thus contributing to the constitution of subjects and collectives(19).

In the context of the Multiprofessional Residency in Health, the discussion circles take place with the participation of residents and preceptors and are divided into field and nucleus meetings. The field discussion contemplates the professionals of different professional categories who work in the same territory/service, and consists of the space to discuss and reflect the work done by the resident and other professionals in their place of performance(6). The nucleus discussions materialize in meetings with equal professions, but of different concentration areas to discuss about particular and private aspects of the professional nucleus(6).

The training moments of the discussions must coincide with instants of creating new meanings for working in health, moving users, the work team and other residents in health production. These are moments of exchanging pertinent experiences to the context and that transform the action spaces of MRH through permanent education.

The residents emphasized the greater size of the field discussions and associated the planning and organization of these moments in an engaging and creative way. Securing means to ensure involvement by professionals in training converges to implementing integral and interdisciplinary action in the field of thinking-and-doing common to all professional areas, coming from meaningful learning that involves the subjects in the learning process, making them protagonists. The field discussions seek to favor crossing different knowledge and practices in the transformation of performing healthcare(4).

In the same dimension, the fragility pointed out by the participants in relation to the nucleus discussions is due to the management of these occasions, since in order for residents to internalize and adopt transformative thinking-and-doing healthcare consistent with positive concepts of this discussion and within the principles of the SUS, it is necessary that teachers and instructors are equally engaged in this proposal, making it viable(20).

In this same premise, preceptors assume the role of facilitators and mediators in the learning process and knowledge construction in the practice scenario, respecting the specificities of each professional category; and for this, there is a need for pedagogical qualification in both theoretical and practical aspects(21).

The work-learning partnership in which permanent education is inscribed, as it occurs in the context of the discussion circles, is embodied in the problems faced in reality, and takes into account the experiences that the subjects harbor, transforming them and being transformed(22). Thus, in the constitution of MRH, an effort is made to change the care(5). The nucleus participators and mediators in the learning process and knowledge construction in the practice scenario, respecting the specificities of each professional category; and for this, there is a need for pedagogical qualification in both theoretical and practical aspects(21).

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discussion circles and conflicting communication were all mentioned. These items represented obstacles to be overcome in order to improve the pedagogical quality of the course.

Potentialities were recognized in the theoretical and methodological quality of the field discussions and in the transformation potential that the Multiprofessional Residency in Health stimulates in resident professionals, broadening their horizons in the thinking-doing of healthcare, approaching the practices from their planning to their execution for the population and territories, along with a view to achieving popular participation through the adequate use of active methodologies which problematize reality.

RESUMO
Objetivo: Avaliar as representações sociais de residentes acerca das estratégias pedagógicas de um programa de Residência Multiprofissional em Saúde. Método: Estudo de caso, com abordagem qualitativa, apoiado na Teoria das Representações Sociais. A coleta dos dados se deu pela aplicação de questionário aos profissionais residentes. Utilizou-se do software ALCESTE para a análise lexical do conteúdo. Resultados: Foram aplicados questionários a 15 profissionais residentes. A análise evidenciou o potencial educativo de uma ferramenta de Educação a Distância, a necessidade de priorizar a arte teórica e seu planejamento, alinhando-os à vivência no território, e a preferência de sujeitos por espaços dinâmicos que favoreçam a comunicação e a análise crítico-reflexiva do cotidiano. Conclusão: Há a necessidade de valorização de estratégias e metodologias de ensino-aprendizagem significativas para o profissional residente e que contribuam para a formação em saúde.

DESCRITORES
Internato não Médico; Educação de Pós-Graduação; Aprendizagem; Relações Interprofissionais; Personal de Saúde.

RESUMEN
Objetivo: Evaluar las representaciones sociales de residentes acerca de las estrategias pedagógicas de un programa de Residencia Multiprofesional en Salud. Método: Estudio de caso, con abordaje cualitativo, apoyado en la Teoría de las Representaciones Sociales. La recolección de datos se hizo mediante la aplicación de cuestionario a los profesionales residentes. Se utilizó el software ALCESTE para el análisis lexical del contenido. Resultados: Fueron aplicados cuestionarios a 15 profesionales residentes. Él análisis evidenció el potencial educativo de una herramienta de Educación a Distancia, la necesidad de priorizar el contenido teórico y su planificación, alineándolos a la vivencia en el territorio, y la preferencia de los sujetos por espacios dinámicos que favorezcan la comunicación y el análisis crítico-reflexivo del cotidiano. Conclusión: Existe la necesidad de valorización de estrategias y metodologías de enseñanza-aprendizaje significativas para el profesional residente y que contribuyan a la formación sanitaria.

DESCRITORES
Internado no Médico; Educación de Posgrado; Aprendizaje; Relaciones Interprofesionales; Personal de Salud.

REFERENCES
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Financial support

Fundação Cearense de Apoio ao Desenvolvimento Científico e Tecnológico (FUNCAP), Post-Graduate Scholarship Program.