Rural families' interpretations of experiencing unexpected transition in the wake of a natural disaster

As interpretações de famílias rurais sobre a experiência de uma transição inesperada depois de um desastre natural

Las interpretaciones de familias rurales sobre la experiencia de una transición inesperada después de un desastre natural

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Abstract

Natural disasters affect populations in various parts of the world. The impacts of disasters can cause many problems to the health of people and disruption to family life, potentially leading to an unexpected transition. The objective of this paper is to present the unexpected transitional experiences of rural families following a natural disaster. A multiple case study of six families was conducted with children and adolescents in a rural area affected by a 2008 disaster in southern Brazil. For data collection, we used participant observation, narrative interviews, genograms, ecomaps and an instrument called calendar routine. The analysis of the data resulted in different family interpretations about the changes resulting from the storm and compared life before and after the disaster. The loss of homes and loved ones, migration, unemployment, and losses from the farm were the main changes associated with new development tasks. The experiences of family transition after the disaster revealed that losses influenced social lives, daily routines and the preservation of cultural values.

Primary Health Care; Family Nursing; Family Health; Natural Disasters

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Introduction

In the last decade, the impact of natural disasters and their destructive potential and ability to traumatize the lives of individuals, families and communities have been given greater importance, particularly given global discussions about climate change and sustainability. However, some authors [1] argue that the health research community has been slow to take up the challenge of investigating the impacts of climate change on health and health care, adaptive capacity, needs and resilience development. *"Many of the challenges associated with climate change have resonance with work done over the decades on disaster preparedness and response, and this may be a useful lens with which to consider health systems' responsiveness to climate change"* [1] (p. 125).

Organizational and governmental efforts have mainly been focused on the consequences of disasters and have sometimes strengthened preparedness and response capacities, based on political and cultural needs. This issue was addressed at the 20th World Health Promotion Conference (http://www.iuhpeconference.net/, accessed on 09/Feb/2016), held in Geneva (Switzerland), in July 2010, with a focus on building bridges between health promotion and sustainable development. Subsequently, the United Nations Conference on Sustainable Development (Rio+20), in Rio de Janeiro (Brazil), in June 2012, resulted in the final report *The Future We Want*. It recognized that rural communities play an essential role in the economic development of many countries and emphasize the need to invest in *"rural development sectors, notably in developing countries, in an economically, socially and environmentally sustainable manner"* [2]. Recently, the *Sendai Framework for Disaster Risk Reduction 2015-2030* was adopted at the third World Conference of the United Nations held in Sendai (Japan) in March 2015. The Sendai Framework is the successor to the *Hyogo Framework for Action 2005-2015* aimed at building the resilience of nations and communities to disasters [3].

Disasters are caused by a combination of natural hazards and a population or community that is exposed, vulnerable, has low resilience or is inactive with regard to risk reduction activities. However, climate change tends to increase the risk of disasters due to specific climate-related threats, and increased vulnerabilities among populations as a result of degraded ecosystems, environmental transformation caused by the spread of urbanization, a lack of planning, and expansion of risk factors [4,5]. In this way, disasters are conceived as essentially socio-environmental events, since vulnerability establishes how critical an area is in different scales and time, thus demystifying the idea of a disaster as an unpredictable event [4].

According to the database of the Centre for Research on the Epidemiology of Disasters (CRED. Emergency events database: country profile. http://emdat.be/country_profile/index.html, accessed on 09/Feb/2016), between 2000 and 2015, 56 flood type disaster events and six landslide type events were registered in Brazil, totaling 2,606 deaths, more than 7,000,000 people affected, and losses that surpassed USD 5 million. Over the last ten years, extreme events have particularly affected the South and Southeast regions of Brazil, giving rise to problems and risks that had previously passed by unnoticed, resulting from the physical action of nature in different social territories: those where urban planning is still incipient; where urbanization is expanding; and in rural territories that are more sparsely populated. These disasters caused families living in hazardous areas to be evacuated from their homes, and for safety precautions they were temporarily housed in public shelters or with relatives. However, there it was difficult to predict when they could return home or the conditions they might encounter upon returning. Families experienced many material losses, both personal and symbolic. In addition, events like these interfered with traffic, the water supply and power grid, as well as supplies for basic household activities. The *Brazilian Atlas of Natural Disasters* publishes a 20-year survey that recorded 31,909 natural disasters affecting more than 96 million people and caused more than 6 million people who were directly exposed to abandon their homes [6]. Thus, a disaster constitutes a breach in the social dynamics of the territory, disrupting the social order and generating a crisis – the transition threshold of a certain routine and the need to recreate social dynamics [7].

A review of the literature shows that in rural populations in many countries, the severity of negative effects of natural disasters and their impacts on health, education, family income and environmental or livelihood changes were linked with people's adaptive capacity or resilience, vulnerability and preparedness in the context of natural disasters [8,9,10,11]. An additional factor relates to the multidimensional nature of poverty that limits the ability of the rural communities to withstand the impact of climate change [12].

The impacts of disasters on health can be analyzed empirically, from the survivors' perspectives, taking into account that many changes occur in how people live and access health care [13]. Early research pointed out that the functioning of a family after a disaster is rarely studied [13,14]. From an existential perspective, families' experiences of life, health, values, habits and priorities have changed after the they have been exposed to a disaster [14]. The socio-environmental vulnerability of populations results in exposure to a disaster, with consequences on health that may be direct or indirect, with short or long-term effects [15] both in the physical and psychological health of the people exposed. Communities affected by disasters become communities in transition [16] thus it is believed that the lives of families in close proximity to these catastrophic situations have to deal with unexpected and immediate changes that interfere with their health, and this particularly true for women, the elderly and children [17]. Social networks play a vital role in how a community responds to extreme climate events, strengthening the capacities of bonding and bridging networks for disaster recovery, which is an important feature to promote a community's resilience [18,19].

Discussion about the impact of disasters in the health sector as a whole is still quite limited in Brazil. The inclusion of this theme and preparation for these situations has been given little attention in the education of health professionals. Nurses, health professionals, and researchers concerned with the needs of families need to give more critical attention to the experience of the family in the aftermath of disasters and in their future lives. The consequences of these events shape family development processes, especially the changes in the structure and functioning of families [13]. The diverse socio-cultural characteristics of different contexts mean that negative and repetitive changes caused by these tragic events are endured for a long time after the event itself.

This study explored the ways in which routines and family rituals were modified in the transition period following such an unexpected experience. The research seeks to identify the ways in which family rituals and routine experiences were influenced following the disaster, from life cycle or developmental perspectives. The purpose of this paper is to capture the analytical interpretive perspectives of the experiences of families with children and adolescents living in the countryside as they experienced transition following an unexpected disaster.

Study methods

Two theoretical frameworks were used to guide the development and methods of this study: the Theory of Family Development [20] and the Family Health Model [21] to investigate multiple family cases following a disaster in Brazil. Using the Theory of Family Development, the study was designed following the various stages of the family throughout the life cycle and the family transitions including a disaster event. The Family Health Model is an ecological model that conceptualizes the complex interactive relational systems relevant to families and their health. Such concepts and definitions guided the analyses about the contextual, structural and functional aspects of the family's health and daily life [21].

Given these concerns, a qualitative study was completed with six families affected by a natural disaster that occurred in November 2008 in a rural area of Santa Catarina State, Southern Brazil. The six families were chosen randomly from the records of patients seen at the local service of primary health care center. Priority was given to families who lived in the areas mostly affected by the disaster. The six family members participating in the research were represented by a group of couples with children in preschool or primary school and/or adolescents, and another group of maternal parents with infants. The ages of respondents ranged from 20 to 43. Their incomes were mostly 2-3 times the minimum wage (the minimum wage in 2009 was BRL 510.00, approximately USD 283.5). Two of the families had incomes between 5 and 6 times the minimum wage and their adult members were legally registered workers or on the books in small local agribusiness companies. The other working members of the families interviewed did so in the informal economy, working in textile services, temporary trade and agricultural activities.

During the period of the research, of the five families who remained in the region of Morro do Baú, two returned to live in their own houses that they rebuilt on the area affected by the disaster; two were living in an authorized construction area after the disaster – one in their own home that was still

under construction and another in a house donated by an non-governmental organization (NGO); and one been given a house as a donation but migrated to a neighborhood far from the affected rural area. All six families suffered the impact of the event, with economic losses, unemployment, property damage (the houses of three families were completely destroyed) and the loss of ties of affection to community members and other family members. The community school also suffered structural damage. One of the adolescents did not return to his studies, and preschool children and infants remained in home care.

The study by the Centre for Studies and Research on Disasters at the Federal University of Santa Catarina (UFSC) [6] used data collected from the *Damage Evaluation Report* issued during and after the event between 19 and 30 November 2008, and showed that a record volume of rainfall in Santa Catarina affected about 1.5 million people, leaving 27,236 of them displaced and 5,617 homeless. The Civil Defense of Santa Catarina officially registered 135 deaths and two missing people, where 97% of causes of death were by interment. Registries also showed 77 cities affected, 63 of which were due to an emergency and the other 14 had declared a state of public disaster. Ilhota was the city most affected by landslides and debris flows: 916 landslides and 80 debris flows and surfaces affected by large quantities of landslides and debris flows were concentrated in the Northern valley of the Itajaí River, around Morro do Baú [22]. This sector, covering an area of 288.6km², accounted for 94.7% of the landslides identified and is essentially rural with scattered houses.

The data collection of the present study initiated 13 months after the occurrence of the disaster and finished 22 months after the event. On average, one interview was conducted per month with each family. The study was reviewed and approved by the Human Research Ethics Committee of the UFSC, under the number 490/2009. The anonymity of the respondents was respected throughout the data collection and analysis process, and they signed Informed Consent Forms.

Participant observation techniques were used at the meetings in the families' homes and information was recorded in field diaries while improvised narrative interviews were conducted [10]. Four interviews were conducted in depth with each family. Instruments such as genograms and ecomaps were used during data collection. The interviews were carried out at different times and depended on each family's availability. The interviewees were identified in their narratives by using an abbreviation for the individual's position within the family, so: MF1 = family mother 1, FF3 = family father 3. All family interviews were recorded and then transcribed, and the data were later analyzed. The researcher's field notes, especially the comments during the family meetings, served to clarify contextual information not described in the family narratives.

The narratives collected from the families were analyzed using the five different steps of Fritz Schutze's method analysis [23,24], which can be seen in Figure 1. This method is based on a set of traditions such as phenomenological sociology, symbolic interactionism and ethnomethodology, and reveals personal and social actions, suffering, and potential resources for coping and changing. This analytical method assumes that there is a *"deep relationship between the identity of an individual narrative and their versions of historical life experiences"* [25] (p. 218).
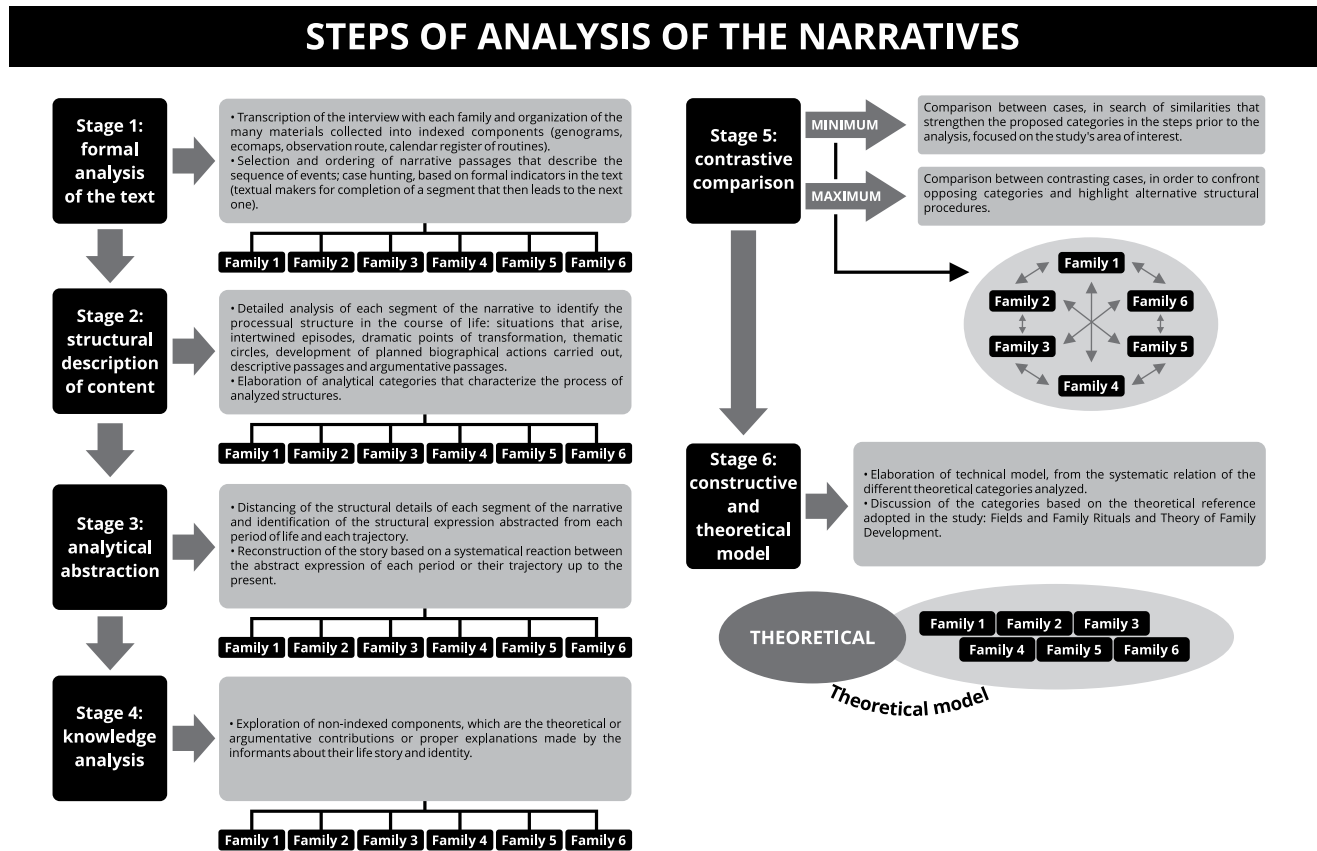

Study findings

The study results show that, in the post-disaster context of transition, the interviewed families made their interpretations based on their life experiences and by comparing and evaluating the event's impact in relation to other affected families. Their perception of the event's magnitude tended to focus on damage and loss, reducing their understanding of the context of the event to a micro level, without any association with prior knowledge of the risks to which they were exposed or their vulnerability to the consequences of a disaster. In this sense, their narratives denoted the family vulnerability and resilience in relation to the unexpected disaster transition, and the post-disaster recovery of the family in its social, economic, environmental dimensions.

The narrative below expresses the vulnerability of the family who recognized the imminent risk of collapse of their house at the time of the disaster event, without any reference to a culture of preparedness to respond to or recognize a disaster situation.

Figura 1

Steps for the analysis of family narratives.

STEPS OF ANALYSIS OF THE NARRATIVES

Stage 1: formal analysis of the text
- Transcription of the interview with each family and organization of the many materials collected into indexed components (genograms, ecomaps, observation route, calendar register of routines).
- Selection and ordering of narrative passages that describe the sequence of events; case hunting, based on formal indicators in the text (textual makers for completion of a segment that then leads to the next one).

Family 1 | Family 2 | Family 3 | Family 4 | Family 5 | Family 6

Stage 2: structural description of content
- Detailed analysis of each segment of the narrative to identify the processual structure in the course of life: situations that arise, intertwined episodes, dramatic points of transformation, thematic circles, development of planned biographical actions carried out, descriptive passages and argumentative passages.
- Elaboration of analytical categories that characterize the process of analyzed structures.

Family 1 | Family 2 | Family 3 | Family 4 | Family 5 | Family 6

Stage 3: analytical abstraction
- Distancing of the structural details of each segment of the narrative and identification of the structural expression abstracted from each period of life and each trajectory.
- Reconstruction of the story based on a systematical reaction between the abstract expression of each period or their trajectory up to the present.

Family 1 | Family 2 | Family 3 | Family 4 | Family 5 | Family 6

Stage 4: knowledge analysis
- Exploration of non-indexed components, which are the theoretical or argumentative contributions or proper explanations made by the informants about their life story and identity.

Family 1 | Family 2 | Family 3 | Family 4 | Family 5 | Family 6

Stage 5: contrastive comparison

MINIMUM → Comparison between cases, in search of similarities that strengthen the proposed categories in the steps prior to the analysis, focused on the study's area of interest.

MAXIMUM → Comparison between contrasting cases, in order to confront opposing categories and highlight alternative structural procedures.

Family 1 · Family 2 · Family 6 · Family 3 · Family 5 · Family 4

Stage 6: constructive and theoretical model
- Elaboration of technical model, from the systematic relation of the different theoretical categories analyzed.
- Discussion of the categories based on the theoretical reference adopted in the study: Fields and Family Rituals and Theory of Family Development.

THEORETICAL — Family 1 | Family 2 | Family 3 | Family 4 | Family 5 | Family 6

Theoretical model

"We all left the house in the nick of time. That's why we haven't lost everything: to lose everything is to lose someone you like, because they will never come back. And I can say today that it's alright with us, our family is together, and we were given a little house again..." (FF2).

"To be honest, when I realized that my house had fallen apart, for me it was as if everything was over. [...] I thought it was the end of the world when I saw what I had lost, but then we were informed of other situations that were much more serious than our own [...] So it made me feel relieved that I had lost my house but hadn't lost my children" (MF2).

Losses represent the families' suffering in dealing with the unexpected transition, which reflected significant changes in structure, functioning and daily routines, ushering in a difficult phase in family life centered on rebuilding ties, affections, senses, and the economic, social and environmental recovery after the natural disaster.

Moreover, the changes caused by losses, especially loss of family members and friends victimized by the disaster, express major disruptions in the cohesion of households severely shaken with mourning, requiring individual and collective coping strategies for the restoration of daily interrelations and mutual support due to loss of family members.

"We used to be very close and it broke in a very abrupt manner. Suddenly it was over, but it doesn't mean we're no longer connected [...] we used to be more, because mothers are mothers, and she used to bring us closer together, at least my mother did that. The big issue about the change was with my family. We had problems before that [...], this is normal, it's everyone's daily life, but it was a bit quieter" (MF4).

Having support and help from family right after the disaster event, feeling welcomed, supported and whole among the surviving family demonstrated that putting the nearest social network into action is one of the strengths of families in the transition coping process.

Losing their houses caused some community families to migrate to new locations (other neighborhoods, cities, states), creating the need for adaptation to new routines in a different community context of work and ways of living.

"It was very difficult for us because our house used to be near my father's and sisters' houses. We had never been apart since when we were young, you know? My sisters and I are very close [...] *but in fact our relationship is better in some respects today than when we lived next to each other"* (MF5).

The reconstruction of the house reveals an effort by the family to resume their private space of everyday relations, redefinition of meanings and identity, and reorganization of their life after the disaster. According to the narrative of one of the families, this task is laden with economic difficulties as well as uncertainty generated by the instability in the transition phase, a lack of support and of public policies for assistance in the disaster recovery phase. There is an almost solitary struggle of the families to recover their houses, to own a place again, and to move forward in a safer way.

Moreover, the issues relating to income, housing and employment prior to the disaster demarcate the fragility of families who, in these terms, become more vulnerable at the disaster recovery phase as well.

"I lost my job, as I had to stay far from here [in the shelter] *for a year. Before the disaster, I had a formal sector job* [with working papers legally signed] *in the agricultural service sector"* (FF1). *"She* [his wife] *used to work at a knitting factory, but in the informal economy, and now her boss signed her working papers* [to become a formal employee] *because when we came back here she continued with her same job* [...]. *Here, it's difficult to find a job in the formal economy, with legal guarantees, and this is bad because we have bills to pay at the end of the month, and sometimes we don't have enough money. When it's on the books, it's guaranteed money, so you can count on it to buy something in installments, you can rely on that amount* [...]. *We also waited for almost a year, they promised us a house, promised several things, but nothing so far! If you just keep waiting, you'll be depending on that, but we need to have a place to live"* (FF1).

Unemployment was also one of the consequences felt for those working in farming activities affected by the environmental impact of the disaster, or employees in commercial establishments, industrial sites devoid of occupation during the period of temporary shelter, far from the community. On the other hand, adolescents dropped out of school to work and help with the family income and, in the case of the young single mother group, the need to meet the demands of the construction of the new house and taking care of her little child caused her to drop out of college.

"Today I think of leaving something good for my son, a good education, which is what I could not have; although I still want to study. It's not a good time for me now [...] *but I want to go back to school too. By the time I finish paying this house, I want to go to school* [...] *I think we have to work with what we like to do"* (MF6).

Some narratives emphasized the loss of tranquility of life before mentioning the consequences of the destruction caused by the natural disaster concerning their way of living in the rural environment. For some families, the post-disaster transition involved abandoning their life in the countryside, and subsistence culture maintained through daily agricultural activities, requiring routine re-adaptations in more populated places.

"It used to be very quiet here! It seemed to be a little bit of heaven. We had never thought to move somewhere else. Here we didn't worry about anything, floods or landslides" (MF3). *"We had lots of fruit trees* [...], *you just needed to go there and pick a fruit* (FF3). *I used to plant anything I wanted, but now, the earth no longer gives anything"* (MF3).

Concrete environmental changes such as land transformation and the course of streams are perceived by families as a loss of quality of life. Direct contact with nature provided enjoyment, life benefits, and easy access to the rural environment. Yet, another less evident meaning was associated with the loss of peacefulness: the permanent state of alertness and fears of risks or danger, that represented a new reality for the families. Life now involves the daily specter of uncertainty and a dependence on reports about the town from the on-going evaluations by professionals and civil defense agents.

Discussion

The families' narratives show that the losses were manifested in the transition between the person's life period before and after the natural disaster that resulted in changes to family structure, functioning and routines requiring the development of new tasks. The Theory of Family Development [20] supports the idea that individuals and families experience some normal or usual life cycle transitions and participate in rituals that facilitate going through these transitions. Non-normative events appear unexpectedly and are usually unanticipated or may significantly alter a family's life for long periods of time. The lack of rituals and routines that meet the needs of the members, in particular of children and adolescents, during unexpected transitions may feature such events as threats to the individual and family health [21]. This study identified a disaster as an unexpected event in the family's life, one that temporarily disrupted routines of daily life and led to unexpected changes and transitions that affected the order of expected development.

The recovery phase in the cycle of disasters is a process of reconstruction in response to impacts and losses, promoting the survivors' return to the affected community, adaptations to daily life with routine reorganization, network reorganization, and preparation for future events. In fact, the process involved in the recovery is of utmost importance to community resilience [18]. However, the conduct of this post-disaster transition process, especially when recovery is not accompanied by policies and concrete action plans for the mitigation of impacts and vulnerability factors as well as community preparation towards threats, is reflected in scenarios where there is continuity of the disaster. Everyday disasters go unnoticed in Brazil, since the representation of such events expresses the illusory notion of overcoming the disaster by the intervention of the state and national support in providing donations, while the temporality of the experiences of those affected is underestimated in relation to the episode that is considered to be from natural causes, and the social catastrophe that remains is publicly neglected [25].

Disasters in Brazil reveal environmental, political and cultural processes preceding physical events regarded as natural threats causing social, economic and environmental impacts. These unveil the vulnerability of populations historically constructed under conditions of poverty, precariousness of territory, and trivialization of issues in addition to the inefficiency of the State in resolving them [26].

The results of this study emphasize the losses understood as consequences that challenge families in their daily coping with a disaster. While recovering, families have to carry on with their own resources, but may assume a position of victimhood or reflect little on their permanent conditions of vulnerability and the implications of such conditions on their resilience. Material losses particularly involve homes and farms entrenched in the transgenerational tradition of agriculture for subsistence, reflected in the families' incomes. Families affected by disasters lose their references (material possessions, homes or loved ones) in the space where identity is affirmed through daily activities and thus their internal notion of order becomes disorientated away from any concrete reality [26].

To mourn the loss of a property may mean to mourn a family's struggle to acquire the property over years. This territoriality is constituted by the family throughout life. It is a process of construction permeated with symbolic and cultural aspects that represent its history. However, when families are evacuated from their homes or when their homes are put off-limits because they are located in at-risk areas, the families' return is often not possible and they are therefore unable to experience the process of mourning and to rebuild the sense of such losses [27].

For some of the families, unemployment had a significant effect on their routines, and on the performance of roles and tasks traditionally assigned to females in rural areas, culminating in adaptations to family dynamics and flexibility of tasks and routines in order to preserve the health of family members. Gender and income are inherent components of the ecology of the family system in relation to larger systems, resulting directly in the structure of routines for maintaining life and health [21]. Loss of work, in turn, undermines the prospects of family income for recovery of social roles owing to a lack of formal support to family members or failure of informal provision strategies [28]. Studies in rural communities that are vulnerable to disasters have also shown the necessary contribution of policies to reduce economic vulnerability and increase the capacity of rural communities to build resilience to weather events [8,11,18,29,30]. Moreover, in order to promote resilience in rural communities in areas vulnerable to disasters, it is necessary to expand income-generating activities into non-agricultural

activities, considering future risks to livelihoods through ecological exploitation, and the impact of climate change by investing in growth policies in areas marginalized by poverty [29,30].

In the social dimension of post-disaster impacts on the family's life, migration was an unexpected change that expressed several difficulties and the necessity of various systems to support the social structure and gradually connect to new life contexts. This fact draws attention to the importance of building a culture of disaster resilience in migrant communities. An analysis of Nepal's vulnerability identified that when rural people migrate to urban zones they become more vulnerable as they are exposed to different hazards. Their survival experience could represent their resilience capabilities to urban disaster risks, but it is necessary to incorporate knowledge and new skills inherent to local risk disaster governance [31].

The death of family members, friends or neighbors was also common among the families who were interviewed. Two years after the disaster, the families were still trying to re-signify their coexistence in the environment, both physically and emotionally. Disasters have the potential to severely disrupt the lives and social networks of individuals, groups and communities, resulting in changes to individuals, culture and identity [16]. Studies have emphasized the contributions of social networks in post-disaster recovery, especially in the relationships of surviving families with relatives, friends and neighbors to promote community resilience [10,18,32]. The term "resilience" has been widely used after the international adoption of the *Hyogo Framework for Action 2005-2015* [33] (p. 4), and studies specific to natural disasters define resilience as "*the capacity of a system, community or society potentially exposed to hazards to adapt, by resisting or changing, in order to reach and maintain an acceptable level of functioning and structure*". Resilience results from many factors, including intrapersonal ones such as intelligence, positive coping strategies, optimism, prior experiences and personal financial capacity as well as external ones such as community facilities and services [32]. In this sense, with regard to health services in disaster contexts it is necessary to immediately incorporate psychological care and work with the factors that increase community resilience after these experiences [34], and strengthen social cohesion to protect and strengthen the psychological health and well-being of communities [35].

The context of rurality and the experience of families following a life trajectory calls attention to the various realities of social environmental disasters in Brazil. Memories that are strongly present today perpetuate ideas of the threat of nature and reveal the historical inequality in socio-environmental processes and political culture resulting from disasters [13]. Health professionals cannot stand on the sidelines of this issue. Vulnerability to disasters can be reduced by means of prevention activities, such as hazard and vulnerability assessments and the mitigation of negative impacts with appropriate disaster response measures. After disaster events, for example, effective rescue collaboration is important to ensure that health and epidemic prevention in affected areas keep the collective health of disaster areas and prevent secondary disasters [36]. From a long-term perspective, one of the challenges is to ensure that actors from different sectors participate in the formulation and implementation of interventions that promote sustainable recovery programs. Disaster governance needs to balance immediate disaster response activities and pre-event mitigation with preparedness and long-term recovery efforts. This is particularly emergent in countries that lack the resources to launch comprehensive disaster risk-reduction efforts [37].

Conclusions

The families' transitional experiences lasted for a long time after the natural disaster and required developmental tasks for the post-disaster recovery. Even more than one year after the disaster, the families were still evaluating what was left behind and trying to figure out the best ways to move forward. The recovery process for these families after the damage caused by the disaster was far-reaching, and not only homes were abandoned but also personal and family lives were disrupted.

Housing loss reveals many sensitive areas of transition. Families have to rebuild their relationships, reassess values and identify new meanings linked with daily life. An unexpected crisis is not just an event but an ongoing process that is continuous in their lives. It is necessary that nursing professionals and family-health teams attend to post-disaster life and health issues. The context of these events may differ when families live in rural areas. The assistance required is related not only to

home reconstruction and families' economic resources, but also to social, political, and educational actions to promote individual and family health. Families need help to understand that even when they are physically displaced or separated from their homes, new values and customs may need to be built over time.

Local authorities need to give equal importance to health and emotional adversities that arise from disasters. Needs demand different actions, needs (re)evaluation, and (re)planning of priority agendas and local programs. Greater political focus should be placed on the health care needs of individuals and families in affected communities. The consequences of these events are not only immediate, but delayed and intergenerational, which currently seem to be overlooked in public policy. In Brazil, government policies at the national level should urgently prepare the country for ongoing climate changes, reducing vulnerability to disasters. It is important to change the perception of a disaster as a fatality into awareness of vulnerability and resilience possibilities, in addition to a management culture to reduce the risks of disasters.

More research is needed to explore the role of family-health teams in such situations, and to explain the difficulties encountered in care situations, and to identify the strategies devised to promote community health in affected areas.

Contributors

G. C. M. Fernandes, A. E. Boehs paticipated in the conception and design, acquisition, analysis and interpretation of data, writing the article and Final approval of the version to be published. S. A. Denham contributted in drafting the article and revising it critically for important intellectual content. R. G. Nitschke and J. G. Martini revised the article critically and approved the final version.

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Resumo

Os desastres naturais afetam populações em diversas regiões do mundo. Os impactos dos desastres podem incluir problemas de saúde e transtornos da vida familiar, levando potencialmente a uma transição inesperada. O objetivo do artigo é apresentar a experiência com transições inesperadas, entre famílias rurais que sobreviveram a um desastre natural. Realizou-se um estudo de caso com seis famílias com crianças e adolescentes numa área rural no Sul do Brasil, afetada por um desastre em 2008. Para a coleta de dados, utilizamos a observação participante, entrevistas narrativas, genogramas, eco-mapas e um instrumento chamado rotina de calendário. A análise dos dados revelou diferentes interpretações das famílias sobre as mudanças que resultaram do temporal, comparando a vida antes e depois do desastre. A perda do lar e de entes queridos, a migração, o desemprego e perdas agrícolas foram as principais mudanças associadas ao desenvolvimento de novas tarefas. As experiências de transição familiar depois do desastre revelaram que as perdas influenciaram a vida social, a rotina diária e a preservação dos valores culturais.

Atenção Primária à Saúde; Enfermagem Familiar; Saúde da Família; Desastres Naturais

Resumen

Los desastres naturales afectan a poblaciones en diversas regiones del mundo. Los impactos de los desastres pueden incluir problemas de salud y trastornos de la vida familiar, llevando potencialmente a una transición inesperada. El objetivo del artículo es presentar la experiencia con transiciones inesperadas, entre familias rurales que sobrevivieron a un desastre natural. Se realizó un estudio de caso con seis familias con niños y adolescentes en un área rural en el sur de Brasil, afectada por un desastre en 2008. Para la recogida de datos, utilizamos la observación participante, entrevistas narrativas, genogramas, eco-mapas y un instrumento llamado rutina de calendario. El análisis de los datos reveló diferentes interpretaciones de las familias sobre los cambios que resultaron del temporal, comparando la vida antes y después del desastre. La pérdida del hogar y de los seres queridos, la migración, el desempleo y pérdidas agrícolas fueron los principales cambios asociados al desarrollo de nuevas tareas. Las experiencias de transición familiar después del desastre revelaron que las pérdidas influenciaron la vida social, la rutina diaria y la preservación de los valores culturales.

Atención Primaria de Salud; Enfermería de la Familia; Salud de la Familia; Desastres Naturales