ENSAIO ESSAY

Teachers' work and health in Brazil: thoughts on the history of research, strides, and challenges

Trabalho e saúde de professoras e professores no Brasil: reflexões sobre trajetórias das investigações, avanços e desafios

Trabajo y salud de profesoras y profesores en Brasil: reflexiones sobre trayectorias de investigaciones, avances y desafíos

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Abstract

This Essay discusses the theme of teachers' work and health in Brazil. The objectives are to describe the initial history of research on teachers' health, discuss elements leading to a consensus on the characterization of the group's work and principal health problems, and systematize the main strides and challenges. The Essay draws on more than two decades of research and practice in this field. Based on this experience, the authors identify the movements, the accumulated evidence, and prospects for future development. The elements brought to the discussion point to substantial growth in the field: the number of studies, the diversity and scope of topics, the groups of men and women teachers studied, and the experiences with application of the knowledge (programs and interventions). Despite these strides, the studies and practices still emphasize the individual and the disease, with little or no attention to work factors (work process and management) in the health/disease process. Issues pertaining to gender differences (in work and in health status) also remain invisible. There is little linkage between researchers and teachers' movements (a relevant characteristic of the first initiatives in the field). There are no public policies to regulate the workplace and work management. The contributions to the discussion provide insight for thought to assist the identification of critical nodes and analytical scenarios with the potential for progress in this field of research and intervention.

Faculty; Occupational Health; Gender and Health; Education

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Introduction

The relationship between illness and work has been analyzed ever since the first studies that attempted to understand the processes involved in human illness. Many research models have been proposed over time. The central reference for workers' health, the field built in the public health paradigm, is the work process: it is based on the linkage between the elements that establish the conditions that produce health or generate disease and suffering. It is a field of knowledge and practice 1. The thoughts offered here are based on the premises of workers' health, interpreting the relations between health and work as events determined by specific work processes, which in turn are structured by dynamics determined by continuous social tensions between opposing social interests 1.

This Essay begins by focusing on the history of initiatives that aimed to measure illness in teachers and its relationship to their work characteristics and conditions. The Essay highlights elements on which there is some consensus, based on the empirical evidence on health and work in this group. Finally, the Essay reflects on the critical nodes and potentialities. The contributions to the debate are based primarily on two decades of experience in research and practice in this topic, allowing to reconstruct the history of the field's development. The Essay thus assumes this reconstruction from a perspective close to the field, not from a distance as would usually be expected. The Essay thus portrays the possibilities that an observant view was able to identify. Despite the obvious limitations that specific narratives may entail, this effort offers the opportunity to address aspects that are rarely visited or mentioned. We wish to favor the field's analysis, especially in relation to retrieving its initial characteristics and its history, in order to air and refeed current vigorous initiatives, so necessary in the current moment, in which teachers' role in Brazilian society is undergoing a profound crisis and lack of social recognition. The study aims to present the initial history of studies on teachers' health, discuss aspects that led to a certain consensus in the field on the characterization of teaching work and its main health problems, and systematize the strides and challenges in this field.

A brief history of studies on teachers' work and health

Research on teaching and health in Brazil first flourished in the 1990s, when the initial studies focused on the production of knowledge on men and women teachers' health. The research output in various parts of Brazil featured the groups at University of Brasília (UnB) - Wanderley Codo; Bahia Federal University (UFBA)/Feira de Santana State University (UEFS) – Tânia Araújo, Eduardo Reis, Annibal Silvanny-Neto, and Fernando Carvalho; Minas Gerais Federal University (UFMG) - Ada Assunção and Dalila Oliveira; Rio de Janeiro State University (UERJ) and the Center for Worker Health and Human Ecology/Oswaldo Cruz Foundation (CESTEH/Fiocruz) - Milton Athayde, Jussara Brito, and Kátia Reis; Paraíba Federal University (UFPB) - Mary Neves; Espírito Santo Federal University (UFES) - Elizabeth Barros; and the Pontifical Catholic University of São Paulo (PUC-SP) -Léslie Ferreira.

Considering the wide range of problems, numerous efforts were made, with different theoretical, conceptual, and methodological contributions. The initial studies established a tradition of research in this field, and until today they are pillars in knowledge output on this subject. Some of these groups reshaped the focus of their work, reducing their investment in the analysis of work and health, while others maintained these research activities. Qualitative and quantitative approaches were used, and although conducted by different groups, as a whole they provided a wide range of possibilities for debates and complementary results, since they had common points, even without prior linkage between them.

The common elements in these groups featured: (a) a focus on the search for visibility for the problems affecting teachers' health, anchored predominantly in the field of workers' health, where initiatives were developed to identify the main problems; (b) a close relationship between union representatives at the national and local levels, featuring teachers as protagonists (although this was not incorporated to the same degree in all the studies, it was a basic part of the research processes); and (c) intentional proposals, with specific traits when compared to other initiatives, even in workers' health (the studies were guided by the perspective of action for the defense of teachers' health through collective bargaining, public policies for health protection or government programs for teachers' healthcare). They thus assumed the immediate incorporation of the results as part of interventions.

This characteristic of the first studies resulted from the fact that most of them emerged from demands by the union movement, linked to the teachers' struggle. Until then the union movement had concentrated on wage issues, but given the growing evidence of teachers' illness, it turned to the need to shed light on this process, seeking to understand it as part of the repercussions from changes in teaching work, which Esteves ² referred to as "teacher's malaise". The research groups turned to the universities for support in this effort. The studies were thus developed in the linkage between the teachers' movements and researchers. Two studies in 1996 were financed by national labor confederations, one by the National Confederation of Workers in Education (CNTE), representing Brazil's public school workers, in partnership with the Laboratory on Work Psychology at the UnB, and the other by the National Confederation of Workers in Teaching Establishments (CONTEE), representing teachers in the private school system, in partnership with UFBA-UEFS, for a study in Salvador, Bahia State. Two other studies in 1999-2000 stemmed from union demands: one by the Rio de Janeiro Union of Workers in Education (SEPE/RJ), with CESTEH/Fiocruz and UERJ, and the other by the Minas Gerais Union of Workers in Education (SindUTE-MG), with UFMG.

The study by CNTE and UnB assessed working conditions and mental health, with an emphasis on burnout syndrome. The study had a nationwide scope and included 52,000 teachers from 1,440 public schools. The results, published in the book *Educação: Carinho e Trabalho [Teaching: Love and Labor]* 3, were alarming: 26% of the teachers suffered from emotional exhaustion associated with professional devaluation, low self-esteem, and lack of perceived results from their work.

The study in Salvador examined 573 teachers from 60 private schools, assessing their employment and work characteristics, workplace conditions, and health status and highlighted mental health problems, musculoskeletal disorders, and voice problems ^{4,5}.

Epidemiological studies elsewhere in the state of Bahia 6,7,8 (2001) and in Belo Horizonte, Minas Gerais State 9,10 (2001-2004), provided a coherent and consistent initial body of empirical evidence that unveiled the situation with teachers' illness in Brazil.

These research initiatives were conceived independently, but the next step was to establish a dialogue between the groups. An important set of such initiatives involved the Latin American Research Network on Teaching Work (Estrado Network).

Created in 1999, the Network was a space for convening researchers affiliated with universities, teachers' unions, and social movements in Brazil and other Latin American countries. The contributions stemming from the Network feature seminars and a dossier on teaching published in the journal Educação & Sociedade 11, organized by Dalila Oliveira & Ada Assunção. The papers discuss the characteristics of teaching work, underscoring its intensification and potential impacts on teachers' lives and health. The dossier features a summary of the epidemiological studies conducted in Bahia 5 and describes the results' consistency in relation to the predominant work characteristics and conditions and the main health problems in different groups of teachers and periods. The Estrado Network was an initiative at integrating and encouraging the field's development, based on diverse characteristics of the groups involved and their areas of interest 11.

The predominance of epidemiological studies at that stage can be explained by the initial demand for a diagnosis of the situation, with an emphasis on identifying the main health problems and their relationship to the working conditions and characteristics. However, these studies were not limited to the conventional use of epidemiological methods, but sought to incorporate the teachers and their representative organizations in the various research stages. Thus, some of the studies aimed to link different methodological approaches, enriching the more traditional epidemiological methods with contributions from social epidemiology, incorporating research models such as the Italian Workers' Model (IWM) 12 or collective surveys as proposed by Laurell & Noriega 13.

Teachers themselves participated actively in developing the research instruments, acting in awareness-raising of their peers and the critical analysis and interpretation of the data. Feedback to the schoolteachers was part of the research process and included the production of research reports, books, articles in teachers' periodicals, folders, seminars, videos, and films.

This was a period of great methodological experimentation in knowledge output, characterized by close linkage between researchers and education workers. Innovative proposals emerged, such as the Expanded Scientific Communities, originally proposed by the IWM ¹², renamed in Brazil as the Expanded Research Communities (CAP, acronym in Portuguese) ^{14,15}. The CAP are based on training-research-action processes focused on understanding the dynamics and conditions that generate suffering and illness on the one hand, or on the other, that produce strategies favoring life and health. The actions are based on dialogue between scientific knowledge and practical knowledge. An Expanded Research Community was implemented in the Training Program on Health, Gender, and Work in Schools in Rio de Janeiro and in João Pessoa, Paraíba State, and consisted of training multipliers for the analysis of work and health in schools based on the workers' own experience. This training proposal incorporate issues in gender relations ¹⁴, lending an innovative characteristic to the evaluation of work and its impacts on health.

Another relevant initiative was developed by the Jorge Duprat Figueiredo Foundation for Security and Occupational Medicine (Fundacentro) in the project *Working Conditions and Their Repercussions on Teachers' Health in Basic Education in Brazil*, coordinated by Leda Ferreira (2005). The project involved various Fundacentro units in Brazil and was implemented in all five major geographic regions. Various publications were organized according to the study site, and a survey was performed on the state-of-the-art at the time. The material is available at http://www.fundacentro.gov.br.

In the 2000s, in addition to partnerships between university researchers and teachers' unions, the discussion also included government agencies. The magnitude of health problems in education workers, especially teachers, stood out in the official public sector statistics, with a major increase in sick leave and work absenteeism ⁹. The problem heavily affected the schools' routine, mobilizing government measures to deal with the growing situation of illness in education. Institutional measures were thus taken, the scope of which included funding for studies and/or actions focusing on the problems identified, for example, preventive measures for vocal care ⁴.

This brief history of the initiatives in teaching work and health in Brazil allows glimpsing the specificities in their developments, actions, researchers, and institutions that took on the task of launching this field. By the end of the first decade of this century, there was already a significant body of evidence on illness and its association with work characteristics and working conditions. The quantitative and qualitative studies produced consistent results with rich exchange and dialogue, highlighting the need to intervene in mental health and musculoskeletal and vocal problems ⁵. Having completed this first movement of visibility for the situation of teachers' physical and mental suffering, the efforts to connect them to the working conditions and their forms of organization and management have gained increasing relevance.

In short, the establishment of knowledge and practices in teaching and health in Brazil featured important efforts born in different fields of knowledge, which approached each other in their development and contributed to: (a) the debate on the world of work, involving the concepts of the work process, organization, and management in neoliberal contexts, explored in the sociology of work; (b) the emphasis on the relationship between changes in societies and their pressures and demands on education workers, especially teachers (studies from the field of education); (c) identification of the growing process of teacher's suffering and illness and its relationship to work, stemming from studies in specific disciplines (psychology, speech therapy, physiotherapy, medicine); (d) the consolidation of a field of practice and knowledge based on proposals that go beyond the approach to more traditional occupational exposures (based on the risk concept) to incorporate the dynamics of the relations woven into the world of work, prioritizing the concept of the work process from the perspective of Latin American social epidemiology 13; (e) the use of interdisciplinary approaches; and (f) the concept of health as a field of dispute, of conflict between antagonistic interests in the world of work. The convergence of these movements produced a rich context of actions with transformative potential, which not only unveiled a certain situation but sought to alter and redesign it. This period also featured an overall context of struggle for democracy in Brazil and for the expansion of social rights, emphasizing the defense of health at work 1. The effervescence of these movements informed and motivated the development of studies on this theme.

The relationship between teaching and health: which elements help us to connect them?

The analysis of characteristics, contexts, and conditions that determine work processes is essential for understanding burnout and illness. It is impossible to understand these processes without assessing broader levels of determination 1. The debate on the context in which teaching is performed and its characteristics and challenges were an important part of these efforts 2,11,16.

The analysis of teaching reveals a striking process of intensification in the work 17. This characteristic relates to the process of social precarization of the work, which involves economic precarization (wage conditions, workdays, contracts) and precarization of working conditions (changes in the organization and productive process with the use of new tools and flexible management models that alter the work's routines and forms of control) 18.

Since the 1990s, changes in educational policies have led to the inclusion of the education sector in the market logic, according to neoliberal economic principles. The productivist-mercantile logic features managerialist models, oriented by the notions of quality, efficiency, evaluation, and accountability 19, implementing the idea of the school (whether public or private) as a company. The regulation of education, under the aegis of market principles and demands, defines curricular policies, management practices, and faculty identity 19. Teachers' roles are substantially expanded, involving various sphere of school life 17: the "multitasking" teacher is responsible for the success or failure of education. The intensification of work was a decisive step in this process 16,17.

The reorganization of teaching along these lines forged new ways of structuring and (de)valuing teaching activities. What predominates in market logic is the standardization of procedures and devices for evaluation and control, anchored in quantitative parameters of productivity. Alongside this, processes of discrediting teachers' performance are fomented, acting at the core of social recognition of teaching work 16.

The increase in the internal control of teaching deserves attention, especially the control of time and tasks, implementing a rigid schedule with deadlines, dates, and activities in increasingly tight timeframes ^{17,19}. Reflection on teaching itself is replaced by the urgency of deadlines and schedules, replacing the logic of knowledge with the logic of skills 20. As soon as one demand is met, another encroaches, dominating timeless time (previously reserved for relaxation or reflection) 20. The requirements of high rates of passing grades, regardless of the actual learning processes, pressure teachers, squeezing them with the relentless shortage of time and more standardization, producing quantitative results monitored by indicators of approval.

These work characteristics has been described by Esteves 2 as "teacher's malaise", a social phenomenon whose characteristics involve devaluation, constant ramping-up of work demands, violence, and unruliness, which in turn produce an identity crisis, leaving teachers to wonder about their professional choice and the meaning of their profession. The impacts of these conditions emerge as exhaustion, fatigue, suffering, and disenchantment. Based on this formulation 2, the analyses focus on the social conditions of work, shifting the emphasis, previously focused on the analysis of individual teachers in the classroom, to the assessment of work's organization in the school and the social context to which the school belongs.

Nevertheless, health issues remained marginal in the education sector, whether for the school administration, the workers' movement, or the teachers themselves. Accustomed to performing tasks to care for others, schoolteachers may find it difficult to look after themselves, for their health and wellbeing 4. Teachers tend to deny or brush off symptoms of illness and to only acknowledge a problem when it reaches a certain threshold of severity. The disease is still experienced as an individual process, a maladjustment or personal difficulty. The collective nature of illness in the teaching profession, associated with a certain configuration of the work, is still a perspective that needs to be established by teachers 5,21.

Teaching and health: a gender perspective

As mentioned above, health/disease processes cannot be understood in the absence of assessment of broader levels of determination. In addition to the work characteristics and working conditions (explored above), another important level of determination refers to gender relations. Gender is defined here as a constitutive element of social relations based on observable differences between the sexes and as a basic way of representing power relations (naturalizing the processes of domination) ²². Gender assessment in teaching and its effects on health is a precondition for understanding the dynamics and relations involved in these processes.

Teaching is known as a highly stressful occupation, with repercussions on physical and mental health and professional performance 5,23. Essentialist interpretations, taking differences between men and women for granted, have guided the analysis of results. Men are generally taken as the reference category with whom women are compared, overlooking qualification systems and social differences, especially valuation and social recognition, which historically structured the sexual division of labor 24,25. Studies linking teaching and health typically lack an assessment of gender asymmetries, marked by differential power attributions, social valuation, and allocation of time between women and men in paid and unpaid work 24,26. These characteristics have an impact on various dimensions of life, including health.

In Brazil, there are more than two and a half million schoolteachers in basic education, 80% of whom are women (basic education includes three stages: preschool, for children under five, elementary I and II, for children from six to 14 years, and middle school, for students 15 to 17 years) ²⁷. Despite this overwhelming majority of women, studies in this field continue to generalize the results, overlooking gender differences.

The labor reality experienced by working women is marked by both professional and domestic work ^{24,25} and sexual segregation of occupations – with imbalances in the distribution of types of tasks, resources, and power – with men occupying the more highly prized and better-paid positions. The distribution by the teacher's level of schooling is a good example of this: the higher the educational level, the higher the proportion of men involved. In higher education, the proportions of men and women are similar ⁵; in basic education, men represent a larger share in middle school when compared to the other school levels ²⁶, and in preschool and elementary teaching, women are the overwhelming majority (according to a study in Pelotas, Rio Grande do Sul State, 99% of the preschool teachers were women) ²⁸. There are are also consistent differences in participation in housework ²⁶.

According to data from the Brazilian Institute of Geography and Statistic (IBGE), total average weekly work (paid work plus housework) by women exceeded that of men by 7.5 hours (53.6 hours a week for women compared to 46.1 hours for men) ²⁹. This is due to the fact that there is no compensation in the form of a discount for the time women devote to social reproduction (household and family chores), but simply the addition of time in professional work and that dedicated to house and family ^{25,29}. This double responsibility requires women to be constantly on the move to balance and adequately meet the time requirements and demands of paid work and family, generating tension and conflict in women's lives ²⁵.

Since the 1990s, studies on the physiology of stress point to the need to assess the total workload of men and women ³⁰. Since the share of domestic work is not similar according to gender, constituting a female attribution, an analysis limited to the time devoted to professional work and its characteristics is adequate for men but only represents part of the workload for women ²⁴. The invisibility of time spent in housework distorts the impact that such accumulation can entail, which in turn prevents more comprehensive measures to change this reality. As Hirata states ³¹ (p. 48), "the sexual division of professional work cannot change without changes in the sexual division of domestic work, in the sexual division of power, and in knowledge in society".

In keeping with differences observed in the characteristics of work between men and women, there is solid evidence of more illness among women and differences in the profile of health problems according to gender ^{26,32}.

This requires expanding the focus of analysis beyond workplace conditions, overcoming the dichotomy between the professional and family spaces. It is thus essential to promote new analytical perspectives on teaching work, incorporating evaluations that include the sexual division of labor ²⁴,

housework 25, work/family conflict 25, models for reconciling professional and family life 24, and total workload (paid and domestic) 26, since these aspects entail demands, meanings, and values that can influence the health/disease process, either towards satisfaction and pleasure or towards suffering and illness.

The focus on illness in men and women teachers

As mentioned above, studies have consistently identified the predominance of problems related to psychological suffering and mental and behavior disorders 7,8,9,21,33,34, musculoskeletal disorders 5,6,35,36,37, and vocal disorders 38,39,40,41,42,43. Studies have reported high rates of such problems, with major increases over time 5,9.

Official statistics from the São Paulo State Health Department point to an increase in the number of teachers on sick leave due to mental and behavior disorders: in 2015 there were 25,849 cases, nearly doubling to 50,046 cases in 2016. The data were similar to those of the Office of the Medical Examiner and Civil Servants' Health in Belo Horizonte, from May 2001 to April 2002, pointing to psychological disorders as the leading cause of sick leave 9. Schoolteachers accounted for 84% of these cases in public employees. This is a nationwide reality in Brazil, with alarming dimensions, persisting over time and with clear signs that the situation is getting worse.

Musculoskeletal disorders and pain are also frequent. Teachers' work overload and psychosocial issues at work are associated with the occurrence or exacerbation of pain ⁴⁴. Teaching work involves activities with biomechanical implications, such as the constant need to write, correct schoolwork, and produce reports. The time reserved for these activities at school is usually not sufficient, and teachers add hours of extra work away from school to their daily routine, increasing the time in which they are exposed to unhealthy posture, often working at an accelerated pace, which increases their musculoskeletal overload. Studies on teaching work attest to the exposure to various types of occupational and environmental risks, including biomechanical risks (carrying heavy weights, physical effort, long periods standing) ³⁶ and psychosocial risks ⁴⁴.

A literature review 41 highlighted the high mean prevalence of vocal problems in teachers, ranging from 20 to 50%, reaching 80%, while prevalence in the general population varied from 6 to 15%, showing an excess rate of 14 to 35%. The most common symptoms were hoarseness, vocal fatigue, and dry throat.

After intense efforts at estimating the frequency of voice problems in teachers, the scenario for studies on voice disorders in teachers branched out in two complementary directions: (a) proposals for the creation of teachers' vocal health programs through the Legislative Branch, with the number of initiatives tripling from 1998-2006 to 1998-2014, totaling 66 initiatives 45,46; (b) the development of intervention studies with potential protective effects on teachers' voices, emphasizing the positive effects of vocal warmup among undergraduate teaching students ⁴⁷ and middle school teachers in public schools 48, voice amplification 49,50, nebulization with saline solution 50,51,52, and semi-occluded vocal tract exercises 53.

Key points in approaches, empirical evidence, and experiences

In short, there were few studies on teachers' health in the 1990s. In the following years, the research output grew gradually, reflecting the increase in teachers' health problems. This increase in research appeared in the latter half of the 2000s. Brazil now boasts an extensive literature on this theme. It is beyond the scope of this article to provide a complete review of the empirical evidence on teachers' health problems, but a brief description of the principal problems serves to highlight their relevance for these workers. The literature consistently identifies an association between teaching and the health problems detected here. At least two literature reviews analyze this research output: Souza & Leite 54, who tracked theses, dissertations, anthologies, and books on the issue from 1997 to 2006, and Cortez et al. 55, who focused on articles from 2003 to 2016.

Although neither of these reviews was exhaustive and each represents only part of the existing research, they furnish interesting data for reflecting on the scientific production on teaching and health in Brazil. Despite some contradictions between these reviews, the material helps understand the specificities of the work in different formats (theses, dissertations, and articles), specific ways of systematically organizing the records, and changes in the breadth and scope of the studies (the first covered up to 2006 and the second up to 2016).

The review by Souza & Leite 54 (1997-2006) emphasizes that the studies focus on the identification of self-reported symptoms and associated diseases, with a predominance of studies on mental health, including stress, burnout, and teacher's malaise. Difficulty in working with multidisciplinarity emerged as one of the main problems: studies in the human sciences showed limited ability to include health-related problems, while those from the "biological field" displayed difficulties in including analyses of the social characteristics of these events, maintaining an individual focus. The review focused mainly on studies on burnout, and even including publications from partnerships between teachers' unions and universities, it does not mention this characteristic. It also groups all the quantitative studies under what it labels as studies with a "biological base", reducing the relevance of contributions by the field of public health/workers' health, which were not properly identified.

The review by Cortez et al. 55 (covering 2003-2016) features a good systematization of the research output, provided by a careful effort at analysis and classification of the collected material. The review underscores the significant development in this field in quantitative terms (many studies in various parts of Brazil) and in the breadth of areas (including all levels of teaching, expanding the previous focus beyond elementary and middle school) and the issues addressed, expanded to include various topics other than diseases.

Besides more traditional items such as contextual aspects of teaching work and physical and psychological illness, broader categories began to emerge, such as health promotion, public policies, work organization, labor legislation, and theoretical and methodological issues. The research was thus shifting towards what we could call a collective field of action, involving public policies and labor laws, moving away from the merely individual side of illness and reclaiming the debate on the regulation of school environments and work management. At least as regards the themes addressed in the studies, this progress was clear, although with obvious limitations, as we will discuss below.

In these two reviews and the literature as a whole, gender issues remained invisible, although ever since the first studies there were efforts to emphasize these issues 26, as in the gender training programs in schools 14,56, as discussed above.

In addition to the issues pertaining to domestic work and gender differences, there are other aspects that should be brought to light in the debates and interventions. These include the regulation of conditions in school environments, including the characteristics of work processes and organization 19 and the recognition of certain health problems as the result of the way the work is organized ^{19,20}, involving demands on the body that often exceed the capacity to meet them without jeopardizing the teacher's health 15,20.

In the specific case of voice disorders, even with consistent empirical evidence in teachers and the association with intensive use of the voice and unfavorable working conditions 57,58, only recently, after 21 years of struggle 57, the Brazilian Ministry of Health issued the Protocol on Work-Related Voice Disorder (WRVD) 43 for management of this disorder in the Brazilian Unified National Health System (SUS), with a focus on workplace surveillance, thereby officially acknowledging WRVD as an occupational disease.

The struggle for recognition of WRVD summarizes an important collective effort, involving the production of scientific evidence and political struggles over the course of more than two decades. The movement, spearheaded by the PUC-SP through voice seminars, takes a non-linear path, revealing strides and setbacks that are characteristic of historical processes 57, marked by the "medical act" agenda, the creation of campaigns celebrating World Voice Day on April 16th (a Brazilian initiative that was taken up globally) 59, and the growth of initiatives in vocal health programs for teachers 45,46. The recognition of WRVD by Brazil's Social Security System was close to happening in 2004, with a key role by the São Paulo State Referral Center for Workers' Health (CEREST-SP), and in 2012, after a public hearing on the WRVD Protocol 57. However, the attempts were unsuccessful in both situations. In 2016, efforts to resume the debate were made by UFBA, UEFS, PUC-SP, Estácio de Sá, and University College London (London/UK). In 2017, the Workers' Health Division of the Ministry of Health set up a technical group that revised the WRVD Protocol, which was finally issued in 2018 43.

Now that the document has been published, the challenge is to implement it, which will require training for the entire SUS network. Publication of the Protocol alone does not guarantee the recognition of voice disorder as work-related, and it is necessary to include it on the list of work-related diseases, establishing compulsory notification, as with mental disorders and RSI/WRMD. At any rate, the publication of this document lent legitimacy to voice disorders in their association with work and represent a victory for collective and cooperative processes, in which diverse groups (researchers, teachers' unions, public administrators, professionals) joined forces in the drafting process. This expresses the best tradition of cooperative networks in the initiatives of the 1990s.

Another relevant note in the overall scenario in this field relates to the actions conducted to address the health problems that were identified. This is a critical node when assessing teachers' health. Despite the lack of more relevant and effective interventions, it is important to identify the existing ones. One such experience is the Program for Teachers' Healthcare and Advancement under the Bahia State Department of Education, targeted to teachers in the state's public school system (http://www.educacao.ba.gov.br/saudedoprofessor). This interdisciplinary program is staffed by speech therapists, psychologists, physical therapists, nutritionists, and social workers.

The program was launched in 2008 through cooperation between the Bahia State Department of Education and the research group from UFBA-UEFS, based on the empirical evidence produced by studies with teachers in Bahia 5. This is one of the few broad, interdisciplinary government initiatives in this field in Brazil. Despite efforts to guarantee interventions in health, little progress was made in building public policies in teachers' health. The proposal is still centered on the treatment of individual health problems, with a limited focus on measures to transform the work or to rethink the factors that generate illness.

The overall characteristics identified in this experience in Bahia are supported by the results of a review of teachers' health interventions in Brazil's public schools from 1990 to 2014 60. Eleven experiences were identified: seven programs developed by Institutions of Higher Education, targeted to public school teachers, and four associated with the public health administration (the SUS or specific departments). These experiences have a specific focus: two for vocal disorders and one for physical activity; only one, developed by a CEREST, was organized according to the principles of workers' health surveillance, with an emphasis on mental health. Some of the actions were associated with teachers' unions.

There have been other initiatives in specific programs for voice disorders: the Vocal Health Extension Project at São Paulo State University (Unesp), on the campus in Marília, São Paulo 61; the Teachers' Vocal Health Program under the São Paulo Teachers' Union (SINPRO-SP) 62; the Teachers' Vocal Health Program at Araraquara University (UNIARA), in Araraquara, São Paulo 63; and the Rio de Janeiro Teachers' Vocal Health Program (http://www.rio.rj.gov.br/documents/91249/4679376/ Program+da+voz+do+professor.pdf).

In short, the few initiatives that have been developed and described are geographically limited and mainly structured according to the biomedical model for intervention.

Final remarks: critical nodes and prospects for future development

The history of studies in teaching work and health in Brazil has shown significant strides in the last two decades. These strides include: (a) a shift of approaches limited to illness processes (assessment of their frequency and distribution according to working conditions) to broader approaches, incorporating issues such as health promotion and public policies; (b) an important increase in the amount of research produced; (c) an expansion of the groups studied to include all levels of teaching, from preschool to university, superseding the initial focus on elementary I and II and middle school.

The broader thematic scope, besides expanding the focus of attention, reveals a relevant movement in understanding the illness processes from a perspective of social production, shifting the attention to collective processes, breaking with the emphasis on individuals, although incipiently.

The process thus acquires greater power and transformative capacity, since the proposed measures extend beyond the individual perspective of action (care with one's voice, posture, and the organizational or relational atmosphere) and includes collective action such as drafting public policies, laws that regulate school environments, and the supply of healthcare and services, among other measures.

Despite these strides, which should be acknowledged and valued, it is relevant to analyze the gaps and contradictions in order to test the limits and produce new strides.

As for the interventions, the experiences described here still feature practices focused on the individual, reinforcing the more traditional references for care targeted to the sick body, with little or no focus on the work environment that produces sickness. The interventions are thus predominantly prescriptive. The programs that have been proposed or are under development do not extend beyond the barrier of clinical approaches. Even in multidisciplinary teams, the intervention remains segmented, with each health professional working on the part authorized by their specific clinical expertise. The actions in education, training, or intervention are still organized in response to the sick body.

The studies that addressed public policies and work processes were limited to assessing the impact of certain policies in the demands on teaching work (reproducing the first studies, such as Esteves 2). They were thus confined within the managerial approach of these policies, focusing on the way these policies exacerbate the difficulties and challenges for teaching work. Aspects pertaining to the work management, organization, and process remain untouched or at most fail to cross the line of simply citing aspects that deserve attention.

In addition, there were gaps in more critical analyses in this field of research. As stated by Cortez et al. 55, only 4% of the studies addressed theoretical or methodological issues. These few studies were basically descriptive and were conducted by research groups from 1987 to 2003, representing efforts that have since been completely abandoned. This issue is fundamentally important for future research endeavors, since the strides needed to achieve more qualified levels of production and interventions require major efforts and investments in reflecting on previous experiences and in the establishment of promising theoretical and methodological frameworks. In other words, the analysis of what was done and how it was done should be focused.

In addition to the assessment of these critical nodes, other elements should be highlighted in this reflexive effort. One of them is the observation that the field appears to have lost force in its linkage with the workers' movements, or at least the research linked to these movements has not been publicized or shared. There is no record of this linkage, not event in reports of experiences. Thus, it is not known whether these linkages still exist, if they have assumed movements that are less organic or with fewer demands, or if they have lost visibility. This represent a loss in the historical base of the field's construction, which in turn can have relevant implications for its transformative potential. It is important to analyze this aspect in light of the more general characteristics of union movements in the current contexts of social precarization of work 18, which undermine workers' organizations. This is a sensitive spot that needs to be revisited.

Another element is the invisibility of gender issues in this debate. The incorporation of elements that problematize the persistent gender asymmetries remains embryonic, although these elements have been present since the first initiatives in the analysis of the relationship between teaching and health 14.56. There is no possibility of substantial progress without rethinking gender differences in the training processes, taking for granted the acquisition of skills, social valuation/devaluation, and the invisibility of housework ^{24,25,26}. These are structuring elements in the distribution of vulnerabilities, thus acting directly on the health status of men and women 32. No progress is possible in preserving teachers' health without addressing these issues.

An important gap remains in the field of interventions, especially in experiences with interventions in the work's organization and processes. The interventions are still limited in school contexts, with health and teaching work as the focus 50,51,52,53. These few experiences emphasize individual preventive measures, involving teachers in the care for their own bodies. At any rate, they are initiatives that break with the tradition of intervention in a sick body and address the assessment of health promotion measures. They thus inaugurate actions that value strategies for the protection of teachers' health.

Interventions in the work's organization and processes need to be prioritized in order to encourage and sustain policies on the regulation of work (its conditions and characteristics), backed by participatory processes. This is a challenge of the highest order for future strides, necessary to reduce the alarming situation of teachers' illness.

The final aspect to be highlighted as a perspective for future studies is the resumption and revitalization of the linkage with the teachers' movement. It is the principal element for guaranteeing an effective basis for overcoming the current situation. The use of research strategies that incorporate workers in the processes of designing, building, and developing knowledge is essential, not only for the theoretical and methodological approach, necessary for knowledge production, but above all for the transformative power it can promote.

Contributors

All the authors participated in all stages of the article: the Essay's conception, identification of the material for inclusion, critical analysis, writing, and approval of the final version.

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Resumo

Este Ensaio discute a temática de trabalho e saúde docente no Brasil. Tem como objetivos: descrever trajetórias iniciais das investigações de saúde do/a professor/a no contexto brasileiro; discutir elementos que consolidaram consenso com relação à caracterização do trabalho e os principais problemas de saúde neste grupo; e sistematizar seus principais avanços e desafios. O Ensaio é organizado com base na experiência de mais de duas décadas em investigações e práticas nessa temática. Valendo-se dessa experiência identificam-se seus movimentos, as evidências acumuladas e perspectivas potenciais de desenvolvimento futuro. Com base nos elementos trazidos à discussão observa-se o crescimento substantivo do campo: do número de investigações, da diversidade e abrangência dos temas abordados, dos grupos de professores/as estudados/as e das experiências de aplicação do conhecimento (programas e intervenções). Apesar desses avanços, as investigações e práticas ainda mantêm a ênfase no indivíduo e na doença, com ausência ou abordagem limitada dos fatores do trabalho (processo e gestão do trabalho) no processo saúde/ doença. Questões relativas aos diferenciais de gênero (no trabalho e na situação de saúde) também permanecem invisíveis. Observa-se pouca articulação de pesquisadores/as e movimentos docentes (uma característica relevante das primeiras iniciativas no campo). Registra-se ausência de políticas públicas de regulação dos ambientes e gestão do trabalho. Os aspectos trazidos à discussão fornecem uma base de reflexão, de modo a auxiliar na identificação de nós críticos e de cenários analíticos com potencial para avançar nesse campo de investigação e de intervenção.

Docentes; Saúde do Trabalhador; Gênero e Saúde; Educação

Resumen

Este Ensayo discute la temática de trabajo y salud docente en Brasil. Tiene como objetivos: describir trayectorias iniciales de investigaciones de salud del/a profesor/a en el contexto brasileño; discutir elementos que consolidaron el consenso referente a la caracterización del trabajo y los principales problemas de salud en este grupo; además de sistematizar sus principales avances y desafíos. El estudio está organizado en base a la experiencia de más de dos décadas en investigaciones y prácticas en esta temática. Valiéndose de esta experiencia se identifican sus movimientos, las evidencias acumuladas y perspectivas potenciales de su desarrollo futuro. En base a los elementos en liza se observa un crecimiento sustancial del área de estudio: número de investigaciones, diversidad y alcance de los temas abordados, grupos de profesores/as estudiados/as, así como de las experiencias de aplicación del conocimiento (programas e intervenciones). A pesar de esos avances, las investigaciones y prácticas todavía mantienen el énfasis en el individuo y en la enfermedad, con ausencia o un enfoque limitado sobre los factores del trabajo (proceso y gestión del trabajo) en el proceso salud/enfermedad. Las cuestiones relacionadas con los diferenciales de género (en el trabajo y situación de salud) también permanecen invisibles. Se observa poca coordinación de investigadores/as y movimientos docentes (una característica relevante de las primeras iniciativas en el área de estudio). Se constata la ausencia de políticas públicas de regulación en entornos y gestión laborales. Los aspectos planteados proporcionan una base de reflexión, con el fin de que ayuden en la identificación de problemas clave y escenarios analíticos con potencial para avanzar en este campo de investigación y de intervención.

Docentes; Salud Laboral; Género y Salud; Educación

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