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Medical education in Chilean rural primary care contexts: contrasts with hospital and urban environments experiences

Formación médica en contextos de Atención Primaria Rural en Chile: contrastes con vivencias en espacios hospitalario y entornos urbanos

Formação médica no contexto da atenção primária rural no Chile: contrastes com experiências em espaços hospitalares e urbanos

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ABSTRACT

Introduction: Internships represent a key component of the undergraduate's medical training. In rural settings, it promotes rational use of resources and students' contact with diverse realities, contrasting with their experiences in urban clinical settings. **Objective:** To portray medical students' perceptions about the rural internship´s contributions to their training as health professionals. **Methods:** Qualitative research based on 15 semi-structured interviews with medical students in their last year of undergraduate training at North Campus of the University of Chile in 2016. An analysis of the narrative content was performed. **Results:** The contributions of the rural internship that students considered valuable for their professional education revolved around three main areas. (1) A personal dimension, that comprises strengthening of clinical skills, autonomy and their social role as physicians. Here they also refer to their future careers, alternative lifestyles and recognition of other people's needs. (2) In terms of their relation to patients and families, students emphasize the importance of an adequate provider-patient relationship and the influence of social determinants on patient's health. (3) Related to working with communities, interviewees refer to the value of community organization and the importance of a patient's environment, although motivations are more related to their professional role as such than to the rural context. **Conclusions:** The rural internship experience contributes to the personal professional training and to the doctor-patient-family-community relationship. It fosters a critical appraisal of the medical practice, the physician's role and the health system.

Keywords: Education, medical; Rural population; Primary health care.

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RESUMEN

Introducción: El internado constituye una fase clave de la formación médica. Situado en un contexto rural, promueve la utilización racional de recursos y el contacto de los estudiantes con realidades diversas que contrastan con su experiencia en espacios clínicos urbanos. **Objetivo:** Caracterizar las percepciones de estudiantes de medicina en relación al aporte del internado rural en su formación como profesionales de la salud. **Métodos:** Investigación cualitativa basada en 15 entrevistas semiestructuradas realizadas a estudiantes de medicina de la Sede Norte de la Universidad de Chile en el último año de su carrera en el 2016. Se realizó un análisis narrativo de los contenidos de las entrevistas. **Resultados:** Se identifican tres ámbitos en que los estudiantes confieren importancia al internado rural para su formación profesional: (1) en la dimensión personal, el refuerzo de habilidades clínicas, la autonomía y su rol social como médicos. También visualizan su futuro laboral y otras formas de vida y necesidades de las personas. (2) En lo vinculado a pacientes y familias, destaca el valor de la interrelación médico-paciente y el reconocimiento de los determinantes sociales. (3) En la dimensión comunitaria mencionan una mayor valoración de la organización comunitaria y de los vínculos entre el paciente y su medio, y motivaciones atribuibles al rol médico más que al contexto rural. **Conclusiones:** La experiencia de internado rural contribuye a la formación personal y a la relación médico-paciente-familia-comunidad, poniendo en evidencia una mirada crítica de la práctica, de su rol y del sistema de salud.

Palabras-clave: Educación médica; Población rural; Atención primaria de salud.

RESUMO

Introdução: O internato é uma fase fundamental da formação médica. No contexto rural, promove o uso racional de recursos e o contato dos alunos com realidades diversas, que contrastan com sua experiência nos espaços clínicos urbanos. **Objetivo:** Caracterizar as percepções de estudantes de Medicina em relação à contribuição do internato rural em sua formação profissional de saúde. **Métodos:** Pesquisa qualitativa baseada em 15 entrevistas semiestruturadas, realizadas em 2016 com estudantes de Medicina da Sede Norte da Universidade do Chile que estavam no último ano de seus cursos. Foi realizada uma análise narrativa do conteúdo das entrevistas. **Resultados:** Identificaram-se três áreas nas quais os alunos atribuem importância ao internato rural para sua formação profissional: (1) na dimensão pessoal, no reforço das competências clínicas, na autonomia e no papel social como médico. Eles também visualizam seu trabalho futuro e identificam outras formas de vida e suas necessidades pessoais; (2) em relação aos pacientes e familiares, destacam-se o valor da relação médico-paciente e o reconhecimento dos determinantes sociais; (3) na dimensão comunitária, eles mencionam a maior valorização da organização comunitária e dos vínculos entre o paciente e seu ambiente e motivações atribuíveis à função médica e não ao contexto rural. **Conclusões:** A vivência do internato rural contribui para a formação pessoal e para a relação médico-paciente-família-comunidade, revelando uma visão crítica da prática medica e do sistema de saúde.

Palavras-chave: Educação médica; População rural; Atenção primária à saúde.

INTRODUCTION

The internship constitutes a key phase in the training of health professionals, conceived as a space where students put what they have learned to the test, applying this knowledge in scenarios similar to their future work contexts and developing competencies for managing the complexity and uncertainty inherent in the job.[1]

In 2008, the Pan American Health Organization (PAHO) reaffirms the need to guide health training programs to contribute to the development of health systems based on Primary Health Care (PHC). Within a context of great inequities in health and precariousness of life in multiple dimensions, PAHO insists that the graduate of a career in the health area needs to develop "technical and social skills, interdisciplinary thinking, and ethical behavior".[2]

In Chile, since the beginning of a Health Reform that proposed PHC as a central axis, its approach is defined based on the Comprehensive Family and Community Health Care Model (*Modelo de Atención Integral de Salud Familiar y Comunitaria* – MAIS), which declares nine lines of action: health promotion, disease prevention, family health approach, intersectorality and territoriality, quality of care, focused on open care, social participation, technology, and development of people who work in PHC.[3] Although efforts have been made toward the reorientation of the training of human resources in line with the multidimensionality

of the MAIS competencies, some authors refer to the persistence of biomedical and hospital-centric approaches, which incentives a medical specialization over a humanistic and community perspective which links promotion and prevention in health.[4-6]

The Rural Internship Program (*Internado Rural* – IR) of the School of Medicine of the University of Chile, is a compulsory subject in the curriculum of the seventh year of the career.[7] The students' full-time incorporation into the health care team of a rural location, for three to four weeks, represents an opportunity to visualize and experience the richness and complexity inherent to putting into practice the concepts and methods related to public health approached during previous years. The learning objectives of the IR include the analysis of the context, both community and institutional, as well as the development of clinical and team skills, applying bioethical principles in their professional work.

This context allows to reflect on the contributions of rural primary care, as a counterpoint to the experience that students refer to as interns in highly complex hospitals and in urban settings. Accordingly, the objective of this study was to analyze the perceptions of medical students from the North Campus of *Universidad de Chile* about the contribution of the internship in rural PHC, in contrast to their experience in urban clinical spaces.

METHODS

Qualitative research based on the naturalistic-interpretative paradigm that gathers the reflection of the "practitioners on their own practices",[8] in the learning scenario of the IR Program at the Family Health Center (*Centro de Salud Familiar* – CESFAM), Llay-Llay. This establishment depends on the Health Service of Aconcagua, located in the south-west zone of the V Region of Chile, an area close to the capital that brings together 23,680 inhabitants, of which 25% reside in rural areas and 75% are attached to the public health system.[9]

The 28 students who took their IR at Llay-Llay between March and November 2016 were invited to take part in the study, and at least one in every 3-4 students agreed to it. The final sample corresponded to the principle of information saturation,[10] made up by ten men and five women (53.6% of the total interns) between 23 and 26 years of age who were in different periods of their internship progression.

Fifteen individual semi-structured interviews lasting 45–90 minutes were conducted, which were recorded and later transcribed. The analysis was carried out by inductive generation of categories that were then grouped into dimensions or meta-categories. A narrative analysis and interpretation of their meanings was carried out based on the emotions, reflections, and learning mobilized in their relationships with different people, instances or areas of their internship.

The research was approved by the Ethics Committee for Research on Human Beings of the School of Medicine of *Universidad de Chile* (Project 121-2016, Act No.48). Signed consent was obtained from each interviewee, ensuring the voluntary nature of participation and confidentiality.

RESULTS

Interviews were conducted with 15 students representing each IR 2016 shift. Multiple references to their position as professionals and the relationship with themselves, with patients, families, and communities emerge from the students' narratives.

Personal dimension: the role of doctors through autonomy and visualization of the professional project

The testimonies show that the IR allows reinforcing clinical and organizational skills related to medical procedures. It is an instance to consolidate the learning obtained during the degree, since it generates opportunities to proceed with a certain autonomy in the decisions regarding the patient and also to exercise the integrality of the action expected from clinical practice:

"... learn to prioritize, learn when to provide education, prevention, treatment...".

This contrasts with the hospital environment in which they carry out their other internships, which are perceived as "safe spaces" with fewer fields of action than in rural PHC:

"…the intern (at the hospital) is basically like a secretary, but…since the post-rural internship I find that (…) I am more incisive in the sense that we do this."

"(In the hospital) it is not that the patient arrives as if from scratch, we are always guided. Guided by the way others act. On the other hand, here one can begin to practice, begin to see, begin to say, oh, I know that, I have seen this, I'll do this again, and begin to develop what everyone says is the clinical eye."

Students see the IR as a necessary step to reach that ideal of the decisive doctor, with formed criteria and confidence in decision making. It also allows them to visualize a future job in a small town, a space in which they feel visible, important and with a routine that shows them that another way of life is possible:

"It's a short time, it's an outline (...) but it still helps a lot as to get the idea, do I really want this for potentially ten or eleven more years of my life or not?"

"The rural internship is an attempt to give you a taste of what the local general clinician is. From what I gather from several talks with general practitioners, they always tell you the typical things. That it is a small town, that you go out on the street and everyone knows you, that you always attend to the same patients…."

The process also leads them to a recognition of the needs of patients and to be more confident in relating with them, an aspect that consolidates the learning obtained in their interrelation with other clinical spaces, in which knowledge of practice has been transferred:

"Doctors tell you: patients care a lot about this (...) and you don't quite believe it until a real patient asks you about it three times in a same consultation..."

"…rather than lying I preferred to ask questions, to take longer, (…) later, I had the serenity to tell the patient to give me a moment to discuss it with my colleague next door."

Patient-family dimension: critical look at the context of care and active listening

The IR represents a privileged scenario to experience the work practice of a doctor in their relationship with patients and families, an aspect that students refer to as a controlled and scarce relationship in hospital clinical environments. By feeling responsible for identifying and managing their patients' health problems, they look for solutions and get frustrated when they cannot find them. A critical view of the context is also noteworthy, in relation to the limitations of the medical function within the framework of action in PHC:

> *"…if I can solve it, just do it. That is, even though it takes me ten more minutes, or despite the fact that I have to give them an appointment again the following week because I have to review the theoretical part again"*

> *"…let's suppose that a patient comes to you, and that you know that, for example, for that disease, the best treatment is this medicine and then you don't see it in your arsenal, that it's non-existing, or that you want this patient with a given disease to be referred to a specialist, but it cannot be done".*

They perceive a positive connection with the patient's life that is expressed in gratitude; also, they value the interrelation spaces in which they experience the importance of listening/talking and looking for alternative solutions:

> *"I felt that people saw the work of the interns with good eyes (…) we would try and do everything! So… many times they would thank us for that, they'd say thanks for the attention, for giving me more time, for examining me more thoroughly".*

> *"Because really if you sit down to talk with them, it takes five more minutes to tend to them, and as you notice the difference in the reception that patients have, patients fell that from you too. And you can see it!".*

However, this sometimes gives rise to a feeling of "*doing too little*", especially when contrasted with the experience of caring for patients in urban hospitals, in which technical-instrumental solutions prevail.

> *"Now that we were in Llay-Llay, there's a conflict with that reality. A conflict with the fact that you don't have test results for the same day, there just isn't... try to ask for a scan, an MRI! It's already a humongous waiting list... the referrals..."*

This is evident, especially, in mental health cases and in patients considered "difficult", for being polyconsultants, poorly adherent or excessively demanding. Students get frustrated feeling that, unlike the hospital, they lack the tools to "fix" them.

The type of interaction around listening to a wide spectrum of needs reported by patients and relatives, fosters a recognition of the daily life contexts of patients, unlike the hospital experience, where contact with vital histories and their contexts are more distant or, within the logic of certain specialties, are not addressed. In addition, they recognize social networks, particularly the family, as caregivers, a therapeutic support resource, as well as a determinant of illness. It should be noted that the particularity of the internship in a rural context also allows the recognition of other circumstances that are even far from other urban PHC contexts:

"…those who live in rural areas are seasonal, so they work for six months and then spend six months at home. The six months they are at home, they fight with the family, they start drinking, they use drugs, domestic violence starts..."

Community dimension: relationship with social organizations and tension with biomedics

In community work, an issue that is distinctive and typical of PHC interns, but not in hospital environments, is the development of a health promotion activity within a community context. This allows them to experience challenges which lead them to value planning and prior knowledge of the community. These experiences are seen as new, challenging, and enriching, whose meaning is increased by having a certain continuity. On the other hand, the experience in the context of rural PHC adds an approach to issues related to the community that conflict with the dominant discourse of medical practice, especially when implementing diagnoses with community actors, whose approaches do not respond to the spectrum of purely biomedical problems that they face in daily hospital life (for example: water issues), producing ambivalence:

"...I'd like to have taught something medical, practical that would have stayed with them for life, because I never really liked that topic (community organization)... but it was what the community needed, so I also couldn't say, no I want to talk about this."

Their insertion in a community-focused health initiative gives them a sense of purpose: it allows them to feel useful and helps them identify their role in the community.

"…it was not just to accomplish a task but we felt that we were really doing something for the community. And that if that work continues, we could achieve something that really helps people."

The visualization of the social reality of the country emerges only in particular cases and with few implications beyond clinical practice. Most notice the existence of organized communities, a fact that surprises them because the (pre-) judgment of demotivation and low socioeconomic status of the rural population is present.

"Sometimes it happened to me that patients didn't know how to read, though. And I had to, I had to give instructions to both them and their companion..."

"And there was a very nice conversation where they actually showed that they were interested (…) I arrived in Las Palmas, which was like an act of… you know, we are going to a place where people are not really motivated, or do not have an identity and they don't want to do things for themselves, it wasn't really like that. So we found that out and at least to me it seemed a little bit like rather hopeful."

Other imaginaries of rurality are related to a calmer life and a more accommodating disposition in dealing with health professionals:

"I'd say I was sorry for the delay, but I would explain the situation to them and they would be super understanding... I imagine so because they were in a calmer environment, it's not like here in Santiago where everyone is in a hurry and angry."

DISCUSSION

The classic medical role appears in all the students' narratives. Although there is a rather utilitarian vision, referring to the acquisition of clinical skills and the consolidation of what was learned during the degree, they also value learning in the personal sphere. These not only cover the relationship with patients, but also their life in a small community, which is generally seen as something positive, but that sometimes leads them to question their future work.

It is important to highlight that these acquisitions, linked to their professional role, are not necessarily in the rural context; they could also be acquired in an urban PHC setting. The main differences are established with the hospital environment and are associated with the development of clinical skills. However, they also mention some elements considered typical of the rural context, such as living in a locality where the doctor is a neighbor from whom certain behaviors are expected inside and outside the office and considering the needs of people which are only possible to be perceived in a rural context. This exposes them to an experience in which their social position generates tensions, demands, and uncertainties about their professional work that are linked to the context and that they do not experience in other scenarios, and that are largely driven by having to settle, although briefly in time, within a different community and cultural space.

These experiences are essential for the assimilation of the MAIS, since the comprehensiveness and continuity of care are not based on the application of protocols or the mere knowledge of the health system, but rather on the understanding of the complex health-disease-care processes that people live within a diverse cultural matrix. Experiencing tensions, demands, and uncertainties and facing them from the resources acquired in dialogue with the context, strengthens a reflective professional profile in collective health, which recognizes the particularities of the territories and coexists with these realities in everyday life.

At the same time, there is evidence of a vital search in the personal sphere, associated with a somewhat bucolic notion of life in those places far from the city, in which rurality is associated with quiet life and beautiful landscapes: "next to the post there were horses". Compared to their urban care experiences, students perceive gratitude, willingness, and submission to the medical prescription on the part of patients, which corresponds to a form of relationship naturalized both by them and by the environment. This interaction generates well-being for them, without leading to a deep reflection on its possible conditioning factors within the framework of the rural health phenomenon.[5,11]

Regarding the social determination of health, there is a gap in the incorporation of the concept of the patient's belonging to a community. Virtually all references to the latter refer only to the family environment or close social networks for direct care or support in the disease, not to other social or community organizations with a potential role in care work. The implementation of the health promotion activity favors an appreciation of the community, as it is a different experience from others carried out during their training. However, students feel inexperienced in implementing community actions, which is increased by promoting dialogic and open practices to the needs of the community.[12] These actions stress them because they

are exposed to an underdeveloped area during their medical training, not seen by them as part of their professional work: assuming a role as health managers in a territory and with a specific population.[3,4]

In Chile, an analysis of the declared graduate profiles of fifteen medical courses belonging to the Association of Schools of Medicine found that, although almost all of them mention health promotion and prevention, critical thinking in the face of the socio-historical and institutional, national and global economics was not a key axis of training.[13] This is consistent with the training needs whose stories also cover stages prior to internship: students implicitly show limitations to reflect on these institutional and social contexts. This may be related to an interprofessional transmission that reinforces the idea of a specialized practitioner and an underestimation of the generalist medical profile, an issue already noted in previous studies: the latter is seen as a transitory stage in professional life, as a step prior to specialization.[5] Also in this study, students clearly distinguish the differences between the various clinical spaces and the importance of practice in PHC, but assume the reproduction of the training model, without possibilities of change and in some cases with frustration.

Worldwide there are successful training experiences of health professionals in and for rural areas. The best-known ones are those developed in Australia[14,15] and Canada16 and by some universities in the United States;[17,18] and then also in South Africa.[19] In Latin America there are also experiences of training health professionals that promote a humanistic and socially committed orientation in and with PHC.[20,21]

Among the factors that favor significant learning in these contexts, the creation of strong ties with the patient and the community stands out, as well as with their peers, the academic institution, and their tutors. Strasser and Neusy identify that whatever the subsequent employment option, rural settings provide highly significant experiences for students of health careers: they allow more practices and therefore the development of procedural skills related to a wide variety of problems.[22] In the experience of the IR analyzed here, its importance for the consolidation of learning, both technical and organizational and communication skills linked to clinical procedures, is verified, while aspects of its professional role in rural community contexts remain pending. These are difficult to identify within a practice limited in its duration and in an institutional framework that has progressively restricted the possibilities of clinical fields in rural contexts. In addition, it is a rurality that increasingly represents the periphery of urban centers, not only in a geographical sense but also in a sociocultural sense; This is not always evident in health care in which the biomedical approach prevails unquestioningly and unreflectively.

Among the limitations of this study, the main one is related to the willingness to participate in the interviews, which could produce a greater report of positive experiences in IR, considering that the consultation is requested from the tutors who accompanied the process. However, the methodological approach applied in the IR, which fostered dialogue and the generation of trust between those involved and began the interviews with an open account of their experiences, facilitated the free expression of the interviewees and contributed to the fidelity of what was said in relation to what has been experienced in practice.

CONCLUSION

The rural internship experience contributes to personal training and the doctor-patient-family-community relationship, strengthening a critical view of the practice, its role, and the health system. This critical reflection should be deepened through a greater and more intense involvement with the communities, more spaces and mechanisms for reflection and the feedback of the medical practice

of the local health team by the students, thus creating a circuit of learning and reinforcement of the Comprehensive Care Model.

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CONFLICT OF INTERESTS

Nothing to declare.

AUTHORS' CONTRIBUTIONS

KPS: Project administration, Formal analysis, Conceptualization, Data curation, Writing – original draft, Writing – review & editing, Investigation, Methodology, Software, Supervision, Validation, Visualization. SBV: Formal analysis, Conceptualization, Data curation, Writing – original draft, Writing – review & editing, Investigation, Methodology, Supervision, Validation, Visualization. SEM: Formal analysis, Conceptualization, Data curation, Writing – original draft, Writing – review & editing, Visualization.

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