

HEALTH TEAMS' ROLE IN DISASTER RISK MANAGEMENT

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ABSTRACT

Objective: to understand the perceptions of Primary Health Care and Psychosocial Care professionals regarding their role in addressing the psychosocial impacts following hydrological natural disasters in southern Brazil.

Method: a multiple-case, descriptive and integrated study with a qualitative approach. The participants were professionals and managers from Primary Health Care and Psychosocial Care in municipalities from southern Brazil. Data collection was carried out during the conduction of a funded project, including narrative interviews between January and May 2018. Data analysis followed the stages of Fritz Schütze's method.

Results: interpretation of the narratives of the cases and their units of analysis comprised the following categories: 1) Health teams' performance in disasters; and 2) Cultural meanings and training for risk and disaster reduction. Demands for pre-flooding care, demands during the disaster event, and post-flooding demands: care in psychosocial support and territory surveillance were identified.

Conclusion: the study identified actions perceived by health team professionals and municipal managers regarding disasters in a context of recurrent events. While recognizing cultural aspects for a resilient response, there are operational and training gaps for an effective management of the response and recovery plan at the community level.

DESCRIPTORS: Disasters. Impact of disasters. Psychosocial impact. Risk management. Primary Health Care. Mental health services.

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ATUAÇÃO DE EQUIPES DE SAÚDE NA GESTÃO DE RISCOS DE DESASTRES

RESUMO

Objetivo: conhecer as percepções dos profissionais de equipes de atenção primária à saúde e de atenção psicossocial quanto a atuação frente aos impactos psicossociais pós-desastres naturais hidrológicos no sul do Brasil.

Método: abordagem qualitativa, tipo estudo de múltiplos casos, descritivo e integrado. Participaram profissionais e gestores da Atenção Primária à Saúde e da Atenção Psicossocial de municípios do Sul do Brasil. Coleta de dados durante execução de projeto financiado, com entrevistas narrativas entre janeiro e maio de 2018. Análise dos dados seguiu etapas do método de Fritz Schütze.

Resultados: a interpretação das narrativas dos casos e suas unidades de análise, compuseram as categorias: 1) Atuação das equipes de saúde nos desastres e 2) Significados culturais e capacitação à redução de riscos e desastres. Foram identificadas demandas de atenção pré-inundação; demandas durante o evento do desastre; e demandas após inundação: cuidado na atenção psicossocial e vigilância do território.

Conclusão: o estudo identificou ações percebidas por profissionais de equipes de saúde e de gestores municipais com relação aos desastres em um contexto de recorrentes eventos. Embora reconheçam aspectos culturais para a resposta resiliente, há lacunas operacionais e de capacitação para que a gestão do plano de resposta e de recuperação seja efetiva em nível de comunidade.

DESCRITORES: Desastres. Impacto de desastres. Impacto psicossocial. Gestão de Riscos. Atenção Primária à Saúde. Serviços de Saúde Mental.

DESEMPEÑO DE LOS EQUIPOS DE SALUD EN EL MANEJO DE RIESGOS DE DESASTRES NATURALES

RESUMEN

Objetivo: conocer las percepciones de los profesionales de equipos de Atención Primaria de la Salud y de Atención Psicossocial con respecto a su desempeño frente a los efectos psicossociales posteriores a desastres naturales hidrológicos en el sur do Brasil.

Métodos: estudio de casos múltiples, descriptivo, integrado y con enfoque cualitativo. Los participantes fueron profesionales y gerentes de Atención Primaria de la Salud y de Atención Psicossocial de municipios del sur de Brasil. Los datos se recolectaron mientras se ejecutaba un proyecto financiado, por medio de entrevistas narrativas entre enero y mayo de 2018. El análisis de datos siguió las etapas del método de Fritz Schütze.

Resultados: la interpretación de las narrativas de los casos y sus unidades de análisis dieron lugar a las siguientes categorías: 1) Desempeño de los equipos de salud en los desastres; y 2) Significados culturales y capacitación para reducir riesgos y desastres. Se identificaron requerimientos de atención previos a una inundación; al igual que requerimientos durante el desastre, y posteriores a una inundación: cuidado en la atención psicossocial y vigilancia del territorio.

Conclusión: el estudio identificó acciones percibidas por profesionales de equipos de salud y gerentes municipales en relación con los desastres en un contexto de eventos recurrentes. Aunque reconocen aspectos culturales para ofrecer una respuesta resiliente, se evidencian brechas operativas y de capacitación para que la administración del plan de respuesta y recuperación sea efectiva al nivel de la comunidad.

DESCRIPTORES: Desastres. Efecto de los desastres. Efecto psicossocial. Gestión de riesgos. Atención Primaria de la Salud. Servicios de salud mental.

INTRODUCTION

Natural disasters are unpredictable and extreme events that occur in nature, such as earthquakes, tsunamis, hurricanes, tornadoes, storms, droughts and floods. In particular, hydrological disasters are characterized by overflowing of rivers, lakes and dams or by heavy rainfall, resulting in excessive water accumulation in a specific area, causing flooding of streets, houses, buildings and other structures. They can cause significant human harms and casualties, affecting the lives and activities of people living in the affected areas¹. There are records of historical floods with serious consequences worldwide and, in Brazil, specifically in the South region, hydrological events leave recurring psychosocial impacts on the population's health, becoming an emerging demand for the health system²⁻³.

Globally, the 2015-2030 Sendai Framework serves as a reference, aligning the actions of the International Strategy for Disaster Reduction (ISDR), actions for which, the pertinent purpose of university research and the formulation and evaluation of policies by intersectoral discussion groups goes beyond achieving the goals involving society, even to mitigating impacts in the health sector⁴⁻⁵.

Previous studies⁶⁻⁸ emphasize that health systems respond better to disaster crises when they are integrated into planning and management from prevention to recovery, with multiprofessional performance and intersectoral strategies in addressing the risks and underlying impacts related to pre-existing vulnerabilities in the population. Primary Health Care plays a fundamental role in mobilizing structural, communication and cultural resources for the management of plans directly linked to the communities⁹.

The objective of this research was to understand the perceptions of Primary Health Care and Psychosocial Care professionals regarding their performance in addressing psychosocial impacts on families after hydrological disasters in southern Brazil.

METHOD

Qualitative research of the multiple-case study type, descriptive and integrated¹⁰⁻¹¹. The cases under study were three municipalities in southern Brazil, identified as follows: 1 – Itajaí; 2 – Rio do Sul; and 3 – Blumenau. The study was conducted in services that are part of the Psychosocial Care Network (*Rede de Atenção Psicossocial, RAPS*), including Primary Health Care (PHC) units and Psychosocial Care Centers (*Centros de Atenção Psicossocial, CAPS*), in the following modalities: CAPS I for Adults, CAPS II for Adults, Alcohol and Drugs (CAPS Ad), and CAPS for Children and Adolescents (CAPSi). All CAPS from the municipal networks were included as analysis units for the cases. Rio do Sul had the participation of five FHS units, one CAPS II, and the professionals who make up the Primary Care Management in the study. In Itajaí, there were four FHS units and three CAPS (CAPS II, CAPS Ad, and CAPSi), as well as the professionals who are part of the Primary Health Care Management and Mental Health Coordination. In the municipality of Blumenau there were four FHS units and four CAPS (CAPS II, CAPS III, CAPS Ad, and CAPSi), as well as the professionals who are part of the Primary Care Management, Occupational Health, and Municipal Mental Health Coordination.

The participants in the teams worked in areas mapped by Civil Defense as high-risk or with a history of geological disasters (mass movements) and/or hydrological disasters (flooding and flash floods). Health professionals, Community Health Agents (CHAs) and municipal managers participated in the research. In Rio do Sul there were 24 interviewees from the services and two health managers. In Itajaí there were 41 interviewees from the services and two health managers. In the municipality of Blumenau, there were 37 interviewees from the services and three health managers. Most of the research participants worked as Community Health Agents (CHAs), followed by nurses, nursing

technicians, psychologists, social workers, pharmacists, occupational therapists, physical educators and physicians. The participants' age varied from 25 to 45 years old, they were civil servants, and most of them had been in their profession for more than 10 years. In addition, they had from 5 to 10 years of work experience in their respective services.

The fieldwork took place during the project's funding period, which was funded by the FAPESC/PPSUS-MS call from 2016 to 2020, with data collection from January to May 2018.

Data collection involved individual and group narrative¹² interviews, depending on availability of the teams or during service meetings. The audio-recorded material was transcribed and stored in digital documents. Complementary records were also obtained through observations of the settings, documents and images, spontaneously mentioned in the narratives during meetings with the interviewees. For example, marks of the flood or infrastructure damages in the facilities, territory maps, and plan documents. A motivating interview question used was: "What can you tell me about your experiences in providing psychosocial care to families in your work, considering the context of disasters?" There were also follow-up questions integrated into the study objective at the end of the interviews to delve deeper into the subject matter.

The narratives were analyzed according to Fritz Schütze's method¹³, in the following stages: formal analysis of the text; structural description of the content; analytical abstraction; knowledge analysis; and comparative contrast, from which two categories of meanings emerged, namely: 1) Health teams' performance in disasters; and 2) Cultural meanings and training for risk and disaster reduction. The complementary observation records added context to the cases, from which the transcribed narratives were interpreted. The interviewees' narratives were identified by the acronym referring to their profession or role in the service, followed by the performance area code: PHC (Primary Health Care) or PsC (Psychosocial Care). Discussion of the results was conducted based on the literature on the theme.

The research was approved by the Committee of Ethics in Research with Human Beings, based on Resolution No. 466/12.

RESULTS

Health teams' role in disasters

The narratives revealed actions taken by the health teams at different stages of the disaster cycle during the 2008 and 2011 occurrences. In the accounts of most interviewees, there is lack of clarity regarding the existence of a response plan in their respective municipalities of operation. Despite the frequent occurrences in the region, they feel unprepared in terms of logistics and planning to respond to disasters. They acknowledge advancements in alert communication and dissemination of diverse information through open and institutional media, which allows them to take action in advance.

Today, there's no protocol providing guidance. I'm not aware if there's such a plan, but I've been out of the loop for a year now. So I no longer have knowledge of the entire management in the strategy supervision [...] (Coord_PHC_2).

[...] What I noticed is that Civil Defense has improved; now they provide alerts that are available on the city's website. It works much better now. They create a registry of employees that can make themselves available and organize spaces (ASS_PsC_2).

Before an imminent flood, team coordinators and municipal health managers gather to make decisions regarding continuation of health services or care strategies for the users.

Unanimous concern of the teams in risk-prone territories is to provide actions that prevent property losses in the facilities, instruct evacuation of the area, and inform the population about

changes or interruption in the services. For such measures, knowledge about the risks and operational communication is crucial, coupled with articulation between municipal health management and civil defense.

The contingency plan guides the actions at the management level, which has already defined the services that will operate and how they should be activated. After 2013, a communication medium was structured with a centralized communication center at the City Hall that centralizes everything. So we inform them about the closed units, the reasons, and we even have the Blu alert app. Last year, they opened a Shelter. If you were to check the app, it would show: "Shelter such-and-such opened in location such-and-such, and here's how to access it on the map." So it's quite interesting, and it's accessible to any citizen (Health_Director_3).

The decisions regarding maintenance of the services in units that are not located in flood-prone areas are made in accordance with management guidelines for support strategies, based on evolution of the event. This includes redistributing staff among health units, assembling mobile teams, and relocation of teams to other buildings that become designated as service points during the disaster, such as Municipal Polyclinic, General Outpatient Clinics, Family Health Units, and CAPS.

In some of the units, pre-flood preparedness actions involved the participation of users who, in a spirit of solidarity, supported the teams in preparing the health unit to cope with the disaster.

During the flood, the CAPS Ad was located in an area that was susceptible to flooding. The users helped us because several of them are street people and, during the day, they assisted, while at night, they would go to the shelters (NUR_PsC_3).

The teams from services in flood-prone areas also took the initiative to remove furniture, collect medical and electronic equipment from the rooms, secure pharmacy medications, and preserve the medical records.

In all municipalities, during the flood event, the mental health teams established actions, strategies and alternatives for dispensing controlled medications to the users undergoing treatment. Careful consideration of each case, taking into account the users' situations, including their prior mapping of residence locations and access to services, contributed to safe medication preservation and use, in addition to minimizing the treatment discontinuation harms and the high mental health risks during and after the flood. Respecting the users' connection to therapeutic activities motivated the precaution of communicating about the routine during the event, even with the units closed.

During all three floods, we attempted to map the flood-prone areas. While we had access, we removed people from some homes, ensured they were in a safe place during the disaster, and continued their medication, as some of them had left their medications behind when they evacuated (ASS_PsC_2).

After returning home, we tried to help with donations. It turns out that the poorest and most vulnerable people are the most affected, and this further motivated people to come here. With chronic patients, we had the additional concern about their medication. (NUR_PsC_2).

[...] Instead of coming here to take them, they would pick up their medications for a week, but it depended on each case (NUR_TECH_PsC_3).

The professionals interviewed who experienced the flooding events in 2008 and 2011 noticed that the response actions were more agile, organized and effective due to the advance warning provided by Civil Defense. In this sense, community health agents were able to convey information about functioning of the health services to the community and contribute to the team's care planning for specific situations. With access to the official information and alerts via apps, the Internet, radio stations and television channels, the community responds in a more organized way, following safe routes to the shelters mapped.

Now we know that Civil Defense is better organized in relation to that. The alerts are constant, there's a website that provides continuous warnings, and social media platforms like WhatsApp and Facebook are very helpful in alerting the population in this sense. What we notice is that misinformation is sometimes spread, which can cause unnecessary alarm among the population. And I believe that we're better prepared to guide the population in times of heavy rainfall, advising them on the precautions they should take (Coord_PHC_2).

There's already certain awareness that people need to stay more informed. For example, the teams near the dam closely monitor the Civil Defense bulletins, and the local authorities in the area are also vigilant. There's no such thing in the practice (NUR_PHC_1).

Generally in their role as service coordinators, nurses lead the actions regarding unit preparedness and response to alerts. They recognize that interruption of the services disrupts medical schedules and particularly interferes with the Pharmacy, Nursing procedure room, and Vaccination room.

The absence of municipal logistical definition and organization reveals the challenges faced by some teams when a disaster is imminent. Not knowing where to relocate the devices and furniture from health centers and dealing with the unpredictability of work routines during the event add stress to the workers in an unprepared work environment.

As there was no central coordination, what I did was as a resident of this city, as a citizen who wanted to help (ASS_PsC_2).

We were left not knowing what to do. I remember calling the City Hall, but no one was providing any guidance. Then I heard about some families who had lost everything, so we gathered together and went to help (ASS_PsC_2).

The interviewees considered cleaning the health units and assessing material damages as a top priority in the post-disaster phase. They reveal that both the community and, in some situations, the professionals from the teams themselves, are solving the cleaning issues and damages to their affected properties simultaneously. In this regard, there is voluntary involvement of employees and users in this solidarity task, marked by the need to return to the normal routine of health services. In a scenario which at times presents environmental accident risks, the volunteers help lacking adequate material and technical conditions. They believe that post-disaster cleaning and disinfection should be part of the planning, even to provide adequate Personal Protective Equipment and sufficient supplies for resuming work activities during the crisis.

Therefore, resumption of health services' operation was gradual in each case context, given the impacts on the territory and the number of affected employees returning to work. After several months of the disaster, turnover among professionals was also noticed.

In the most affected communities, the access flow to health services was adapted based on proximity to the temporary shelters. The CHAs proceeded with registration of the affected families in the communities, informing the City Hall and organizing the social assistance needs, as well as the distribution of necessary donations for recovery in the post-disaster period.

In the CAPS, we conducted a kind of mapping to determine where the patients were, which neighborhoods they lived in, and which shelters they were in. even keep track of their medication, whether they were taking it, if they were doing well in the shelter, what happened and gather any other information. After the first 15 days, there was a focus on addressing the demands related to stress (ASS_PsC_3).

In the medium-term phase of post-disaster recovery, the teams dedicated themselves to welcoming and visiting families in the affected communities, offering multiprofessional support and psychological care through active listening for psychosocial well-being. The long-term actions were perceived as challenging and comprehensive, given the need (and weakness) for intersectoral coordination in mitigating impacts and preventing future events. An example of intersectoral collaboration

that reflected in the municipal contingency plan was the cooperation between the Health and Civil Defense sectors to relocate riverside families in a high-risk territory.

Cultural meanings and training for risk and disaster reduction

The interviewees' narratives express the meanings assigned to the actions based on their direct or indirect experiences with disaster situations. Facilitating actions for disaster management and risk reduction, such as accessing official information, waiting for communication from leaders, understanding the roles of official bodies, healthcare services and the population in emergencies, as well as conducting training sessions and preparatory simulations, and fostering a culture of solidarity, all play a vital role in disaster preparedness and response.

The knowledge provided by training in psychosocial approaches to disasters and care for post-traumatic stress in affected communities, through projects from the State Health Department, was recognized as a significant milestone in assisting the teams during the post-event recovery phase. Discontinuation of these training programs and integration of these topics into municipal permanent education spaces demotivated the initiative for intervention practices in long-term scenarios.

In 2013, already in our administration, we collaborated with the state's Civil Defense to organize a course in which we mobilized six psychologists to do it. We also arranged to bring a community therapy course here and then we trained 70 professionals. Not only focused on that situation but to develop a technology that would be more comprehensive to cover the territory and addressed more situations (Coord_PHC_2).

In all three cases studied, the systematic training approach did not persist as a practice within the risk and disaster management culture. However, in the aftermath of the disaster, there were opportunities for exchange, for example, provided by the Workers' Health Sector management; as well as simulated training in high-risk areas for the Fire Department and the Mobile Emergency Care Service (*Serviço de Assistência Móvel de Urgência, SAMU*).

[...] We conducted worker meetings in the form of ongoing workshops, but we aspire for it to be a permanent initiative. We're providing training through conversation circles and workshops, and we're progressing towards some therapeutic experiences here in Blumenau (Workers_Health_Coord_3).

The interviewees observed that solidarity acts are seen as a tradition linked to the flood context. This means that in these adverse situations, some workers come into contact with the vulnerabilities and engage in supportive actions that go beyond the expectations of their defined professional roles. This is operationalized through dedication of overtime hours, providing open-door service to the population as requested by the municipal administration, collaborating among workers who need to be replaced when directly affected by the flood, participating in house cleaning and distribution of donations, and listening to the distress of those in shelters.

We brought clothing from the thrift store to some users, trying to meet their needs. We were close to the SESC, which also made a very generous donation of cleaning products, buckets and other items. Everything was very emotional because people act in solidarity at that moment (ASS_PsC_3).

DISCUSSION

The actions adopted by the professionals from the interviewed teams represent the strategies derived from the experiences of disasters in the region, which characterize risk management and (re) organization in response to the impacts in the disaster cycle.

In this case study, a post-disaster management action considering the psychosocial impacts was the additional, albeit temporary, hiring of psychologists. Health services invested in the organization of matrix teams, providing strategic monitoring and support in responding to families and schools

from communities affected by the disaster. The integrated work of mental health professionals within the response system teams yields better results than working independently during emergencies. Team cooperation and effective action management provide stability to workers in a crisis and, in turn, support to the victims¹⁴.

Risk and disaster reduction and management in the health sector involve preparing services and teams and implementing preventive approaches with the community, which in turn exerts impacts on the response and on post-disaster recovery. In line with the cases under study, necessary measures include improving health care facilities to provide an adequate response and minimizing the interruption in delivering services to the community, seeking essential support during a crisis¹⁴. The health system collapse in extreme conditions reflects the direct relationship between the absence of disaster management planning, a governmental responsibility, and the severity of its impacts. This evidences the importance of developing alternative strategies for a resilient response that guides front-line workers and managers¹⁵.

The culture of disasters is perceived through the changes experienced with the events that motivated the development of plans, strategies and resources aimed at providing more information and response capacity. In the cases under study, improving the readiness capacity of the facilities, service provision and the teams' work processes during events (for example: mobile teams, open-door welcoming, retrieval of mappings of users undergoing psychosocial follow-up) represented advancements in disaster management, even though there may be lack of knowledge about plan maintenance and updates. In the literature¹⁶, the pertinence of actions involving workers and volunteers in disasters was identified, as well as the formulation of documented work plans, accessibility, clarity in tasks, guidelines and requirements, mainly when there are adaptations in work environments. There is certain similarity in the inability of health systems to maintain services when floods are frequent. Given the increase in notifications of diseases, violence and abuse cases, difficulties accessing care and transportation issues, these factors converge to insufficiency of trained teams, with a shortage of basic supplies and medications in maintaining emergency response care measures¹⁷.

Solidarity is an attitude that reflects the community culture of post-disaster recovery, through volunteer and collective efforts to restore functioning and provide cleaning of the affected health facilities. Disasters exert a converging effect of awakening the survivors, mobilizing mutual help behaviors, altruism acts and a heightened sense of solidarity with one another. In this sense, these social behaviors of compassion in a catastrophe can be perceived as positive and consistent with meeting the immediate needs. The extent of the compassionate nature of a catastrophe is the organization of community groups, forming associations where they recognize and unite in projects to recover and in representative movements to address other issues and rights related to risk and disaster management¹⁸.

In preparing human and logistical resources for disasters, dissemination of information and provision of support materials to workers, both regarding everyday conditions and devices, should be anticipated, especially because they can become insufficient in a crisis¹⁹. In the context of a disaster, there are various health risks for the teams involved in response and recovery, ranging from self-limiting injuries, minor cuts and wounds, contamination with infectious diseases, exacerbation of pre-existing chronic conditions or psychological trauma to even more severe accidental and life-threatening conditions²⁰.

One of the vulnerabilities to resilience in disasters is discontinuity in strategic actions that involve training, preparatory simulations and integrated plans for psychosocial approaches during a crisis. The health team workers included in the study noticed that multiprofessional training for disaster response contributes to identifying professional skills, roles and responsibilities in crisis situations, promotes mutual trust, involves community assistance, interprofessional and intersectoral

communication in health, and provides psychosocial support with practices tailored to the cultural needs of the community. The literature corroborates that systematic education and the development of intentional training strategies can help workers recognize their vulnerabilities in challenging situations and prepare for appropriate measures when in action²⁰. The appropriate application of techniques and interventional approaches for psychosocial education in coping before, during and after a disaster considers the professionals' knowledge at the community level, as well as the protective and risk factors for a stressful situation²¹.

CONCLUSION

The research showed the perception of experiences and the complexity involved in risk and disaster management in contexts where events (specifically floods) are frequent. In the post-disaster phase of the cases under study, the health teams and managers recognize the difficulties they face in working with an adapted but poorly planned process. The psychosocial effects do not only impact the users of health services but also its workers, who are affected and mobilized for the recovery work, predominantly driven by a culture of solidarity.

The implementation of initiatives, although not systematic and continuous, for the training of health services was considered an efficient mechanism for a resilient risk and disaster management culture. The current literature reinforces the persistence of this issue in various countries and health systems that are constantly affected, calling for research studies and innovations with an impact on professional training and sustainability of government policies tailored to the needs of such populations.

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NOTES

ORIGIN OF THE ARTICLE

Article extracted from the research project entitled “*Cuidado à saúde de famílias em transições por desastres: participação da atenção básica e da atenção psicossocial na gestão e redução de riscos e desastres*” (“Health care for families in transitions due to disasters: Primary and Psychosocial Care participation in risk and disaster management”). The research was conducted from 2016 to 2019, with the final report being presented to the Ministry of Health and FAPESC in 2020.

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CONFLICT OF INTEREST

There is no conflict of interest.

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