



## Workers' Health Reference Centers performance in mental health: a survey in Brazil

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*Os Centros de Referências em Saúde do Trabalhador e as ações em saúde mental: um inquérito no Brasil*

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### Abstract

**Introduction:** nowadays mental disorders constitute the third cause for workers' leave. **Objective:** to identify main initiatives in work-related mental health carried out by Workers' Health Reference Centers (CEREST). **Methodology:** descriptive study using online survey conducted with CERESTs in Brazil in 2014. **Results:** 80.1% (n = 161) of the eligible CERESTs took part in this study. Most of them (87.5%) were operating for more than five years, 89.2% were managed with resources from the National Network of Integral Attention in Occupational Health (Renast), 61.3% had good infrastructure and 67.7% had trained staff in mental health care. However, 63.5% did not have social control, only 46.9% provided ambulatory care, 47.8% developed health education activities in Psychosocial Attention Center (CAPS), 40.9% carried out matrix support initiatives, 18.7% had a therapeutic group, 35.5% developed constantly informative activities, 53.2% carried out work environment inspections and 58.8% made a systematic record work-related mental disorders cases in the Notifiable Diseases Information System (SINAN). **Conclusion:** we observed that work-related mental health initiatives carried out by CERESTs are still incipient.

**Keywords:** occupational health; mental health; Brazilian Unified Health System; mental disorders.

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## Introduction

In the world today, the way workers get sick and die changed because of economic restructuring and of the new production and labor management models<sup>1</sup>. According to the National Institute of Social Security (INSS), the number of work accidents in Brazil decreased 7.2% between 2008 and 2010, however, mental and behavioral disorders have not decreased, new medical leaves increasing 0.3% every year, representing 7.1% of money spent on new sickness benefits<sup>2</sup>. Mental disorders are the third cause of sick leave with benefits from INSS, with average annual rate of 9.3% or 34.9/10,000 policyholders, being 6.2% work-related<sup>3</sup>.

Working conditions as determinant factors of the health-disease process have been recognized and included in the Brazilian public health policies since the 1980s, after the sanitary reform, the 1988 Federal Constitution and the creation of the Brazilian Unified Health System (SUS) under law No. 8,080 of September 19, 1990<sup>4-6</sup>.

The occupational health sector gained importance in the SUS in 2002 because of the creation of the National Network for Integral Attention in Occupational Health (Renast), through ordinance GM/MS n° 1.679<sup>7</sup>, whose purpose was to implement public policies for promotion, surveillance and assistance, mostly through Workers' Health Reference Centers (CEREST).

The CERESTs are responsible for coordinating intra- and intersectoral actions regarding occupational health, providing technical support for occupational health initiatives and matrix support to services of SUS Health Attention Network<sup>8-10</sup>. These centers are classified by their range of action: state, regional and municipal levels. Out of this classification is only the state of Sergipe, which does not have a state level center due to its occupational health structure configuration.

CERESTs expansion in Brazil occurred from 2002 to 2012, and in the last year of expansion there were 210 qualified centers spread all over the country according to Economically Active Population (EAP) distribution. Economically Active Population in 2010 was of 86,353,839 workers, in formal and informal jobs, distributed among the country's five regions: 38,111,800 in the Southeast region (44.1%); 20,854,301 in the Northeast region (24.2%); 14,249,772 in the South region (16.5%); 6,875,625 in the Midwest region (8.0%); and 6,262,341 in the North region (7.2%)<sup>11</sup>. The coverage of regional and municipal CERESTs in 2010 has reached 82.5% of the country's EAP<sup>12</sup>.

In over ten years of operation, CERESTs have gradually made advances within SUS, but still insufficient in some specific areas, e.g. work-related mental health, both in initiatives, as in specific public policies and construction of instruments or guiding protocols<sup>13-15</sup>.

Mental health and work have been discussed in studies that point out how hard it is to develop initiatives in this area: absence of protocols or guiding lines for professionals; lack of trained professionals; complexity of relating work and mental disorders; no guarantees of full assistance for workers experiencing work-related mental disorders; and cases becoming invisible because underreported within health information systems<sup>13,14,16-23</sup>.

Occupational Health General Coordination (Ministry of Health), performed two surveys, during 2008-2009 and 2010-2011, called "1st and 2nd Inventories in Workers' Health: Evaluation of the Rede Nacional de Atenção Integral à Saúde do Trabalhador – RENAST (National Network for Integral Attention in Occupational Health), which include facilities, organizational conditions, human resources conditions and initiatives undertaken by CERESTs in Brazil<sup>6,24</sup>. However, we could not find studies on initiatives in the area of mental health and work carried out by these services in the Country.

Given these facts, we may point out that, because of work-related mental disorders topicality and difficulties already identified in initiatives in occupational health care, mental health is one of the most urgent demands for occupational health services. It is important to generate information on CERESTs practices, to the elaboration of effective programs and public policies. In this perspective, the objective of this study was to identify major initiatives in work-related mental health by CERESTs in Brazil.

## Methodology

A descriptive study was conducted through online survey including state, regional and municipal CERESTs. In Brazil, 210 centers were entitled by the Ministry of Health in 2014. Although entitled, five of these have not started functioning until data collection and were considered not eligible for this study. Besides this exclusion criterion we also excluded centers we could not contact by phone or e-mail (n = 4).

Given the exclusion criteria, the total population eligible for the study was 201 CERESTs, 26 at state level and 175 at regional or municipal level, distributed as follows: North region with 7 state

and 12 regional and municipal CERESTs; Northeast region with 8 state and 47 regional and municipal; Midwest region with 4 state and 14 regional and municipal; Southeast region with 4 state and 76 regional and municipal; and South region with 3 state and 26 regional and municipal. From total eligible population (n=201), 161 CERESTs participated in the study, representing a global answer rate of 80.1%.

### Research tool

Data were collected through structured questionnaire entitled "CERESTs and initiatives in work-related Mental Health". The questionnaire has been prepared considering Renast attention model<sup>25</sup>, Network of Psicossocial Attention<sup>26</sup> and National Male and Female Worker's Health Policy (PNSTT)<sup>10</sup>. In the questionnaire elaboration process we included questions that were part of the "1st Inventory in Occupational Health, 2009: Evaluation of the National Network for Integral Attention in Occupational Health (Renast), 2008-2009"<sup>24</sup>, to compare results from inventories with data collected in this research.

For elaboration of the questionnaire and data collection we used *Google Drive*, a storage and synchronization service, which was chosen for being free, public domain and of easy access and management for the researcher and the respondent.

The questionnaire had 55 questions divided into three groups: (I) identification data, (II) organizational level and (III) initiatives developed.

In this study, in groups I and II we assessed issues related to service's structure: 1) state in which CEREST is located; 2) level of action: state, regional and municipal, in which the last two were put together because they have similar structure characteristics and EAP coverage; regional and municipal levels CERESTs were defined thus as regional; 3) respondent position: management (coordinators, directors and managers), psychologist and others (including physician, physiotherapist, nurse and others); 4) years of operation; 5) source of funds received; 6) existence of active management council; 7) have an active Intersectoral Occupational Health Committee (CIST); 8) structure evaluation; 9) permanent materials and equipment evaluation.

With respect to human resources, variables have been included in group II, which evaluated: 1) if the team was compatible with the demand; 2) if the team was compatible with assignments under existing laws; 3) which professionals made up the service's current team; 4) existence of trained professional in mental health care; 5) if yes, what is the professional category; 6) which Network Psicossocial Attention

means are available in the area covered by the CEREST.

In group III regarding developed initiatives we included variables referring to: 1) occupational health care and matrix support: a) ambulatory attendance for harms caused to workers' health; b) ambulatory attendance for assessment of Work-related Mental Disorders (WRMD); c) identification of services to which WRMD cases were referred to; d) permanent education in occupational health at CAPS; e) permanent education in outpatient mental health service; f) informative initiatives for workers in general in mental health and work; g) guarantee of matrix support in mental health initiatives in the SUS; h) if Yes, for which service; i) participation or accomplishment of any research in mental health and work; 2) occupational health surveillance: a) conducting inspections in work environments for investigation of exposure to occupational psychosocial risks; b) WRMD case reporting in the Reportable Disease Information System (SINAN); c) which services are able to notify WRMD; d) existence of services that notified WRMD; e) data dissemination through newsletters or reports with WRMD data in SINAN.

The questionnaire was reviewed by experienced health professionals and pre-tested to verify the level of questions understanding and appropriateness.

### Data collection

Data collection instrument was a virtual questionnaire conducted in the period from October to December 2014. The first contact with CEREST professionals was made by e-mail, informing the purpose of the survey and inviting them to participate, asking them to fill in the questionnaire on the platform, whose access link was in the body of the email. They also received guidance on how to fill in the questionnaire: should be done only once for each service, for these are institutional data and should be, preferably, answered by the coordinator or professional reference in mental health initiatives.

After three contact attempts by e-mail with no return we telephoned the participant for acknowledging receipt of the e-mail, providing information about the research and raising awareness on CEREST professionals to participate. E-mails were sent to institutional addresses of each service and the phone contacts were made primarily with CEREST coordinators; when it has not been possible to do this, contact was made preferably with professionals from the team that worked in mental health area.

## Data analysis

Data analysis was carried out separately for state and regional CERESTs because these services differ in organizational complexity and initiatives. Measures of occurrence were used (absolute and relative).

Data were analyzed through descriptive statistics, which investigated the services features, their structure, team composition and the main initiatives in mental health assistance and care.

## Ethical aspects

The research was approved by the Research Ethics Committee of Universidade Estadual de Feira de Santana, under report no. 778.007, respecting all ethical and legal principles established in resolution no. 466/2012.

## Results

### Structure and human resources

Out of 201 state or regional units eligible for the study, there were 161 responses (80.1%). Among losses (n=40; 19.9%), three (1.5%) were refusals and the others (n=37; 18.4%) did not participate even after contacts by e-mail and phone. Considering the distribution of returns obtained, there was a proportional representation of all Brazil regions greater than or equal to 75%; only one state in the Northern region did not participate. Most respondents were occupying management positions (n=93; 57.8%) or were psychologists (n=39; 24.2%).

The response rate among state CERESTs was 96.2%; thus, in all country's regions we had 100% of responses, except for the Northern region which registered participation of 85.7%, because there was no reply from one service in this region, as already mentioned in the previous paragraph. Among regional CERESTs we obtained responses rate of 77.7%, with variations among regions: North and Southeast regions had the lowest rates (75.0%), along with Northeast region (78.7%), higher responses rates came from South region (80.8%) and Midwest region (85.7%).

Among facilities features of state CERESTs, higher percentage of years of operation was from 9 to 12 years (71.4%); among regional CERESTs there was significant percentage from 5 to 8 years (45.8%) and 9 to 12 years of operation (33.6%) (**Table 1**). Structure was considered excellent or good for 56.0% of state centers and 62.2% of regional centers. Evaluation of permanent materials and equipment was considered excellent or good for almost 65.0% of the state and of regional centers (**Table 1**).

When questioned on financial resources used in service management, 80.0% of state centers and 91.0% of regional centers answered Renast's National Health Fund, followed by 52.0% of state centers that answered they use resources from State Secretariat of Health and 31.6% of regional centers that used resources from Municipal Secretariat of Health (**Table 1**).

Concerning social control, 79.2% of state CERESTs reported that they had no active management council, but in 86.4% of the municipalities there was an active Intersectoral Occupational Health Committee (CIST). Among regional services, 60.7% had no active managing council and 46.7% reported they had a CIST in operation (**Table 1**).

As for human resources, nurse category was the one with higher frequency among state level (96.0%) and regional level (86.8%) professionals, followed by occupational physicians (76.0% and 70.6% respectively). When respondents were asked about their evaluation of the compatibility of the professional team with tasks performed according to current legislation, 62% answered it was always or often compatible. However, in the evaluation of the team in relation to demands of the covered area, these proportions have dropped significantly in state (45.9%) and regional (44.1%) centers (**Table 2**).

More than a half of state (60.0%) and regional (69.6%) CERESTs informed they had trained mental health care professionals, most of them psychologists and physicians, either on state centers (80.0% and 46.7%) or regional centers (88.2% and 31.2%) (**Table 2**).

As for National Psychosocial Attention Network devices available in the area covered by the CEREST, almost all had CAPS installed (n=155, 97.5%); 76.1% (n=121) had alcohol and drugs CAPS and 55.6% (n=88) mental health clinics; 39.6% (n=63) psychiatric hospitals and 12.5% (n=20) other services (data not presented in table).

### Initiatives developed

Concerning initiatives developed to aid workers, 8 state CERESTs (32.0%) reported having an ambulatory for assessment of aggravations in worker's general health; 93 regional centers (68.4%) reported they conduct this activity (data not presented in table).

In the occupational health care area, 20.0% of state centers used mental health outpatient clinics for assessment and relate mental distress with work. Among regional centers, this rate rises to 51.9% (**Table 3**). When data is analyzed just from centers that had a mental health care trained team, rate of state CEREST continued in 20.0%, but among regional centers rate increased to 76.3%.

**Table 1** Characterization of state and regional workers' health reference centers structures. Brazil, 2014

Characteristics (N)	Total		State		Regional	
	N	%	n	%	n	%
Time of operation						
0 to 4 years	19	12.5	-	-	19	14.5
5 to 8 years	63	41.4	3	14.3	60	45.8
9 to 12 years	59	38.8	15	71.4	44	33.6
Over 13 years	11	7.3	3	14.3	8	6.1
Facilities (160)						
Excellent / good	98	61.3	14	56.0	84	62.2
Regular	47	29.4	7	28.0	40	29.6
Poor / terrible	15	9.3	4	16.0	11	8.2
Permanent materials and equipment (161)						
Excellent / good	105	65.2	16	64.0	89	65.4
Regular	44	27.3	6	24.0	38	27.9
Poor / terrible	12	7.5	3	12.0	9	6.7
Financial Resources (158)*						
Renast	141	89.2	20	80.0	121	91.0
State Secretariat of Health	26	16.4	13	52.0	13	9.8
Municipal Secretariat of Health	42	26.5	-	-	42	31.6
Others	17	10.7	3	12.0	14	11.2
Acting management council (159)						
Yes	39	24.6	3	12.5	36	26.7
Under planning or implementation	19	11.9	2	8.3	17	12.6
No	101	63.5	19	79.2	82	60.7
Acting CIST (157)						
Yes	82	52.2	19	86.4	63	46.7
Under planning or implementation	49	31.2	2	9.1	47	34.8
No	26	16.6	1	4.5	25	18.5

\*For this question more than one answer was possible and multiple answers were registered. Therefore, percentages are over 100%.

Workers with WRMD were sent by CERESTs to receive treatment in the following services: CAPS (70.5% of state and 71.2% of regional CERESTs), mental health outpatient clinic of SUS Network Care (35.2% of state and 50.0% of regional centers) and in basic care (approximately 30% of all CERESTs). The treatment of WRMD cases was performed by CEREST using its own services in 23.5% of state and 28.8% of the regional centers (**Table 3**).

Informative initiatives in mental health and work for workers in general were always or frequently performed at 44.0% of state centers; among regional centers, the highest response rate found was *sometimes* (37.6%), indicating that both

in state and regional centers these initiatives were not carried out often.

Permanent education in occupational health in the Network of Psychosocial Attention had the following rates among state and regional CERESTs: CAPS 42.9% and 48.7% respectively and in mental health outpatient clinics 19.1% and 27.3% (**Table 3**). 16.0% of state centers carried out or participated in mental health researches, a lower percentage than regional centers had (12.5%).

Occupational health matrix support was carried out in the area of mental health by 45.8% of state and 40.0% of regional CERESTs, mainly on basic care services (58.3% of state centers and 95.7% of regional centers) and at CAPS (50.0% and 64.3%, respectively) (**Table 3**).

**Table 2** Distribution of human resources of state and regional workers' health reference centers. Brazil, 2014

<i>Characteristics (N)</i>	<i>Total</i>		<i>State</i>		<i>Regional</i>	
	<i>N</i>	<i>%</i>	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>
Professionals who make up the team (161)*						
Administrative assistant	113	70.2	18	72.0	95	69.9
Driver	93	57.8	16	64.0	77	56.6
Nursing technician	107	66.5	20	80.0	87	64.0
Occupational safety technician	91	56.5	10	40.0	81	59.6
Nurse	142	88.2	24	96.0	118	86.8
Social worker	92	57.1	18	72.0	74	54.4
Physical therapist	108	67.1	16	64.0	92	67.6
Psychologist	102	63.4	16	64.0	86	63.2
Occupational physician	115	71.4	19	76.0	96	70.6
General practitioner medical doctor	42	26.1	6	24.0	36	26.5
Psychiatrist	6	3.7	2	8.0	4	2.9
Health physician	25	15.5	17	28.0	18	13.2
Engineer	44	27.3	11	44.0	33	24.2
Others	58	36.0	14	53.8	44	32.3
The team is compatible with tasks performed according to existing legislation (158)						
Always / often	99	62.6	15	62.5	84	62.7
Sometimes	34	21.6	6	25.0	28	20.9
Rarely / never	25	15.8	3	12.5	22	16.4
The team is compatible with demands (160)						
Always / often	71	44.4	11	45.9	60	44.1
Sometimes	52	32.5	8	33.3	44	32.4
Rarely / never	37	23.1	5	20.8	32	23.5
Have a trained professional in mental health care (160)						
Yes	109	68.3	15	60.0	94	69.6
No	51	31.7	10	40.0	41	30.4
Which are these professionals (108)*						
Physician	36	33.3	7	46.7	29	31.2
Psychologist	94	87.1	12	80.0	82	88.2
Occupational therapist	13	12.0	4	26.7	9	9.7
Nurse	24	22.2	5	33.3	19	20.4
Social worker	19	17.6	6	40.0	13	13.4
Physical therapist	11	10.1	2	13.3	9	9.7
Other**	8	7.4	1	6.7	7	7.5

\*For these questions more than one answer was possible and multiple answers were registered. Therefore, percentages are over 100%.

\*\* Included categories with few answers: agronomist, biologist, physician with another specialty, physician with specialization in the area of collective health and health physician in occupational health.

**Table 3** Mental health initiatives carried out by state and regional workers' health reference centers in the areas of workers' health care and matrix support. Brazil, 2014

Initiatives (N)	Total		State		Regional	
	N	%	n	%	n	%
<b>Occupational health care</b>						
<i>Conducts procedures in mental health for assessment and WRMD* connection with work (160)</i>						
Yes	75	46.9	5	20.0	70	51.9
Under planning or implementation	18	11.2	3	12.0	15	11.1
No	67	41.9	17	68.0	50	37.0
<i>For treatment of WRMD* workers are referred to which service (135)**</i>						
CAPS	96	71.1	12	70.5	84	71.2
SUS network mental health outpatient clinic	65	48.1	6	35.2	59	50.0
Basic care	41	30.3	5	29.4	36	30.5
CEREST	38	28.1	4	23.5	34	28.8
Private mental health treatment	22	16.3	4	23.5	18	15.2
Others	6	4.4	2	11.7	4	3.3
<i>Performs initiatives or information campaigns in Mental Health and Work for workers in general (158)</i>						
Always / often	56	35.5	11	44.0	45	33.8
Sometimes	57	36.0	7	28.0	50	37.6
Never / rarely	45	28.5	7	28.0	38	28.6
<i>Performs permanent education in occupational health at CAPS (138)</i>						
Yes	66	47.8	9	42.9	57	48.7
No	72	52.2	12	57.1	60	51.3
<i>Performs permanent education in occupational health at mental health outpatient clinics (138)</i>						
Yes	36	26.0	4	19.1	32	27.3
No	102	74.0	17	80.9	85	72.7
<b>Matrix support in Mental health</b>						
<i>Ensures matrix support in Mental Health and Work for SUS services (159)</i>						
Yes	65	40.9	11	45.8	54	40.0
Under planning or implementation	45	28.3	5	20.8	40	29.6
No	49	30.8	8	33.4	41	30.4
<i>In which services (82)**</i>						
CAPS	51	62.6	6	50.0	45	64.3
Mental health outpatient clinics network	31	37.3	4	33.3	27	38.0
Basic care services	74	90.2	7	58.3	67	95.7
Emergency and urgent services	39	47.6	4	33.3	35	50.0

\*WRMD = work-related mental disorders

\*\*For these questions more than one item was possible and multiple answers were registered. Therefore, percentages are over 100%.

As for initiatives in Occupational Health Surveillance (VISAT), 17 state CERESTs (68.0%) reported they made inspections in work environments, whereas 110 regional centers reported positively (80.9%). Among VISAT initiatives in mental health, approximately half of the state CERESTs (58.3%) and regional centers (52.3%)

reported they made *always* or *frequently* inspections in work environments to investigate exposure to psychosocial risks factors (**Table 4**). When analyzed rate of CERESTs that carried out these initiatives only among those who had a mental health team, we noticed a rate increase: 71.4% of state centers and 58.7% of regional centers.

**Table 4** Mental health initiatives carried out by state and regional workers' health reference centers in the area of workers' health surveillance. Brazil, 2014

Initiatives (N)	Total		State		Regional	
	N	%	n	%	n	%
Carry out inspections in work environments for investigation of exposure to psychosocial risks factors (156)						
Always / often	83	53.2	14	58.3	69	52.3
Sometimes	12	7.7	1	4.2	11	8.3
Never / rarely	61	39.1	9	37.5	52	39.4
Notifies WRMD cases* in SINAN (160)						
Yes	94	58.8	11	44.0	83	61.5
Under planning or implementation	22	13.8	3	12.0	19	14.1
No	44	27.4	11	44.0	33	24.4
There are services on SUS care network qualified for making this notification (143)						
Yes	91	63.6	17	80.9	74	60.6
No	52	36.4	4	19.1	48	39.4
Which are these services (91)**						
CAPS	65	71.4	14	82.4	51	68.9
Mental health outpatient clinic	42	46.1	9	52.9	33	44.6
Basic care services	50	54.9	9	52.9	41	55.4
There are services on SUS care network making this notification (135)						
Yes	66	48.9	12	80.0	54	45.0
No	69	51.1	3	20.0	66	55.0
Which are these services (66)**						
CAPS	32	48.8	6	50.0	26	68.4
Mental health outpatient clinic	12	18.2	2	16.7	10	26.3
Basic care services	32	48.8	6	50.0	26	68.4
Make these notifications known by newsletters or reports (160)						
Yes	29	18.1	8	32.0	21	15.6
Under planning or implementation	46	28.8	7	28.0	39	28.9
No	85	53.1	10	40.0	75	55.6

\*WRMD = work-related mental disorders

\*\*For these questions more than one item was possible and multiple answers were registered. Therefore, percentages are over 100%.

WRMD cases notification in SINAN were made in 44.0% of state services and 61.5% of regional services. Most of state CERESTs (80.9%) and regional CERESTs (60.6%) reported that there were services on the Network of Health Care capable of notifying WRMD cases, mainly CAPS, with percentage of 82.4% of state and 68.9% regional centers (Table 4).

Based on the information obtained, we made calculations to ascertain the percentage of services that had been trained to notify WRMD cases and those that actually registered the cases: 70.6% (12/17) of state qualified centers and 72.9% (54/74) of regional qualified centers. CAPS and basic care services stood out among notifying services with similar percentages, 50.0% of state services and

68.4% of regional services. Making public these notifications through newsletters or reports recorded low percentages: 32.0% of state services and 15.6% of regional services (Table 4).

## Discussion

Overall, CERESTs had at least five years of operation, their facilities, permanent equipment and materials were considered good, what was a favorable factor to proper functioning. However, concerning this aspect, it is noteworthy that, even though most reported they had adequate infrastructure, a significant percentage of centers

(more than a third of regional centers and nearly half of state centers) reported inadequate conditions; this is a contradiction that still deserves attention from management offices.

Most teams were compatible with legal demands, but there was no compatibility with demand of the area covered by the CEREST. Comparing these data with those obtained in surveys conducted in CERESTs by Renast in the 2008-2009<sup>24</sup> and 2010-2011<sup>6</sup> periods, we observed similar results in facility conditions, equipment, materials and human resources. However, the percentage of good or excellent team adequacy, considering the area demands is decreasing 5 to 15% over the years. We observed then that CERESTs had throughout this period managed to maintain good facilities and human resources, but has increasingly been unable to meet occupational health demands. Regional CEREST teams inadequacy to demands may be explained by the fact that some of these services have been carrying out initiatives only in municipalities where they are located<sup>20</sup>; and thus demands of workers from other municipalities within their range of action are not met. This is a crucial dilemma to be tackled in all regional centers initiatives: how to make sure that initiatives are, in fact, regional, based on a model whose service management is bound just to the administration of the municipality where it is located? This is an issue that deserves wide and deep reflection in search of more promising and efficient models to manage these services in a wide geographical area.

Occupational health funding is a responsibility of three spheres of government<sup>10,27</sup>, but it is understood from this study that only Renast National Health Fund has been destined to CERESTs, often the sole financial resource, for only half of these state centers count with state budget and a quarter of regional centers with municipal budget. We noticed that Renast resources have made possible for CERESTs to keep good structures and human resources to maintain their activities, but not to meet demands of the area they cover. The fact that state and municipal budget is not destined to reference services in occupational health, as stated above, may explain why regional centers only carry out initiatives in their own municipality<sup>20</sup>. Without municipal financial aid, travel expenses become a drawback. It is important to highlight the relevance of financial issues as hindrance to initiatives, restricting them considerably, for although CERESTs have regional coverage, they are managed by a municipality.

Community participation is one of SUS principles, established in 1988 Federal Constitution<sup>28</sup> and highlighted on PNSTT<sup>10</sup>, guaranteeing workers' participation in the formulation, planning, and

evaluation of public policies. This participation is assured by social control devices. Data obtained showed that this participation has decreased over the past six years, mostly in management councils in regional centers, whose proportion has decreased by half when compared to data from Renast's 1st inventory for the year of 2008<sup>12,29</sup>.

The first social movements in favor of occupational health began in the early 1970s, with the participation of workers' social movements – driven by the strengthening of trade union movements – and it was pivotal in formulating and defending proposals in national health policies<sup>4-5</sup>. This picture, however, contrasts with present moment at which we observe a backflow in social participation, mostly because trade union movements are weakened and fragmented, setting a stage of low social participation in decision-making processes, as noticed also in other studies<sup>4</sup>. It is thus necessary to establish strategies to encourage a more active participation of these agents, so that public policies development may be more efficient and based on collective interests.

CERESTs had in general adequate structures and qualified mental health care staff, which did not guarantee the development of initiatives in this area for most of them and these initiatives, when developed, were developed unequally in the country, as mentioned before<sup>30</sup>. So in Brazil there is no uniformity of work-related mental health practices.

We observed that, according to data obtained, support initiatives have been more often developed in regional units than in state units – as would be expected because state CERESTs function as a technical backup for the entire state<sup>7</sup>.

Establishing relations of injury with work is the main goal of outpatient occupational health centers, but it turns out that the establishment of such a relation with mental disorders is still a challenge. However, this issue has been discussed in a few research and scientific papers only recently and there are still no mechanisms and technical documents commonly accepted or widely spread and recognized that could guide professionals<sup>31</sup>. These difficulties are mostly due to complex relationships between mental disorders and work, besides the fact of work-related mental health be permeated by two programmatic areas, mental health and occupational health, which for decades have been acting in isolation<sup>13</sup>.

Occupational health public policies historically prioritized, until today, initiatives towards reaffirming the existence of a relationship between work and health/disease process. Despite more than 20 years of implementation of SUS public policies,

work is still not commonly recognized as illness determining factor. For example, in mental health still prevail conceptions of psychic suffering as a result only of intrapsychic conflicts, developed during childhood, experienced in sexuality or in the family, at the expense of a broader view that takes into account other spheres of individuals lives and of collectivity, as the work environment<sup>13,32</sup>. So, initiatives involving mental health and work have not been carried out in an integrated manner or cooperatively by these two areas (Mental Health and Occupational Health), demonstrating lack of support for workers' mental health<sup>13,14</sup>.

According to PNSTT<sup>10</sup>, outpatient ambulatory service specialized in mental health must suspect or identify the relation with work, articulated with CEREST team whenever necessary, besides being responsible for assessment, treatment and rehabilitation, already part of its functions. In accordance with the existing public policies, this study showed that, with regard to treatment of cases identified, these were often referred to the Network of Psychosocial Attention, especially to CAPS, mental health and primary health care outpatient clinics. But it was also significant the number of CERESTs which worked under the support logic, as a gateway to workers, with a clinic for care and treatment of harms to workers' health, as noted also in other studies<sup>30,33,34</sup>. The fact that mental health professionals are often trained and prepared to act individually<sup>13</sup> may contribute to this, for usually they are not prepared to develop collective initiatives in which work is an important factor for building subjectivity.

Another important factor that may contribute to CEREST professionals develop support initiatives, despite the existing regulations, is the small number of mental health outpatient clinics throughout the country. Not having a service to report identified cases contribute to this responsibility be assumed by CEREST. These outpatient services are reference above all in cases of minor mental disorders, considered less serious<sup>35</sup>, which are often WRMD cases. Today there are more than two thousand CAPS in Brazil<sup>36</sup>, covering almost all municipalities participating in this research. On the other hand, the existence of mental health outpatient clinics were missing in half of the sites studied. It is important to notice that outpatient mental health clinics, although regulated by ordinance SAS/MS No. 224, from 1992<sup>37</sup>, they are not cited in ordinance No. 3.088, from 2011, which established the Network of Psychosocial Attention<sup>26</sup>. So, when available, these devices have worked in isolation, without coordination with the health care network, undermining thus guarantee of integral care to users<sup>35</sup>.

Permanent education initiatives and matrix support in other SUS services are of the utmost importance, since worker's health demands intersectoral actions that should be incorporated by all Health Care Network services, as described in PNSTT<sup>10</sup>, which states that only increasing capacity of identifying the relationship between work and health/disease process may thus ensure workers integral care.

Despite this and other SUS policies highlight matrix support as a very important tool in the construction and deployment of the Health Network, it was observed that few CERESTs carried out matrix support initiatives, understood as intersectoral actions carried out by a multi-professional team from reference centers alongside teams from SUS, aiming at expanding clinical practice, promoting and surveilling occupational health<sup>10</sup>. It is important to emphasize that among centers that were providing matrix support, almost all did it along Family Health Strategy units, gateway to SUS users and Health Care Network organizer. Initiatives thus developed at this level are priorities to occupational health policies<sup>10</sup>.

Whereas assessment, treatment and establishing relations between sickness and work are important to guarantee occupational health promotion, VISAT initiatives are essential to prevent new cases of illness in work environment. As preconized by public policies, VISAT is a priority for occupational health services<sup>10</sup> and should occupy a central position in intervention on social determinants in occupational health, given that individual support initiatives have little impact collectively in promoting prevention of diseases.

We observed that inspection and investigation of psychosocial risks are still insufficient among CERESTs, if we consider that only half of the centers carried them out. This can be explained by almost inexistence of technical documents, technologies and research in this area that includes mental health in occupational health surveillance, only found quite recently one study published in the area<sup>23</sup>. It is important to highlight one more time restraints in mental health professional training, for whom work has systematically been denied as a locus of subjectivity building and, therefore, of mental illness<sup>13</sup>.

Besides difficulties known for developing VISAT initiatives, we may point out: lack of trained professionals, explained by the difficulty in training within surveillance logic and limitation in initiatives that may be developed, since many professionals do not have health authority to conduct inspections<sup>1</sup>. Surveillance actions are necessary for improvement

of work environments and for promotion and prevention of new cases of occupational illness.

Injuries notification in health information systems is a very important tool to foster knowledge gathering on morbimortality and planning promotion and prevention initiatives. Notification of threats to workers' health, mainly occupational accidents, is already more embedded in health professional practices, but WRMD notification has been a challenge for SUS<sup>21</sup>. We point out that this initiative was the one that CEREST professionals informed to carry out the most, but that still remains incipient.

In a recent study<sup>21</sup> on WRMD notifications, registered cases on SINAN and INSS were compared, highlighting that in the period from 2006 to 2012, INSS registered 38 WRMD cases to one case registered by SINAN, despite INSS be a system exclusive for formal workers, whereas SINAN has universal coverage and must notify cases of formal and informal workers. Although INSS attends only half of the country's working population, WRMD record is exponentially higher than in SINAN.

The study also revealed that notifications in SINAN have been recorded almost exclusively by CERESTs, accounting for 71.0% of the cases registered in that period; basic care services and CAPS had no meaningful participation in registered notifications (8.4% and 6.2% respectively). Despite this, Oliveira<sup>21</sup> points out that, during the six years analyzed (from 2006 to 2012), notifications in SINAN have increased gradually.

Altogether, these data seem to indicate that: (a) there are still many improvements to be achieved in this field, even considering the current services network – as only 58.8% of the services systematically registered WRMD cases in SINAN, there is a significant margin of possible expansion of these initiatives, incorporating this activity in all existing services, what would increase cases identification, approximating data available to reality; (b) even with the limitations highlighted, there has been a continuous process, albeit slow and located, of systematic registry of TRMT in SINAN by basic care services and CAPS<sup>21</sup>.

Disclosure of notifications is inexpressive at all CERESTs, even if we consider monitoring

and assessment of worker's health indicators as essential instruments in the evaluation of the epidemiological profile of workers' illness, to guide action planning effective and rationally<sup>10</sup>. Little emphasis on diagnosis and knowledge based on empirical evidences are also verified by little incentive and support given to studies and researches. Knowledge production is a good strategy for determining initiatives and priorities capable of meeting adequate and satisfactorily real existing demands. It is also a very useful tool to support creation of standards, mechanisms and tools to resolve problems that Renast tackles. Thus, the use of existing, easy to access data and its incorporation in initiatives planning process and in diagnosing concrete health-related situations are mechanisms that may contribute effectively to the development of initiatives in occupational health and should be strengthened and encouraged.

There is a pressing need of new studies and researches that aim at developing tools and guidance protocols to health professionals acting in this complex area of work-related mental health, mostly in health surveillance, focusing on health promotion and reduction/extinction of harms to workers. Moreover, public policies and strategies should be created to promote initiatives towards integral care of workers having work-related mental disorders and to prevent such disorders.

## Conclusions

We conclude that work-related mental health initiatives carried out by CERESTs are still incipient, both in assistance and in health education and health surveillance. We identified from data gathered and from previous studies that mental health has not been a priority for SUS in the occupational health area. We point out thus initiatives importance when carried out by workers' health reference centers, as well as intersectoral actions involving these centers and the Network of Psychosocial Attention, for only with such initiatives it will be possible to advance and provide integral care to workers with work-related mental disorders.

## Authors' contribution

Cardoso MCB.: responsible for the study's design, tool development, data collection and analysis, preparation of the article and final review. Araújo TM.: responsible for research orientation, participation in the methodology design and critical review of the manuscript.

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