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Research Article

Profile of Patients Assisted at the Psychosocial Care Center (CAPS) After a Nightclub Disaster in the Region of Santa Maria, RS-Brazil

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Abstract

Introduction: One of the major disasters that occurred in Brazil was the fire in a nightclub in Santa Maria, Rio Grande do Sul, in January 2013, which killed 242 young people and left hundreds more with physical and psychological sequelae. The event, known in the media as the "fire at the KISS nightclub", caused an increase in the number of cases of various pathologies, mainly post-traumatic stress disorder. **Objective:** The objective of the present study was to verify the profile of patients assisted in a Psychosocial Care Center after a disaster at a nightclub in the region of Santa Maria, RS. **Methods:** Descriptive cross-sectional epidemiological study in conjunction with a narrative review of the literature. Results: After 2014, 763 records of care provided by the Acolhe-Saúde psychosocial care service were identified. The majority (67.3%) occurred in the first two months after the disaster (01/28/13-03/28/13). Conclusion: The study of this demand makes it possible to monitor the post-disaster crisis, assess the health of affected groups and identify problems caused by a disaster of this magnitude.

Keywords: Psychosocial support; Psychosocial aid; Psychosocial response; Mental healthcare; Disaster

Introduction

Disasters are defined as the result of adverse events, natural or man-made, on a vulnerable ecosystem, causing human, material and environmental damage and consequent economic and social damage [1]. They cause intense changes in people, services and the environment, which cause an extraordinary demand for resources and activities, causing an increase in the demand on basic and highly complex health services, which can considerably affect the response capacity of institutions and the society itself population [2,3].

These situations triggered in emergencies and disasters constitute a psychosocial disorder that compromises the affected population's ability to manage or cope [4]. Health professionals, search and rescue groups, first responders, volunteers and others who participate in the assistance are exposed not only to the effects that a disaster causes, but also to an enormous emotional burden in the development of their tasks [5].

The main source of support is the volunteers, who work externally for post-disaster recovery. This participation is often necessary and fundamental, due to the magnitude of the events [6,7]. It is reported that 30-40% of disaster victims may develop post-traumatic stress disorder (PTSD) [8].

Mental health care actions should be aimed at both the victims and those who support the assistance activities, as they can be affected by dangerous substances or toxins, which can trigger chronic diseases such as asthma, or even psychological stress such as anxiety, depression or panic syndrome associated with post-traumatic stress, which cause intense suffering and damage to various aspects of life, such as work and relationships [9,10].

As for example, it can be the case of workers who were victims of the terrorist attack on the World Trade Center, including volunteers, where they all faced an increased risk of mental health consequences [11]. Such exposure can also have a psychological impact on more experienced professionals such as first responders, reinforcing the need to provide mental health assessments for all those exposed to rescue work [12-14].

In the first hours and even days after the event, obtaining information about the victims and those who participated in the work is something unattainable. But in the weeks that follow, an increasingly organized and fully documented approach should become more feasible, for the future follow-up of individuals and for the assessment of health consequences, unplanned due to the unpredictability of the phenomenon [15]. Recording and tracking provides a firmer basis for inferences about health risks and better care. Such a plan should be developed as an overall disaster management strategy, so as not to jeopardize immediate health needs [16].

The emergency mental health care plan can include a rapid preliminary assessment of harm and health needs to determine the intervention strategy, applied to patients and health professionals. Prioritized care for groups at risk or high vulnerability is also essential to prevent mental health problems and provide psychosocial well-being [17].

One of the major disasters that occurred in Brazil was the fire in a nightclub in Santa Maria, Rio Grande do Sul, in January 2013, which killed 242 young people and left hundreds more with physical and psychological sequelae. The event, known in the media as the "fire at the KISS nightclub", caused an increase in the number of cases of various pathologies, mainly PTSD. The impact of this disease, not only on disaster survivors, but also on family members and the team of professionals who worked, such as rescuers and police, combined with the low effectiveness of standard treatment, required new approaches [8].

Methodology

This work is a descriptive cross-sectional epidemiological study in conjunction with a narrative review of the literature. The descriptors "psychosocial support", "psychosocial aid", "psychosocial response", "mental healthcare" added to "disaster" were used. Articles on psychological consequences caused by disasters and interventionist approaches after terrorist acts, risk factors for diseases were excluded. Psychiatric interventions after disasters, manuals/protocols for psychosocial guidance after disasters, general criticisms of the surveillance system in countries where disasters are frequent.

Based on the literature review, a three-day training course was conducted, which consisted of short classes, provision of instructional manuals for health professionals, educational materials for survivors, carrying out structured therapeutic activities. The subjects dealt with aspects of confidentiality, recognition of reactions (physical, behavioral and psychological) to the disaster, how to quickly assess victims, development of intervention skills in crisis situations, presentation of psychosocial care techniques.

After the training, a study was carried out on the assistance provided in the first year after the disaster. Data collection took place from July 2014 to July 2018, carried out by students in the health area and with a detailed review of the files and medical records, the consultations of the professionals who make up the Acolhe-Saúde team (general practitioner, psychiatrist, psychologist, nurse, nursing technician and social worker).

The first sheets were structured with basic questions about the psychological health of the participants, such as standard sheets of the Psychosocial Care Center system. Over time, the service forms were restructured and added more information relevant to the context of the disaster (type of referral, occupation, marital status, history of psychiatric illness, among others).

In addition, the patients' medical records were also accessed, where basic information was obtained, such as age, declared gender, occupation, sociodemographic conditions, which were included in the statistical analysis. Other variables related to the type of reception, date of the first reception, professional who performed the service, reason for seeking the Acolhe Saúde service, relationship with the disaster, follow-up after a four and source of information (forms or medical records) were also analyzed. In addition to variables related to pharmacological administration, psychotropic drugs were used before and/or after the disaster and if another type of medication was prescribed by Acolhe Saúde.

The age groups were grouped and defined according to the characteristics of the individuals studied in: 3 to 17 years old, which would be children and adolescents, 18 to 32 according to the age group of university students, 33 to 51 years old (adults, possibly family members and disaster workers) and 52 to 77 years old (also with a family relationship to those involved in the disaster). The relationship with the disaster was generated from the sum of information such as degree of kinship with the victim and relationship with the event, which were contained in the first and second/third forms respectively, in addition to reviewing all data recorded in the medical record. This was classified into survivors, family, friends, disaster workers and others.

The collected data were coded in Microsoft Excel spreadsheets and after the creation of the database in EPIINFO 6.04, processing was carried out with double typing, validation, consistency and statistical analysis, where frequency measures, percentage, central tendency (mean) and variability (standard deviation), obtaining the results treated in descriptive terms.

Results

After 2014, 763 records of care provided by the Acolhe-Saúde psychosocial care service were identified. The majority (67.3%) occurred in the first two months after the disaster (01/28/13-03/28/13). Women represented 62.6% (n= 478) of the demand, people from three to 77 years old were assisted, with a mean age of 34.3±15.9 years. Approximately, half of the demand was in the age group of 18 to 32 years (46.7%). The age record was not included in 7.3% of the admissions (Table 1).

Variable	F	n
Age (years)		707
3 to 5pm	60 (8.5%)	
18 to 32	325 (46%)	
33 to 51	190 (26.9%)	
52 to 77	132 (18.7%)	
Declared Gender		763
Feminine	478 (62.6%)	
Masculine	285 (37.4%)	
City		730
Santa Maria	92.3%	
Others*	6%	
Occupation		347
Disaster related**	82 (23.6%)	
Not related to the disaster***	149 (42.9%)	
College students	116 (33.4%)	
Source of Information		763
first record	325 (42.6%)	
second sheet	220 (28.8%)	
third card	72 (9.4%)	
medical record	146 (19.1%)	
Type of Host		763
Individual	743 (97.4%)	
Collective	17 (2.2%)	
ignored	3 (0.4%)	
Reception Date		763
In the first two months after the disaster (01/28/2013-03/28/2013)	63.7%	
Next 12 months (04/01/2013-03/31/2014)	26.7%	
Above 12 months (After 4/1/2014)	9.6%	

Reason for seeking the service		754
disaster related	675 (89.5%)	
Not related to the disaster	79 (10.5%)	
Psychological problems and symptoms	25 (31.6%)	
loss of family member	20 (25.4%)	
family conflicts	14 (17.8%)	
Social problemsAlcohol and drugs	8 (10.1%)	
non-psychological illnesses	7 (8.8%)	
	5 (6.3%)	
Relationship with the Event		671
Survivor	125 (18.6%)	
familiar	339 (50.50%)	
Friend****	129 (19.2%)	
Worked on the disaster*****	45 (6.7%)	
acquaintances	19 (2.8%)	
Teacher	3 (0.4%)	
worked at the nightclub	3 (0.4%)	
Others	8 (1.2%)	
Service Follow-up		763
Yes	132 (17.3%)	
No	631 (82.7%)	
Medication		739
used	70 (9.5%)	
did not use	669 (90.5%)	
Psychopharmaceuticals before the disaster		743
Yes	130 (17.5%)	
No	613 (82.5%)	
Psychopharmaceuticals after the disaster		721
Yes	263 (36.5%)	
No	458 (63.5%)	

*Municipalities in the region of Santa Maria/RS: Carazinho, Itaara, Jaguari, Julio de Castilhos, among others. ****dosiversirios, among others).first sheet, second sheet, third sheet and promptundertakers, firefighters, nightclub workers, military, police, teachers, security guards and caretakers. ***household workers, public administration staff, higher-level, technical and medium-level professionals, service personnel, rural workers, factory workers, among others. ****colleagues, boyfriend/girlfriend. *****volunteers, funeral home workers

Table 1: Data found in the medical records of CAPS patients after disaster care.

Of the three forms created by the service, 38.9% of the cases used the first form with the medical record, while in 26.7% of the cases; the second form and the medical record from which the data for this study was collected were used.

The consultations were carried out by more than one professional. The Acolhe-Saúde team consisted of a general practitioner, psychiatrist, psychologist, nurse, nursing technician and social worker. In 20.1% of the cases, all individual consultations were carried out by a nurse and a psychologist, 19% by a psychologist only, 7.2% by a nurse, a psychologist and a psychiatrist, 4.6% by a nurse, a psychologist and a nursing technician and 49.1% for a variety of other combinations of professionals.

Preferably, the consultations were carried out individually, but a total of 17 people (2.2%) were attended collectively. Of the patients, 92.3% were from Santa Maria and 6% from other municipalities in the region, such as Carazinho, Itaara, Jaguari, Júlio de Castilhos, among others (disregarding collective consultations and ignored data).

The occupations category was ignored in 40% of the consultations, but of the 343 where the data was recorded, 33.3% were university students (75% women), 23.4% had occupations related to the disaster, 70% men (firefighters, military agents funeral directors, nightclub employees, teachers, security guards, etc.), and 43.3% unrelated - approximately 63% were women - (administrative sector, commerce, rural workers, factory workers) (Table 2).

Declared Gender	Unrelated Occupations	Related Occupations	College Students	Total
Feminine	93 (45.8%)	24 (11.8%)	86 (42.4%)	203
Masculine	55 (39.6%)	56 (40.3%)	28 (20.1%)	139
Total	148 (43.3%)	80 (23.4%)	114 (33.3%)	342
*Significant differences (p<0.05)				

Table 2: Declared gender and occupations recorded in the attendance sheets.

The reason for seeking Acolhe-Saúde was related to the fire at the nightclub in 89.4% (657) of the visits. Of these, 49.9% were relatives of victims or survivors of the tragedy, 19.4% were friends, 18.7% were survivors, 6.9% were involved in work directly related to the disaster (volunteers, rescuers, reconnaissance of bodies, undertaker), among others. The search for the service by the remaining 10.6% was due to psychological symptoms, family problems, loss of a family member, alcohol and other drugs.

Of those who sought psychosocial care for reasons related to the disaster, most were university students (93.9%) and people classified as having a declared occupation related to the nightclub (98.7%). The majority (89.8%) of patients with unrelated declared occupation were seen because they were affected by the incident, while 10.2% were seen for other reasons (p=0.09).

Distribution of demand for the first year of Acolhe Saúde, according to declared gender and use of other medications (non-psychopharmaceuticals) (Table 3).

Declared Gender	Used	Did Not Use
Feminine	11.8%	88.2%
Masculine	5.5%	94.5%
Total	9.5%	90.5%
n=739		

Table 3: Distribution of demand for the first year of Acolhe Saúde, according to declared gender and use of psychotropic drugs before the disaster.

As can be seen in Table 4, there was an increase of approximately 31% in the demand for psychotropic medications used by patients after the disaster.

Declared Gender	Before*	After*	Started to Use
Feminine	23.1%	40.6%	30.9%
Masculine	8.0%	29.4%	
Total	**17.5%**	**36.5%**	
*Significant differences (p<0.05)			

Table 4: Comparative distribution of Acolhe Saúde, according to declared gender and use of psychotropic drugs before and after the disaster.

The use of post-disaster psychotropic drugs was significantly higher among those declared to be women (40.6%) and lower among those declared to be men (29.4%) ($p<0.05$), totaling 183 (30.9%) people who before the incident, they did not use psychotropic drugs. Of the patients who used it (mostly prescribed clonazepam, fluoxetine, amitriptyline), 55.6% had declared occupations that were classified as unrelated to the disaster, 38.2% declared occupations related and 37.8% university students ($p<0$ .05). For 9.5% of patients, other non-psychotropic medications were prescribed by the service (Table 5).

Occupation	Used psychopharmaceuticals after the disaster	did not use	Total
Declared unrelated occupation	80 (55.6%)	64 (44.4%)	144 (43.5%)
Declared occupation related	29 (38.2%)	47 (61.8%)	76 (23.0%)
College students	42 (37.8%)	69 (62.2%)	111 (33.5%)
Total	151 (45.6%)	180 (54.4%)	331
*Significant differences ($p<0.05$)			

Table 5: Comparative distribution of Acolhe Saúde, according to declared gender and use of psychotropic drugs after the disaster.

Follow-up care after 1 year of the disaster reached 17.7% (130 of the shelters), and of these, 94.6% sought care for reasons directly linked to the disaster (Table 6).

Search reason	follow-up	no follow up
Disaster*	94.6%	88.3%
Not related to disaster**	5.4%	11.7%
Total	17.7%	82.3%
n=735		

Table 6: Reason for seeking and continuing treatment follow-up after the disaster.

Discussion

Most of the services were carried out in the first two months, reaffirming the great demand for resources and activities, especially right after the event. Therefore, it is evident the need to enable the assessment and identification of damage and impacts on health to provide a quick response to the affected population through a ready protocol for assisting victims.

Knowing the epidemiological profile of those affected by the disaster provides information to identify patients at risk. In this study, the large number of university students and professionals who worked on the day of the disaster sought or were referred for psychosocial care.

After a year, 130 individuals were still receiving care at the service, reinforcing the need for constant monitoring of the health of victims and workers involved in the disaster. It should be noted that the affected population should not be inadequately medicated, as only a minority develops a psychiatric disorder. In Santa Maria's psychosocial care service, priority was given to listening and welcoming individuals. Only in a few cases was the patient referred to a psychiatrist for a more specific assessment, in which the need for prescription of psychotropic drugs was considered. According to medical records or files, 30.9% of those assisted by the service took some type of psychotropic drug. The international humanitarian organization Doctors Without Borders, through the Municipal Secretary of Health, offered support in the areas of mental health to public health professionals and volunteers who assisted the families of the victims and survivors of the disaster.

In response to the earthquake that struck Haiti in 2010, a similar action was taken to "train the trainers" with the creation of an intervention called 5x5 that helped health professionals plan their clinical services. This model identifies five types of skills that a mental health service should practice: (1) understanding the victims' context: local beliefs and their needs, (2) identifying priority patients with validated symptom screening scales specifically related to mental illnesses such as depression, (3) use specific tools that help decision making and screening rules, (4) use quality practices, (5) aim for the sustainability of the health service. To practice the five proposed skills in the chaotic environment that has settled in one of the poorest Western countries, health

professionals used their cell phones to share and record data about patients and practices adopted in a coordinated way. As a result, 20,000 individual and collective mental health consultations were carried out, in which psychosocial services were able to offer long-term care based on the local Community [18,19].

Studies show that it is important to accurately monitor changes in the psychic state of victims and provide adequate treatment for those who need specialists. In Japan, after a major earthquake, the Ministry of Health, Labor and Welfare monitored teams to offer special care to victims who already had mental illnesses so that they would not decompensate. In addition, a system with a unified direction was very important for the organization of victims into groups (resistance, resilience, recovery, relapsing/remitting, dysfunctional and chronically dysfunctional) and for collecting data, which are important for epidemiological surveillance [20,21]. It was reported that prior to the disaster, mental health services were not available to all people in need. After the disaster, such services were severely disrupted, so priorities were established: i) transferred pre-existing psychiatric patients to hospitals outside the affected area, ii) re-established and strengthened mental health services in the disaster área [22,23].

Psychosocial care after the disaster at the Kiss Nightclub was the responsibility of the municipality of Santa Maria and was developed in two main lines of work: direct psychosocial care for users and matrix support for health teams in the territory. Already in the early hours of January 28, 2013, less than 24 hours after the disaster, mental health care was implemented for the people involved in the fire through volunteers coordinated by a management group with the participation of the Municipal Health Secretariat. One of the precautions in the first moments of Reception for those who sought or were referred to the service was qualified listening, in order to also classify the risks with regard to Mental Health [24].

During the first two months, its headquarters were improvised next to the Caminhos do Sol Psychosocial Care Center for Alcohol and Drugs (CAPS). As of April 2013, a house was rented for Acolhe Saúde, with the purpose of vacating the CAPS space and facilitating user access to the new service. In addition, an emergency hiring of a multidisciplinary team of 32 workers was carried out to provide follow-up care. With this adjustment, the coordination of the service started to be carried out solely by SMS staff professionals.

In the first months, the operation was on a 24-hour basis every day. As a result of the decrease in demand, as of September 1, 2013, the opening hours were reduced to 7:00 am to 12:00 am, from Monday to Saturday. Later, as of November 1st, a new change was made, opening from 8:00 am to 8:00 pm, from Monday to Friday. All these changes were decided after a careful assessment of the needs and demands forwarded to the service and were agreed with representatives of the SMS and the Association of Relatives of Victims and Survivors of the Tragédia de Santa Maria. This adjustment process resulted in the progressive reduction of the team, so that at the end of 2013, the number of professionals was 16.

Due to the urgent nature of care, the registration of consultations through medical records only began to be carried out on February 1, 2013, a situation that left out a significant number of users who accessed the service in the first three days of operation. From that date until December 31, 2013, 891 people are in the Acolhe Saúde file.

In the present study, the epidemiological profile of the population impacted by the disaster that sought care or were referred to the Acolhe Saúde psychosocial care service was drawn. Thus, it was possible to know the needs of service users, to contribute to the mapping of the care network.

In the post-disaster period, interventions are carried out that prioritize the diagnosis and the consequent medicalization in the treatment of trauma. The Ministry of Health provides a list of medicines and medical materials organized in a kit that can be used in these situations. It is quite common for mental health services to trivialize psychopharmacological medicalization by prescribing them to the general population. However, the current guidelines of the National Mental Health Policy advocate psychosocial care according to the complexities and specificities of each individual in psychological distress, especially in disasters, when the aim is to prevent further damage to the mental health of victims.

One of the disadvantages found during the research is due to the fact that much information about the patients was not recorded in the files and medical records created by the service. Consequently, a lot of data (as a profession) was ignored. Furthermore, the way in which information on the psychotropic drugs used was collected did not allow us to analyze the most prescribed classes and the date of prescription. Based on these findings, further studies on the prescription and use of psychotropic drugs in disaster situations are suggested, in order to forecast the demand for medication.

By mapping the psychological care network, it is possible to know which people were affected, their profile and the care they received after the disaster. It facilitates the monitoring of these and the maintenance of the continuity of the psychological follow-up service.

To mitigate the psychosocial impacts caused by the disaster, the literature suggests holding events to celebrate the event, in which there is a reinforcement of the victories and growth achieved so far. The perception of visible progress can revive individual beliefs in oneself and in the community. The aim should be to fully

restore the psychosocial balance, to address psychosocial needs in the medium and long term. For this, it is recommended that health professionals make an effort to maximize the resilience of the affected community by offering educational material, lectures, in which behaviors, thoughts and actions that promote adaptation are taught [25].

Final Considerations

This study quantified users and outlined the epidemiological profile of people who sought or were referred for psychosocial care in the public health network - Acolhe Saúde - in the municipality of Santa Maria after the fire. The study of this demand makes it possible to monitor the post-disaster crisis situation, assess the health of affected groups and identify problems, to understand the immediate and long-term impact from a psychological point of view, contributing to the planning of adequate care for users.

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