

# Optimism of health care workers during a disaster: a review of the literature

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Optimism has several orientations. One such outlook is a general tendency to regard the world as a positive place, accepting difficulties as mere challenges instead of impassable barriers. Among health care workers, optimism improves their level of functioning, their patients' satisfaction, and their therapeutic results. Optimistic staff members report feeling less pressure, use fewer avoidance strategies, focus on practical problem solutions, seek social support, and have more trust in people and organizations. The aim of this article is to provide a review of the literature concerning the role of optimism, both in daily life and in crisis situations. An attempt was made to find the linkage between optimism among health care workers during disasters and their active response, with special emphasis on the relationship between optimism and knowledge, feelings or behavior. Based on the literature, optimism was found to be helpful both in daily medical work and in cases of medical emergencies. Optimism was also revealed one of the key components of resilience and self-efficacy. Therefore, it is recommended to consider strengthening the optimism through initiative programs. Obtaining optimism can be included in toolkit preparedness for health care workers in order to confront the complications in the aftermath of disaster. These programs, together with appropriate information, social support, professional trust, and leaders modeling behavior, will raise the well-being and enhance coping skills of the health care workers during and aftermath of disaster scenarios.

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The health care profession is always physically and emotionally demanding, sometimes requiring decision-making on life and death issues in a very short space of time with limited resources. During disasters such as terror attacks, war or natural catastrophes this situation intensifies since these medical teams must manage the scenario in a state of overall chaos. The health care teams are faced with enormous challenges and are endangered by emotional upheaval. There are human strengths that reinforce mental fortitude acting as buffers against mental illness, such as courage, future-mindedness, optimism, interpersonal skills, faith, work ethics, hope, honesty, perseverance and capacity for flow and insight.

In general, researchers have proved that optimism has the power to improve morbidity outcomes, and enhance team and organization performance during crisis (1). According to Seligman, optimism is 'the way we explain events and outcomes to ourselves, and it is a learnable approach to life and an invaluable motivator' (2). People who see desired outcomes as attainable continue to strive toward those outcomes, even when progress becomes difficult or slow (3). Weinstein, used the term 'Unrealistic Optimism' to describe a cognitive bias which lays in early perceptions of personal vulnerability to health threatening situations (4).

This review aims to find the linkage between optimism among healthcare workers (HCWs) during disasters and their active response, with special emphasis on the relationship between optimism and knowledge, emotions and behavior. The literature search was conducted using internet search engines: PubMed and Google, with the keywords: *optimism, disaster, health care workers*. We have

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chosen the relevant articles concerning the relationships between optimism and the performance of the HCWs during disasters.

Human accomplishments and positive well-being require an optimistic sense of personal efficacy. Two case studies present human mechanisms, which are known to have helped to overcome crisis situations. Holocaust survivor Frankl (5), who supports optimism, wrote in his book 'Mans Search for Meaning' that hope kept him alive, while others perished. The need of optimism during a disaster was highlighted by the mayor of New York City, Rudy Giuliani, throughout the aftermath of the 11 September attacks on the World Trade Center in 2001. The optimism, hope and strength of his leadership helped the citizens to overcome and recover from this great crisis (6). Bandura (7) noted that ordinary social realities are strewn with difficulties and one must have a sense of personal efficacy to face them. Moreover, the beliefs of a group of people in their collective efficacy influence their function as a group.

Knowing the potential benefit of optimism, the World Health Organization (WHO) included recommendations providing social and psychological support for health care workers (HCWs), patients and communities (8). Also, the Centers for Disease Control and Prevention (CDC), pointed out the importance of strengthening psychological resources such as coping abilities, self-efficacy, mastery, perceived control, self-esteem, hope and optimism before and during a disaster (9). According to Seligman a clear set of coping skills, including how to think optimistically and how to approach problems and adversities can help the HCWs. Gaining the skill of optimism can assist in confronting stress or setback, can help to overcome failure in particular events, and strengthen self-efficacy and resilience. This will increase the HCW's overall sense of well-being, helping them to be more beneficial to their society (2).

### Relationships between optimism and knowledge

It has been claimed that when one is in the middle of a decision-making process, every relevant source of information available is made to use. When lacking prominent sources of information, people use deep emotional responses stored in their memory in order to achieve their goal. When one makes a certain decision or performs a task, a positive feeling can enhance potential responses. Positive emotions promote many phenomena documented in cognitive psychology, while a negative feeling inhibits them (10).

Experiencing a sudden hospitalization of a family member is a traumatic event, which can be mitigated through interpersonal contact with medical staff. Harnessing positive feelings, medical staff can empower patients

and families with the knowledge necessary to combat the situation. In a study by Auerbach et al. (11), nurses fostered a sense of optimism and encouraged families to participate in the patient's care. The optimism levels among families were higher at discharge among those who gained more information through the staff. These findings were supported by a recent study on the knowledge of physicians and stress-resilience capacity, which was expected to be useful in improving physician-patient relationships. The study was conducted among 89 Swedish pediatric oncologists who continuously have interaction with families in crisis and are in a field which is known as bearing heavy emotional distress. Links were found between their level of optimism and experience, and their optimistic attitude was helpful for their resilience. The physicians at academic medical centers were more optimistic than physicians at non-academic centers. This was explained by the high number of cured children whom they met, which contributed to their confidence in the treatment provided and to the future prospects and thereby enhanced their satisfaction (12).

### Relationships between the source of information and optimism

In the modern world, where immediate and international media is online 24 hours a day, information is disseminated very quickly. In the case of a pandemic eruption, there is a known concern regarding the advent of a medical emergency. Large numbers of patients will require treatment, but there is also concern regarding social chaos, and fear of infection among the public. Most of the reports in the media regarding contagious diseases tend to emphasize the dangers and minimize prevention methods and means of treatment (13). On the other hand, it is claimed that exposure to information, through all kinds of media, has a positive effect and it might reduce the concerns from a pandemic (14).

As mentioned earlier, leading health authorities have pointed out the necessity of information to individuals and communities to reduce fear, anxiety and despondency, in 'blurry' situations such as those occurring in pandemics. Communication assists in restoring the sense of control, as presented in modeling optimistic behavior (6,8,9).

### Relationships between optimism and feelings

Many researchers have pointed out the connection between optimism and emotions among patients, medical staff and the public in general. A link was found between optimism and happiness and a reduction of 25% in the probability of breast cancer morbidity. Women who endured at least two traumatic events have a 62% risk of developing breast cancer, in comparison to those who were not subject to such events (15). Physicians with a

high sense of competency and a confident standpoint toward their duties, have a positive effect in conveying medical messages to their patients, and are considered to be health promoters and contributors to changes in behavior (11,16).

A doctor's optimistic and positive view affects patients' illness. Siegal (17) used his experience with cancer patients to describe how emotional treatment changes the body's state. Furthermore, caring support and a pleasant environment are also very important for the patient's healing process. The doctor is able to heal using the placebo effect, which is attained through his confident behavior.

Van der Velden et al. (18) checked the alliance between the level of dispositional optimism and depression symptoms or other health problems among disaster victims. Levels of dispositional optimism and health problems were measured among two groups— disaster victims ( $N = 662$ ) and non-affected residents ( $N = 526$ ). Both groups participated 18 months and almost four years post-disaster. The results reflected that pessimistic victims were generally more at risk for health problems than optimists were.

Positive emotions such as optimism, life satisfaction and tranquility, are active elements of resilience, and they were found in the aftermath of crises, such as the 9/11 trauma, as a buffer improving the resilience of people against depression (19). These findings were supported by a study, which demonstrated that positive feelings, such as optimism, resilience, spiritual and social support might predict the behavioral responses to an avian flu outbreak. It also found that optimism is a personal characteristic, which is connected to a willingness to strive for a solution to a problem (20).

In an Israeli study conducted by Bleich et al. (21) among 501 citizens during 44 months of terror, optimism was identified as a personal factor, which helps one in developing resilience, during crises and emergencies. The subjects' personality characteristics were checked at two periods—in 2002 and 2004. Although the optimism levels remained the same, the pattern of responses seems to reflect an accumulation of stress and erosion of resilience after four years of ongoing terror. Based on these results, it was suggested that there is a need to enhance the ability of individuals and societies to withstand the psychological stress of ongoing terror, especially since terror is becoming a worldwide phenomenon.

### Relationships between optimism, behavior, social support, and trust

Undoubtedly, the behavior of the HCWs during disasters is essential to overcome the crisis. In the case of a pandemic, HCWs are at double risk—(1) being the first responders and (2) their exposure to disease. Therefore,

the absenteeism of HCWs is a concern of health authorities. In the case of a pandemic, unwillingness to report to duty of 50% of personnel (22) may cause a collapse to the health system. Pandemic mitigation can be enhanced by the appropriate behavior of the HCWs, such as preventive measures improving safety and hygiene. The optimism of the HCWs can act as an engine to defeat the pandemic, while over-optimism or unrealistic optimism, can result in unrealistic reactions, risk-taking or avoiding responsibility (4).

Components, which might help HCWs during their work, are social support and trust in their workplaces. In workplaces in which the atmosphere is positive and optimistic, or in which positive leadership exists, performance and efficiency increase. It was found that a positive and optimistic approach together with social support among doctors and their colleagues encouraged satisfaction and may also create a positive approach and optimistic habits (23).

Greater optimism and better adjustment to stressful life events were associated with social support and coping (24). The contribution of social support and optimism were examined among 67 survivors from the Opal hurricane in 1995. Results showed that coping, self-efficacy and loss of resources influence trauma-related distresses, social support and optimism (25).

Trust is also a vital feeling, which decreases uncertainty, bestowing security on our future expectations. An optimist is one who will look for the best in those with whom he interacts, and will also be forgiving and flexible when his trust in others is high (26). In a study on the connection between subjects' feelings and the process of decision-making related to allowing interactional trust, it was shown that subjects who felt happiness tended to be more trusting than subjects who felt sadness (27).

Trust of HCWs can be achieved by providing reliable information and appropriate preparedness by the relevant organizations (7). In the case of a pandemic, self-confidence contributes to flexibility and striving toward essential goals (3).

### Optimism of health care workers during a disaster

Optimism of HCWs was related to the tendency of the staff to experience less pressure, use less avoidance strategies, focus on practical problem solutions and seek social support. Among the medical staff, optimism leads to higher levels of performance, affects the level of patient satisfaction and improves other work-related performances (11,28).

Dougall et al. (29) conducted a longitudinal investigation, which includes an examination of 159 emergency workers who were at the crash site. The researchers met the participants during four meetings 2, 6, 9, and 12

months after a plane crash, to test their optimistic point of view, social support, ways of coping and stress. The investigation included physical measurements and questionnaires. The results showed that their optimistic outlook on life is a stable disposition even after experiencing a traumatic event, and it was associated with less distress at each time period, greater use of problem-focused and seeking of social support coping. Also among optimists, there were fewer reports on stress, less use of avoidance strategies and more practical focus on problem solving and search for social support. Optimism affects stress and direct/indirect coping as a result of available social support. Having more social support might explain why optimists reported less overall distress and fewer long-term intrusions. Social support is an important factor in the relationship between optimism and coping, and between optimism and stress. It is also suggested that optimistic disposition may attract more people and allow one to build more friendships, thereby increasing one's social support network.

Benedek et al. (30), proposed the development of a framework for early intervention after disasters, which would include an emergency psychological treatment. This incorporates five basic elements: Safety both the physical environment, and safe behaviors; Efficacy—maximize the individuals' ability to take care of himself, his family and others through distinct directives; Calmness—instruct and enhance relaxation techniques while maintaining natural body rhythms (nutrition, sleep, rest, exercise); Connectedness—optimize and nurture feelings of close contact with family and other social supports; Fostering hope and optimism while minimizing ongoing risks. This aid can serve as a tool in providing care and assessing the needs of emergency teams.

### Optimism among health care workers during an influenza pandemic

Pandemic influenza presents a threatening situation for people. According to Carver et al. (31) people fear and avoid threatening situations if they assess their coping skills as inadequate, thereby reducing their functioning capabilities during a pandemic.

Scant research was found about optimism among HCWs during an influenza pandemic. Most of the publications about HCWs focus on the mental problems to which they are exposed. One research focusing on optimism was conducted by Prateepko et al. (32). The study was a survey among 385 health personnel in charge of influenza pandemic preparedness in South Thailand. Overall, 271 (70%) personnel responded to the survey. They tried to analyze their perception on four dimensions: the severity of the pandemic, their vulnerability, their response efficacy, and their perceived self-efficacy. After analyzing the results the researchers identified three

patterns of personality: I-pessimistic with perceived low self-efficacy ( $N = 90$ ), II-optimistic ( $N = 40$ ) and III-mixed with perceived low self-efficacy but low vulnerability ( $N = 60$ ). The rest ( $N = 79$ ) of the findings were not included because they did not reach the method criteria. Almost all of the participants had high expectations that fulfilling the recommended measures could mitigate the impact of the pandemic. The staff who were considered to be 'optimistic' (15%) felt the threat to be of less severity and less vulnerability from possible impacts of the pandemic. On one hand, this suggests that perception of a low level of severity and vulnerability or low levels of appraised threat of an influenza pandemic may inhibit motivation of health personnel to engage in protective behavior. But on the other hand, this group may be the backbone of the staff who will come to work and serve during the pandemic.

As mentioned earlier, at the time this article was written, the relationships between optimism, and knowledge, source of information, other emotions, behavior, social support, and trust among HCWs during a pandemic flu were not yet documented. We suggest that studies should be conducted to reveal these alliances in order to shed light on the role of optimism of HCWs during a disaster and to point out possible ways to enhance it when necessary.

### Conclusions

Healthcare workers serve at the frontline in any case of disaster, and they are at risk of mental illness. Therefore, their performance, with all the underlying perceptions, communication, training and resources is of special concern. Only a few articles were found pertaining specifically to optimism among HCWs. These articles noted that optimism is an important ingredient helping people to build resilience and self-efficacy. Some of the articles show that optimism is a potentially strengthening personality trait which can be manipulated/molded to the task at hand, assisting in coping and overcoming the crisis.

Optimism can also be raised through leadership modeling or by learning, through the instruction of cognitive psychology trainers, to adopt objective and optimistic explanations to specific events. It is important to provide this valuable tool to HCWs both before a crisis and after it. We suggest to include optimism learning by a toolkit before and after disasters. This valuable tool may raise satisfaction and well-being of the HCWs daily work and in disaster events. Together with accurate information through the mass media and professionals, a lifeline of social support can contribute to relief. Social support and trust, both at the workplace and during the interaction between medical staff and between patient and his family, will enhance the process of overcoming the crisis.

In case of a pandemic, it may also help reducing absenteeism from work and minimize economic damages, which might appear due to inappropriate attention to the psychological aspects of the HCWs. Health authorities can reinforce HCWs through developing appropriate programs for enhancing coping skills of the medical staff, which will lead the medical defense of the community during crisis situations. This assumption should be considered in future research.

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