



Trends in Psychology

ISSN: 2358-1883

Sociedade Brasileira de Psicologia

Azevêdo, Adriano Valério dos Santos; Crepaldi, Maria Aparecida  
Anxiety, Coping, and Significant Social Network of the Caregiver of a Child with Burns  
Trends in Psychology, vol. 27, no. 1, 2019, pp. 25-37  
Sociedade Brasileira de Psicologia

DOI: 10.9788/TP2019.1-03

Available in: <http://www.redalyc.org/articulo.oa?id=539659242003>

- How to cite
- Complete issue
- More information about this article
- Journal's homepage in redalyc.org



Scientific Information System Redalyc

Network of Scientific Journals from Latin America and the Caribbean, Spain and Portugal

Project academic non-profit, developed under the open access initiative

## Anxiety, Coping, and Significant Social Network of the Caregiver of a Child with Burns

Adriano Valério dos Santos Azevêdo\*,<sup>1</sup>

Orcid.org/0000-0003-0238-3423

Maria Aparecida Crepaldi<sup>2</sup>

Orcid.org/0000-0002-5892-7330

<sup>1</sup>*Universidade Tuiuti do Paraná, Curitiba, Paraná, Brasil*

<sup>2</sup>*Universidade Federal de Santa Catarina, Florianópolis, Santa Catarina, Brasil*

### Abstract

This research aimed to identify anxiety, coping, and the significant social network of the caregiver of a child with burns. It is a case study conducted by monitoring the caregiver of a child victim of burns in two phases: 1. Time when the child was hospitalized; 2. During their return to the Hospital Unit. The caregiver was the child's mother, married, and had more than three children. Instruments were used to identify anxiety indicators, coping strategies and social networks, besides an interview and a sociodemographic questionnaire. Data were analyzed through frequency, means and qualitative exploration. Results indicated mild anxiety, and coping strategies based on religious practices, problem assessment and social support. The social network was mainly constituted of family and community members, but also by friends and healthcare professionals. Material aid and emotional support were the main network functions, while cognitive guidance was specifically provided by the healthcare team. Results indicate that it is necessary to monitor the family caregiver during the child's hospitalization and rehabilitation period, in order to provide comprehensive care to meet their needs.

**Keywords:** Anxiety, coping, significant social network, burns, hospitalized child.

## Ansiedade, Enfrentamento e Rede Social Significativa do Cuidador de uma Criança com Queimaduras

### Resumo

A pesquisa objetivou identificar e analisar ansiedade, enfrentamento e a rede social significativa do cuidador de uma criança com queimaduras. Trata-se de um estudo de caso por meio de seguimento do cuidador em duas fases: 1. Momento da hospitalização da criança, e 2. Durante o retorno à Unidade hospitalar. O cuidador é representado pela figura materna, casada, e tinha mais de três filhos. Foram utilizados instrumentos para identificar indicadores de ansiedade, enfrentamento e redes sociais, além de

\* Mailing address: Universidade Tuiuti do Paraná, Programa de Pós-Graduação em Psicologia, Rua Sydnei Antônio Rangel Santos, 245, Santo Inácio, Curitiba - PR, Brazil 82010-330. E-mail: [adrianoazevedopsi@yahoo.com](mailto:adrianoazevedopsi@yahoo.com)

Support: Coordenação de Aperfeiçoamento de Pessoal de Nível Superior (CAPES).

entrevista e questionário sociodemográfico. Os dados foram analisados por meio de frequência, médias e exploração qualitativa. Os resultados mostraram que a ansiedade apresentou um indicador leve, as estratégias de enfrentamento foram focalizadas nas práticas religiosas, no problema e suporte social. As redes sociais foram constituídas prioritariamente por pessoas da família e integrantes da comunidade, além de amigos e equipe de saúde. Ajuda material e apoio emocional foram as principais funções da rede, e a função de guia cognitivo foi específica da equipe de saúde. Os resultados evidenciam a necessidade de acompanhar o cuidador familiar durante o período de hospitalização e reabilitação da criança para que se torne possível oferecer atenção integral às suas necessidades.

**Palavras-chave:** Ansiedade, enfrentamento, rede social significativa, queimaduras, criança hospitalizada.

## **Ansiedad, Afrontamiento y Red Social Significativa del Cuidador de un Niño con Quemaduras**

### **Resumen**

Esta investigación tuvo como objetivo identificar y analizar la ansiedad, afrontamiento, y red social significativa de cuidador de un niño con quemaduras. Es un estudio de caso realizado por el cuidador siguiendo dos fases: el momento de la hospitalización del niño, y durante el retorno a la unidad hospitalaria. El cuidador está representado por la madre, figura casado, y tenía más de tres hijos. Instrumentos se utilizaron para identificar indicadores de ansiedad, estrategias de afrontamiento y las redes sociales, así como entrevistas y cuestionario sociodemográfico. Los datos se analizaron por frecuencia, medio y estudio exploratorio. Los resultados mostraron que la ansiedad es indicador leve, las estrategias de afrontamiento se han centrado en la práctica religiosa y el apoyo social. Las redes sociales se formaron por personas de la familia, y miembros de la comunidad, así como amigos y equipo de atención médica. Asistencia material y apoyo emocional fueron las principales funciones de la red, y la función cognitiva fue guía específica del equipo de salud. Los resultados muestran la necesidad de vigilar el cuidador familiar en el proceso de tratamiento y rehabilitación del niño, por lo que se hace posible ofrecer una atención integral a sus necesidades.

**Palabras clave:** Ansiedad, afrontamiento, red social significativa, quemaduras, niños hospitalizados.

Child Health Psychology has highlighted that the caregivers of children show emotional and behavioral changes in the context of hospitalization (Barros, 2003; Carnier, Rodrigues, & Padovani, 2012; Chorney & Kain, 2010; Coyne 2006; Crepaldi, Rabuske, & Gabarra, 2006). In the case of those responsible for the care of children with burns, such changes are aggravated due to their concerns and guilt (Bicho & Pires, 2002; Cella, Perry, Poag, Amand, & Goodwin, 1988; Ferreira, 2006). In this sense, it is necessary to focus on the experiences of caregivers of hospitalized children, considering the singularities of their experiences.

Family caregivers of hospitalized children with burns show higher indicators of psy-

chological distress, the most severe form of stress, when compared to samples from other pediatric contexts (McGarry et al., 2013). Scientific research has highlighted the emotional changes experienced by caregivers of children with burns: anxiety, depression, and post-traumatic stress (Bakker, Maertens, Van Son, & Van Loey, 2013). Anxiety, in particular, involves concerns about potential events in the future, leading to physiological changes, thought content ideations, and a variety of behavioral reactions, such as avoidance (American Psychiatric Association [APA], 2014).

In burn units, family caregivers experience anxiety and changes in relational dynamics, which come from the critical pain phase (Hall

et al., 2006; Stoddard et al., 2002), because in the first days of hospitalization the environment is considered threatening and hostile due to invasive procedures that cause painful sensations. Since parents' empathy towards the child is intense, the suffering experienced is similar to, or greater than the child's (Kazak et al., 2006; Langeland&Olf, 2008), especially in cases of severe burn injuries involving risk of death and a series of complications related to the child's physiological changes that require special attention from the health team.

There is a consensus among authors (Bakker &Walstra, 2013; Landolt, Buehlmann, Maag, &Schiestl, 2009; McGarry et al., 2015) that the occurrence of burns and the need for hospitalization during treatment is traumatic when compared to other pediatric injuries, as it causes intense suffering for the child and the caregiver. It is a complex task for the caregiver to cope with the situation and provide confidence to the child, considering that in times marked by stressful situations, caregivers tend to cope using their personal and social resources.

The term coping refers to the strategies used by individuals to face stressful situations, these involve focusing on the problem, aiming at modifying or controlling the stressful event; on emotions, aiming at emotional regulation; on social support, through the assistance received from people close to them (Folkman, 2011; Lazarus & Folkman, 1984); and on religious practices (Folkman, 2011). Cognitive assessment of the situation, which occurs through threat, damage or challenge, is the key element to determine the type of strategy to be used (Folkman, Lazarus, Dunkel-Schetter, De Longis, & Gruen, 1986), considering that first it is necessary to identify the relationships between the individual and the environment, the way interpretations are attributed to the events, and the situations considered stressful.

Particularly under stressful circumstances, the support offered by significant social networks influences the way the person copes with the situation, especially in the context of hospitalization in burn units, due to the changes in family caregivers' social relations network

(Gawryszewski et al., 2012). Social relationships considered significant for the individual, such as interactions with family members, work, community, and health service people, are characterized as significant social networks (Sluzki, 1997), because these interactions allow for the strengthening of interpersonal bonds.

It is possible to infer that integrated and participative social networks contribute to the provision of support and represent a protection factor for the individual, since the perception of safety assists in the management of crises that generate anxiety. In this context, Dabas (1993) establishes relationships between social networks and coping strategies, and considers that the support received broadens the possibilities of coping.

It is evident that there is a relationship between anxiety, coping and social networks, because when perceptions of threat, damage or challenge are attributed to events, the individual tries to use coping strategies. Studies on anxiety (Bicho&Pires, 2002; Kent, King, & Cochrane, 2000; Phillips & Rumsey, 2008; Thompson, Boyle, Teel, Wambach, & Cramer, 1999) and coping (Suurmond, Van Loey, Dokter, & Essink-Bot, 2011) regarding family caregivers of children with burns has been poorly discussed in researches, and case studies have emphasized the effects of psychological interventions aimed at children (Azevêdo&Trindade, 2011; Walker & Haley, 1980). There is a lack of studies on social networks in burn units, which was determined through searches in national and international databases – Bireme, Scopus, Medline, ScienceDirect and PsycInfo. What has been studied is social networks in general pediatrics units (Menezes, Moré, & Barros, 2016).

Case studies with the caregiver of a hospitalized child make it possible to expand the possibilities of research, contribute to the understanding of psychological and social aspects, and determine forms of intervention to be implemented in order to guarantee the integrality of care. This article aims to identify and analyze anxiety, coping and the significant social network of the caregiver of a child with burns.

## Method

This is a case study, which according to Yin (2004) is a design that seeks to investigate through techniques and procedures that allow the analysis of specific points within a theme. The study was conducted with a family caregiver of a child with burns, and the follow-up was divided in two phases: 1. Moment of hospitalization of the child (second month), 2. Return of the family to the Burn Unit to perform a functional surgery of the child (one year and three months after the occurrence of the burn). The study was carried out in the Burn Unit of a public hospital located in the South of Brazil. The severity of the burn situation and the suffering experienced by the child and the caregiver were the criteria for the selection of the participant in this research.

### *Participant*

The caregiver of the child with burns was the mother, 35 years old, who lived in the interior of the state, married, pregnant, and had five children. She was unemployed, had incomplete primary education, and the monthly family income came from her husband. The caregiver did not have any experience in accompanying children in hospital settings.

The child is male, was 9 years old at the time of admission, and was a user of the Psychosocial Care Center for Children and Adolescents (CAPSi) since the age of 7, due to irritability and aggressive behavior. He had burns from a domestic accident caused by exposure to a flame of fire, characterized as severe 2nd and 3rd degree burns (large burn) that reached the upper (including face) and lower regions of the body. The child was hospitalized for three months and underwent invasive procedures for the treatment of burns, including graft surgeries to restore the injured area.

### *Instruments*

The following instruments were used for data collection: Sociodemographic questionnaire, Beck Anxiety Inventory (BAI), Ways of Coping

Scale (WOCS), and the map of significant social networks technique.

The assessment of the anxiety indicator was performed using the Beck Anxiety Inventory (BAI), which integrates Beck Scales. It was translated and adapted for Brazil and obtained an internal consistency of 0.87, and a correlation between test and retest of 0.06 and 0.11 (Cunha, 2001). It is a self-report scale that evaluates the intensity of anxiety symptoms experienced by the individual during the past week. The instrument consists of 21 items that are assessed by individuals about themselves, by means of a Likert scale of four points, ranging from 0 to 3. The total score represents the sum of individual scores, which vary between 0 and 63 and allow for classification in levels of anxiety intensity. We used the recommendation of anxiety symptoms indication for non-psychiatric patients, with minimal level for scores from 0 to 7; mild, scores 8-15; moderate, scores from 16 to 25; and severe - 26 to 63 (Cunha, 2001).

Coping strategies were evaluated through the Ways of Coping Scale (WOCS), constructed and validated by Seidl, Tróccoli, and Zannon (2001). WOCS is an adaptation of the original instrument – Ways of Coping Checklist (WCC) – that evaluates strategies focused on the problem and emotion, which later allowed the construction of the Ways of Coping Questionnaire Revised (WOCQR) with eight factors: confrontation coping, distancing, self-controlling, seeking social support, accepting responsibility, escape-avoidance, planful problem solving and positive reappraisal (Folkman et al., 1986).

WOCS consists of 45 items that seek to identify cognitive and behavioral strategies through four subscales: 1. Coping focused on the problem (18 items – Cronbach's Alpha = 0.84) – Management and control of stressful event, 2. Coping focused on emotion (15 items – Cronbach's Alpha = 0.81) – Emotional regulation, 3. Coping focused on religious practices (7 items – Cronbach's Alpha = 0.74) – Religious behaviors that include prayers, and 4. Coping focused on social support (5 items – Cronbach's Alpha = 0.70) – Support from other people in the social environment. Answers are graded on

a five-point Likert scale (1 – I never do it, 2 – I do it a little, 3 – I sometimes do it, 4 – I often do it, and 5 – I always do it). WOCS data make it possible to highlight the main coping strategies used by individuals, based on scores that allow the verification of reactions to stressful events.

A sociodemographic questionnaire was used to obtain data about the companion (age, schooling, marital status, occupation, family income, previous experience as companion in hospital settings), and the child (age and diagnosis of burn).

An interview guide was used to direct the application of the network map, in order to identify the people who were offering support to the caregiver at the time, and the type of help received. The characterization of the social network was performed through a network map, which has three circles divided into four quadrants. The inner circle represents intimate relationships, the intermediate circle represents relationships with a lower level of commitment, and the outer circle the relationships with acquaintances (Sluzki, 1997). The quadrants are divided into four categories: family, friends; work and study relationships; and community relations, which was subdivided to include healthcare.

### **Procedures**

The research project was approved by the Research Ethics Committee (REC) of the Hospital where the research was conducted and the ethics committee of the Federal University of Santa Catarina (Process 44539215.7.0000.0121). The caregiver of the child with burns was invited to participate in the research individually, after the objectives were presented and authorization was granted by signing the Free and Informed Consent Form (TCLE), according to resolution no. 466/2012 of the National Health Council, based on criteria established for research with human beings. Initially, the instruments were given for the companion to answer in the following sequence: Beck Anxiety Inventory and Ways of Coping Scale. Instructions for marking and clarifications regarding the alternatives

to be filled were offered, followed by a semi-structured interview.

The first contact with the caregiver occurred in the second month of hospitalization of the child, and at that moment, the instruments to identify anxiety, coping and social networks were applied. The first interview was performed when the caregiver was accompanying the hospitalized child in the Burn Unit. The interview guide included questions regarding the accident that caused the burns; the emotional reactions of the mother when she saw the burned child; her perception and experience in the Burn Unit; her relationship with the healthcare team; her knowledge about treatment for burns; the reactions of the mother when she witnessed the child being submitted to invasive procedures; and the relationship established between the caregiver and the child.

The interview allowed us to hear and welcome the participant, so that we could then present the social network map, according to literature guidelines (Moré&Crepaldi, 2012). The network map drawing was presented with the following questions: (a) During the period you are at the hospital Madam, who are the people that are offering you support?(b) How close to these people are you? What kind of support has been offered to you? (c) How long have you known this person? The participant was asked to identify the people in the four quadrants, how close they were, their function, and the type of support received from these people. An audio recorder was used during the application of the network map, with the participant's consent, allowing us to record the dialogue, which was helpful during the data analysis step.

The second contact with the caregiver occurred one year and three months after the accident, when the child returned to the hospital to perform a functional surgery to release a scar on their arm. First, the instruments were applied to assess anxiety and coping. The third interview included questions related to the experience of accompanying a hospitalized child in the Burn Unit; the repercussions of the accident and hospitalization for the family; the relationships

between child, family and healthcare team; the reintegration of the child into social activities (school); rehabilitation treatment and future prospects for the child.

### **Data Analysis**

Data were initially analyzed calculating the means of the anxiety and coping scales by counting and verifying scores, following the recommendations of the respective instruments. Network map analysis included the following items (Sluzki, 1997): 1. Network structure (size, density, composition or distribution, dispersion, homogeneity and heterogeneity), 2. Network functions (social company, emotional support, cognitive or counseling guide, social regulation, material and service help, access to new contacts), and 3. Bond attributes (multidimensionality, reciprocity, intensity or commitment of the relationship, frequency of contact, relationship history). Data from the interviews were analyzed using a qualitative exploration of thematic analysis (Bardin, 2009), and through the reading, it was possible to identify two themes that were mentioned. In this research, a fictitious name (Maria) will be used to present the case study.

## **Results**

Results will be presented in two phases: 1. Moment of child's hospitalization, 2. Return to the Burn Unit to accompany the child who underwent surgery.

### ***Moment of the Accident and Hospitalization of the Child***

Maria's first reaction when she saw her child burned in the family setting was panic (*"The greatest despair in the world, I did not know if I could bear it"*). It was an emotional event in which the caregiver experienced a moment of crisis. First, a neighbor called the firefighters, then the child and the mother were taken to the city hospital, where they remained for two days. Those days were marked by moments of tension because of the severity of the case. Due to the severity of the burns, the child was transferred

to a Children's Hospital, where they stayed for nine days in the Intensive Care Unit. Then, they were referred to the Burn Unit, where this study was conducted.

Maria said she was well received at the hospital's Emergency Department, as doctors informed her about the child's serious situation, the possibilities of treatment, and the risks. Once transferred to the Burn Unit, the nursing professionals presented her general information about the hospital unit: feeding schedules and routines. The healthcare team explained the general procedures for the treatment of burns, and when she witnessed the first dressing, she was sad and asked to leave the room because she felt like fainting, since she did not imagine the severity of the injuries. Later, she was able to observe the exchange of dressings and talk to the child, informing them that the procedures performed at the hospital were important for their recovery.

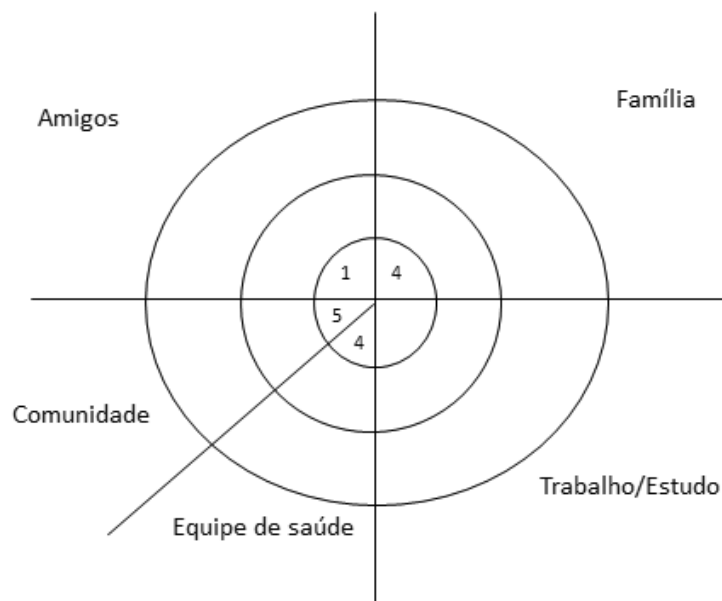
It should be noted that the child displayed irritability, complaints about pain, crying, and screams over the period they remained in hospital. It was possible to determine that Maria felt guilty about the burn event, due to the repeated explanations presented about the domestic accident [*"It was very fast, I left it on and went out of the house, when I realized there was already fire in the house"*].

Results of the assessment through the instruments showed that the score for the Beck Anxiety Inventory indicated mild anxiety ( $M = 15$ ). In relation to coping strategies, it was found that religious practice presented the highest mean ( $M = 4.29$ ), followed by social support coping ( $M = 4.20$ ), focusing on the problem ( $M = 4.11$ ), and on emotion ( $M = 1.60$ ).

Fourteen people were included in the network map structure, in the circle of greater closeness, representing a medium-sized network marked by social bonding (Figure 1). The number of men and women was balanced, there was no dispersion among the people in the network, and the main functions of the network are related to material help, emotional support, and cognitive guidance. Material assistance, in particular, came from family members, which

included offering financial help and providing a car to take the child to the hospital; emotional support was offered by all members of the network, and cognitive guidance was the main function performed by the healthcare team. In the community, three neighbors and a couple of church pastors offered spiritual support through

prayer. The only person included in the friends' network was the child's teacher, who used to send homework to be done in the hospital. In terms of bonding attributes, the predominant function was emotional support. People in the network maintained frequent contact and constituted a network based on a relationship of trust.



**Figure 1. Map of social networks during the period of hospitalization and outpatient treatment (Friends, Family, Community, Healthcare Team, Work/Study).**

### *Return to the Burn Unit for Surgery*

One year and three months after the occurrence of burns, at 11 years old, the child returned to the burn unit for functional surgery, which aimed to minimize the effect of scars on the body. Outpatient treatment was being carried out through monthly visits to the hospital and physiotherapy sessions in the city of origin, funded by the city. Maria was accompanying her child and both arrived the day before surgery to prepare for hospital procedures. She pointed out that when she entered the hospital, memories from the time she had first accompanied the child there emerged (e.g., the moments when she was agitated and the memories of her child crying on the way to the surgical center). She contextualized the event that caused the burn, but this time she was restructuring her thoughts, which was possible to notice due to the absence of guilt.

She reported that after the accident she stopped doing handicrafts that used to generate income for the family, in order to dedicate herself to taking care of the child and her other children. At home, she performed a satisfactory exchange of dressings for the child, because she had observed this procedure at the time the child was hospitalized. The child returned to school at the beginning of the year 2015 the previous year they were away to dedicate themselves to the rehabilitation of their injuries, and because their house was very far from the school. At the beginning of the year, the family decided to move to another neighborhood near the school, to facilitate commuting. Initially, dialogues were established with the school coordination and the teacher, to facilitate the reintegration of the child. Classmates and teachers welcomed the child with positive messages, which pleased the child and the mother. The child was regularly going



to school, and in the other shift, they attended computer classes and an arts and crafts course.

Two months earlier, having been invited by a doctor, the child underwent neck surgery at another state public hospital. After having undergone this surgery, the child made new friends that began to visit the house, and started to pay more attention to their physical appearance, their future and the independence to perform chores at home (*"He has willpower and is determined to do things"*). A positive aspect highlighted by Maria was that she started receiving her social security benefit, which helps with the costs of dressings, medicine and commuting from her house to the Children's Hospital.

By analyzing instrument results, it was found that the mean obtained for the Anxiety Inventory was considered a mild indicator ( $M = 11.00$ ); the use of coping strategies based on religious practices presented the highest mean ( $M = 4.00$ ), followed by problem assessment ( $M = 3.50$ ), social support ( $M = 3.40$ ), and emotion ( $M = 1.93$ ).

Fourteen people were included in the network map, ten females, which constitutes a medium-sized network with people located in the circles of greater and lesser closeness (Figure 2). The largest number of people is

in the family quadrant, because there was a family rapprochement in the circle of greater closeness, involving eight people. It is important to highlight the fact that her daughter decided to live nearby to offer support. These family members offered social company and assistance in household chores, such as taking care of the children, which was performed by her mother-in-law and her daughter, and making the car available for use, offered by her sister-in-law. A couple of friends who offered material help by providing medication, food, and social companionship during home visits on weekends were included in the circle of lesser closeness in the quadrant of friends. It is a new friendship that began through friends of the child's uncle. A new couple of church pastors was included in the circle of lesser closeness in the community quadrant, because they offer prayers every Saturday at the child's house. The healthcare team quadrant consisted of two individuals who were considered significant because they offered emotional support and cognitive guidance, with general information to facilitate the continuation of outpatient treatment. The predominant function of the bond was emotional support, offered by all members of the social network. The frequency of contact was considered satisfactory because they met regularly.

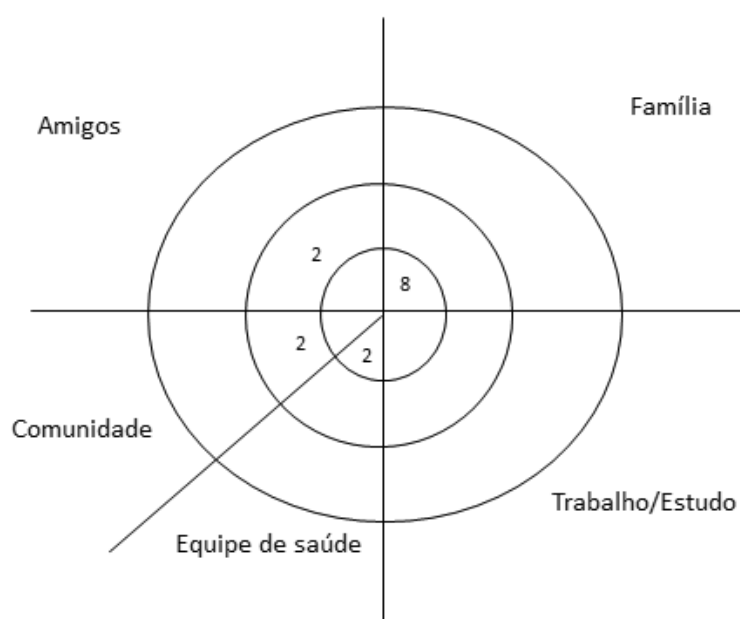


Figure 2. Map of networks in the phase of return to the burn unit (Friends, Family, Community, Healthcare Team, Work/Study).

## Discussion

In this case study, indicators of mild anxiety were identified in the family caregiver of the hospitalized child, both in the hospitalization stage and one year after the burn event. However, in scientific research, symptoms of general anxiety have been found in several studies (Kent et al., 2000; Oliveira, Fonseca, Leite, & Santos, 2015; Phillips&Rumsey, 2008). Anxiety may be related to the following aspects: concerns regarding the treatment process, child recovery, and how to minimize the suffering experienced by the child (Bicho&Pires, 2002), especially with regard to painful sensations and the child's future (Thompson et al., 1999).

The fact that the family caregiver shows mild anxiety allows us to reflect on the people who offered some assistance, since it was mentioned that the healthcare team contributed through emotional support, which is a particular aspect that provided satisfaction to the caregiver. The panic reaction when she saw the child with burns, and the alternating feelings during the period of hospitalization are consistent with the results found in other studies (McGarry et al., 2015; Oster,Hensing, Lojdstrom, Sjoberg, & Willebrand, 2014). Thus, it is possible to say that the emotional impact caused by the burn process on the child had repercussions on the family caregiver throughout hospitalization, but the indicators of emotional states gradually decreased, as a result of the contacts made at the hospital and the ways of coping.

Coping strategies focused on religious practices, on the problem, and on social support were the most used, which is consistent with the results of a study conducted with parents of children with burns (Suurmond et al., 2011). Parents who felt guilty, in particular, used strategies focused on the problem and on religious practices (Suurmond et al., 2011). This fact could be observed at the time of hospitalization, when the caregiver displayed feelings of guilt and used religious practices, which confirms previous studies that emphasized that religious beliefs were the main way for caregivers to cope

with the situation (LeDoux, Meyer, Blakeney, & Herndon, 1998; Rosenberg et al., 2007).

As for guilt feelings and the use of religious practices, authors have indicated that they represent a negative way of religious coping, which occurs when negative connotations are attributed to the as (Pargament, Koenig, & Perez, 2000). The unpredictability of the accident that caused burns, and the fear of arriving at the hospital, probably allowed the emergence of feelings of guilt, and in the case of the family caregiver of a severely burned child, it was aggravated due to anxiety. In this sense, establishing relationships between religiosity, spirituality, emotional states (anxiety), coping, and social support, is a strategy that can be used in research and interventions, and is currently being investigated in international research (Rosmarin, Alper, & Pargament, 2016).

It is important to highlight the relationship between coping and the social support received from people considered significant. The family quadrant was the one that involved the greatest number of people, including the rapprochement of relatives, and the functions of material help and emotional support were predominant. The healthcare team quadrant was emphasized because healthcare professionals provide support and care to meet the needs of the caregiver and the child. Studies on social networks in the context of child hospitalization due to acute and chronic illnesses obtained similar results, since caregivers emphasized that the support received from the family and the healthcare team contributed to coping with the situations (Caminha, 2008; Fonseca&Marcon, 2009; Lorenzi&Ribeiro, 2006; Menezes et al., 2016; Nóbrega, Collet, Silva, & Coutinho, 2010; Primio et al., 2010).

This allows us to understand that in the hospital institution, regardless of the type of illness and the sector where the child and the caregiver are, the family and the healthcare team are the main significant social networks. Overall, involvement through constant support is a strategy used by the parents of the child with burns to minimize emotional changes and

restore the family's well-being (Oster et al., 2014).

This support received from family members and the healthcare team may have helped the family caregiver of the child with burns manage the child's emotional reactions during the post-hospitalization period. According to the caregiver, the experience of accompanying the hospitalized child with burns generated psychological distress, which is consistent with results of a study that sought to explore the experiences of caregivers, which include moments of tension and distress related to the memories of the hospitalization stage (Varela, Vasconcelos, Santos, Pedrosa, & Sousa, 2009). The caregiver of the child was able to restructure this experience, since she realized that there were possibilities to be accomplished, such as engaging the child in social activities.

It was found that the dialogue between the child's mother and the school principal had positive effects on how the child was received by their classmates, teachers, and school employees, when the child returned to the school environment a year after the burn event. A study pointed out that there are aspects that contribute to the child's adaptation to school, such as the parents' confidence in themselves; the child's capacity to cope with situations; and the way the school prepares itself to receive the child (Horridge, Cohen, & Gaskell, 2010). School receptivity contributes to the reinsertion of the child into the educational environment, and assists in the relationship between the child and their parents (Horridge et al., 2010).

As regards the emotional changes and social repercussions experienced by the caregivers of children with burns, one of the aspects emphasized was the financial cost of travel to the hospital and to purchase dermatological products. Parents of children with burns who have lower family income, experience socioeconomic changes due to extra expenses during the process of treatment and rehabilitation of burns (Kilburn & Dheansa, 2014). In summary, the emotional changes, the changes in family relationships, and social aspects involved, were experienced through a process in which family members

developed interactions that contributed to coping with the situations.

## Final Considerations

In this study, it should be emphasized that during the phases experienced by the caregiver of the child with burns, from the period of hospitalization (second month) until the return to the burn unit (after one year and three months), indicators showed mild anxiety, and coping strategies were directed towards religious practices, problem assessment, and social support. Social networks went through some changes regarding the removal of some people during the post-hospitalization stage, and the inclusion of new people into the family quadrant.

The network functions of material help and emotional support were predominant in the family, community, and friends quadrants, and the role of cognitive guidance came specifically from the healthcare team. It was found that one year and three months after the burn event, the caregiver presented positive perspectives regarding the future of the child and the reorganization of family functioning in order to continue the burn rehabilitation treatment.

In this sense, the family caregiver of a child with burns experiences different moments during the process of treatment and rehabilitation of burns, initially marked by panic, the experience was restructured over time through the support of social networks. It is recommended that future research focus on longitudinal studies to follow the caregiver and the family, and thus investigate other variables, such as family functioning, post-traumatic stress, and resilience.

## References

- American Psychiatric Association. (2014). *DSM-5: Manual de diagnóstico e estatística das perturbações mentais* (5th ed.). Porto Alegre, RS: Artmed.
- Azevêdo, A. V. S., & Trindade, A. F. (2011). Intervenção psicológica no acompanhamento hospitalar de uma criança queimada. *Psicologia*

- Ciência e Profissão*, 31(2), 328-339. <http://dx.doi.org/10.1590/S1414-98932011000200010>
- Bakker, A., Maertens, K.J.P., Van Son, M.G.M., & Van Loey, N.E. E. (2013). Psychological consequence of pediatrics burns from a child and family perspective: A review of the empirical literature. *Clinical Psychology Review*, 33(3), 361-371. <http://10.1016/j.cpr.2012.12.006>
- Bakker, A., & Walstra, J. (2013). Psychischereacties op trauma bij kinderen en ouders [Psychological reactions on trauma in children and parents]. In A. E. E. De Jong (Ed.), *Brandwondenzorg* [Burn care]. Breda, Nederland.
- Bardin, L. (2009). *Análise de Conteúdo*. Lisboa:Edições 70.
- Barros, L. (2003). *Psicologia pediátrica: Perspectiva desenvolvimentista*. Lisboa: Climepsi.
- Bicho, D., & Pires, A. (2002). Comportamento de mães de crianças hospitalizadas devido a queimaduras. *Análise Psicológica*, 1, 115-129. Retrieved from <http://www.scielo.mec.pt/pdf/aps/v20n1/v20n1a11.pdf>
- Caminha, M.I. (2008). *Fissuras e cicatrizes familiares: Dinâmica relacional e a rede social significativa de famílias com crianças com fissura labiopalatal* (Master thesis, Programa de Pós-Graduação em Psicologia, Universidade Federal de Santa Catarina, Florianópolis, SC, Brazil).
- Carnier, L.E., Rodrigues, O.M.P.R., & Padovani, F.H.P. (2012). Stress materno e hospitalização infantil pré-cirúrgica. *Estudos de Psicologia* (Campinas), 29(3), 315-325. <http://dx.doi.org/10.1590/S0103-166X2012000300002>
- Cella, D. F., Perry, S. W., Poag, M. E., Amand, R., & Goodwin, C. (1988). Depression and stress responses in parents of burned children. *Journal of Pediatric Psychology*, 13(1), 87-99.
- Chorney, J.M., & Kain, Z.N. (2010). Family-centered pediatric perioperative care. *Anesthesiology*, 112(3), 751-755. <http://10.1097/ALN.0b013e3181cb5ade>
- Coyne, I. (2006). Children's experiences of hospitalization. *Journal of Child Health Care*, 10(4), 326-336. <http://10.1177/1367493506067884>
- Crepaldi, M.A., Rabuske, M.M., & Gabarra, L.M. (2006). Modalidades de atuação do psicólogo em psicologia pediátrica. In M.A. Crepaldi, M.B.M. Linhares, & G.B. Perosa (Eds.), *Temas em Psicologia Pediátrica* (pp. 13-55). São Paulo, SP: Casa do Psicólogo.
- Cunha, J. A. (2001). *Manual da versão em português das Escalas Beck*. São Paulo, SP: Casa do Psicólogo.
- Dabas, E. (1993). *Red de redes: las prácticas de intervención en redes sociales*. Buenos Aires: Piados.
- Ferreira, L. A. (2006). *Ser mãe no mundo com o filho que sofreu queimaduras: Um estudo compreensivo* (Unpublished doctoral dissertation, Instituto de Psicologia, Universidade de São Paulo, SP, Brazil).
- Folkman, S. (2011). Stress, health, and coping: Synthesis, commentary, and future directions. In S. Folkman (Ed.), *The Oxford handbook of stress, health, and coping* (pp. 453-462). New York: Oxford University Press.
- Folkman, S., Lazarus, R.S., Dunkel-Schetter, C., De Longis, A., & Gruen, R.J. (1986). Dynamics of a stressful encounter: Cognitive appraisal, coping, and encounter outcomes. *Journal of Personality and Social Psychology*, 50(5), 992-1003. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/3712234>
- Fonseca, E.L., & Marcon, S.S. (2009). Rede de apoio às famílias de bebês de baixo peso após a alta hospitalar: Um estudo qualitativo. *Online Brazilian Journal of Nursing*, 8(2), 1-6. Retrieved from <http://www.objnursing.uff.br/index.php/nursing/article/view/j.1676-4285.2009.2443/513>
- Gawryszewski, V.P., Bernal, R.T.I., Silva, N.N., Morais-Neto, O.L., Silva, M.M.A., Mascarenhas, M.D.M., ...Malta, D.C. (2012). Atendimentos decorrentes de queimaduras em serviços públicos de emergência no Brasil, 2009. *Cadernos de Saúde Pública*, 28(4), 629-640. <http://dx.doi.org/10.1590/S0102-311X2012000400003>
- Hall, E., Saxe, G., Stoddard, F., Kaplow, J., Koenen, K., Chawla, N., ...King, D. (2006). Posttraumatic stress symptoms in parents of children with acute burns. *Journal of Pediatric Psychology*, 31(4), 403-412. <http://10.1093/jpepsy/jsj016>
- Horridge, G., Cohen, K., & Gaskell, S. (2010). Burned: Parental, psychological and social factors influencing a burn-injured child's return to education. *Burns*, 36(5), 630-638. <http://doi.org/10.1016/j.burns.2009.08.013>

- Kazak, A. E., Kassam-Adams, N., Schneider, S., Zelikovsky, N., Alderfer, M. A., & Rourke, M. (2006). An integrative model of pediatric medical traumatic stress. *Journal of Pediatric Psychology*, 31(4), 343-355. <http://10.1093/jpepsy/jsj054>
- Kent, L., King, H., & Cochrane, R. (2000). Maternal and child psychological sequelae in pediatric burn injuries. *Burns*, 26(4), 317-322. [http://doi.org/10.1016/S0305-4179\(99\)00172-2](http://doi.org/10.1016/S0305-4179(99)00172-2)
- Kilburn, N., & Dheansa, B. (2014). Socioeconomic impact of children's burns-a pilot study. *Burns*, 40(8), 1615-1623. <http://10.1016/j.burns.2014.03.006>
- Landolt, M. A., Buehlmann, C., Maag, T., & Schiestl, C. (2009). Brief report: Quality of life is impaired in pediatric burn survivors with posttraumatic stress disorder. *Journal of Pediatric Psychology*, 34(1), 14-21. <http://10.1093/jpepsy/jsm088>
- Langeland, W., & Olff, M. (2008). Psychobiology of posttraumatic stress disorder in pediatric injury patients: A review of the literature. *Neuroscience and Biobehavioral Reviews*, 32(1), 161-174.
- Lazarus, R.S., & Folkman, S. (1984). *Stress, appraisal and coping*. New York, Springer.
- LeDoux, J. M., Meyer, W. J., Blakeney, P. E., & Herndon, D. N. (1998). Relationship between parental emotional states, family environment and the behavioral adjustment of pediatric burn survivors. *Burns*, 24(5), 425-432. [https://doi.org/10.1016/S0305-4179\(98\)00038-2](https://doi.org/10.1016/S0305-4179(98)00038-2)
- Lorenzi, P.C., & Ribeiro, N.R.R. (2006). Rede de apoio familiar na hospitalização infantil. *Família Saúde e Desenvolvimento*, 8(2), 138-145. <http://dx.doi.org/10.5380/fsd.v8i2.7988>
- McGarry, S., Elliott, C., McDonald, A., Valentine, J., Wood, F., & Girdler, S. (2015). "This is not just a little accident": A qualitative understanding of pediatric burns from the perspective of parents. *Disability and Rehabilitation*, 37(1), 41-50. <http://10.3109/09638288.2014.892640>
- McGarry, S., Girdler, S., McDonald, A., Valentine, J., Wood, F., & Elliot, C. (2013). Paediatric medical trauma: The impact on parents of burn survivors. *Burns*, 39(6), 1114-1121. <http://doi.org/10.1016/j.burns.2013.01.009>
- Menezes, M., Moré, C.L.O.O., & Barros, L. (2016). As redes sociais dos familiares acompanhantes durante internação hospitalar de crianças [Specialissue]. *Revista da Escola de Enfermagem da USP*, 50, 107-113. <http://dx.doi.org/10.1590/S0080-623420160000300016>
- Moré, C.L.O.O., & Crepaldi, M.A. (2012). O mapa de rede social significativa como instrumento de investigação no contexto da pesquisa qualitativa. *Nova Perspectiva Sistêmica*, 43, 84-98. Retrieved from <http://pesquisa.bvs.br/brasil/resource/pt/psi-57034>
- Nóbrega, V.M., Collet, N., Silva, K.L., & Coutinho, S.E.D. (2010). Rede e apoio social das famílias de crianças em condição crônica. *Revista Eletrônica de Enfermagem*, 12(3), 431-40. <http://dx.doi.org/10.5216/ree.v12i3.7566>
- Oliveira, V.V., Fonseca, A.S., Leite, M.T.S., & Santos, L.S. (2015). Vivência dos pais no enfrentamento da situação de queimaduras em um filho. *Revista Rene*, 16(2), 201-20. <http://10.15253/2175-6783.2015000200>
- Oster, C., Hensing, I., Lojdstrom, T., Sjöberg, F., & Willebrand, M. (2014). Parents' perceptions of adaptation and family life after burn injuries in children. *Journal of Pediatric Nursing*, 29(6), 606-613. <http://doi.org/10.1016/j.pedn.2014.06.010>
- Pargament, K.I., Koenig, H.G., & Perez, L.M. (2000). The many methods of religious coping: Development and initial validation of the RCOPE. *Journal of Clinical Psychology*, 56(4), 519-543. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/10775045>
- Phillips, C., & Rumsey, N. (2008). Considerations for the provision of psychosocial services for families following paediatric burn injury--A quantitative study. *Burns*, 34(1), 56-62. <http://doi.org/10.1016/j.burns.2006.12.003>
- Primio, A.O., Schwartz, E., Bielemann, V.L.M., Burille, A., Zillmer, J.G.V., & Feijó, A.M. (2010). Rede social e vínculos apoiadores das famílias de crianças com câncer. *Texto Contexto Enfermagem*, 19(2), 334-42. <http://dx.doi.org/10.1590/S0104-07072010000200015>
- Rosenberg, L., Blakeney, P., Thomas, C. R., Holzer, C. E., Robert, R. S., & Meyer, W. J. (2007). The importance of family environment for young adults burned during childhood. *Burns*, 33(5), 541-546. <http://doi.org/10.1016/j.burns.2006.11.005>
- Rosmarin, D.H., Alper, D.A., & Pargament, K.I. (2016). Religion, spirituality, and mental health.

- Encyclopedia of Mental Health* (2nd ed., pp. 23-27). Retrieved from <http://www.sciencedirect.com/science/referenceworks/9780123977533>
- Seidl, E. M. F., Trócoli, B. T., & Zannon, C. M. L. C. (2001). Análise fatorial de uma medida de estratégias de enfrentamento. *Psicologia: Teoria e Pesquisa*, 17(3), 225-234.
- Sluzki, C.E. (1997). *A rede social na prática sistêmica: Alternativas terapêuticas*. São Paulo, SP: Casa do Psicólogo.
- Stoddard, F. J., Sheridan, R. L., Saxe, G. N., King, B. S., King, B. H., Chedekel, D. S., Schnitzer, J. J., & Martyn, J. A. J. (2002). Treatment of pain in acutely burned children. *Journal of Burn Care & Rehabilitation*, 23(2), 135-156.
- Suurmond, J.L., Van Loey, N., Dokter, J., & Essink-Bot, M.-L. (2011). Coping with guilt: Coping strategies of ethnic minority and Dutch parents of children with pediatric burns. *Burns*, 37(Suppl. 1), S4. [http://dx.doi.org/10.1016/S0305-4179\(11\)70015-8](http://dx.doi.org/10.1016/S0305-4179(11)70015-8)
- Thompson, R., Boyle, D., Teel, C., Wambach, K., & Cramer, A. (1999). A qualitative analysis of family member needs and concerns in the population of patients with burns. *Journal of Burn Care & Rehabilitation*, 20(6), 487-496. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/10613687>
- Varela, M.C.G., Vasconcelos, J.M.B., Santos, I.B.C., Pedrosa, I.L., & Sousa, A.T.O. (2009). Processo de cuidar da criança queimada: Vivência de familiares. *Revista Brasileira de Enfermagem*, 62(5), 723-728. <http://dx.doi.org/10.1590/S0034-71672009000500012>
- Walker, L. J. S., & Healy, M. (1980). Psychological treatment of a burned child. *Journal of Pediatric Psychology*, 5(4), 395-404. <https://doi.org/10.1093/jpepsy/5.4.395>
- Yin, R. K. (2004). *Estudo de caso: Planejamento e métodos* (3rd ed.). Porto Alegre, RS: Artmed.

Received: 05/05/2017

1<sup>st</sup> revision: 22/01/2018

Accepted: 09/03/2018



© The Author(s), 2018. Open Access. This article is distributed under the terms of the Creative Commons Attribution 4.0 International License (<http://creativecommons.org/licenses/by/4.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license, and indicate if changes were made.