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The Contribution of Interdisciplinarity to the Development of Competencies for Work-Related Mental Health in Primary Health Care

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Abstract

This study aimed to investigate the process of developing competencies for working with Work-Related Mental Health (WRMH) in primary health care. The research is anchored on a referential that discusses the notion of competencies and their development in a contextualized way, stemming from the interpretivist paradigm. Additionally, it resorts to discussions about interdisciplinarity, social determinants of health processes, and WRMH in primary care. The research has a qualitative approach. The data were produced through semi-structured interviews, which were recorded, transcribed, and subjected to thematic content analysis, with *a posteriori* categorization. The results show little inclusion of WRMH in primary care, a lack of integration between sectors and professionals and the existence of some actions developed in an interdisciplinary way. The competency development strategies foster interdisciplinarity but do not adequately address the mental health of workers who use the services. This study provides an in-

depth look at the relationships between interdisciplinarity and competency development in WRMH. It is concluded that interdisciplinarity contributes to the development of competencies, while at the same time it is an important competence for performance in primary care. The concept of competence linked to the professional category, the influence of disciplinary training, and the scarcity of resources limit the use of interdisciplinarity in the development of competencies, especially regarding WRMH, which is considered the responsibility of specialized areas.

Keywords: competency development; interdisciplinarity; workers' health; mental health; primary health care.

Introduction

Different theoretical currents contribute to the understanding of aspects related to competence in different fields, such as psychology, education, and administration (Amaro, 2020; Fleury, M. T. L., & Fleury, A., 2001; Salman, Ganie, & Saleem, 2020; Sandberg, 2000; Sandberg & Pinnington, 2009; Wong, 2020). The interest in this topic has been driven by a number of changes experienced in organizations and society, including the emergence and spread of new work management models (Lester, Koniotaki, & Religa, 2018; Zarifian, 2012). More recently, a phenomenon called uberization has emerged, that is, the new precarization of work, and the possible transformations in the world of work resulting from the Covid-19 pandemic (Franco & Ferraz, 2019; Melges et al., 2022; Teixeira et al., 2020; Vaclavik, Oltramari & Oliveira, 2022).

These transformations in production modes also modify the way work affects the health of professionals (Dias et al., 2019), highlighting the social determination of health processes. Mental suffering and mental illness have increasingly gained more importance in the world of work, increasing the demand for healthcare services (Brazil, 2017a; Faler & Camargo, 2020). This requires greater attention from healthcare professionals to consider work as one of the determinants of mental health (Jacques, 2007), and the development of competencies (Durrive, 2019, 2021; Le Boterf, 2003; Zarifian, 2012) is necessary to deal with this issue in their activities. In this sense, the development of competencies on Work-Related Mental Health (WRMH) is a challenge to be faced by the workers' health field of primary care of the Unified Health System (Sistema Único de Saúde – SUS) (Bernardo & Garbin, 2011; Merlo, Bottega, & Perez, 2014) and, therefore, by professionals and managers in the area.

The area and the policy of workers' health, as an ethical-political-epistemological field, adopt the expanded concept of health, considering the influence of social factors, such as work and work organization, on the health processes of the population (Borde, Hernández-Álvarez, & Porto, 2015; Mendes & Dias, 1991). Work organization refers to the division of labor, and all that it entails, such as the hierarchical system and the different strategies and modalities of command, as well as the power relations and norms around the assignments; but it also refers to the content of the tasks, the assignment of responsibilities for them (Dejours, 1992). Working conditions refer to the physical, chemical, biological, and ergonomic environment, as well as safety conditions, the state of conservation of the equipment, the workstation, and the instruments, among others (Dejours, 1992). The interaction between these concepts and people's health is difficult to predict given that the psychodynamic processes of intersubjective relationships at work are always very singular because they are linked to the life history of each worker (Dejours, 1992).

It is clear that the field of workers' health faces challenges in order to be consolidated in the SUS primary care (Almeida et al., 2021; Hurtado et al., 2022; Lazarino, Silva, & Dias, 2019; Merlo, Bottega & Perez, 2014; Minayo-Gomez, Vasconcellos, & Machado, 2018) despite the National Policy on Workers' Health (Política Nacional de Saúde do Trabalhador e da Trabalhadora) (Brazil, 2012) determining the policy as transversal to all levels of care, delegating to the Workers' Health Reference Centers (Centro de Referência em saúde do Trabalhador - CEREST) the role of back-up to primary care and specialized assistance. This challenge is even greater in relation to articulation with the area of mental health to transpose the exclusive view of classic risks in work environments, i.e., chemical, physical, biological, ergonomic, and accidental risks, in an effort to shed light on factors related to work organization.

Primary care is the gateway to the Health Care Network (Rede de Assistência à Saúde - RAS); its priority strategy is family health and it operates under the principles of universality, equity, and completeness. The establishments that work in the primary care of the SUS are called Primary Care Health Centers (Unidades Básicas de Saúde - UBS), potential spaces for the education and training of human resources (Brazil, 2017b). The principles that guide the constitution of the SUS and the National Primary Care Policy (Política Nacional de Atenção Básica - PNAB) make the UBS a dynamic and complex workspace, in which different health policies involving multidisciplinary teams are carried out. The care practices in UBS are not restricted to the provision of drug treatment, given the complexity of the phenomena involved in users' health and disease processes, which involve various forms of assistance. This diversity of phenomena requires healthcare professionals to mobilize competence from different fields of knowledge, such as medicine, nursing, sociology, and psychology, among others, for an adequate and effective design of the care offered. This requires workers to be open to interdisciplinarity in their work activity, to meet the principles and guidelines of the PNAB. This openness to interdisciplinarity is essential for the WRMH approach to SUS users (Cardoso & Araújo, 2016).

Given the context presented, more precisely regarding the relationship between the development of competencies in Work-Related Mental Health and interdisciplinarity, some relevant questions can be raised: How does one develop knowledge about complex factors, such as the mental health-work process, amidst care practices composed by professionals from different backgrounds? Is interdisciplinarity a barrier or an advantage in the development of competencies in this relationship? Do the UBSs, in their specific conditions, made up of professionals from multiple backgrounds, have strategies that contribute to the integrated and comprehensive development of such competencies? In order to help the academic reflection on such questions, the objective of this article is to investigate the process of competency development for Work-Related Mental Health performance in primary health care. The empirical field involved professionals from different backgrounds who work in two UBS in a large city in Southeastern Brazil.

Considering the importance of the WRMH for integral health care for workers using the SUS (Bernardo & Garbin, 2011; Pereira et al., 2020; Silva & Bernardo, 2018), this work contributes, fills and addresses the development of more effective training policies on WRMH, a gap in research on the subject of competencies at the municipal level of the public sector and different professional categories working in primary care. The different research papers that discuss the theme of competencies in Brazilian public administration are concentrated in the federal sphere (Araújo Júnior & Martins, 2014), and investigations in the health sector, published in the field of

administration. They address the theme mainly from specific professional categories, such as physicians (Barros, Paiva, & Melo, 2017; Liske & Holladay, 2016) and nurses (Majima et al., 2019; Numminen et al., 2016; Van Hecke et al., 2019). There is a demand for research that addresses the competencies of healthcare professionals involved with primary care in mental health (Van Hecke et al., 2019), as well as the relationships between interdisciplinarity and conditions for developing competencies at work (Claus & Wiese, 2019).

The theoretical framework that supports the study is divided into the two following subsections: (1) interdisciplinarity and WRMH in primary care and (2) skill development and interdisciplinarity in healthcare.

Interdisciplinarity and WRMH in primary health care

Interdisciplinarity has emerged as a response to the increasingly intense complexity, diversity, and dynamics of the contemporary world and can be seen as an alternative to the simplifying molds of modern science, marked by disciplinarity (Rios, Sousa, & Caputo, 2019). The interdisciplinary approach proposes the expansion of views on the world, us, and reality through the integrated and coordinated combination of different disciplines that share common points, in order to overcome the limitations of the fragmented view of the world (Almeida Filho, 2000, 2005). Interdisciplinarity can be understood as a strategy to deal with complex situations that go beyond the multidisciplinary or multi-professional approaches, and its conceptualization may vary according to the purpose for which it is being addressed (Almeida Filho, 2000; Furtado, 2007; Oliveira et al., 2020).

Based on authors that discuss interdisciplinarity in the fields of administration and health, as well as the concepts established in Brazilian public health policies, interdisciplinarity is addressed, in this article, as any process that associates different knowledge, disciplinary fields, or areas of specialty around a situation, overcoming its juxtaposition and promoting knowledge sharing among individuals (Almeida Filho, 2000, 2005; Furtado, 2007; Rios, Sousa & Caputo, 2019). We chose to use the term interdisciplinarity because it is a feasible and realistic process for the current context of primary care that allows an interlocution with the official documents of public healthcare policies in Brazil (Brazil, 1990, 2017b) and is consolidated in the discourse of healthcare professionals (Ceccim, 2018; Furtado, 2007).

The PNAB fosters an interdisciplinary approach to health, defining family health strategy as a priority (Brazil, 2017b; Morosini, Fonseca, & Lima, 2018). Primary care can be defined as a set of health actions, individual or collective, performed through integrated care practices and qualified management by a multi-professional team and directed to the population of a given territory (Brazil, 2017b). Due to the diversity of situations that primary care needs to tackle, comprehensive care requires a user-centered interdisciplinary process. This process involves professionals from different backgrounds and incorporates surveillance, promotion, and assistance practices into the daily work process of UBS (Brazil, 2017b). Primary care assumes fundamental importance for the implementation of workers' health policies, since the effectiveness of these policies depends on their insertion at all levels of health care (Brazil, 2017b; Garbin & Pintor, 2019).

The field of workers' health has developed as an alternative to the disciplinary approach adopted by occupational medicine, whose main characteristic is the evaluation of the worker's

physical condition for the previously planned task execution, and by the multi-professional approach of occupational health, which has the control of occupational health and safety risks as its main focus of intervention (Furtado, 2007; Hurtado et al., 2022; Mendes & Dias, 1991; Minayo-Gomez Vasconcellos, & Machado, 2018). Unlike both approaches, workers' health is configured as a political, practical, epistemological, and ethical intercession between various fields of knowledge that aim to offer care to workers in work-related suffering situations and, at the same time, promote health in professional and social environments, transform production processes that lead to damage to workers' health, and expand the notion of health by understanding work as a social determinant of health. Although workers' health has advanced in Brazil over the years, the field still faces challenges to cope with the constant transformations in the world of work, as well as some recent setbacks (Costa, B. S., Costa, S. S. & Cintra, 2018; Lacaz, 2019).

Along with these challenges, the WRMH approach in primary care adds the difficulty of establishing a connection between mental health and work since the complaints presented by workers are often related to physical symptoms and, in addition, it is difficult to separate work from other spheres of life (Araújo T. M., Palma, e Araújo, N. C., 2017; Cardoso & Araújo, 2018; Jacques, 2007; Souza & Bernardo, 2019). Therefore, this approach requires professionals to have an expanded understanding of health, recognize the influence of social factors and the central role of work on health processes, and be open to interdisciplinarity in primary care activities (Rios, Sousa, & Caputo, 2019).

Competencies development and interdisciplinarity in healthcare

Sandberg (2000) points out the existence of two approaches to competencies in the management area. The dominant rationalist approach gave rise to the definition of competence as a set of knowledge, skills, and attitudes inherent in the individual. In this approach, researchers consider the person and the world as distinct entities (dualistic ontology) and the existence of an objective reality (objectivist epistemology) independent of the interpretation of the human mind. Alternatively, interpretative approaches consider people's experiences in the world, these being inseparable entities.

Based on the analyses of Sandberg (2000), one can consider the interpretative approach of the so-called French current (Bispo & Amaro, 2013; Morais, Melo, & Bianco, 2015; Salles & Villardi, 2017), which discusses the notion of competence as contextualized and detached from the logic of positions and jobs (Durrive, 2019, 2021; Le Boterf, 2003; Schwartz, 1998; Schwartz & Durrive, 2010; Zarifian, 2012). For Schwartz (1998) and Schwartz and Durrive (2010), competence can be understood as a complex combination of heterogeneous ingredients that cannot be evaluated in the same way. This is because every work activity involves at least three poles of action: the appropriation of conceptualized knowledge, the apprehension of the historical dimension of the situation, and the debate of values to which the individual is summoned in every work activity.

Zarifian (2012) states that competence requires an apprehension of work from the logic of service and a detachment from the idea of position and job. Based on this logic, professionals need to mobilize different knowledge (Le Boterf, 2003) to deal with singular situations or events (Zarifian, 2012) in the work context. Competent action requires the worker to engage in the work situation through values (Durrive, 2019, 2021; Schwartz, 1998; Schwartz & Durrive, 2010). The approach of

these authors stems from the impossibility of full anticipation of the work activity, i.e., the difference between the prescribed work and the actual work (Schwartz & Durrive, 2010).

The use of this notion of competence has implications for the understanding of the development of professionals (Bispo & Amaro, 2013). It is only possible to recognize a competent professional after the learning provided by the exercise of their activities in the specific context; that is, the development of competencies occurs in the work context (Le Boterf, 2003). Competence consists in learning how to act in certain situations to deal with other similar. In this sense, the development of competencies is preceded by a phase of imitation that enables the worker to act responsibly, assuming professional choices and implementing unprecedented solutions from the development of an increasingly strong and recognized point of view about work situations (Durrive, 2021). This process is possible because the worker engages in the work activity through values. In dealing with concrete situations, the worker makes a series of decisions guided by their values in debate with the values of the environment (Durrive, 2021).

It is understood that the apprehension of work through the logic of service, the need for the appropriation of conceptual knowledge and the historical dimension of the situation, the debate on values, and the mobilization of different knowledge are in line with the principles that guide SUS and primary health care. This is because of the complexity of the demands met, the search for the resoluteness of the cases, and the integrality of care required from the professionals' engagement with the work activity and the mobilization of resources to act competently in these situations. The singularity of the work situations is emphasized by the generalist profile of the UBS, where professionals deal with various demands, using the care network available at SUS.

The conceptions presented here assist in the discussion about interdisciplinarity and the development of competencies in primary care because, according to Ceccim (2012), this development aimed at working in the health context includes sharing information, building knowledge, acquiring knowledge in practice settings, learning in work situations, and developing abilities that allows them to address the daily life and social needs signs shown by health. The development of competencies in the health context requires the involvement of professionals in real-life situations that allow them to grasp what is generalizable (Durrive, 2021; Schwartz, 1998) in the task to use it in future situations, which Le Boterf (2003) identifies as the ability to transpose. In addition, it requires an openness to sharing information and acquiring knowledge from the different areas that deal with health, which implies interdisciplinarity (Ceccim, 2012).

The institutionalization of the Permanent Health Education Policy (Política Nacional de Educação Permanente em Saúde – PHEP) represents a significant advance for interdisciplinarity in health professional training (Ceccim, 2005), although the processes of knowledge production in health go beyond the institutionalized practices of health education promoted by the PHEP or by other training policies from state or municipal health departments. In spite of that, the articulation of collaborative practices among different careers remains a great challenge to overcome. Regarding the practices of basic and specialized care, it is necessary to overcome the compartmentalization of knowledge and the fragmentation of health care due to hierarchical systems, and to expand the biomedical approach (Lima et al., 2018). The PHEP went through a period of scarce resources for its implementation. However, as of 2017, with the institution of the PHEP Restructuring Program, actions to foster the development of Permanent Health Education (PHE) were resumed (Silva & Scherer, 2020). It is worth emphasizing that, according to the

interpretative lineage, the development of competence takes place in both the institutional training context and in informal environments, which are equally crucial for the development of knowledge and identity processes (Durrive, 2019, 2021; Le Boterf, 2003; Zarifian, 2012).

In the international context, many studies address the issue of healthcare professionals' competence. However, rationalistic approaches based on the functionalist paradigm prevail in studies on this topic (Amaro, 2020; Bispo & Amaro, 2013). For example, Majima et al. (2019), in their study on the association between nurses' job satisfaction, interprofessional collaboration competence, and other related factors in university hospitals in Japan, identified that strengthening interprofessional collaboration competence and increasing opportunities for exchange information with professionals outside the hospital improves nurses' job satisfaction. Thus, the authors highlight that interprofessional collaboration and information exchange among nursing professionals and other professionals deserve attention from healthcare managers. Forsten-Astikainen and Heilmann (2018) examined how a new occupational group in a field creates and defines its professional competencies through the analysis of Finnish service agents. The authors observed that service agents recognize the need to know more than they already know to perform in the profession. They develop their competencies mainly through reflection on their own work, and they lack the courage to change their own mission and define their new professional territory. Expecting this definition to come from the organization or society.

In the Brazilian context, Barros, Paiva e Melo (2017) identified that the physicians' competencies of a private hospital in Belo Horizonte (MG) are mainly based on health care and continuing education and that the development of competencies, occurs formally and informally, particularly through the professional's own initiative. However, the process involves social actors, such as the hospital and collective interest entities. The lack of time, the accumulation of tasks, the costs of updating, and the lack of attention from the responsible agencies were identified as factors that hinder the management of competencies by these professionals, in addition to daily situations, such as stress, frustration, despair, psychological conflict, and insecurity contribute to the challenges faced.

This article engages with these studies that discuss the development of competencies in the context of healthcare. It contributes by adopting an interpretative perspective of competence and discussing the issue of WRMH, which is of great relevance to organizations and society.

Methodological procedures

The research adopted a qualitative approach (Flick, 2007). Data were produced through semi-structured individual interviews. The interview script used contains 17 guiding questions and was divided into two parts. The first addressed the interviewees' attributions and issues related to workers' health and WRMH. The topics in this first part sought to identify the professionals' responsibilities, the relationship of these attributions with the theme of interest, the interaction with other areas or sectors in the daily work routine, and the professionals' perceptions of workers' health and WRMH. The second part of the script addressed the topic of competencies and competency development, with a focus on WRMH. The topics in this second part sought to identify respondents' perceptions of what it means to be competent and the competency development policies and practices of the Municipal Health Secretariat (Secretaria Municipal de Saúde - SEMUS)'

competency development policies and practices, with a focus on the competencies needed to establish the link between mental health and work. In some questions, subtopics were included to deepen the central issue of the question, in case the interviewers deemed it necessary.

Due to the pandemic and the requirements of SEMUS, the interviews were conducted remotely using the communication tool Google Meet. The option for this research design was based on the potential of qualitative interviews as a key that allows the researcher to explore the experiences of the subjects and understand their world through the description of their activities, experiences, and opinions by the interviewees themselves (Kvale, 2007).

The empirical context was composed of two UBS, located in a capital city of Southeastern Brazil. The municipality was chosen based on accessibility and convenience criteria (Flick, 2007) since SEMUS provided support to facilitate access to the field. The UBS were selected according to the characteristics of the territory and the population served. We tried to investigate services with different socioeconomic, demographic, and epidemiological realities. UBS01 serves mainly a population with socioeconomic vulnerability, while the population served by UBS02 has a higher socioeconomic standard.

Twelve professionals were interviewed, seven linked to UBS01 and five linked to UBS 02, between November 2020 and April 2021. The research subjects worked in direct care to SUS users and had diverse backgrounds: phono audiology (2), nursing technicians (2), physical educations (2), nursing (1), psychology (1), oral health technician (1), dentist (1), social worker (1), and pharmacy (1). The average time of work of the professionals interviewed at the SEMUS was 15 years, ranging from 01 to 29 years. The average duration of the interviews was 50 minutes. The search for new volunteers for the research was interrupted after the observation of signs of saturation, such as repetition of responses without adding new information of interest to the study (Patias & Hohendorff, 2019; Sim et al., 2018). The research was approved by the Ethics Committee of the Federal University of Espírito Santo, under Opinion no. 3.378.498. Participants agreed with the informed consent form, being informed about the objectives and risks of participation. The specific characteristics of the municipality, the units, and the participants were omitted to ensure anonymity, and fictitious names were used.

The interviews were audio recorded with the interviewees' prior consent. After transcription, they were analyzed using thematic content analysis with a *posteriori* categorization (Flick, 2007; Gibbs, 2009). This approach was chosen to focus on the meanings and interpretations of the messages emitted. The coding grid was developed from the exhaustive reading of the transcripts. Themes were grouped into analytical categories and subcategories, as shown in Figure 1. The categories group subcategories and themes that are related to each other and, although some labels may seem similar, they indicate different contents, which will be better visualized in the discussion of the results. To assist in the analysis, the Atlas TI software (Muhr, 2020) was utilized for categorizing the excerpts extracted from the texts.

Analytical category	Subcategory	Sample Theme
Interdisciplinarity and work organization	Work Organization	Health care, prevention, and promotion
	Integration Challenges	Intersectoral (dis)integration
	Information and indicators	Information Systems
WRMH in Primary Care	Causal Nexus in WRMH	Work as an invisible factor
	WRMH (in)visibility	Actions in Worker's Health
	(In)Attention to occupational healthcare	Health Professionals' Illness
	(Pre)Conceptions in Occupational Health	Complexity
Competencies' Development	Competencies' Development in the interdisciplinary context	Active Methodologies
	The notion of competence in the context of primary care	Skills and Tools

Figure 1. Subcategory, categories and examples of themes used in the research
Source: elaborated by the authors.

Results and discussion

The research resulted in three analytical categories that will be exposed and discussed, starting from more general aspects of work organization until arriving at the central point of discussion: the development of competencies. Figure 2 presents a Sankey diagram (Kennedy & Sankey, 1898; Schmidt, 2008) that demonstrates the frequency of the analytical categories in each UBS.

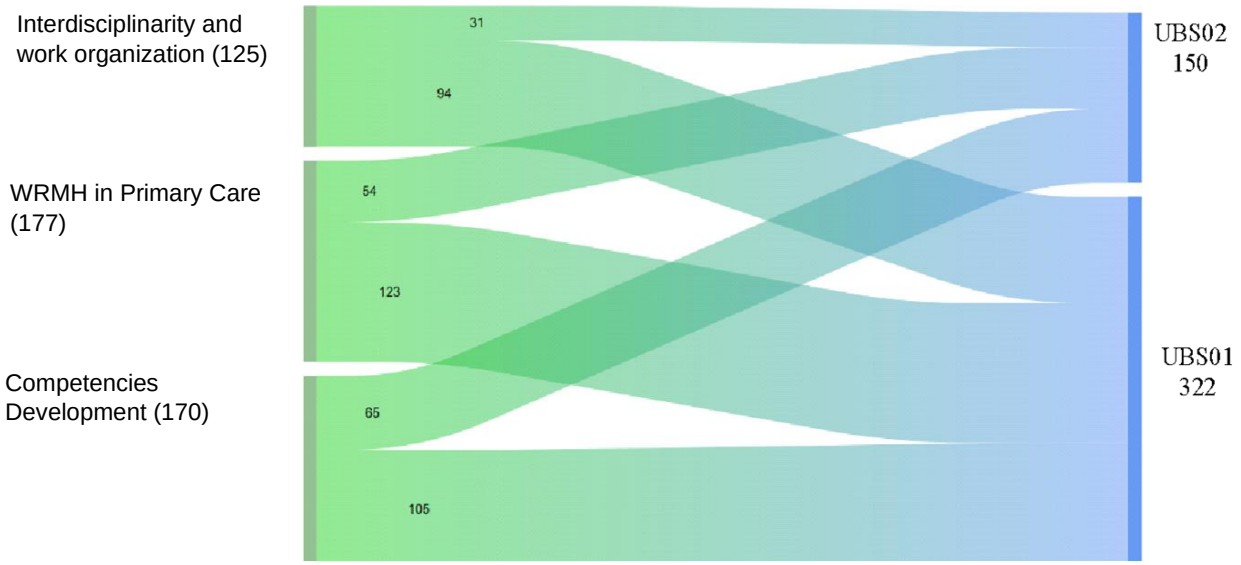

Figure 2. Sankey diagram

Source: elaborated by the authors.

The main difference observed between the units was the prevalence of the category "WRMH in primary care" in UBS01, while in UBS02 the category "competencies development" prevails. In the answers of interviewees from UBS01, excerpts that reflect the wishes of the participants arising from the profile of the operation territory stood out. These excerpts show concern about problems experienced by workers in the territory and their impacts on health, such as job insecurity, unemployment, and violence in the workplace and the territory. The excerpts illustrate this perspective: "*The issue here is that most users don't have jobs*" (Patrícia, UBS01). "*Situations of disagreement in the workplace as well. These are some things that I can remember now*" (Priscila, UBS01). "*Because they had to teach in three, four or five schools. As many as they could. So, like that, doing too much*" (Ruth, UBS01).

The concern expressed by the interviewees reinforces the importance of recognizing the influence of social factors on health processes, because this understanding allows to propose and implement health actions that adequately meet the needs of the population of a given territory (Minayo-Gomez, Vasconcellos, & Machado, 2018). In the interviewees' concerns regarding the problems experienced by workers in the territory and their impacts on health, some elements related to interdisciplinarity are enunciated, such as the expanded view of health and the association of knowledge around a complex situation that, in this case, refers to the process of worker illness as a result of social factors present at work or in the territory. It is noted, therefore, that the interdisciplinary reasoning present in the speeches of the interviewees favors the comprehension of Work-Related Mental Health in a manner consistent with the proposal of the workers' health, primary care, and Permanent Health Education (PHE) policies. Even when addressing two UBS of the same capital, the demands of the territory require from health professionals the ability to deal with unique situations, specific to that context (Durrive, 2019, 2021; Le Boterf, 2003; Zarifian, 2012) and ways of acting in competence crossed by values. In the other topics addressed, the results are convergent in the two investigated units and will be addressed together.

Interdisciplinarity and work organization

The category interdisciplinarity and work organization had 125 excerpts coded, composed of seven themes, divided into three subcategories. This category groups text segments in which professionals describe the activities developed in their daily work, the distribution of tasks and responsibilities, as well as the development or not of interdisciplinary and intersectoral activities.

The analysis of this category confirms the notes of previous studies on the need for greater articulation between workers' health and mental health policies for comprehensive health care for workers who are SUS users (Araújo, T. M., Palma, & Araújo, N. C., 2017; Perez, Bottega, & Merlo, 2017). The text segments of this category show that the integration between areas, sectors, and servers still faces challenges in primary care that compromise effective interdisciplinary action. Some of the factors that hinder this articulation are related to the influence of disciplinary training on professionals' performance, underfunding of health services and meeting emergency demands.

Particularly about the challenge that disciplinary training represents, in the reports of some of the interviewees, it is observed the preference of some servers to act in an individualized way so as not to be influenced and not influence the work of colleagues, demonstrating the prevalence of

disciplinary training, as can be seen in the excerpt in which a professional reports how she talks to the psychologist when she understands that she should suggest psychological care:

> *I wouldn't describe the issue, no. It's just like this: I don't know what it is. It's just like this: -This guy, I think he needs it, so I would like you to evaluate him to see what you think, you know? So that I won't influence the psychologist's decision. That I wasn't making him have the vision that I had. (Ruth, UBS01).*

From the interviewee's point of view, sharing detailed information would be prejudicial to the psychologist's conduct of the case, since they should evaluate and judge the situation based exclusively on their knowledge. This highlights the reflections of a compartmentalized approach with few interdisciplinary collaborative practices in the training of different health professionals (Lima et al., 2018). At the same time, it suggests the existence of a conception that the intervention of several professionals on the same user requires careful attention from the professionals, with delicate management between the knowledge, so that one's knowledge does not influence or distort the knowledge of another professional. Whether this successful attention and management would be closer to the appropriate sum of multi-professional knowledge than to the construction of common knowledge among the disciplines manifested there, is something that the interviews could not answer precisely. In any case, other elements described below will allow us to demonstrate the production of interdisciplinary knowledge in the professional activity of the interviewees.

Another challenge observed was the precariousness of health services as a consequence of the scarcity of resources, marked by the lack of staff and adequate infrastructure for meetings and other activities that reduce the time for discussions and interactions among professionals. The underfunding of health services could be observed in both UBS in the reports: "*There is also a lack of physical space in the unit, because we don't have in our unit, we don't have a meeting room, there is no adequate space for you to develop a good job, the physical structure doesn't help either*" (Cláudia, UBS01). "*I think that we should have a larger number of psychologists here, at least in our unit which, as I told you, has a lot of mental health problems*" (Érica, UBS02). The underfunding of SUS was also identified as one of the main challenges for the consolidation of the PHEP, requiring the allocation of specific resources for the implementation of this policy (Silva & Scherer, 2020). It is noteworthy that, as the importance of the work context is more recognized for the mobilization and development of competencies (Durrive, 2021; Le Boterf, 2003; Zarifian, 2012), the implementation of the PHEP and all the dynamics of competencies development also involves a policy of valuing primary care professionals.

The problems arising from underfunding add to others, such as work overload and the need to meet emergency demands such as those resulting from the Covid-19 pandemic: "*In fact, this pandemic is now a year old, you can count on your fingers the team meetings we had, just to get an idea. Everything stopped*" (Patrícia, UBS01). Besides the direct impacts on the health of the professionals exposed to the virus, the interruption of knowledge-sharing spaces and the efforts to deal with this emergency demand can cause consequences on the mental health of health professionals (Teixeira et al., 2020). This aspect was also demonstrated in the research conducted by Barros, Paiva e Melo (2017), which verified the work overload in the face of highly rigorous

demands that leave little room for the team to act in a coordinated manner and be able to analyze jointly and more carefully the situations that arise, which are essential factors for the development of skills for interdisciplinary health practice.

Even in the face of these challenges, in both units, there were reports of activities developed in an interdisciplinary way, such as shared consultations and joint participation in health promotion activities or projects aimed at specific audiences before the pandemic, according to the following examples: "*When there is a month, for example, pink October there will be an event, a D day that we call, then I participate in my area of expertise in conjunction with the team, we form what will be developed, and then we work together*" (Pedro, UBS01). "*The consultation with her is shared. I attend together with her [psychiatrist, professor in a private institution]. We exchange a lot of information*" (Patrícia, UBS01). In this process, sharing information among professionals about the users and the territory is an important aspect of the definition of actions to be developed. The collaboration between professionals from different backgrounds contributes to mutual learning and tends to provide better care to the patient (Furtado, 2007). It also expands the knowledge and possibilities of professionals to act in new work situations that they may encounter in the future (Durrive, 2021; Le Boterf, 2003).

This category also evidenced the taking of initiative and responsibility of professionals (Durrive, 2021; Zarifian, 2012) before the demands identified in the territory, as well as the importance of sharing information about the territory for the definition of priorities and planning of health promotion and prevention actions. These aspects are manifested, for example, in the report about how the creation of a group of parents, who sought the health unit for the medicalization of their children due to learning problems identified at school, was idealized: "*The parents' group was a demand that always knocked on our door. And it was a concern the psychologist and I had, because... well, there is a great demand*" (Ester, UBS01). From the perception of two professionals from different areas, the initiative of action arose, the creation of parents' groups, which aimed to identify the causes and prevent the illness of children in the territory, showing contributions of the interdisciplinary context for the professionals to take initiative in situations from sharing knowledge about the territory.

The results of this category demonstrate that the organization of work in the context analyzed contemplates a set of interdisciplinary actions and confirms the recognition of its importance by health professionals (Ceccim, 2018; Furtado, 2007). The importance of work dimensions for people's lives is also recognized. However, the work processes and organization are still far from presenting an ideal condition for interdisciplinary action recommended in public health policies (Brazil, 2017b). This can compromise the achievement of the desired comprehensive care and the proper resolution of cases.

Given these results, we can verify that the issue of availability of time (or lack of it not) to analyze and reflect on the work and care offered is an essential factor in the organization of health workers and interferes with the development of competencies in conjunction with the development of interdisciplinarity. Training and continuing education policies in health admit that formal and theoretical education and training are insufficient and, for this reason, they propose investment in devices that favor the sharing of knowledge (Ceccim, 2012), which requires the guarantee of time set aside specifically for this, which can occur, for example, in team meetings or shared activities. Although the policies highlight the need for interdisciplinary action as a requirement or competence

to be developed in health work, if the service management organizes the work process of the team to meet emergency demands, often individual, in outpatient clinic contexts in the format of typically one professional per service, the time for the development of interdisciplinary practice and, consequently, of the required competencies, is excessively compromised, reinforcing traditional, disciplinary and individualized action.

Considering the elements that involve the development of health skills, namely the transmission of information, the construction of knowledge, the acquisition of knowledge in practice settings, learning in real work situations, and the ability to recognize health needs (Ceccim, 2012), it is possible to propose that interdisciplinarity is closely related to competent acting in health, to the extent that it is considered a prerequisite for the production of comprehensive care that, relying on multiple knowledge, considers the different dimensions of situations and demands these professionals need to deal with, expanding their understanding. At the same time, it is also possible to think about this relationship by putting into perspective that interdisciplinarity is a competence required for health workers by itself, as proposed by Ceccim (2018), who brings the notion of "interprofessional competencies", which concerns practices arising from common know-how. From this point of view, this competence speaks of the need and ability to relate to different knowledge, engage in collaborative practices, and mobilize the different knowledge needed to produce adequate care.

Based on these assumptions on the relationship between interdisciplinarity and the development of competencies and with the findings presented by this thematic category, it is possible to infer that interdisciplinarity, both as a requirement for the development of competencies in health and as a specific competence, is present at some degree in some of the current practices (shared care, health promotion activities), as observed in the workers' analyses on the health problems faced in their territories. At the same time, there are also references to professional postures that go in the opposite direction. This coexistence of practices, apparently incongruous, can be explained in part by some factors related to work organization, such as overload and emergency demands, which compromise the possibility of a more coordinated and shared acting. It is also necessary to consider the professional culture present in many training courses that reaffirm the traditional disciplinary model of action. It follows, therefore, that from the point of view of the organization of the work process, the guarantee of spaces for exchange and sharing is essential for the strengthening of interdisciplinarity, which is present in the researched context, but constantly weakened by choices and directions of work management.

WRMH in primary care

The most recurrent category, WRMH in primary care, had 177 excerpts coded, composed of nine themes divided into four subcategories. The text segments grouped in this category address the difficulties of establishing the causal link between mental health and work, the invisibility of WRMH, perspectives and possibilities of action in workers' health in general and in WRMH, the need for attention to the health of professionals who work at SUS, and the professionals' conceptions about worker health and WRMH.

The text segments of this category show that the interviewees do not see themselves as responsible for identifying relations between health and work in serving the users. This aspect is

evidenced by the following aspects: pointing workers' health as the responsibility of specific professional categories such as physicians and psychologists or even specialties, such as psychiatry; little identification of actions that contribute to the mental health of workers in the territory; and the referral of cases to specialized areas when there is suspicion of a work-related injury. On the other hand, the interviewees addressed the theme of health workers' professional health and, on this topic, several reports address the impacts of work processes on mental health.

The reports from the professionals interviewed show little discussion of WRMH in the units:

> *I realize that [WRMH] is a theme that is still very little explored. I feel that we need to talk a little more about it, value workers a little more, and treat this issue with more commitment, with more effort. It is something that we do not see much action specifically directed at.* (Priscila, UBS01)

The absence of WRMH in discussion agendas can be interpreted as a result of the difficulties in inserting worker health and mental health policies in primary care (Almeida et al., 2021; Lazarino, Silva & Dias, 2019; Merlo, Bottega & Perez, 2014; Perez, Bottega & Merlo, 2017), ratifying the WRMH as an important challenge for the integrality of care in workers' health (Araújo, T. M., Palma, & Araújo, N. C., 2017; Bernardo et al., 2015; Garbin & Pintor, 2019).

Some excerpts from the interviews demonstrate the importance of the integrality of care in workers' health, especially in cases of WRMH. The highlighted speech is an example of this recognition: "*I see many patients now with bruxism, with dental fractures due to clenching. All this is due to stress, or they lost their job, or they are afraid of losing their job*" (Erica, UBS02). In this excerpt, serving patients who present physical manifestations, such as those cited, draws attention to work or unemployment as possible causes of mental health problems that affect workers' physical health. Establishing this relationship is not at all trivial, requiring a careful look from health professionals (Araújo, T. M., Palma, & Araújo, N. C., 2017; Cardoso & Araújo, 2018; Jacques, 2007; Souza & Bernardo, 2019). However, among the interviewees, the view that identifying this link is exclusively the responsibility of professionals specialized in occupational health prevails.

Due to the perception of worker's health as a responsibility of professional categories, specific sectors or specialized professionals, the adequacy to meet the demands of WRMH is assumed by the existence of a psychology professional in the unit: "*The working user who has these health problems [WRMH], receives care, because there is a psychologist, they are assisted by the psychologist*" (Neiva, UBS02). Even recognizing the importance of psychologists, the availability of psychology professionals in the unit is not enough to ensure the completeness of care in WRMH, requiring the adoption of strategies that enable the insertion of workers' health actions in the unit, such as the conjoint definition of protocols and lines of care (Garbin & Pintor, 2019) These should also involve other health professionals, because the patient's complaint is often not directly related to mental health and an interdisciplinary approach is necessary for integral care (Cardoso & Araújo, 2016).

In other excerpts, this responsibility is attributed to the doctor as the other professionals forward the demands, as in these examples: "*I think that it is more related to the doctor with the population. Health at work, I don't handle it*" (Ester, UBS01). "*Generally, we refer it to the doctor*

when they come with this complaint... we already see that it is a complaint related to work" (Cláudia, UBS01). These excerpts reveal the strong influence of the biomedical and disciplinary model in the daily activities of primary care professionals (Ceccim, 2018; Furtado, 2007) and also the focus on the effects of work on the workers' physical health when referring to SUS users (Lazarino, Silva & Dias, 2019; Merlo, Bottega & Perez, 2014).

It was possible to identify reports that confirm advances in workers' health (Minayo-Gomez, Vasconcellos, & Machado, 2018) with the recognition of work as a determinant cross-sectional element for the analysis of health processes, as determined by the National Policy on Worker and Worker Health (Brazil, 2012): "*Workers' health is extremely important, working condition and financial condition, physical space for them to work, the situations, the demands, all of these influences a lot [on health processes]*" (Pedro, UBS01). "*I don't see a targeted action, focused only on the health of the worker. But it goes through several aspects of health*" (Ester, UBS01). When reflecting on the work processes themselves, the identification of work-mental health relations becomes more evident for the interviewed professionals, as observed in the excerpt:

> *We need to take care of those who take care of us and, if the worker doesn't have mental health, especially mental health, if they are not in a calm work environment, they won't have it, they won't perform their job with excellence either. Because they will be tired, they will get sick, and then they will get stressed.* (Ester, UBS01)

Although the responsibility for this care is often attributed to psychologists, the need for something beyond the availability of psychological care is recognized. "*I think that they could increase the number of psychologists in occupational medicine*" (Ruth, UBS01). "*In occupational medicine, there is psychological care for employees, but we saw that something more was needed, something internal*" (Ester, UBS01). Although the speeches refer to the mental health care strategies of health professionals, the recognition of the need for a transversal and intersectoral approach for WRMH is noted, as pointed out by Garbin and Pintor (2019).

Based on this identification, the professionals themselves take initiatives to prevent work-related mental illness among health workers, with little support from the management:

> *But, so, a few people thought about structuring a support work for the mental health of public servants to face this pandemic period. Then, this project was taken to the central level and was approved, but, I believe, with some reservations. So, what made this support work happen, I would say that it was more the will of the civil servants than the management*. (Patrícia, UBS01)

Considering primary care professionals as a collective of workers who also face the reflections of work precarization and a management logic that is harmful to their mental health, the highlighted report can be an example of the protagonism of workers facing work-related mental illness (Souza & Bernardo, 2019), which can be used as a starting point of reflection by professionals for insertion of the theme of WRMH aimed at SUS users.

It is important to ponder why the interviewees do not feel responsible for WRMH cases and attribute this task to specific professions and sectors, analyzing this apparent refusal based on the discussion about interdisciplinarity and competencies. Interdisciplinarity, as previously mentioned, is exercised in the researched context to some degree, in certain activities directed to specific health problems, including mental health itself. Given this, it can be inferred that if the interviewees attribute the function of investigating and identifying the relationships between mental health and work to others, this is not due to the absence of interdisciplinarity as a requirement for the development of competencies in health work in general. This means that workers are already used to approaching and managing health demands through an interdisciplinary action that allows them to approach problems broadly. Therefore, there would be no justification not to do it when what is at stake are mental health problems triggered by work.

Returning to the debate on competencies (Durrive, 2019, 2021; Le Boterf, 2003; Zarifian, 2012), and specifically those necessary for health work (Ceccim, 2012), we saw that their development requires the acquisition and appropriation of formal knowledge, as well as its mobilization in the exercise of the activity in a specific context. Thus, knowledge acquisition, as already mentioned, is not sufficient to produce competence by itself. At the same time, although we have argued that interdisciplinarity is a requirement for competencies, it does not guarantee them on its own. It is the combination of these elements (interdisciplinarity and acquisition of knowledge) that has the potential to develop competencies. Hence, we can infer, based on the reports on the little amount of discussions and training on this topic, that the UBS workers still lack formal knowledge to guide and support the task of investigating and identifying the relationships between mental health and work, which, once acquired, can be appropriated, mobilized, debated, and experienced in an interdisciplinary way in the analysis and proposition of intervention in WRMH. This means that, besides formal knowledge, it is also necessary to guarantee available time for reflections on concrete cases assisted by the UBS, as well as collective spaces for the debate on the different strategies and lines of care for the proper handling of these cases. And, finally, it is necessary to promote professional contexts in UBSs that mobilize the collective around the problem of workers' health, such as specific health indicators on the topic, which seems to be insufficiently promoted by national or local health policies (Almeida et al., 2021; Lazarino, Silva & Dias, 2019; Merlo, Bottega & Perez, 2014; Perez, Bottega & Merlo, 2017).

We saw that workers understand at some degree the determining role of work in health, especially when they examine their work. However, this understanding is still non-specific, superficial, and not very palpable; it needs to be better developed by the team, as well as strengthened at local and municipal levels. Moreover, in the reports, it is possible to deduce that health professionals make the articulation between their mental suffering and their professional activities, but not when it comes to mental suffering presented by SUS users. The inclusion of this theme in the training processes, especially in the spaces built around the professional activity, is, therefore, a fundamental condition for UBS workers to appropriate the conceptual and instrumental aspects that can be mobilized and sedimented through the daily routine of interdisciplinary practices that already exist at some level. Starting from the perception of the health workers' own suffering can be a promising strategy to contribute to the materialization of this thematic reflection. This allows, step by step, workers to produce concrete ways to intervene and visualize themselves as actors responsible for the WRMH. Some conditions concerning interdisciplinarity are already

given, even if they need to be further strengthened. But, in order to develop competencies in this specific area, it is necessary to invest in the production of knowledge.

Development of competencies in primary care

The category Development of Competencies had 170 excerpts coded and is composed of five themes divided into two subcategories. The text segments grouped by this category address the strategies, actions, and methodologies for competencies development used in the context investigated, the perception of the interviewees about these actions, the forms of institutionalization of the actions for competencies development, and the professionals' conceptions about competencies.

The coded text segments show that the strategies and practices of competencies development reflect the general lines of institutionalized PHE policies, fostering interdisciplinary work. Team meetings, matrix support, and shared care are pointed out as effective strategies for competency development. Regarding WRMH, professionals point out that it is not a theme addressed in these spaces. As for the institutionalization of competency development strategies, the interviewees point to the existence of specific management of health education, responsible for promoting this institutionalization. However, the lack of documents that guide the development of professionals' competencies is reported in some excerpts of the interviews, demonstrating the need for dissemination of the PHEP in primary care.

Among the professionals' reports regarding the notion of competence, the influence of a conception related to technical qualification is observed: "*Competence, for me, refers to having a technical qualification, specific to your work*" (Priscila, UBS01). "*Professional competences? I think it is what the person is able and qualified to perform*" (Norma, UBS02). These reports are aligned with a rationalist approach (Sandberg, 2000) and the conception of competencies as a set of knowledge, skills, and attitudes necessary to perform certain functions disseminated in the Brazilian public administration (Montezano, Amaral Junior, & Isidro-Filho, 2017). It is worth noting that this conception can be understood as a limiter of interdisciplinarity, since it assumes the possibility of anticipation of the competencies required for the exercise of a function, ignoring the events and contingencies of everyday work (Zarifian, 2012), the gap between prescribed work and actual work (Durrive, 2021; Schwartz, 1998; Schwartz & Durrive, 2010), and reinforces the strength of the disciplinary training of professionals, already indicated earlier in this article.

On the other hand, it is possible to observe an interpretative view of competence in some interview excerpts:

> *My perception is that the competent professional, especially in the Basic Health Unit, is the one who is going to fulfill what is expected of the basic unit: to try to maintain and solve the problems within the unit for at least 80 to 90% of the users who seek the unit. It's not referring to everyone, it's not saying "It's not up to me", it's you being the one who is going to give them a solution.* (José, UBS01)

This conception reflects the principle of resoluteness that guides basic health care (Brazil, 2017b) and is aligned with the notion of competence as the mobilization of resources to deal with unique work situations (Le Boterf, 2003; Zarifian, 2012). The relationship with the possibilities of the work context was also observed. When asked about what professionals need to be considered competent, the interviewee Norma (UBS02) points to knowledge and resources of the environment:

> *They need both internal and external things, they need personal training, access to training, access to knowledge training, and knowledge tools, and they also need an external structure to be able to execute what they have been trained to do*. (Norma, UBS02)

In this excerpt, it is possible to observe the influence of the context for the mobilization of competencies, that is, to act competently, the health professional needs to mobilize a set of resources that need to be within their reach (Le Boterf, 2003; Zarifian, 2012) in the situation, in addition to their theoretical and practical knowledge, .

The last two reports mentioned portray a conception of competence, aligned with PHEP, which presumes openness to interdisciplinary collaboration as a path to develop competencies (Ceccim, 2012), and may have reflections on the job satisfaction of health professionals (Majima et al., 2019). However, the prevalence of reports aligned with rationalist conceptions demonstrates the need to consolidate PHEPs' conceptions and assumptions in the proposals and devices aimed at the development of competencies in primary care.

Some statements indicate the existence of an organized structure with a satisfactory offer of refresher courses and other activities that promote the development of competencies: "*Yes, everything is made available by [system adopted by the city for disseminating and providing PHE actions]. There are training courses for updating*" (Cláudia, UBS01). However, other statements highlight the lack of support for professional competency development: "*In my opinion, there are no [guidelines that guide the development of professionals' competencies in the municipality]. City guidelines that provide us support, that give us a support for that, no*" (Patrícia, UBS01). This result emphasizes the need to strengthen and prioritize PHE actions, focused on primary care in the municipality. In addition to providing training and refresher courses, PHE policies and practices must be accessible to health professionals and aligned with the service demands (Ceccim, 2012).

Interdisciplinarity is present in the competencies development actions used, as can be observed in the report: "*Look, in the matrix support discussions, the team includes the community agent, social worker, psychologist, nurse and the matrix practitioner, the doctor. This helps a lot, but we learn from each discussion*" (Ester, UBS01). The matrix strategy is based on interdisciplinarity and has been identified as a possible way to incorporate workers' health and mental health policies in primary care (Garbin & Pintor, 2019; Lazarino, Silva & Dias, 2019). However, in this present research, the theme of interdisciplinarity was not mentioned as a prominent aspect within the debates surrounding the matrix practitioner practices in the municipality. It is important to observe limitations in the implementation, which may negatively impact the integrality of care, such as possible disputes between matriciating teams and participating teams about the responsibility of care (Klein & d'Oliveira, 2017).

Team meetings and shared care are also pointed out as important strategies for competency development: "*For sure team meeting, shared care... Certainly, shared care is very valid [for the development of competencies]*" (Norma, UBS02). The use of these strategies meets the PHEP guidelines and fosters interdisciplinarity and the development of competencies in the context of health work (Ceccim, 2012). Shared care is aligned with the understanding of skill development based on the apprehension of the generalizable part of work situations for application in future situations (Durrive, 2021; Le Boterf, 2003).

The interviewees also recognize the development of competencies through informal means: "*...informally, we have meetings, debates through social networks, and WhatsApp. It is where we support each other, vent our frustrations, and learn from each other's experiences*" (Patrícia, UBS01). This highlights the presence of an informal network mobilized by professionals to deal with work situations (Zarifian, 2012).

In general, the results confirm the findings of studies regarding the development of competencies of different health professionals through formal and informal strategies, and from reflection on the work itself (Barros, Paiva e Melo, 2017; Forsten-Astikainen & Heilmann, 2018). This is a common point among the strategies for competency development identified in the investigated context. Despite the recognition of these interdisciplinary spaces for competency development, there was no mention of WRMH as an object of reflection in these collective spaces throughout the interviews.

The examination of this thematic set allows us to infer that the direction of strategies and practices of competency development cited by the interviewees reflect the general lines of institutionalized policies, by intending to promote the interdisciplinarity of work for the development of competencies. Here we again see evidence, including in the speeches of the interviewees, of the direct relationship between interdisciplinarity and the development of competencies in health, in which the former is presented as a requirement or inductive factor of the latter.

However, this does not happen without challenges. While the interviewees acknowledge the presence, relevance, and effectiveness of the strategies used for the purposes discussed, they also highlight that the same strategies are not consistently guaranteed and strengthened by health work management. When one of the interviewees mentions the lack of guidelines that "support and provide support" to the professionals, it signifies the fragility of strategies for competency development and their susceptibility to resource limitations and lack of prioritization. These factors weaken and compromise the sustainability of the proposals, making their full realization unfeasible. Returning to the issue of time in the organization of the work process as a determining element for the success of strategies that lend themselves to fostering interdisciplinarity, we observe that this fragility and lack of guarantee of devices to promote interdisciplinarity, as advocated by the PHEP. results in time being redirected towards other activities seen as a priority and "emergency", such as outpatient care. This emphasis on disciplinary knowledge contradicts the competencies deemed necessary in health work. Moreover, the lack of health indicators and institutional tools that mobilize collective work and reflection on WRMH restricts collective debate around this problematic, limiting the demand for knowledge on the subject (Almeida et al., 2021; Lazarino, Silva & Dias, 2019; Merlo, Bottega & Perez, 2014; Perez, Bottega & Melo, 2017).

This issue, coupled with the prevailing rationalist conception of competence among UBS professionals (Sandberg, 2000), has important implications on the demands of WRMH, which demands the sharing of different knowledge and coordinated actions. The construction of interdisciplinary work contexts that allow access to resources to deal with users with WRMH demands is still in an embryonic stage. The lack of institutionally promoted knowledge on the subject limits the collective practice on this area, despite the recognition of its importance, particularly when professionals themselves are affected by work-related and mental health issues.

Although the primary interest here is to examine the contributions of interdisciplinarity to the development of competencies in WRMH, it is worth noting that, without the interdisciplinary competence in health, it is difficult to comprehend the complexity of the phenomena encountered in UBSs and, thus, the lines of care offered to users and the effectiveness of these actions become limited. Thus, if interdisciplinarity is one of the elements that contribute to the development of competencies in the WRMH in primary care, interdisciplinarity is itself the product of collective know-how that expands the ability to act in the UBSs. In this sense, the development of competence can feed interdisciplinarity, which in turn reinforces the development of competence. In this virtuous circle, complex and inevitably transdisciplinary phenomena, such as those facing the field of workers' health (Garbin & Pintor, 2019), have much to gain.

Conclusions

The research investigated the process of developing competencies for Work-Related Mental Health in primary health care. The results corroborate previous studies that point out difficulties in the insertion of workers' health and mental health policies in SUS primary care, ratifying WRMH as a major challenge for the comprehensive health care of workers in contemporary times. The findings indicate that such difficulties in the insertion and development of this area are due, in some measure, to difficulties related to the development of specific skills to act in primary care.

Difficulties on two important elements for developing competencies in WRMH were also demonstrated. First, the absence of strategies to acquire specific knowledge about WRMH. Second, the fragility of the devices that promote interdisciplinarity in the daily work in UBSs. Thus, the mobilization of knowledge and resources needed in order to act in WRMH is compromised. As argued, the production of competencies in this specific professional context occurs *pari passu* with the increase of interdisciplinarity. And, although interdisciplinary actions have been identified, they lack consolidation, compromising the development of competencies to deal with WRMH.

It is concluded that investment in the acquisition of specific knowledge about WRMH and the strengthening of existing spaces to promote interdisciplinarity are essential factors to advance the development of competencies for tending in this area of primary care, indicating the need to redesign work processes to provide the necessary time to exercise interdisciplinarity. On the other hand, the fact that health professionals recognize the relationships between mental health and their professional activities is an interesting potential for the development of competencies on the subject.

This research contributes to academic discussions about the development of competencies by proposing, in the case of WRMH in primary health care, that the development of competencies depends largely on the promotion of interdisciplinarity, which, in turn, is conditioned to how the

organization of the work process in health is done. It also contributes to reflections about municipal public service, sometimes neglected in the field of administration and with the use of the interpretative approach of competence, which is not widely used as a theoretical support.

From the point of view of scientific advancement, the study demonstrated the relevance of the notion of competence developed by authors who take into account the context of the activity, in primary care. From the practical point of view, the research findings contribute to the improvement of policies and practices for competency development, especially regarding WRMH by organizations. Consequently, the research developed can contribute to the improvement of services provided to society directly in the municipality studied, with the potential to extend to neighboring municipalities.

The study presents some limitations that can be explored in future research. The production of data exclusively through interviews limits the insight into the object of study. Interested researchers can broaden their understanding with triangulation of methods, such as participant or non-participant observation, self-confrontation, and focus groups. In this research, the use of these methods was made impossible mainly due to the context of the pandemic. The non-inclusion of physicians among the interviewees also represents a limitation. Future studies can investigate the development of competencies of UBS's general practitioners about WRMH, as well as mental health and occupational health. Furthermore, the effects of specific knowledge on WRMH as a crucial element for the development of knowledge and practices around the issue is a topic to be considered in future studies. Likewise, it should be verified whether the promotion of health indicators on WRMH, financial support for such indicators or other institutional devices can broaden action on the issue. Finally, it must be verified if the promotion of matrix-supported policies by CEREST aligned with primary care can expand the development of competence, stemming from or independently from the interdisciplinary of health knowledge.

References

Almeida Filho, N. (2000). Intersetorialidade, transdisciplinaridade e saúde coletiva: atualizando um debate em aberto. *Revista de Administração Pública, 34*(6), 11-34. Recuperado de https://bibliotecadigital.fgv.br/ojs/index.php/rap/article/view/6345/4930

Almeida Filho, N. (2005). Transdisciplinaridade e o paradigma pós-disciplinar na saúde. *Saúde e Sociedade, 14*(3), 30-50. doi:10.1590/s0104-12902005000300004

Almeida, L. A., Bianco, M. F., Moraes, T. D., Alves, R. B., Bastianello, G., & Vicentini, N. S. (2021). O Trabalho como Determinante da Saúde e Espaço de Desenvolvimento de Competências. *Revista Psicologia: Organizações e Trabalho, 21*(2), 1446-1455. doi:10.5935/rpot/2021.2.21507

Amaro, R. A. (2020). Concepções de trabalho e desenvolvimento da competência profissional: estudo fenomenográfico com agentes locais de inovação do SEBRAE. *Organizações & Sociedade, 27*(92), 15-34. doi:10.1590/1984-9270921

Araújo Júnior, J. A., & Martins, I. (2014). Gestão Por Competências na Administração Pública: Uma Análise Bibliométrica a Partir do Decreto Lei 5.707/2006. *Gestão.Org, 12*(2), 153-162. Recuperado de https://periodicos.ufpe.br/revistas/gestaoorg/article/view/21993

Araújo, T. M., Palma, T. F., & Araújo, N. C. (2017). Work-related mental health surveillance in Brazil: characteristics, difficulties, and challenges. *Ciência & Saúde Coletiva, 22*(10), 3235-3246. doi:10.1590/1413-812320172210.17552017

Barros, L. E. V., Paiva, K. C. M., & Melo, T. S. (2017). Competências profissionais e sua gestão na saúde: Um estudo de caso com médicos de um hospital de Belo Horizonte. *Espacios*, *38*(23), 21-34. Recuperado de https://revistaespacios.com/a17v38n23/17382321.html

Bernardo, M. H., & Garbin, A. C. (2011). A atenção à saúde mental relacionada ao trabalho no SUS: desafios e possibilidades. *Revista Brasileira de Saúde Ocupacional, 36*(123), 103-117. doi:10.1590/S0303-76572011000100010

Bernardo, M. H., Souza, H. A., Pinzón, J. G., & Kawamura, E. A. (2015). Salud mental relacionada con el trabajo: desafíos para las políticas públicas. *Universitas Psychologica, 14*(5), 1613-1624. doi:10.11144/Javeriana.upsy14-5.smrt

Bispo, M., & Amaro, R. A. (2013). Desenvolvimento de Competências: A Contribuição das Abordagens Fenomenográfica e das Práticas. *Revista Interdisciplinar de Gestão Social, 2*(1), 57-78. doi:10.9771/23172428rigs.v2i1.10059

Borde, E., Hernández-Álvarez, M., & Porto, M. F. S. (2015). Uma análise crítica da abordagem dos Determinantes Sociais da Saúde a partir da medicina social e saúde coletiva latino-americana. *Saúde em Debate, 39*(106), 841-854. doi:10.1590/0103-1104201510600030023

Brasil. (1990). *Lei nº 8.080, de 19 de setembro de 1990*. Dispõe sobre as condições para a promoção, proteção e recuperação da saúde, a organização e o funcionamento dos serviços correspondentes e dá outras providências. Brasília, DF: Diário Oficial da União.

Brasil. (2012). *Portaria nº 1.823 de agosto de 2012*. Institui a Política Nacional de Saúde do Trabalhador e da Trabalhadora. Brasília, DF: Diário Oficial da União. Recuperado de: https://bvsms.saude.gov.br/bvs/saudelegis/gm/2012/prt1823_23_08_2012.html.

Brasil. (2017a). *Adoecimento mental e trabalho: a concessão de benefícios por incapacidade relacionados a transtornos mentais e comportamentais entre 2012 e 2016*. Brasília, DF: Secretaria da Previdência.

Brasil. (2017b). *Portaria de Consolidação GM/MS no 02 de 28 de setembro de 2017*. Consolidação das normas sobre as políticas nacionais de saúde do Sistema Único de Saúde. Brasília: Ministério da Saúde. Recuperado de https://bvsms.saude.gov.br/bvs/saudelegis/gm/2017/prc0002_03_10_2017.html

Cardoso, M. C. B., & Araújo, T. M. (2016). Os Centros de Referências em Saúde do Trabalhador e as ações em saúde mental: um inquérito no Brasil. *Revista Brasileira de Saúde Ocupacional*, *41*, 1-14. doi:10.1590/2317-6369000118115

Cardoso, M. C. B., & Araújo, T. M. (2018). Atenção aos transtornos mentais relacionados ao trabalho nas regiões do Brasil. *Psicologia & Sociedade*, *30*, 1-11. doi:10.1590/1807-0310/2018v30163746

Ceccim, R. B. (2005). Educação Permanente em Saúde: desafio ambicioso e necessário. *Interface: comunicação, saúde, educação, 9*(16), 161-168. doi:10.1590/s1414-32832005000100013

Ceccim, R. B. (2012). Desenvolvimento de competências no trabalho em saúde: educação, áreas do conhecimento e profissões no caso da saúde. *Revista Tempus – Actas de Saúde Coletiva*, 253-277. Doi:10.18569/tempus.v6i2.1128

Ceccim, R. B. (2018). Conexões e fronteiras da interprofissionalidade: forma e formação. *Interface: comunicação, saúde e educação*, *22*(Supl. 2), 1739-1749. doi:10.1590/1807-57622018.0477

Claus, A. M., & Wiese, B. S. (2019). Development and test of a model of interdisciplinary competencies. *European Journal of Work and Organizational Psychology, 28*(2), 191-205. doi:10.1080/1359432X.2019.1567491

Costa, B. S., Costa, S. S., & Cintra, C. L. D. (2018). Os possíveis impactos da reforma da legislação trabalhista na saúde do trabalhador. *Revista Brasileira de Medicina do Trabalho, 16*(1), 109-117. doi:10.5327/Z1679443520180097

Dejours, C. (1992). *A loucura do trabalho: estudo de psicopatologia do trabalho* (5a ed.). São Paulo, SP: Cortez; Oboré.

Dias, C. A., Siqueira, M. V. S., Morais, A. P. S., & Gomes, K. B. P. (2019). Ideologia gerencialista e adoecimento mental no trabalho. *Cadernos de Psicologia Social do Trabalho*, *22*(2), 185-198. doi:10.11606/issn.1981-0490.v22i2p185-198

Durrive, L. (2019). Uma abordagem dinâmica da questão da competência, conhecimento pessoal e conhecimento acadêmico. *Tempus – Actas de Saúde Coletiva, 13*(2), 217-233. doi:10.18569/tempus.v13i2.2680

Durrive, L. (2021). *Competência e atividade de trabalho*. Belo Horizonte, MG: Fabrefactum.

Faler, C. S., & Camargo, C. V. P. (2020). Transtornos mentais e a concessão de auxílio-doença no oeste de Santa Catarina entre 2014 e 2018. *Revista de Direito, 11*(2), 105-126. doi:10.32361/201911028814

Fleury, M. T. L., & Fleury, A. (2001). Construindo o conceito de competência. *Revista de Administração Contemporânea, 5*(esp.), 183-196. doi:10.1590/S1415-65552001000500010

Flick, U. (2007). *Managing Quality in Qualitative Research.* London: SAGE Publications Ltd.

Forsten-Astikainen, R., & Heilmann, P. (2018). Creating a competence profile of a new profession: social service agents in welfare centers. *Employee Relations, 40*(2), 362-380. doi:10.1108/ER-01-2017-0009

Franco, D. S., & Ferraz, D. L. S. (2019). Uberização do trabalho e acumulação capitalista. *Cadernos Ebape.BR, 17*(esp.), 844-856. doi:10.1590/1679-395176936

Furtado, J. P. (2007). Equipes de referência: arranjo institucional para potencializar a colaboração entre disciplinas e profissões. *Interface: comunicação, saúde, educação, 11*(22), 239-255. doi:10.1590/s1414-32832007000200005

Garbin, A. C., & Pintor, E. A. S. (2019). Estratégias de intra e intersetorialidade para transversalizar a saúde do trabalhador em todos os níveis de atenção à saúde. *Revista Brasileira de Saúde Ocupacional, 44*(18), 1-10. doi:10.1590/2317-6369000030118

Gibbs, G. (2009). *Análise de dados qualitativos*. Porto Alegre, RS: Artmed.

Hurtado, S. L. B., Silva-Macaia, A. A., Vilela, R. A. G., Querol, M. A. P., Lopes, M. G. R., & Bezerra, J. L. C. (2022). Intervenções em saúde do trabalhador – contexto, desafios e possibilidades de desenvolvimento: uma revisão de escopo. *Revista Brasileira de Saúde Ocupacional, 47*(15), 1-27. doi:10.1590/2317-6369/21120pt2022v47e15

Jacques, M. G. (2007). O nexo causal em saúde/doença mental no trabalho: uma demanda para a psicologia. *Psicologia & Sociedade, 19*(esp.), 112-119. doi:10.1590/s0102-71822007000400015

Kennedy, A. B. & Sankey, M. H. P. R. (1898). The thermal efficiency of steam-engines. Report of the committee appointed to the council upon the subject of the definition of a standard or standards of thermal efficiency for steam engines: With an introductory note. (including appendixes and plate at back of volume), Vol. 134 *Minutes of proceedings of the institution of civil engineers* (1898), pp. 278-312. Recuperado de: https://www.icevirtuallibrary.com/doi/10.1680/imotp.1898.19100

Klein, A. P., & d'Oliveira, A. F. P. L. (2017). O "cabo de força" da assistência: concepção e prática de psicólogos sobre o Apoio Matricial no Núcleo de Apoio à Saúde da Família. *Cadernos de Saúde Pública, 33*(1), 1-10. doi:10.1590/0102-311x00158815

Kvale, S. (2007). *Doing Interviews*. London: SAGE Publications Ltd. doi:10.1145/3308558.3314136

Lacaz, F. A. C. (2019). A (Contra) Reforma Trabalhista: lei 13.467/2017, um descalabro para a Saúde dos Trabalhadores. *Ciência & Saúde Coletiva, 24*(3), 680. doi:10.1590/1413-81232018243.01452019

Lazarino, M. S. A., Silva, T. L., & Dias, E. C. (2019). Apoio matricial como estratégia para o fortalecimento da saúde do trabalhador na atenção básica. *Revista Brasileira de Saúde Ocupacional, 44*(23), 1-8. doi:10.1590/2317-6369000009318

Le Boterf, G. (2003). *Desenvolvendo a competência dos profissionais*. Porto Alegre, RS: Artmed.

Lester, S., Koniotaki, A., & Religa, J. (2018). ComProCom: a revised model of occupational competence. *Education and Training, 60*(4), 290-302. doi:10.1108/ET-01-2018-0024

Lima, V. V., Ribeiro, E. C. O., Padilha, R. Q., & Mourthé Júnior, C. A. (2018). Challenges in the education of health professionals: an interdisciplinary and interprofessional approach. *Interface: comunicação, saúde, educação*, *22*(Supl.2), 1549-1562. doi:10.1590/1807-57622017.0722

Liske, J. M. R., & Holladay, C. L. (2016). Evaluating coaching's effect: competencies, career mobility and retention. *Leadership and Organization Development Journal, 37*(7), 936-948. doi:10.1108/LODJ-12-2014-0244

Majima, T., Yamamoto, T., Sakai, I., Ikezaki, S., & Nagasaka, I. (2019). Job satisfaction and related factors of nurses in university hospitals: Focusing on collaborative competency factors. *Journal of Nursing Management, 27*(7), 1409-1415. doi:10.1111/jonm.12822

Melges, F., Calarge, T. C. C., Benini, É. G., & Pacheco, A. P. C. P. (2022). A Nova Precarização do Trabalho: um Mapa Conceitual. *Organizações & Sociedade, 29*(103), 652-680. doi:10.1590/1984-92302022v29n0032PT

Mendes, R., & Dias, E. C. (1991). Da medicina do trabalho à saúde do trabalhador. *Revista de Saúde Pública, 25*(5), 341-349. doi:10.1590/s0034-89101991000500003

Merlo, Á. R. C., Bottega, C. G., & Perez, K. V (Orgs.). (2014). *Atenção à saúde mental do trabalhador: Sofrimento e transtornos psíquicos relacionados ao trabalho*. Porto Alegre, RS: Evangraf.

Minayo-Gomez, C., Vasconcellos, L. C. F., & Machado, J. M. H. (2018). Saúde do trabalhador: aspectos históricos, avanços e desafios no Sistema Único de Saúde. *Ciência & Saúde Coletiva, 23*(6), 1963-1970. doi:10.1590/1413-81232018236.04922018

Montezano, L., Amaral Junior, J. B. C., & Isidro-Filho, A. (2017). Priorização do desenvolvimento de competências em organização pública. *Revista do Serviço Público, 68*(4), 785-806. doi:10.21874/rsp.v68i4.1546

Morais, P. A. P., Melo, T. A., & Bianco, M. F. (2015). Noções/Significado(s) de Competência(s): uma revisão teórica. *Revista Cesumar – Ciências Humanas e Sociais Aplicadas, 20*(2), 487-504.

Morosini, M. V. G. C., Fonseca, A. F., & Lima, L. D. (2018). Política Nacional de Atenção Básica 2017: retrocessos e riscos para o Sistema Único de Saúde. *Saúde em Debate, 42*(116), 11-24. doi:10.1590/0103-1104201811601

Muhr, T. (2020). *Atlas.TI Web for browsers: The easiest way to uncover qualitative insights*. Recuperado de: https://atlasti.com/cloud/.

Numminen, O., Ruoppa, E., Leino-Kilpi, H., Isoaho, H., Hupli, M., & Meretoja, R. (2016). Practice environment and its association with professional competence and work-related factors: perception of newly graduated nurses. *Journal of Nursing Management, 24*(1), 1-11. doi:10.1111/jonm.12280

Oliveira, C. C., Santos, C. H. S., Mastella, M., & Fernandes, L. H. D. (2020). Interdisciplinaridade nos Cursos de Administração Pública e Gestão Pública no Brasil: Uma Análise Conceitual. *Revista Eletrônica de Estratégia & Negócios, 13*(esp1), 63-88. doi:10.19177/reen.v13e0202063-88

Patias, N. D., & von Hohendorff, J. (2019). Critério de qualidade para artigos de pesquisa qualitativa. *Psicologia em Estudo, 24*, 1-14. doi:10.4025/psicolestud.v24i0.43536

Pereira, A. C. L., Souza, H. A., Lucca, S. R., & Iguti, A. M. (2020). Fatores de riscos psicossociais no trabalho: limitações para uma abordagem integral da saúde mental relacionada ao trabalho. *Revista Brasileira de Saúde Ocupacional, 45*(18), 1-9. doi:10.1590/2317-6369000035118

Perez, K. V., Bottega, C. G., & Merlo, Á. R. C. (2017). Análise das políticas de saúde do trabalhador e saúde mental: uma proposta de articulação. *Saúde em Debate, 41*(esp.), 287-298. doi:10.1590/0103-11042017s224

Rios, D. R. S., Sousa, D. A. B., & Caputo, M. C. (2019). Diálogos interprofissionais e interdisciplinares na prática extensionista: o caminho para a inserção do conceito ampliado de saúde na formação acadêmica. *Interface: comunicação, saúde, educação, 23*, 1-20. doi:10.1590/Interface.180080

Salles, M. A. S. D., & Villardi, B. Q. (2017). O desenvolvimento de competências gerenciais na prática dos gestores no contexto de uma Ifes centenária. *Revista do Serviço Público, 68*(2), 467-492. doi:10.21874/rsp.v68i2.795

Salman, M., Ganie, S. A., & Saleem, I. (2020). The concept of competence: a thematic review and discussion. *European Journal of Training and Development, 44*(6-7), 717-742. doi:10.1108/EJTD-10-2019-0171

Sandberg, J. (2000). Understanding Human Competence at Work: An Interpretative Approach. *The Academy of Management Journal, 43*(1), 9-25. doi:10.5465/1556383

Sandberg, J., & Pinnington, A. H. (2009). Professional competence as ways of being: An existential ontological perspective. *Journal of Management Studies, 46*(7), 1138-1170. doi:10.1111/j.1467-6486.2009.00845.x

Schmidt, M. (2008). The Sankey diagram in energy and material flow management: part II: methodology and current applications. *Journal of industrial ecology*, 12(2), 173-185. Doi: 10.1111/j.1530-9290.2008.00015.x

Schwartz, Y. (1998). Os ingredientes da competência: Um exercício necessário para uma questão insolúvel. *Educação & Sociedade, 19*(65), 101-140. doi:10.1590/S0101-73301998000400004

Schwartz, Y., & Durrive, L. (2010). *Trabalho & Ergologia: Conversas sobre a atividade humana* (2a ed.). Niterói, RJ: EDUFF.

Silva, C. B. G., & Scherer, M. D. A. (2020). A implementação da Política Nacional de Educação Permanente em Saúde na visão de atores que a constroem. *Interface: comunicação, saúde, educação, 24*, 1-15. doi:10.1590/interface.190840

Silva, M. P., & Bernardo, M. H. (2018). Grupo de reflexão em saúde mental relacionada ao trabalho: uma contribuição da psicologia social do trabalho. *Revista Brasileira de Saúde Ocupacional, 43*(supl. 1), 1-9. doi:10.1590/2317-6369000005018

Sim, J., Saunders, B., Waterfield, J., & Kingstone, T. (2018). Can sample size in qualitative research be determined a priori*? International Journal of Social Research Methodology, 21*(5), 619-634. doi:10.1080/13645579.2018.1454643

Souza, H. A., & Bernardo, M. H. (2019). Prevenção de adoecimento mental relacionado ao trabalho: a práxis de profissionais do Sistema Único de Saúde comprometidos com a saúde do trabalhador. *Revista Brasileira de Saúde Ocupacional, 44*(26), 1-8. doi:10.1590/2317-6369000001918

Teixeira, C. F. S., Soares, C. M., Souza, E. A., Lisboa, E. S., Pinto, I. C. M., Andrade, L. R., & Espiridião, M. A. (2020). A saúde dos profissionais de saúde no enfrentamento da pandemia de Covid-19. *Ciência & Saúde Coletiva, 25*(9), 3465-3474. doi:10.1590/1413-81232020259.19562020

Vaclavik, M. C., Oltramari, A. P., & Oliveira, S. R. (2022). Empresariando a informalidade: um debate teórico à luz da gig economy. *Cadernos EBAPE.BR*, *20*(2), 247-258. Recuperado de https://bibliotecadigital.fgv.br/ojs/index.php/cadernosebape/article/view/85536/80720

Van Hecke, A., Goemaes, R., Verhaeghe, S., Beyers, W., Decoene, E., & Beeckman, D. (2019). Leadership in nursing and midwifery: Activities and associated competencies of advanced

practice nurses and midwives. *Journal of Nursing Management, 27*(6), 1261-1274. doi:10.1111/jonm.12808

Wong, S. C. (2020). Competency Definitions, Development and Assessment: A Brief Review. *International Journal of Academic Research in Progressive Education and Development, 9*(3), 95-114. doi:10.6007/ijarped/v9-i3/8223

Zarifian, P. (2012). *Objetivo competência: por uma nova lógica.* São Paulo, SP: Atlas.

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Inclusive language

The authors use inclusive language that acknowledges diversity, conveys respect to all people, is sensitive to differences, and promotes equal opportunities.

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