# ENVIRONMENTAL EDUCATION IN THE FAMILY HEALTH STRATEGY: AN INTERVENTION FOR WORKER'S HEALTH

Carliuza Oriente Luna\*
Marta Regina Cezar-Vaz\*\*
Clarice Alves Bonow\*\*\*

## **ABSTRACT**

The objective was to build a process of educational intervention with Family Health Strategy professionals aiming to recognize and understand the extent of socio-environmental problems and their consequences through Environmental Education as a training method in the field of occupational health. A descriptive-exploratory intervention study was conducted, including four meetings with health professionals and fishermen, users of a health unit. Data collection took place through access to databases, conversation wheels and a workshop. Data was based on the precepts of Environmental Education and resulted in three themes: community profile; health surveillance in the Basic Family Health Unit; and mobility of the notification. Referrals in line with diseases that are common to the labor activity of the territory were observed, as well as a low rate of notification of work-related injuries, erroneous nomenclatures in the forms used by professionals, and lack of permanent mechanisms that give visibility and effective consideration to the work category. There were improvements in the indicators of notifications after interventions, as well as of provision of services to the target population.

Keywords: Environmental Education. Occupational Health. Public Health Surveillance. Family Health Strategy.

### INTRODUCTION

Environmental Education (EE) is a social praxis that emancipates people through dialogic and reflexive processes that transform realities<sup>(1)</sup>, generating new knowledge and thoughts that support the production of care in the health field<sup>(2)</sup>. It is proposed that this reflexive process must be constructed in daily work relations according to EE principles. It is therefore fundamental to know which EE strategies are pointed out in the field of worker health to assist in their effectiveness.

Based on Primary Health Care (PHC) as a promoter and integrator of health surveillance, subsidizing changes in work processes in order to meet the social needs established in the territories<sup>(3)</sup>, EE foundations indicate that educating towards citizenship means to approaching the potential of political action in order to contribute to formingcollectivegroups responsible for the world they inhabit<sup>(4)</sup>. This sort of education, consequently, generates the necessary changes, in this case, in the work environment of the Family Health Strategy (FHS) and the affiliated community that reach pertinent responses to collective health. In the literature, the study of EE in the FHS strengthens professionals to face socio-environmental determinants and, consequently, the prevention of

environmental problems<sup>(5)</sup>.

It is also believed that the professional action in favor of this construction must be in accomplishment of effective and fundamental critical actions, and that the reflexive recognition of the working environment and of the wider environment (community and nature) is indispensable. Likewise, it is important to carry out a constant process of promotion and integral and contextualized development of the team, focusing on the circumstances and problems in order to allow actions in relation to EE in the process of working with the community<sup>(3)</sup>.

In this sense, integral care to workers' health emphasizes the principles of the Unified Health System (SUS), considering as inseparable the actions of promotion, protection, surveillance and health care, including rehabilitation, with the participation of workers as social subjects and actors in all phases of the processes. It is fundamental to construct moments of collective meetings between the health teams and the local community in order to deal with relevant issues<sup>(6)</sup>. We reiterate, therefore, the actions of Occupational Health Surveillance (OHS) that, in addition to these aspects, needs to articulate knowledge, evaluate the impact of the measures adopted, and use various information systems to

\*\*\*Nurse. PhD in Nursing. Adjunct Professor at Department of Nursing, Federal University of Pelotas. Pelotas, RS, Brazil. E-mail: daricebonow@gmail.com

understand the perception of illnesses, risks and vulnerability to which workers are exposed<sup>(7)</sup>.

When reflecting on the practices of both health professionals and local workers in the affiliated community, it is evident that the relations established in the productive processes are responsible for the degradation of the environment and of the work environments as well asfor the health damages and problems that affect the general population, the workers in particular. In this context, the performance of FHS professionals is related to the knowledge they haveto perceive and intervene on the health-work-disease process, recognizing important indicators that bring their practices close to community needs.

Therefore, the importance of investigating the relationship with one of the local workers' groups, in this case the group of fishermen, is justified. Fisheryhas precarious working conditions, involves great physical effort, exposure to climatic variations, contact with pathological agents due to lack of sanitation, low schooling and income; all of these characteristics causes this profession to be among the most dangerous jobs<sup>(8-9)</sup>. Based on this reality, the objective is to build a process of educational intervention with FHS professionals to recognize and understand the extent of socio-environmental problems and their consequences through EE as a training method in the health field of workers, providing a reflection on their practices, recognizing and informing through the act of notification in the different forms of wear and damages to the health of workers through the analysis of the way of life and work in a given territory.

### **METHODOLOGY**

This is a descriptive-exploratory interventional study that worked with the real on the move<sup>(10)</sup> identifying problems, needs and determinant factors for sicknesses in a given territory belonging to the municipality of Rio Grande, located at the extreme south of Rio Grande do Sul which has approximately 207,036 inhabitants<sup>(11)</sup>.

For this analysis, context chosen was the FHS due to its historicity, guidelines and strategies, which by bringing the health professional closer to the communities and consequently causing a greater and better recognition of local problems, is characterized as a very important service for the fulfillment of the recommendations established by SUS<sup>(12)</sup>.

One BFHU that presented as a priority characteristic the territorial predominance of

homogeneity of a given labor activitywas selected. The predominant activity in this case was fishery with artisanal production and extraction. The unit wascreated approximately seven years ago, is located 48 km away from the central region of the municipality and has 04 CHAs, 01 Physician, 01 Nursing Assistant and 01 Nurse, who participated in the intervention process recommended by the present study. The participants develop their work activities and met the criteria for inclusion and exclusion of subjects in the research, with at least one year of performance in the FHS. The BFHU provides care for a population of 403 families, 1022 people, of which 311 are artisanal fishing workers (183 men and 128 women).

The study had three stages that aimed, firstly, to identify the problems, needs and determinants of workloads of the fishing community (preintervention); to carry out an objective action that could gather health and fishing workers in order to make decisions about the organization and management of health care and productive processes<sup>(13)</sup> (intervention); and then evaluate their impact through the analysis of indicators originating in the studied territory, based on the notification history of this service.

For the conduction of the first stage, quantitative data of the BFHU was investigated by means of a survey of the demand of request for specialties through the data contained in the Central of Scheduling of Specialized Consultations (CSSC) of the municipality, paying attention to the references to specialties that are compatible with potentially occupational risk/diseases linked to artisanal fishing. In addition, the Worker's Health Information System (WHIS) and the Primary Care Information System (PCIS) databases were monitored.

The second stage had four longitudinal encounters conductedfrom September 2013 to May 2014. The first three were formed through "talk wheels" (14) and the last one was developed through the method of "Workshop" prepared with basis on EA principles, with emphasis on labor practice and health of fishing workers.

These activities counted on different appropriations, with the presence of a coordinator and a rapporteur, and were carried out as follows: the first three meetings had the participation of health professionals, artisanal fishery workers and managers of the Municipal Government of Rio Grande, including the Fishery and Health Departments, as well as a representative of the Regional Center of

Occupational Health (CEREST).

The proposal consisted ina dialogue on the problems of their territories and their work processes focusing specifically on health problems in the area covered, their relationship with the work activity of users, and the actions of the unit to assist in this confrontation. The importance of notification of workrelated injuries in the loco-regional construction of effective actions was also highlighted, as well as the recognition of occupational diseases and their impact on the community. After the first and second meeting, it was sought to discuss the local demands generated after the discussions and the sensitization of professionals and community. Seeking to know the factors that stimulate or not the health actions after the first meeting, a collective view of problems linked tothe relationship between environment, work and health was adopted.

Only the health professionals of the BFHU included in the study (three CHAs, one Nursing Assistant, one Nurse and one Physician) participated in the fourth meeting, held in May 2014. The activity was carried out at the workplace, lasting approximately 90 minutes, and consisted in a workshop about the relation between environment, work and health, and the role of health professionals in the construction of health surveillance for workers. The workshop had four stages: (a) introduction of the theme and the researcher; (b) association of ideas with the words environment-work-health: (c) recall of memories of accidents/illnesses related to the work activity of the local community; and (d) health prevention/promotion actions triggered by the FHS team from data sources rescued in the first stage and empirical knowledge of the reality of the community.

In the first stage (a), the initial moments were intended to introduce the facilitator of the activity, as well as the objectives and procedures that would be used. In order to keep records of the information, a sequence was standardized, and the records were thus arranged: (1) recording information about the participants; (2) registration of the words associated with environment-work-health; (3) recording of discussions; and (4) individual and general observations on the dynamics developed at the meeting<sup>(15)</sup>.

After this stage, an activity of brainstorm of ideas with the words environment-work-healthtook place. Individual words were placed on a flipchart and were later related to each other by the group. Fifteen minutes were assigned for completion of this activity, which

sought to mobilize the group to think on the theme. In the next stage, there was a conversation about the care provided for occupational illnesses/accidentsin the local service; fifteen minutes were assigned for completion of this activity of reports from professionals. They were then asked to reflect on the behavior and manner of action of the employees involved in the situations recognized by the team, covering at the moment risk situations in three aspects: without recognition, with partial recognition, and with recognition.

In the third activity, to which 45 minutes were assigned, there was a dialogue about the aspects related to the service provided recognized by the team, their relation with the local work activity, the behavior of workers observed by the team toward risks in the profession that they carry on, and the possibilities of assistance by the FHS team regarding prevention and health promotion actions for these workers, based on the following questions: (a) what kind of situations that cause health problems are preventable?; (b) what instruments could be used to recognize and prepare local actions?; (c) how does the team could act to assist local workers? In this stage, a dynamics called "Bottle Challenge" was performed; the purpose of the dynamicswas to solve problems/activities in a team work. This gave the group the opportunity to solve a challenge as a team. After the end, the participants were asked to briefly report on paper their impression about the activities proposed to the group.

Data analysis was based on the precepts of environmental education<sup>(1-3)</sup> related to the raw data of the Center of Scheduling Specialized Consultations of the municipality, the Worker's Health Information System and the Primary Care Information System. The data set was formalized through the intervention process (pre-intervention, intervention and post-intervention) and resulted in three themes, namely: community profile; health surveillance in the BFHU; and mobility of the notification.

The project was approved by the Research Ethics Committee (Opinion no 109/2010), complying with Resolution 466/2012 and supporting the request and the institutional release for access to databases and sectors and the implementation of interventions. All the participants who shared in the interventions were clarified as to the theme and the objectives of the study and signed the Informed Consent Form.

### RESULTS AND DISCUSSION

The results are organized considering the stages of the intervention, namely: pre-intervention, intervention and post-intervention.

## First stage - pre-intervention: community profile

During the pre-intervention, it was essential to

recognize the area to be studied by identifying the community profile. This was done based on the information documented by the BFHU professionals, data from the PCIS and the demand for specialties from the BFHU to the CSSC for the BFHU under study, according to Box 1 below:

Description	Absolut number		
Number of families/people served	403 families/1022 people		
Number of fishing workers	311		
Number of people with Hypertension/Diabetes	236/37		

Box 1. Characteristics of the local community of the Basic Family Health Unit of under study. Rio Grande (2014))

It was observed that the five specialties most referenced by the unit in the first half of 2013 were neurology (53), cardiology/angiology (50), ophthalmology/traumatology (22), urologist (19), and dermatologist (18). This data had to be collected before the intervention in order to guide the study of the most common pathologies and injuries in the locality, bringing to the discussions of the group work the possibilities of nexus with the work activity.

In this analysis, it is worth noting that health professionals reported their concern about the use of controlled medications and their comments that the major impacts on fishing workers are centered on mental, respiratory, and urinary diseasesas well as non communicable diseases. Thus, the profile of sicknesses in thepopulation of the territory covered by the BFHU studied is not far from the one highlighted in the literature concerning the occupational health of

fishermen, in which the major complications would be problems involving the musculoskeletal system, skin lesions, ophthalmological allergies, and respiratory, urogenital and sexually transmitted diseases (8-9). However, although data on referral to specialties are similar to those reported in the literature, the illnesses (Box 2) reported by this unit in the last five years, prior to the intervention, did not stand out the same way. Only two reports of occupational injuries/accidents were reported, being only one of the fishing sector. This result intensifies the justification already expressed for the realization of this study and strengthens the lack of compliance on the part of the professionals of recognition of health problems related to work practice, enhancing their invisibility and turningthe preventive measures in the scope of the SUS precarious<sup>(13)</sup>.

Year	Total general	Total FHS	Total BFHU of the study	Notification of general fishing	Notification of fishing FHS	Notification of fishing BFHU
2008	897	11	01	10	00	00
2009	760	11	00	04	00	00
2010	606	10	00	01	00	00
2011	575	22	00	04	01	00
2012	981	24	00	05	00	00

**Box 2.** Notifications to the Worker's Health Information System; pre-intervention. Rio Grande (2014)

The practice of health surveillance as an exercise of sanitary responsibility over the territory by the PHC should integrate the permanent analysis of the health situation of the population, finding in the information systems an ally for this observation, as long as the facts occurred in its site of action be portrayed<sup>(6)</sup>, because the deepening of actions in workers' health will only be possible when visibility to the injuries be attributed, allowing the understanding of the phenomenon and the establishment of actions that will generate individual and collective changes<sup>(16)</sup>. It is necessary to have EE principles that include the articulated approach of local,

regional, national and global environmental issues and the recognition and respect for plurality and individual and cultural diversity, for individuals and communities can build values, knowledge, skills, attitudes and competences aimed at changing social perception<sup>(17)</sup>.

# Second stage - intervention: health surveillance in the BFHU

Because the FHS is considered the main strategy to reorient the health care model, seeking, as a priority, to move from a model focused on disease and cure to a

model focused on disease prevention and health promotion<sup>(12)</sup>, the initial meetings of the research sought to know the realities of the studied territory. Emphasis was given to local characteristics, but also to the need of professionals to reflectmore on their work process. The observation and description of the activity showed the various complaints about their workload due to large demand, often leaving the task of giving consultation to observe or even dedicate themselves to collective and more effective actions. As for the dialogue about the importance of health surveillance in the structuring of work and the issuing of notifications work-related injuries/accidents, professionals made clear that this would constitute one more duty, showing dissatisfaction and seriousness during the activities. It is imperative to buildactions that arise from local health needs rather than from vertical programs, and professionals must know and understand the area of activity by building operational interfaces with the difficulties mentioned above, which include the work overload, the unpreparedness of the team to deal with the theme discussed here and the lack of institutional support<sup>(18)</sup>.

The participation of the community highlighted several aspects, the main one being the perception that the activity would have repercussions in the recognition of occupational diseases on the part of professionals, often having its nexus denied by the social security system, according the report. Besides requiring a more effective assistance from health professionals, although acknowledging the heavy workload of such professionals, community members complain about the difficult access to services, mainly due to the specific nature of the fishing profession that diverges in parts from the intentionality of creating the FHS for the reassessment of the care model, in which the principles of universality, equity, accessibility, bonding, continuity of care, accountability, integrality of care, humanization and social participation would be rooted in the follow-up of families in theassigned area<sup>(3)</sup>.

In the last intervention carried out directly in the workplace of the health professionals, it was possible to observe that they were participative, interested in carrying out the proposed activities, and reported their difficulties and anxieties regarding the work environments. It is worth highlighting the adequacy of the service to the demands and the dialogue held in the second meeting with the community. The team work dynamics included the different consultations and care measures to the fishing workers to meet their specificities. The discussion included the fact that knowledge of productive activities, epidemiological profile and vulnerability situations of the population should be incorporated into theaction plan of the health unit, with mapping of the territory and discussion with local residents. The goal is that these health promotion actions include the recognition of work as an opportunity, empowering workers through knowledge and information about the environment-work-health relationship, as in Australia<sup>(19)</sup>.

At this stage, the EE principle highlighting the humanistic, holistic, democratic and participatory approach and of course the need to conceive the environment as a whole and to recognize that environmental problems are complex and therefore require solutions involving an integrated understanding that serves the different socio-environmental needs becomes visible<sup>(17)</sup>.

## Third stage - post-intervention: mobility of the notification

As highlighted in the methodological construction, at that moment the evaluation of notification data that may have undergone some alteration through the interventions developed was carried out in the third stage. Box 3 shows data for the period from September 2013 to September 2014, consistent with the intervention and post-intervention (four months) period, according to the temporality of the project.

Box 3 shows the increased notifications by the studied unit in which there was a greater extent (13 notifications) in a period of one year than in the 05 years previously observed (02 reports). All notifications of that one year were related to the workactivity of the territory, i.e., fishing. Notably, the interventions with the community caused users to request the notification of their disease/accident when accessed the unit by recognizing the importance for theremodeling of the system and for their protection as workers.

Year	Total of the	Total of	Total BFHU	Notification of	Notification of	Notification of
	period	FHS	of the study	general fishing	fishing FHS	fishing BFHU
2013	618	21	05	14	08	05
(Sept-Dec)						
2014	1158	55	08	23	14	08
(Jan-Sept)						

Box 3. Notifications to the Worker's Health Information System; post-intervention. Rio Grande (2014)

It is also worth noting that, when comparing the data contained in WHIS and PCIS, there was anincongruence between the systems: the latter showed a higher reference number of work accidents in the year 2013 (56 notifications) compared to the data from the WHIS for the same period (21 notifications), only with regard to the FHS. Moreover, in the year 2014, there was only one report in the PCIS of a work accident against 55 in the WHIS. When discussing these issues in the interventions, it was possible to detect the mis understanding on the part of FHS professionals about the symbol "AA" on the PCIS form, which some interpreted, despite of the existence of a manual for clarification, as Work Attestation for purposes of justification to work absenteeism, listing the quantity issued in the month. This fact is of utmost importance, since it is perceived that notification is one of the pointsable to reverse the current underregistration framework and give visibility to the problems, allowing occupational health problems to enter into the technical agenda and policy of managers and into the agenda of social control<sup>(6)</sup>.

It was observed that the permanent critical evaluation of the educational process assists in the change of actions, as well as in the construction of differentiated citizens who want improvements in living conditions. For this, these citizens participate in the formulation and reformulation of health care for collectivities. Ethics, education, work and social practices related to environmental education also contribute to this goal<sup>(17,20)</sup>.

## FINAL CONSIDERATIONS

The intervention process, both the conversation wheel and the workshops, made it possible for the professionals to meet at an unparalleled moment to dialogue with each other and with the community about a common problem. It also brought important observations through the need for professional education to be referenced to the world of work, but also with the guarantee of continuity and permanence of the educational process, aprinciple of EE. The

methodology should be dynamic to be appropriated by the health services, counting with community participation and being in touch with local interests, seeking a rational and intentional awakening, improving the daily training of the work itself.

Professional training is a constant process. Therefore, the need for moments of reflection, as for example dialogue and/or use of workshops, according to the proposal of this study, is very important. This way the professionals and the community will be able to recognize the practice of each one in favor of a larger collectivity, the health of the territory, considering its internal and external influences and its organizational form. To this end, professionals should note that the educational process is not only created by a policy, since it is put there through the act of work itself. Thus, when fishing workers came to the meeting to discuss issues related to the environment-workhealth relationship and reported that they had thought that their distress would be met in recognition of the work-related pathologies to which they are exposed, they were right. The action and the performance of the professionals and of the community itself are able to generate information about their territory and these, in turn, awaken the actors to the thought about the act itself and, thus, to be transformative. In addition, by recognizing the knowledge of the other, and reflecting on the reality, the focus of health work is broadened and community participation is stimulated in the analysis and search for collective solutions to local problems. In this study, it was observed that the methodological process used, involving the EE constructs, was satisfactory and demonstrated a reflection on the action of health professionals in the field of worker health, defending the position that the whole formative act should be continuous and dialogical within the FHS. The objective of the study was met; the educational intervention aided in the interaction of the health professionals with the fishing workers andbrought improvements to the daily care of these users, besides positively reflecting on the supply of information systems regarding workers' health.

# EDUCAÇÃO AMBIENTAL NA ESTRATÉGIA SAÚDE DA FAMÍLIA: UMA INTERVENÇÃO PARA A SAÚDE DO TRABALHADOR

#### **RESUMO**

Objetivou-se construir um processo de intervenção educativa com os profissionais da Estratégia Saúde da Família visando reconhecer e compreender a gravidade dos problemas socioambientais e suas consequências por meio da Educação Ambiental como método formador no campo da saúde do trabalhador. Realizou-se estudo de intervenção, descritivo-exploratório, que contou com quatro encontros realizados com os profissionais de saúde e com pescadores, usuários de uma unidade de saúde. A coleta de dados ocorreu por meio de acesso a banco de dados, rodas de conversas e oficina. A análise

dos dados baseou-se nos preceitos da Educação Ambiental, a qual resultou em três temas agrupados: perfil da comunidade; vigilância em saúde na Unidade Básica Saúde da Família; e mobilidade da notificação. Observaram-se encaminhamentos condizentes com os acometimentos comuns à atividade laboral do território, além de um baixo índice notificatório de agravos à saúde do trabalhador, da compreensão errônea das nomenclaturas dos formulários utilizados pelos profissionais e da falta de mecanismos permanentes que deem visibilidade e efetiva consideração à categoria trabalho, apresentando, após as intervenções, melhorias nos indicadores de notificação, bem como na oferta de serviços à população-alvo.

Palavras-chave: Educação Ambiental; Saúde do Trabalhador; Vigilância em Saúde; Estratégia Saúde da Família.

## EDUCACIÓN AMBIENTAL EN LA ESTRATEGIA SALUD DE LA FAMILIA: UNA INTERVENCIÓN PARA LA SALUD DEL TRABAJADOR

#### RESUMEN

El objetivo fue construir un proceso de intervención educativa con los profesionales de la Estrategia Salud de la Familia, para reconocer y comprender la gravedad de los problemas socioambientales y sus consecuencias, por medio de la Educación Ambiental como método formador en el campo de la salud del trabajador. Se realizó estudio de intervención, descriptivo exploratorio, que contó con cuatro encuentros realizados con los profesionales de salud y con pescadores, usuarios de una unidad de salud. La recolección de datos ocurrió por medio de acceso a banco de datos, rondas de conversas y talleres. El análisis de los datos se basó en los preceptos de la Educación Ambiental, que resultó en tres temas agrupados: perfil de la comunidad; vigilancia en salud en la Unidad Básica Salud de la Familia y movilidad de la notificación. Se observó encaminamientos acordes con los acometimientos comunes a la actividad laboral del territorio, además de un bajo índice de notificación de agravios a la salud del trabajador, de la comprensión equivocada de las nomenclaturas de los formularios utilizados por los profesionales y de la falta de mecanismos permanentes que traigan visibilidad y efectiva consideración a la categoría de trabajo. Presentando, tras las intervenciones, mejorías en los indicadores de notificación, así como en la oferta de servicios a la población blanco.

Palabras clave: Educación Ambiental. Salud del Trabajador. Vigilancia en Salud. Estrategia Salud de la Familia.

#### REFERENCES

1. Kopnina H. Neoliberalism, pluralism, environment and education for sustainability. Horizons of Holistic Education. [on-line]. 2014 Nov. [cited 2017 Nov 241: 1: 93-113. Available from:

http://www.hhecu.org/home/ResearchPaperdetail?t=FsoN%252bWWBIxJ6ft WpLzRo0w%253d%253d.

2.Brasil. Ministério da Saúde (BR). Política Nacional de Educação Permanente em Saúde [on-line]. Brasília (DF); 2009 [cited 2017 Nov 24]. Disponível em: http://livroaberto.ibict.br/handle/1/902.

3. Souza TS, Virgens LS. Saúde do trabalhador na Atenção Básica: interfaces e desafios. Rev. bras. Saúdeocup. [on-line]. 2013 [cited 2018 Apr 16]; 38 (128): 292-301. doi: http://dx.doi.org/10.1590/S0303-76572013000200016.

4. Souza VM. Para o mercado ou para a cidadania? A educação ambiental nas instituições públicas de ensino superior no Brasil. Revista Brasileira de Educação. [on-line]. 2016 Jan.-Mar. [cited 2017 Nov 24]; 21 (64): 121-42. doi: http://dx.doi.org/10.1590/S1413-24782016216407.

5. Camponogara S, Erthal G, Viero CM. The environmental problem in the view of community health agents. CiênccuidSaúde. [on-line]. 2013 [cited 2018 Apr 16]; 12 (2): 233-40. doi:

http://dx.doi.org/10.4025/cienccuidsaude.v12i2.18584.

6.Dias EC, Silva TL. Possibilidades e desafios para a atenção integral à saúde dos trabalhadores na Atenção Primária. In: Dias EC, Silva TL. Saúde do Trabalhador na Atenção Primária à Saúde: possibilidades, desafios e perspectivas. Belo Horizonte: Coopmed; 2013. p.21-41.

7.Brasil. Ministério da Saúde (BR). Portaria nº 1.378, de 9 de julho de 2013 [on-line]. Brasília (DF); 2013 [cited 2018 Apr 16]. Disponível em: http://bvsms.saude.gov.br/bvs/saudelegis/gm/2013/prt1378\_09\_07\_2013.html.

8.Chagas RA, Barros MRF, Santos WCR, Vale AVP, Sousa CRS, Acidentes de trabalho e doenças ocupacionais em pescadores artesanais do município de São João de Pirabas, Nordeste Paraense. Educação Ambiental emAção. [on-line]. 2016 Jun.-Aug. [cited 2017 Nov 24]; XV (56): 1-4. Disponível em: http://www.revistaea.org/artigo.php?idartigo=2341.

9.Pena PGL, Gomez CM. Health of subsistence fishermen and challenges for Occupational Health Surveillance. Ciência&SaúdeColetiva. [on-line]. 2014 [cited 2018 Apr 16]; 19 (12): 4689-98. doi: http://dx.doi.org/10.1590/1413-812320141912.13162014.

10. Bowman M, Gottesman I. Making the socio-historical visible: A placeconscious approach to social foundations in practice-centered teacher preparation. Teaching and Teacher Education. [on-line]. 2017 [cited 2017 Nov 24]; 68: 232-40. doi: https://doi.org/10.1016/j.tate.2017.09.001.

11.IBGE. Instituto Brasileiro de Geografia e Estatística. Cidades [on-line]. 2016 [cited 2017 Nov 24]. Disponível em:

https://cidades.ibge.gov.br/brasil/rs/rio-grande/panorama.

12. Dowbor TP, Westphal MF. Social determinants of health and the Brazilian Family Health Care Program in the city of Sao Paulo, Southeastern Brazil. Rev SaúdePública. [on-line]. 2013 [cited 2017 Nov 24]; 47 (4): 1-9. doi:

http://dx.doi.org/10.1590/S0034-8910.2013047004585.

13. Daldon NTB, Lancman S. Vigilância em Saúde do Trabalhador – rumos e incertezas. Rev. bras. Saúdeocup. [on-line]. 2013 [cited 2018 Apr 16]; 38 (127): 92-106. doi: http://dx.doi.org/10.1590/S0303-76572013000100012.

14. Sampaio J, Santos GC, Agostini M, Salvador AS. Limites e potencialidades das rodas de conversa no cuidado em saúde: uma experiência com jovens no sertão pernambucano. Interface (Botucatu). [on-line]. 2014 [cited 2017 Nov 24]; 18 (Supl 2):1299-312. doi: http://dx.doi.org/10.1590/1807-57622013.0264.

15. Spink MJ, Menegon VM, Medrado B. Oficinas como estratégia de pesquisa: articulações teórico-metodológicas e aplicações ético-políticas. Psicol. Soc. [on-line]. 2012 [cited 2017 Nov 24]; 26 (1): 32-43. doi: http://dx.doi.org/10.1590/S0102-71822014000100005.

16. Mendes JMR, Wünsch DS, Machado FKS, Martins J, Giongo CR. Saúde do trabalhador: desafios na efetivação do direito à saúde. Argumentum. [on-line]. 2015 [cited 2018 Apr 16]; 7 (2): 194-207. doi: https://doi.org/10.18315/argumentum.v7i2.10349.

17.Brasil. Lei nº 9.795, de 27 de abril de 1999 [on-line]. Brasília (DF); 1999 [cited 2018 Apr 16]. Disponível em: www.planalto.gov.br/ccivil\_03/Leis/L9795.htm.

18. Silva TL, Dias EC, Pessoa VM, Fernandes LMM, Gomes EM. Occupational health in primary care: perceptions and practice in family health teams. Interface (Botucatu). [on-line]. 2014 [cited 2018 Apr 16]; 18 (49): 27387. doi: http://dx.doi.org/10.1590/1807-57622013.0227.

19.Mana R. The empowerment of pajala fishermen community of Soppeng Coastal Lake.International Journal of Academic Research. [on-line]. 2015 Jan. [cited 2017 Nov 24]; 7 (1): 39-43. Available from:

http://web.a.ebscohost.com/abstract?direct=true&profile=ehost&scope=site&authtype=crawler&jml=20754124&AN=123624476&h=R9dWYDKGKafzxWFceFGwW6vAGy1F%2fwS6qzPCg9RDs3i%2fRlx0GszyJtfP%2b1rizzP3Mbw%2fEDqHawsHu3bmcAArQ%3d%3d&crl=f&resultNs=Admin

WebAuth&resultLocal=ErrCrlNotAuth&crlhashurl=login.aspx%3fdirect%3 dtrue%26profile%3dehost%26scope%3dsite%26authtype%3dcrawler%26jrnl%3d20754124%26AN%3d123624476.

20. Camponogara S, Soares SGA, Viero CM, Diaz PS, Peres RR, Rossato GC. Health and environment: subsides for reflection in the academic formation in the health area. CiênccuidSaúde. [on-line]. 2013 [cited 2018 Apr 16]; 12 (3): 564-71. doi: http://dx.doi.org/10.4025/cienccuidsaude.v12i3.20457.

**Corresponding author:** Marta Regina Cezar-Vaz. Av. Presidente Vargas, 323, casa 13 Cond. Bela Vista. Rio Grande - RS – Brasil, CEP 96202-100, E-mail: cezarvaz@vetorial.net

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