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Early psychological care of the French victims of the Costa Concordia shipwreck

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ABSTRACT

Most of the French passengers who survived the shipwreck of the cruise ship Costa Concordia were repatriated from Italy to Marseille, one of the stopovers of the cruise. The shipwreck happened during the night of 13th–14th January 2012 and entailed the forced evacuation of 4195 passengers and crewmembers. Thirty-two persons died and 2 others are still reported missing. The massive and unexpected inflow of 402 French citizens in the port of Marseille required the quick setting up of welcome facilities, not only to solve logistical problems, but also to address psychological and sometimes even medical problems. The Prehospital Psychological Emergency Service (CUMP) and the Prehospital Emergency Medical Service (SAMU) of Marseille examined 196 persons in total, and were able to avoid a great number of emergency admissions deemed necessary because of difficult psychological situations (death, missing or lost persons, acute stress). The objective of this report is to rapidly present the emergency committee as a whole and to describe in more detail the work that the CUMP accomplished during the 36 hours necessary to take charge of the majority of the French passengers of the Costa Concordia.

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Key words: shipwreck, rescued, acute stress, Prehospital Psychological Emergency Service, drowning

INTRODUCTION

The Costa Concordia cruise ship was shipwrecked during the night of 13th January 2012 along the Italian coast. The ship, which was constructed in 2006, was 290 metres long and 36 metres wide; it was composed of 17 different decks and had facilities for 3780 passengers and 1110 crewmembers.

While undertaking a risky manoeuvre with the aim of skimming the coast as closely as possible to wave at the inhabitants of the Italian island of Giglio (a manoeuvre which is called "the curtsey"), the cruise ship hit the bottom of a cliff located not far from a small island named Le Scole, at 21:44 to be precise, which opened a gash of more than 70 metres in length along its left side followed by an serious leak. In order to prevent the ship from sinking straight to the bottom at that location, the commandant managed to manoeuvre in such a way that the ship ran aground a bit further away where the sea was not so deep. The command to evacuate the ship was given 50 minutes later because it was tilting very badly and was inclined in a position at 80° from the vertical.

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When all of this happened, quite a few passengers were having dinner in the huge dining rooms of the ship's various restaurants; others were in their cabins or in passageways. Once the evacuation of the people on board started (by lifeboat or swimming) 4195 persons were brought safely to the shore. Those people were of different nationalities, different ages, and different states of health. Some of them were dressed and some were in pyjamas since most of them did not have the possibility/time to go back to their cabin to recuperate their personal belongings (suitcases, personal objects, medicaments, prescriptions, etc.) before they left the shipwreck.

The repatriation of the French citizens from Italy to France and more precisely to Marseille took place thanks using ten buses and one plane; it took 36 hours on 14th and 15th January 2012. The CUMP (Prehospital Psychological Emergency Service) 06 (Nice, France) made a first evaluation of the situation when the rescued passengers crossed the Franco-Italian border, and informed them that an emergency committee had been put in place in Marseille.

To that effect, the French local authorities had only a few hours to organise an emergency committee to take care of those 402 repatriated French people (alert at 8:57 pm, committee operational at 2.30 am). This then permitted them to gather, in one of the terminals of the port, which was organised logistically, a certain number of intervening participants with very diverse competencies: the SAMU 13, the Bataillon of the marine fire-fighters (BMPM), the CUMP 13, representatives of the Prefecture, the Air and Border Police (PAF) in charge of reporting the cases of lost identity cards, the French Red Cross (CRF), and the Costa Cruises Company.

The role of the CUMP is to systematically intervene when there is a natural catastrophe or a technological catastrophe, or when there is an attack or an accident involving a great number of victims (i.e. > 10). This cell is first on the scene with the objective of providing immediate medical/ /psychological care and secondly to make sure that the victims are directed towards subsequent care.

In some French regions like Marseille the CUMP also provides post-traumatic consultations, which take place in the form of individual or collective care of the victims of individual or collective catastrophes.

Our objective here is to examine how this huge group of rescued persons were taken care of and supported psychologically, knowing that they were victims of a shipwreck, extremely shocked, exhausted, and sometimes in acute stress.

MATERIALS AND METHODS

A descriptive survey of the setting up and implementation of an emergency committee to support a great number of victims, some of them being in acute stress, following the shipwreck of the Costa Concordia during a Mediterranean cruise in January 2012.

Data were collected from records of various partners (SAMU 13, CUMP 13, BMPM, Prefecture). Victims were counted in the first bus (and/or plane) and then at different checkpoints (Air and Border Police, medical examination rooms, and finally psychological debriefing rooms.

RESULTS

The repatriation device permitted the support of a total of 402 persons in Marseille. The medical stratagem was able to meet and examine 105 persons aged 58 ± 16 years (range 10–80 years) with a gender ratio (M/F) of 1.92 (Fig. 1).

Nine buses took back 385 persons on 14th January. On 15th January 13 other people arrived by bus and 8 by plane.

One hundred and five persons were examined by the doctors of the SAMU 13 or the BMPM. Those people mainly had problems related to the renewal of medical prescriptions for chronic diseases (hypertension, diabetics, dyslipidaemia, etc.) and some of them were given paracetamol and/or anxiolytics (Fig. 2). Three persons were conducted to the surgical emergencies for light traumatology.

The CUMP 13 met and listed 196 victims for individual and/or collective interviews ('defusing'). They redirected 9 persons with somatic problems towards the advanced medical service (PMA).

Twelve persons were given hydroxyzine as an anxiolytic because acute stress (sideration and speechlessness for 5 victims; aggressiveness for 5 victims; automatic action, such as the maintenance of lifejacket several hours after landing, for 3 victims). One person even had to be hospitalized for one night at the psychiatric emergency facility in Marseille because she was presenting a clinical state (intense distress, crying, and anger) which needed appropriate care and supervision overnight.

ORGANISATION OF THE PSYCHOLOGICAL CARE

The CUMP is generally triggered by a doctor of the SAMU when he/she thinks that psychological care is needed as soon as possible. But, in fact, this cell is most often sought by the Authorities or the media as soon as an event involves several people with "psychological risk". Its role is to systematically intervene when there is a natural catastrophe or a technological catastrophe, or when there is an attack or an accident involving a great number of victims (i.e. > 10). This cell is first on the scene with the objective of providing immediate psychological care and secondly to make sure that the victims are directed towards subsequent care.

The BMPM psychologist made the choice to collaborate directly with the chief psychologist of the CUMP 13, responsi-

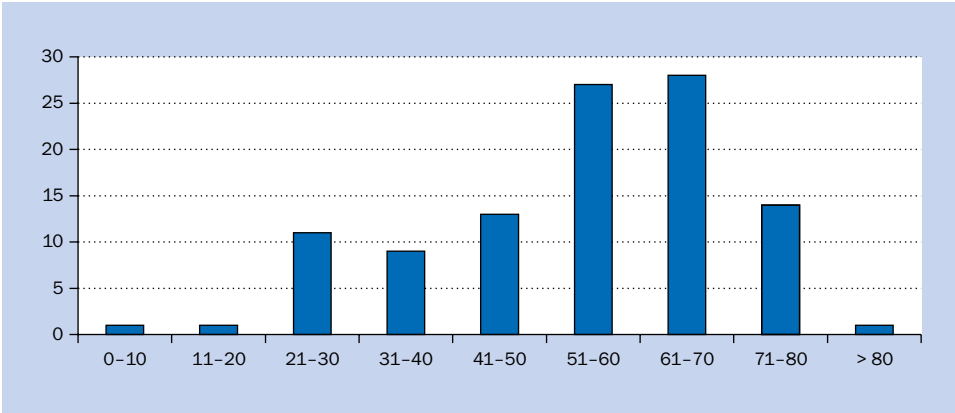

Figure 1. Age of rescued persons (%)

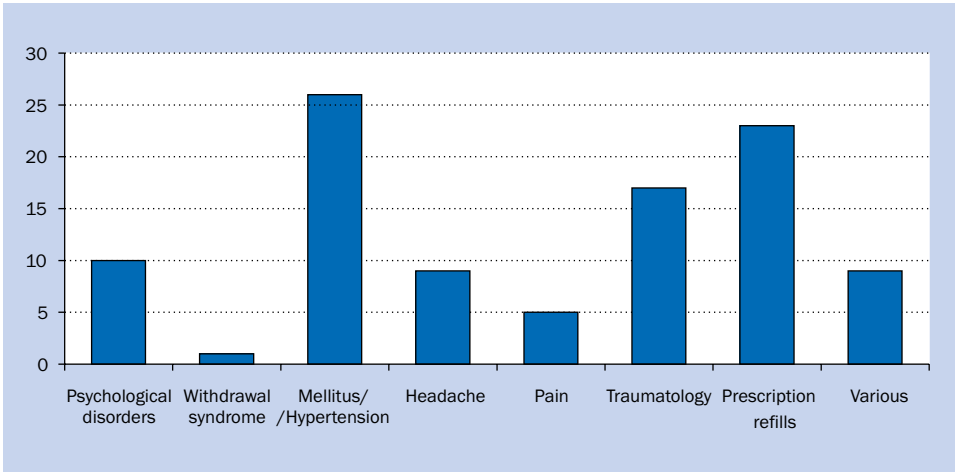

Figure 2. Purpose of medical consultations (%)

ble for taking care of civil victims, with the objective of creating one unit composed of the different groups instead of having two cells in competition. At that time the CUMP 13 comprised three psychologists (of whom two were marine fire-fighters), 2 executive medical officers, and 7 nurses. This sizing is ideal in this kind of situation: buses would arrive at regular intervals but with a certain distance from each other. The victims asking for a consultation would not have to wait or, at least, would wait a very short time before getting adequate care and support during individual consultations or in small groups.

Given the fact that at that time the victims were still in transit, that the shipwreck took place 24 hours previously, and that they were exhausted, the time was not suitable to undertake post-immediate psychotherapeutic interventions. Nevertheless it is very useful and appropriate to provide a calm, reassuring, and securing attendance, to welcome their complaints and words, to listen to their stories in an empathic fashion, and not to give them directives. It provided, on one hand, human attention to the victim who thus far had not differentiated from the rest of the group to whom he/she belonged, and was taken care of only for somatic and material problems, to control and bring back to normal his/her immediate reactions. Those exchanges create the feeling that they could share their experience, and it allowed the expression of immediate worries, which contributed to lowering emotional tension. On the other hand, it is important to provide crucial information about eventual post-traumatic disorders, problems at the family level, and behavioural disorders, which can appear in particular with children. It is also important to provide the victims with the names and addresses of the services which could help them in their own region so that they can undertake a more structured intervention and have a follow-up system put in place if necessary.

The following day, the psychological unit of the BMPM and the CUMP 13 were again called upon two times.

The first time was to intervene in the afternoon at the hotel where a great number of the victims were lodged. At that moment, the CUMP 13 was composed of 2 psychologists (1 depending of the BMPM and 1 medical executive), 1 social worker, and 3 nurses. This intervention was very

short but necessary to channel demonstrations of anxiety shown by some of the victims.

During this intervention, the victims who were present were told that a psychiatry unit (CUMP) would be available to take care of them immediately upon their arrival.

Finally, on Sunday evening, the prefecture again solicited the CUMP 13 to take care of the last victims arriving at the international airport of Marignane.

DISCUSSION

The shipwreck of the Costa Concordia occurred in the middle of the night, in winter, and only a few metres from the coast. A few passengers decided to jump into the water (the temperature was 12°C) and managed to get to the coast by swimming. The great majority of the people were evacuated thanks to the lifeboats and as a consequence did not suffer from the low temperature of the water. All of the passengers, except for the 24 persons who died and those reported missing, were able to come back to dry land within a couple of hours. The 32 deaths recorded were probably due to asphyxiation by drowning and hypothermia, as is the case of most early deaths described in similar shipwreck situations [1].

MEDICAL CARE OF THE VICTIMS OF A SHIPWRECK

We do not have exact data about the number of people who arrived on dry land in a state of hypothermia, soaking wet, hungry, thirsty, or dehydrated. These are the symptoms that are often reported following certain shipwrecks where the victims had to wait, sometimes for several days, before they were rescued [2]. None of the French survivors had to be hospitalized in an emergency for somatic reasons and as a consequence we do not have any data concerning eventual biological abnormalities (for example, functional renal insufficiency, rhabdomyolysis, hepatic cytolysis, or metabolic acidosis), which are common in the case of a shipwreck with delayed rescue. The doctors' intervention was thus limited to the verification of capillary glycaemia or arterial pressure of the persons who asked for it, most of them were in a hurry to find and be with their family and avoided passing through the medical examination premises. One fourth of the people examined had their prescriptions renewed (antihypertensive medication, insulin, anti diabetes, or oral anticoagulation).

PSYCHOLOGICAL CARE

On the other hand, the interventions of the nurses, psychologists, and psychiatrics belonging to the CUMP permitted the examination of far more people (196 in total) in order to detect quickly those suffering from acute stress or with peritraumatic dissociative symptoms. Data about psychological repercussions of shipwrecks are quite meagre. According to Henderson et al., in the situation of a shipwreck, the victims rapidly develop self-defence mechanisms requesting high concentration, strong survival instinct, and then progressively they start praying and finally hoping [3]. For example, it has been reported that among the victims of a shipwreck who had to struggle for 13 days, 5 out of 7 developed a post-traumatic state of stress which was detected 12 to 24 months after the traumatism thanks to medical follow-up. Other descriptions of psychological or psychiatric disorder following a shipwreck are given [4, 5]. To our knowledge there is only one study reporting a case where early psychological care (during the accident itself) was provided [6]. Of the 11 surviving sailors from the Magatte Diack shipwreck, one developed a Post-Traumatic Stress Disorder (PTSD) during the 18-month follow up. Others had stress or trauma reaction but a return to the sea was possible after 6 months for most of them. This was the second time that the CUMP was able to give early psychological care in the framework of a shipwreck [6]. The interest of the CUMP has been demonstrated in other circumstances as well [7].

PSYCHOLOGICAL TRAUMATISMS

With regard to immediate reactions, it is important to carefully differentiate two distinct entities: stress and trauma.

Traumatism brings the subject face to face with the reality of death, inducing the rupture of the psychological defences of the person. It is due to a sudden and unpredictable event which threatens the physical or psychological integrity of the person. In general the event itself does not last long but the whole sequence can take a long time, which was the case for the Costa Concordia. The traumatism can generate delayed harmful effects.

Stress is a bio-psychological reaction, a reflex towards a threat.

At the time of immediate care, different reactions can be noted. Normal reactions such as anger, crying fits, astonishment, a feeling of helplessness, of guilt, and incomprehension are noticeable and have to be considered with respect.

Reactions induced by adapted stress have been carefully observed: the first reaction focuses all the attention of the victim and his/her mental capacities to allow him/her to take action, which will save him/her.

Reactions induced by acute stress can be expressed in different ways: sideration, speechlessness, agitation, aggressiveness, automatic action, and fit of panic.

Sometimes certain victims can develop a peritraumatic dissociation due to the loss of environmental landmarks, the feeling that the world is unreal, emotional detachment, or the incapacity to remember some of the important aspects of the traumatic event.

Acute stress, following DSM IV's classification, shows up either immediately or two days or more after the traumatic event.

To be diagnosed in a state of acute stress, the person must have gone through a sudden and unpredictable traumatic event, a situation that threatened his/her physical integrity or somebody else's integrity, where he/she felt completely helpless or horrified. The PTSD, or what is called post-traumatic neurosis, develops only later on, at least 30 days after the event [8].

While the event is taking place or just after, the victim may feel a sentiment of drowsiness, of emotional detachment, she/he may be only partly conscious, have an impression of unreality or depersonalization; he/she might also have dissociative amnesia.

Sometimes the subject may re-live the event in a constant way, through the visualisation of certain images, nightmares, flashbacks, intrusive and repetitive thoughts and memories. The victim may also adopt some behavioural attitudes which will allow him/her avoid certain elements which recall the traumatism, such as certain situations, places, people. He/she may also develop symptoms of neurovegetative hyperactivity such as sleeping disorders, concentration problems, irritability, hyper-mental alertness, etc.

The objective of the CUMP's presence in the place where the traumatic event has taken place is to inform the people that they are at high risk of developing certain symptoms, that it is crucial to take care of the immediate reactions of certain subjects, and to indicate the therapeutic institutions which can provide subsequent psychological care [7].

CONCLUSIONS

The shipwreck of the Costa Concordia is at present the latest shipwreck of a cruise liner that involved passengers. Fortunately, the ship did not sink but ran aground very near the shore allowing most of the passengers to be evacuated and brought back to land. After the French citizens were repatriated, very few of them developed medical problems but the CUMP detected in approximately 200 victims an acute stress and warned them of the possible subsequent psychiatric symptoms they might develop for which specialised medical care would be needed.

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CONFLICT OF INTEREST

None declared.

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