

Artificial intelligence (AI) for emotional support In emergencies and disasters for non-specialist teams

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ABSTRACT

This article explores the role of artificial intelligence (AI) in emotional support during emergencies and disasters, especially for teams not specialised in psychology, such as nurses, doctors, firefighters and police officers. It highlights the relevance of psychological first aid (PFA), brief and effective interventions that such people can carry out with the appropriate training, without incurring in professional intrusion. PFA aims to provide emotional support, facilitate the expression of feelings, reduce the risk of negative consequences and connect affected people with resources for help, restoring their emotional and functional balance after a critical event.

AI can be a useful tool in this context, by means of apps, chatbots and virtual assistants such as Woebot, Wysa and the American Red Cross PFA Mobile App, which guide in stress management techniques, breathing exercises and anxiety management. In addition, AI can analyse communication for signs of distress, panic or suicide risk, enabling early intervention and the prioritisation of cases. However, there is a warning about the lack of human empathy of AI, which should be seen only as a complement to personal intervention and not as a substitute for it.

The article concludes that PFA is essential in the initial response of interdisciplinary teams and that ongoing training is vital. The inclusion of professional psychologists is key to proper assessment and treatment, minimising long-term sequelae. AI, if used well, can optimise the response and improve the overall emergency response.

INTRODUCTION

The question is how artificial intelligence (AI) can help non-specialised teams, i.e. non-psychological staff, in emergency and disaster situations. However, before doing so, we should analyse the current conceptual and contextual situation in the field.

First of all, we should determine the most appropriate term to define the action in this context by a non-psychological health team.

In the field of psychological help in emergency situations, the most appropriate and widely accepted term in the scientific literature is “psychological first aid” (PFA), an immediate, brief and short-term intervention that can be carried out by any member of the interdisciplinary team – nurses, doctors, technicians, firefighters, police, civil protection or other people – provided that they have the appropriate training, without incurring in professional intrusion. The main purpose of PFA is to provide emotional support and containment, facilitate the expression of feelings, reduce the risk of negative consequences, and link the affected person with resources for help, thus enabling them to re-establish their emotional and functional balance after the critical event. Although there are other terms such as emotional support, psychological accompaniment and crisis intervention, PFA is distinguished by its immediate and preventive nature, and forms part of the transversal competencies that are increasingly included in the training plans of the different emergency workers, who have to know how to distinguish, apply and recognise the limits of their intervention in order to refer to specialists when necessary.

Before the psychological intervention team comes, the interdisciplinary team of first responders (such as nurses, doctors, technicians, firefighters, police and others) should, in addition to rescuing and physically stabilising the victims, provide basic immediate psychological support intervention, known as psychological first aid. This intervention consists of offering emotional containment, quickly assessing the person's needs and reactions, transmitting calm, facilitating the expression of emotions and linking the victim to help resources or support networks, all with the aim of reducing the impact of the traumatic event, alleviating immediate suffering and favouring the beginning of the recovery process. This is not meant to be therapy, but an aid to re-establishing the emotional and functional stability of the person affected.

Table 1: Summary of aspects that relate AI to intervention. Source: prepared by the author.

Main Topic	Description
The role of AI in emergencies	AI can help non-specialised teams (non-psychologists) in emergency and disaster situations, but the current context and key concepts need to be analysed before implementation.
The appropriate term for the intervention	The most widely accepted term is 'psychological first aid' (PFA), a brief and immediate intervention that can be carried out by any member of the interdisciplinary team with appropriate training (nurses, doctors, firefighters, police, etc.), with no professional intrusion.
The goals of PFA	<ul style="list-style-type: none"> - To provide emotional support and containment - To facilitate the expression of feelings - To reduce the risk of negative consequences - To link the person to helping resources - To restore emotional and functional balance after the critical event
Difference with other terms	PFA is distinguished by its immediate and preventive nature. Other terms such as emotional support or crisis intervention do not always imply immediacy and prevention.
Competencies required	PFA is one of the transversal competencies of emergency workers, who should know how to apply, distinguish and acknowledge their limits in order to refer to specialists when necessary.
The role of the interdisciplinary team	<p>Before the psychological team arrives, first responders should:</p> <ul style="list-style-type: none"> - Rescue and physically stabilise - Provide basic psychological support (BPS): emotional containment, rapid assessment, convey calmness, facilitate emotional expression, link to helping resources.
The goal of the basic intervention	To reduce traumatic impact, alleviate immediate suffering and promote the onset of emotional and functional recovery, without therapy.

AI FOR EMOTIONAL SUPPORT IN EMERGENCIES AND CATASTROPHES FOR NON-SPECIALIST TEAMS

AI can provide different tools, such as applications, chatbots and/or virtual assistants, among others, to guide non-psychological teams that do not have specific training in mental health – only basic training – so that they can provide initial emotional support for victims of emergencies and disasters. Within the interactive protocols, AI provides information on what should be said or done in these critical situations, as well as using algorithms to identify manifestations (signs and symptoms) of emotional disturbance, enabling first responders to identify which victims need specific professional help.

The literature review provides evidence of AI-based chatbots of interest related to emotional support such as Woebot® and Wysa®.

Woebot provides stress management techniques and basic emotional support. Highlights include breathing exercises, active listening and emotional validation. Wysa also helps manage anxiety and stress through guided conversations and cognitive-behavioural exercises.

The PFA Mobile ® App developed by the American Red Cross provides non-health personnel with basic ideas for emotional support.

If there is an emergency and/or catastrophe, AI through an APP would guide rescuers to actively listen to victims, identify those who need priority attention, provide messages of calm and emotional containment and refer specific complex cases to professional psychologists.

AI could also assess text and even voices to analyse the tone, determine key words and certain writing patterns present in messages that are related to situations of distress, panic, and even the risk of suicide, providing invaluable information to health teams for early intervention.

With the aim of training through Clinical Simulation, AI can create realistic clinical scenarios for teams not specialised in psychology or emotional management, allowing them to practice the appropriate responses to emergencies and catastrophes, while participants receive feedback on their performance.

Table 2: AI for Emotional Support in Emergencies and Catastrophes. Source: prepared by the author.

Aspect	Description
The role of AI	AI provides tools such as apps, chatbots and virtual assistants that guide non-specialist mental health teams to provide initial emotional support in emergencies and disasters.
Interactive Protocols	AI points out what to say or do in critical situations and helps identify signs and symptoms of emotional disturbance to refer cases requiring specific professional care.
Chatbots	<ul style="list-style-type: none"> - Woebot: Provides stress management techniques, breathing exercises, active listening and emotional validation. - Wysa: Helps manage anxiety and stress with guided conversations and cognitive-behavioural exercises. - Youper: Interactive conversations for anxiety, depression and stress, mood tracking and thought journaling.
Specific applications	- PFA Mobile®: Developed by the American Red Cross, it provides basic emotional support guidelines for non-health workers.
Functions in Emergencies	<ul style="list-style-type: none"> - Guidance for rescuers in intervention. - Active listening to victims. - Identifies victims requiring priority attention. - Provides messages of calm and emotional support. - Refers complex cases to professional psychologists.
Communication Analysis	AI can analyse text and speech to detect tone, key words and patterns related to distress, panic or risk of suicide, facilitating early intervention and prioritisation of cases.
Simulation and Training	Uses clinical simulations to create realistic scenarios, allowing non-specialist teams to practice emotional responses and receive feedback on their performance.

LIMITATIONS

One of the contextual limitations we may encounter when using AI in this context is the lack of human empathy, as AI guides and supports, but cannot replace this empathy so closely related to emotional support.

CONCLUSIONS

The Importance of Psychological First Aid (PFA): PFA is an essential tool in the immediate care of people affected by emergencies and disasters, allowing non-specialised workers to provide emotional support and containment until the specialists get there. **Interdisciplinary intervention:** Psychological care in emergencies is not the exclusive domain of psychologists; other people (nurses, doctors, firefighters, police, etc.) can and should be trained to apply PFA, always within the limits of their competence. **Preventive and Immediate Nature:** PFA is characterised by rapid and preventive intervention, which helps reduce the negative emotional impact and favours the early recovery of those affected. **Hierarchical Organisation of Care:** The pyramid of psychological care ensures that basic needs and initial emotional support are covered immediately, allowing for progressive referral to more specialised people depending on the severity of the situation. **Potential Role of Artificial Intelligence:** AI can be a valuable resource in guiding, assisting and supporting non-specialised teams in the application of PFA, optimising the response in critical situations and improving comprehensive care for victims. **Need for Ongoing Training:** It is essential for all members of emergency teams to receive the appropriate training in PFA to ensure effective and safe intervention, avoiding professional intrusion and guaranteeing the quality of care. It is a priority for professional psychologists to be incorporated into first-response health teams in emergencies and catastrophes to assess, diagnose and treat situations, which may otherwise generate medium and/or long-term sequelae. AI can be a powerful ally for non-specialised teams in emotional support during emergencies and disasters, as long as it is used as a complement and never as a substitute for professional human intervention.

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