

## The Resilience of Healthcare Workers in Hospital During Covid-19 Crisis

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### Abstract

The outbreak of the COVID-19 pandemic in all corners of the world has made all activities from various sectors difficult and even experience complete paralysis. As a result of the COVID-19 pandemic, a crisis emerged in various organizations engaged in the medical and non-medical fields. With the crisis due to the COVID-19 pandemic, a transformational leadership role is needed as a form to overcome feelings of worry, fear, and anxiety that arise in healthcare workers. The purpose of this review is to examine the resilience of healthcare workers amid the outbreak of the COVID-19 pandemic. Through well-established adopted questionnaires, data were collected from healthcare workers (N=134) treating COVID-19 patients in the Islamic Hospital in Surabaya, Indonesia. This type of research uses a quantitative approach, a sampling method with census technicalities, and the Partial Least Square (PLS) analysis method. The results showed that transformational Leadership had a positive effect on health workers. Then, there was no significant influence of transformational Leadership on negative effects on health workers. At the same time, from positive effects, it was found to have a significant influence on the resilience of health workers of Islamic Hospital during the COVID-19 crisis.

**Keywords:** COVID-19 crisis, Healthcare, Transformational leadership

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## 1. Introduction

During the COVID-19 pandemic in 2021, Islamic Hospital in Surabaya, Indonesia, experienced problems in handling patients. This research was conducted from June to September 2021, during the Delta-dominant period of Covid-19. It was noted that Islamic Hospital Surabaya was no longer able to accommodate patients infected with COVID-19; it was observed that as many as 44 isolation rooms used for patients infected with COVID-19 lacked isolation rooms, oxygen, and this caused a crisis that occurred at Islamic Hospital Surabaya. Increased infection rates, individual failure protective equipment, as well as a lack of hospital beds led to the already fragile mental health of healthcare workers further deteriorating (Greenberg et al., 2020)(Denning et al., 2021), (Baskin & Bartlett, 2021), (El Gindi et al., 2022), If this cannot be handled properly by Healthcare Workers (HCWs), then it is feared that a crisis will arise. It is in accordance with the results of a previous study on the impact of the pandemic on mental health outcomes, including depression, anxiety, and fear among nurses and other screened medical staff (Sheraton et al., 2020; Talaei et al., 2020)

Transformational Leadership can play a better role in crises than other leadership styles. (McCombs & Williams, 2021; Santoso et al., 2022; Alkhwilani et al., 2019) studied the effects of leadership style on crisis management in correctional officers in Yemen. Leadership can be helpful in managing crises, but more research is needed to understand the connection between the two (Zhang et al., 2012). As a result, to address this uncertainty, the leaders must move immediately. On the other hand, as they must make important decisions and anticipate positive outcomes in order to accomplish organizations' goals, effective Leadership has long been seen as the most important mechanism for many enterprises, both in regular situations and during crises (Madanchian et al., 2017). Transformational Leadership can trigger the emergence of positive emotions such as hope and optimism (Ali et al., 2022) so that it can convince doctors and nurses that one day, the crisis will be resolved. Implementing transformational Leadership in crises gives rise to a sense of optimism for doctors and nurses to not only survive crises but also to develop better during crises (Zhang, Z. et al. 2012).

Transformational leadership behavior can increase positive Affect and reduce negative Affect through contagion effects (Li et al., 2019). It then helps the formation of resilience from doctors and nurses so that they can survive and even develop in crises (Sommer et al., 2016). Resilience is the basic quality of individuals, groups, organizations, and systems as a whole to respond productively to significant changes that disrupt the expected patterns of various events without involving themselves in long periods of regressive behavior (Salam et al., 2023; McCombs & Williams, 2021). With the increasing number of positive emotions and basic qualities of individuals, it is hoped that doctors and nurses will have more and more resilience in facing crises (Sommer et al., 2016).

Transformational Leadership plays a major role in influencing the resilience of HCWs as frontline employees; besides that, leaders must be able to act as inspiration for them (Karaliuniene et al., 2022). According to Harland et al. (2005), there is a positive relationship between transformational Leadership and contingent reward on the resilience of employees (Madi Odeh et al., 2023). Transformational Leadership, the main factor influencing the resilience of HCWs, is expected to provide mutual trust and support so that they can be loyal to the organization. (Harland et al. 2005)

In carrying out the transformational leadership style, leaders can align it with the broadening and building theory presented by Frederickson (2002)(2004). This theory explains the form and function of part of positive emotions, including happiness, attraction, and pleasure, and B. L. Fredrickson (2004) explained that the reason for mentioning the broaden and build theory is because positive emotions arise in people who have chests through instantaneous actions that are spontaneous and form eternal personal sources.

To be able to get through the crisis well, resilience is needed in the members of the organization and groups that exist and are involved in the organization (Hartwig et al., 2020). Of course, this study also has differences from the research of Sommer et al. (2016) because the crisis referred to in this study is the occurrence of a very dangerous COVID-19 outbreak, control the soul and self-efficacy. Resilience depends on a sense of psychological mastery and self-efficacy, as well as the ability to utilize resources. In other words, every individual in the organization must be able to reflect persistence and resilience in facing crises (Hartwig et al., 2020).

Organizational crisis tends to generate negative emotions, such as fear and frustration, among members of the organization (Ruppel et al., 2022). This organizational crisis then generates negative effects related to psychological states and behaviors that are less useful for making the decisions needed during the crisis (Coombs, 2007; Özdemir et al., 2010). In the context of this study, to be able to overcome the emergence of negative effects, it is important to have the role of transformational leaders to be able to cause positive emotions in HCWs so that it is reflected in HCWs' feelings of happiness and enthusiasm in facing every challenge that exists (Özdemir & Kerse, 2020).

This study follows up on a study conducted by Sommer et al. (2016), which states that management research to date has focused primarily on senior managers who make decisions at the top. However, frontline team leaders and members are also important. Because their decisions and actions influenced the resolution of the crisis, the crisis that occurred in several hospitals in Canada in the period 2008 was illustrated by the lack of beds to treat patients due to restrictions on hospital beds by the Canadian government at the time. The crisis severely affected the operational activities of hospitals and did not favor the right of citizens to obtain health services. Of course, this study also differs from the research of Sommer et al. (2016) because the crisis referred to in this study is the occurrence of a very dangerous COVID-19 outbreak.

The purpose of the research is to examine the resilience of healthcare workers during crises. Based on the findings of this research, techniques for boosting the resilience of healthcare workers will be examined.

## **2. Literature Review**

Because it guarantees job satisfaction and encourages staff to work efficiently to meet organizational goals, transformational Leadership may be a useful tool for managing organizational crises (Almohtaseba et al. 2020). During a crisis, a transformational leader's job is to assist followers in efficiently resolving issues—Zhang et al. (2012) report that during an earthquake in China, transformational leaders motivated and inspired their subordinates to share and express ideas on how to cope with the ensuing problems. DuBrin (2013) emphasized that transformational Leadership is the greatest option to lessen the effects of the crisis and that it functions flawlessly throughout and after the crisis. Researchers have determined that transformational leadership is the most thorough and successful strategy to use in a crisis such as Covid-19 (Santoso et al., 2022).

Fredrickson (2004) outlined how the "broaden and build" hypothesis is a sign of a beneficial influence on people that may boost their flexibility, way of thinking, and behavior. It has also been demonstrated to enhance people's capacity for creativity and problem-solving on an individual basis. In summary, positive Affect is defined as an affection that elucidates the degree to which an individual experiences sentiments of enthusiasm, happiness, alertness, and attentiveness.

According to Fredrickson (2002), negative Affect is an affection that explains the extent to which individuals feel feelings of guilt and nervousness. According to previous cross-studies, it was found that depressive symptoms indicate negative Affect, which decreases in middle age but increases in old age,

with the highest levels among young and old age groups (Charles et al., 2001). It then becomes the basis for why senior employees in the organization tend to be calmer in dealing with every problem that occurs, especially in dealing with crises that occur (Villaume et al., 2023).

Resilience is described as a psychological factor individuals can get out of extreme situations they face in their workplace (Hartwig et al., 2020). It includes adaptive, proactive, support-seeking, learning, and crisis management behaviors that can be carried out at any time (Kuntz et al., 2017). Nguyen et al. (2016) and Jun & Lee (2023) argue that transformational Leadership is positively related to the resilience of followers, and transformational leaders who inspire their followers can increase resilience. The positive influence that transformational leaders have on employees can help increase employee resilience so that employees can not only survive in crisis conditions but can also thrive (Santoso et al., 2022) (Prayag et al., 2024). Therefore:

H1: Transformational Leadership has a positive effect on the resilience of HCWs at Islamic hospitals in crises.

According to Demerouti and Bakker (2023), to survive in a crisis, team members must be able to use all existing resources, namely emotional, cognitive, social, and instrumental things. In addition, positive emotions are the main key to being able to develop during a crisis (Tugade & Fredrickson, 2004; Mesurado et al., 2022). Positive emotions that arise can influence employees to be able to survive and even develop in crises, so it is important here for the role of transformational Leadership to be able to trigger the revival of positive emotions in employees (Tugade & Fredrickson, 2004) (Demerouti & Bakker, 2023).

The importance of employee's affect, of course, can be caused through the role of a good leader (Surji, 2014); the leader here plays a role to be able to foster positive emotions, mutual trust, and support for employees (Men et al., 2022). Research has discussed the influence of Leadership on Affect. It focuses on the influence of leaders and their emotional intelligence, as well as how leaders use their influence to be able to influence employees (Tugade & Fredrickson, 2004).

Transformational leadership behavior will increase the scope and intensity of positive Affect experienced by followers or will decrease negative Affect (Bass et al., 2003). As role models, the leader encourages workers to express their demands and improve their output at work since they sense that their voices are heard and appreciated more. Being attentive also lends the leader's side more respect, credibility, and trust (Kindembo 2021). People's interests are elevated above and beyond their own, and transformational leaders inspire others to adopt new shared visions through idealized influence through vision articulation, intellectual stimulation, and inspirational motivation. These behaviors have a significant positive impact on a firm's resilience (Sommer et al., 2016). Then, transformational Leadership can cause positive emotions in employees, such as optimism and hope (Sommer et al., 2016), (Nguyen et al., 2016), to be innovative and creative, undertaking active actions, and strengthening employee engagement (Santoso et al., 2022) in facing crises. Based on the statement, hypothesis 2a is formulated as follows:

H2a: Transformational Leadership has a positive impact on Affect of HCWs in the Islamic Hospital crisis

Their leaders strongly feel support in the form of professional development; on the other hand, leaders do not provide feedback and appreciation during their duties (Lappalainen et al., 2019). This condition is acceptable because, in times of crisis, improving skills in handling patients is needed in emergency conditions with the consequence that the delivery of feedback is reduced due to time constraints and fatigue. This statement is also supported by Seljemoet al. (2020) 's argument that the speed of work and the amount of emotional tension in times of crisis negatively impact HCWs' ability to implement

a patient safety culture. Brewer et al., refer to research on 1037 HCWs. (2016) stated that transformational Leadership was not proven to have a significant impact on the desire to stay and job satisfaction but was significantly related to organizational commitment in times of crisis. It happened because the leader had committed ethnic discrimination, discrimination of employment opportunities in non-local residents and a work environment that was not conducive to triggering the desire to leave the organization. Thus:

H2b: Transformational Leadership has a significant and negative effect on HCWs at Islamic Hospital in crisis

Based on Bass et al. (2003), transformational leadership can foster mutual trust and support and the desire for followers to see beyond personal interests and devote themselves to supporting the organization. According to the results of the last model, particularly the quality of sleep, positive emotional state, age and life satisfaction were found to have a crucial impact on improving the psychological resilience of healthcare workers (Bozdağ & Ergün, 2021)

According to Tugade and Fredrickson (2004), negative Affect is an affection that explains the extent to which individuals feel guilt and nervousness. Leaders can also reflect positive and negative emotions, which can affect the way employees view their leaders and their productivity. Negative emotions trigger the emergence of negative Affects in employees, especially frontline employees, so transformational Leadership is important to foster mutual trust and support for employees to avoid stress, especially during crises. Healthcare workers face serious pressures that may cause psychological disorders, including anxiety, phobia, depression and insomnia (Elshaer et al., 2018). According to Lai et al.(2020), a significant number of healthcare workers experience insomnia and develop symptoms of depression, anxiety and distress during the COVID-19 pandemic.

Previous research from Lee et al. (2013) showed that there are 6 protective factors, both internally and externally, including life satisfaction, optimism, positive affect, self-efficacy, self-esteem, and social support. In addition, there are 5 risk factors, including anxiety, depression, negative effects, perceived stress and PTSD, that can affect resilience.

Bozdag and Ergun (2021) explained that during the COVID-19 pandemic, a positive effect of negative Affects and resilience experienced by HCWs was found. It shows that the more negative affective and supported by low sleep quality, age factors and life dissatisfaction, the lower the psychological resilience of HCWs will be. Thus, we propose the following hypotheses:

- H3a : Positive Affect has a significant and positive effect on the resilience of HCWs at Islamic Hospital in crisis
- H3b : Positive Affect significantly mediates the influence of transformational Leadership on the resilience of HCWs at Islamic Hospital in crisis
- H4a : Negative Affect has significant and positive effects on the resilience of HCWs at Islamic Hospital in crisis
- H4b : Negative Affect significantly mediates the influence of transformational Leadership on the resilience of HCWs at Islamic Hospital in crisis

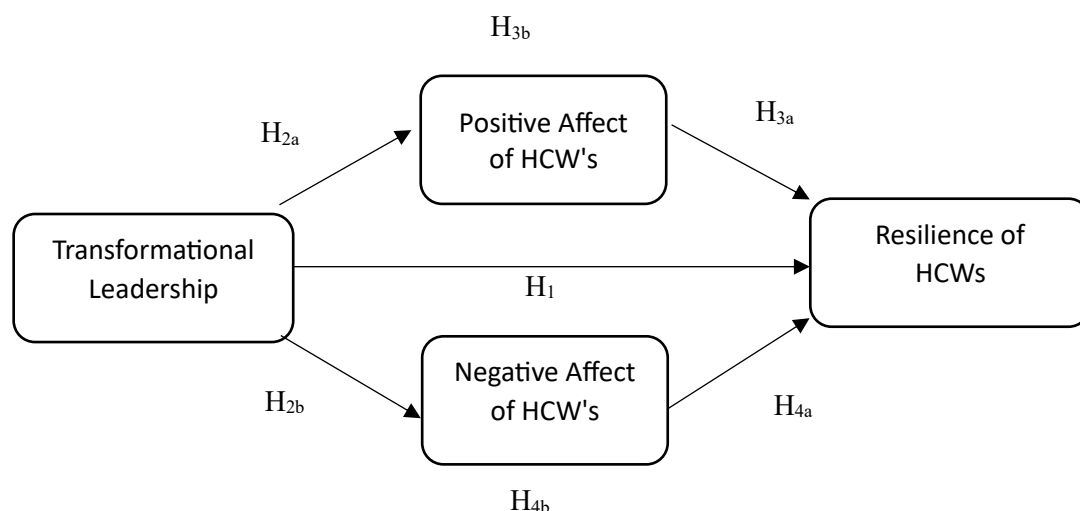


Figure 1. The Theoretical Framework

### 3. Data and Methodology

Transformational Leadership is Leadership in which a leader reflects on his followers beyond interests that are economic, social, or even psychological exchange relationships so that it has the potential to reflect his leadership style to HCWs of Islamic Hospitals Surabaya. In this study, transformational Leadership was measured by four dimensions: idealized influence, individualized consideration, inspirational motivation, and intellectual stimulation, which were combined as a measurement of transformational Leadership. Transformational leadership indicators are built using The Multifactor Leadership Questionnaire (MLQ) (Hinkin and Schriesheim 2008).

Positive Affect is everything positive and felt by employees, which will then affect the emotions and behavior of employees. In this study, positive Affect was measured based on the process carried out through everything felt and experienced by employees at HCWs of Islamic Hospital Surabaya. We used eight items from Frederickson (2002) to measure positive affect. Out of 20 items, four items were taken for positive affect, namely, enthusiastic, interested, excited, and strong.

Negative affect is everything negative and felt by employees, which will then affect their emotions and behavior. In this study, negative Affect was measured based on the process carried out through everything felt and experienced by employees at HCWs of Islamic Hospital Surabaya. The negative affect indicator uses eight items from Frederickson (2002); out of 20 items taken, 4 items for negative Affect, namely, scared, afraid, upset, and distressed. Resilience is the basic quality of individuals, groups, organizations, and the system to respond in a way.

Resilience is the basic quality of individuals, groups, organizations, and the system as a whole's ability to respond productively to significant changes that disrupt the expected pattern of events without involving themselves in long periods of regressive behavior in employees of HCWs of Islamic Hospital Surabaya. In this study, resilience was measured based on 2 factors: personal competence and self-acceptance and life. The indicators used in the study were a 25-item Resilience Scale; there were 8 items used in this study.

The population in this study was the HCWs placed in the frontline section (doctors and nurses who deal directly with COVID-19 patients) of the number of respondents of 134 respondents. Based on this study, because the population is limited, the authors used the entire population as the sample. The analysis is based on data obtained from research instruments, namely, from the results of questionnaires that are distributed and then processed by statistical methods. Statistical testing on

path analysis models was carried out using the Partial Least Square (PLS) method. According to Hair et al. (2017), PLS is part of Structural Equation Modeling (SEM). PLS-SEM can analyze and explain the presence or absence of relationships between the variables to be used. It also focuses on explaining variances in dependent variables when examining models. In addition, PLS-SEM only requires a small sample size.

#### 4. Results and Discussion

The Finding and Discussion section contains a description of the main results of the research.

Table 1 presents more information on the profiles of the respondents of this study. The contribution from female respondents was 48%, whereas 52% of respondents were male. In this respect, most of the respondents were between the ages of 25 and 35 years (80%). The experience level was divided into different groups. The work tenure of most respondents varied from 5 years to 20 years, and work tenure as a frontline at an Islamic Hospital of most respondents varied from 5 years to 20 years. More details on the profiles of respondents are provided in Table 1.

Table 1. The Profile of Respondents

Item	Description	Frequency	Percentage
Sex	Male	25	52,0%
	Female	109	48,0%
Age	<25	22	16%
	25-30	50	37%
	31-35	57	43%
	35-40	5	4%
Education	Diploma	25	19%
	S1	85	63%
	S2	24	18%
Work Tenure	<5	4	3%
	5-10	48	36%
	10-20	78	58%
	>20	4	3%
Work Tenure as a frontline in an Islamic Hospital.	<5	3	2%
	5-10	112	84%
	10-20	19	14%

Source: Data Processing (2021)

We employed Partial Least Square (PLS) to test the hypothesized relationships.

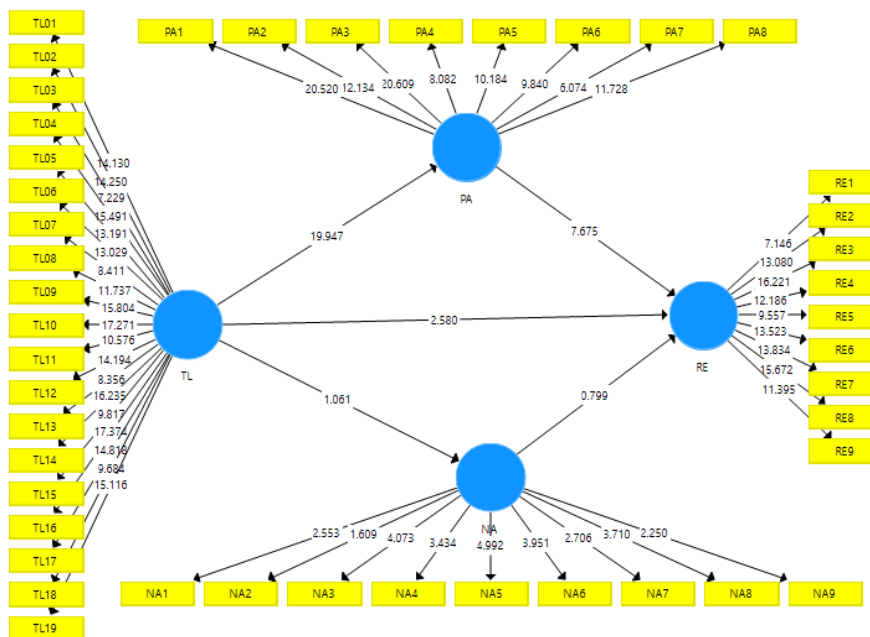


Figure 2. The Outer Model  
Source: Data Processing (2021)

Table 2. Path Coefficient and Specific Direct and Indirect Effects

Hipotesis	Variable	Original Sample (O)	T-Statistics	P-Values	Description
H1	Transformational Leadership->Resilience	0,216	2,580	0,010	Significant
H2a	Transformational Leadership -> Positive Affect	0,787	19,947	0,000	Significant
H2b	Transformational Leadership -> Negative Affect	0,130	1,601	0,289	Not Significant
H3a	Positive Affect -> Resilience	0,593	7,675	0,000	Significant
H3b	Transformational Leadership -> Positive Affect->Resilience	0,467	7.314	0,000	Significant
H4a	Negative Affect -> Resilience	0,070	0,799	0,425	Not Significant
H4b	Transformational Leadership-> Negative Affect->Resilience	0,009	0,545	0,586	Not Significant

Source: Data Processing (2021)

**a. The effect of transformational Leadership on the resilience of HCWs at Islamic Hospital during the crisis.**

Based on the test results, hypothesis 1, which states that transformational Leadership has a positive and significant effect on the resilience of HCWs in crises, is acceptable. This shows that transformational Leadership is the right behavior to be applied in crises so that it can affect the high level of resilience of HCWs at Islamic Hospital Surabaya.



During the COVID-19 pandemic, many HCWs experienced symptoms of decreased *mental health* (volatile, uncertain, complex, and ambiguous circumstances due to their work because in addition to prioritizing patient safety, they also had to think about their safety (Wibowo & Paramita, 2022). The presence of transformational leaders is characterized by empathy (Gautier et al., 2023). People utilize sympathy to outlive since, with sympathy, one can get that anybody who appears sympathetic can be trusted and be welcomed to work with others (Kock et al., 2019). In healthcare organizations, this is evidenced by the attitude of leaders in times of crisis who prioritize not only patient safety but also that of their subordinates, namely nurses and other medical personnel. It has been shown to lead to satisfaction with the leader, trust and a willingness to work with other colleagues.

During the COVID-19 pandemic at Islamic Hospital Surabaya, the leader routinely held a forum to discuss the development of patients and the development of health information related to COVID-19 with HCWs; the intensity was increased even in high alert. The forum is also used to listen to the opinions of HCWs about their work and about what they feel, such as maintaining proper nutrition, a good sleep routine, exercising and establishing social connections, and proposing additional health workers if the number of patients infected with COVID-19 increases. By having a leader who shows attention and awareness of the external and internal present-moment states, events, and experiences, subordinates do not feel alone when going through critical and stressful times (Harland et al., 2005). Indeed, under pressure, workers can still focus and think clearly, are not effectively disheartened by disappointment, and think of themselves as solid and able to handle unsavory circumstances. The results of this study support the results of previous research from Wibowo and Paramita (2022), which states that there are positive associations between empathetic Leadership and HCW's resilience in Indonesia.

#### **b. The Effect of Transformational Leadership on Positive Effects of HCWs at Islamic Hospitals on Crisis**

Based on the results of hypothesis testing using partial least square (PLS), Transformational Leadership had a positive effect on the positive Affect of HCWs in crises at Islamic Hospital Surabaya. So hypothesis 2a, which states that transformational Leadership has a positive and significant effect on the positive Affect of doctors and nurses in crises, is acceptable.

During the COVID-19 pandemic, as mentioned in the analysis of hypothesis 1, even in crisis conditions, hospital management still provides opportunities for HCWs to communicate. The communication mentioned in the previous section is related to handling the safety of patients infected with the COVID-19 virus. As is known, the COVID-19 virus is classified as a new virus and has different characteristics from the SARS virus, which also brings many victims. Senior doctors at Islamic Hospital Surabaya are willing to share and exchange ideas with their juniors, including nurses and other medical personnel. The HCWs see this opportunity as a positive thing that will increase their knowledge and skills in handling patients. In transformational Leadership, the actions of the Leadership at Islamic Hospital Surabaya reflect intellectual stimuli. Intellectual stimulation occurs because followers are motivated to look at problems from a different perspective (Sommer et al., 2016). Then, associated with communication between superiors and subordinates, refer to Men et al. (2022), this study shows that opening communication between leaders and subordinates motivates and increases *trust* among HCWs in times of crisis.

In addition, there is also a finding that in the case of an increase in the number of patients infected with COVID-19, at the same time, there is HCW, so they must rest. The impact is that the workload of HCWs in the hospital will increase. One side will cause fatigue at work, but the results of Hypothesis 2 have a positive effect. It is inseparable from transformational Leadership in the hospital. The attention given by transformative leaders encourages HCWs to work multiple jobs voluntarily. This study support the results of previous research from Bass & Riggio (2006), which state that transformational pioneers also propel their subordinates by cultivating innovation, challenging assumptions, and rewording

issues. In addition, referring to the opinion of Santoso et al. (2022) state that the pandemic also forces workers to have multitasking aptitudes to do multi-entrusting employment. The representatives ought to handle changed duties at the same time to back the supportability of the organization amid the widespread COVID-19.

### **c. The Effect of Transformational Leadership on Negative Affect**

Based on the results of hypothesis testing using partial least square (PLS), Transformational Leadership negatively influences the negative Affect of doctors and nurses in crises at Islamic Hospital Surabaya. Thus, hypothesis 2b, which states that transformational Leadership has a negative and significant effect on the negative Affect of HCWs in crises, is rejected.

At the time this research was conducted, from August to September 2021, Surabaya city had orange zone status. Orange zone status is given to cities or areas adjacent to the red zone, where the spread in this area is relatively severe but still controllable (Diskominfo.tik.bengkalis.go.id/ 2020). In addition, Islamic Hospital Surabaya is a type B private hospital that is a reference for the East Java Provincial Government to treat COVID-19 patients. COVID-19 patients who require medical treatment classified as severe (requiring ICU rooms, isolation rooms, ventilators, lung specialists, internists, pathologists and others) are referred to type-A - A hospitals, therefore patients with this condition are treated in isolation rooms in 3 East Java u Government Regional Public Hospitals. Patients with moderate conditions are referred to type B hospitals and patients with mild symptoms are referred to type C hospitals.

Following up on a referral from East Java's governor, the management of the Islamic Hospital is well prepared for patient handling efforts. It maintained the physical and mental health of HCWs at the frontline of handling COVID-19. Adequacy of Personal Protective Equipment (PPE), provision of vitamins, adequate rest time, work shift policy, and quarantine create comfort for HCWs at work, as stated in the analysis of the hypothesis test 2a (or point b). Intellectual stimulation and intense communication as a factor between leaders and subordinates are important in shaping the resilience of HCWs. Likewise, the opportunity to learn new things related to handling COVID-19 patients is a positive thing that can not only help them adapt to the crisis but also add a variety of skills to their work. It is contrary to the results of previous research from Lappalainen et al. (2019), who explained that the HCWs who were the objects of their research felt that they did not get feedback on their work and did not get the opportunity to improve their skills in times of crisis. Similarly, when associated with the results of research from Brewer et al. (2016), HCWs at AB "Hospital" did not experience discrimination at work, and the work environment at Islamic Hospital was very supportive working in times of crisis.

Based on the above argumentation, it can be interpreted that HCWs at Islamic Hospital Surabaya experienced more positive effects than negative effects because of implementing a transformational leadership style during the crisis.

### **d. The effect of Positive Affect on the resilience of HCWs at Islamic Hospitals on crisis**

Based on the results of hypothesis testing using partial least square (PLS), results were obtained that positive Affect has a significant and positive effect on the resilience of HCWs in crises at Islamic Hospital Surabaya is acceptable or supported.

Based on these results, it can be analyzed that HCWs at Islamic Hospital remain calm, enthusiastic, active and vigilant even in stressful situations that have affected their resilience. The cause of this positive affection possessed by HCW, according to the results of the hypothesis 1 test of this study, is the presence of leaders who always assist and share knowledge and information in handling COVID-19 patients, making them more independent and responsible for themselves. In addition, the average

length of service from 5 years to more than 20 years provides sufficient work experience. It has an impact on their skills to control emotions in increasingly complex work during the COVID-19 pandemic. The same results were found in the study of Salam et al. (2023), which stated that working tenure also affected the resilience of HCWs in 3 hospitals in Lebanon during the COVID-19 pandemic. In addition, the educational background of HCWs, who on average graduated from university, supports them to grow into individuals who can achieve goals, tolerant of negative effects, and resilient in facing difficult situations such as crises (Simões de Almeida et al. 2023).

**e. The Mediating Role of Positive Affect on the Influence of Transformational Leadership on the Resilience of HCWs at Islamic Hospitals in Crisis**

Based on the results of hypothesis testing using partial least square (PLS), positive Affect mediates the influence of Transformational Leadership so that it affects the Resilience of HCWs of Islamic Hospital Surabaya. So, hypothesis 3b, which states that positive Affect mediates the influence of transformational Leadership on resilience in crises, is acceptable.

Leaders at Islamic Hospital Surabaya are very eager to make changes in their group to adapt to the COVID-19 period. The traits of transformational leaders who are energetic, intelligent, and consistent in encouraging each of their team members create optimism and increase the ability to see the problems faced in their work, and this has an impact on HCW's ability to adapt positively as a strategy to deal with difficulties in times of crisis.

The nature of positive affect mediation on the effect of transformational Leadership on resilience is partial mediation, meaning that in the presence or absence of positive Affect, transformational Leadership can increase the resilience of HCWs at Islamic Hospital Surabaya. These results can be interpreted as follows: to increase resilience in times of crisis, healthcare organizations or hospitals must pay attention to factors that can make transformational leadership more effective and pay attention to factors that can increase positive Affect.

**f. The Effect of Negative Affect on the Resilience of HCWs at Islamic Hospitals on Crisis**

Based on the results of hypothesis testing using partial least square (PLS), results were obtained that negative Affect has a significant and negative effect on the HCWs at Islamic Hospital Surabaya is rejected. At the time this research was conducted, the case of the spread of COVID-19 was classified as an orange area. It shows that the COVID-19 case in Surabaya was classified as well-controlled, so thus, negative affect symptoms such as anxiety are not classified as high, meaning that anxiety and fear remain. Negative Affect is a type of Affect that is dominated by unpleasant feelings, anger, sadness and anxiety (Sommer et al., 2016). Based on the results of hypothesis testing, it was found that this type of affection was not proven to influence the ability of HCWs at Islamic Hospital Surabaya.

At the time this research was conducted, the case of the spread of Covid1-19 was classified as an orange area. It shows that the COVID-19 case in Surabaya was classified as well-controlled, so negative affect symptoms such as anxiety are not classified as high. However, the anxiety and fear felt by HCWs at the hospital were present. It is a natural thing because this disease takes many victims of HCWs who are infected by their patients and has an impact on death (Kisa, 2020).

Several factors cause negative affection, such as work overload (Simões de Almeida et al., 2023), speed of work during a crisis (Seljemo et al., 2020), lack of attention from superiors (Lappalainen et al., 2019), lack of attention from management (Exterkate, 2021), lack of communication, and nonconductive work environment (Brewer et al., 2016). This study refutes these claims because the leaders of HCWs at Islamic Hospital actually support their subordinates in terms of work and personal matters in times of crisis, so the anxiety felt by HCWs at Islamic Hospital does not affect their resilience.

### **g. The Mediating Role of Negative Affect on the Influence of Transformational Leadership on the Resilience of HCWs at Islamic Hospitals in Crisis**

Based on the results of hypothesis testing using partial least square (PLS), negative Affect did not support mediating the influence of transformational leadership on the resilience of HCWs at Islamic Hospital Surabaya. The previous hypothesis test analysis (point f) conveyed that negative affection among HCWs has not been proven to affect their resilience in facing problems during the COVID-19 pandemic. The causes are internal and external factors. Transformational Leadership applied at Islamic Hospital Surabaya causes HCWs to feel happy and enthusiastic about facing every challenge and minimizes fear and frustration. Thus, increasing the resilience of HCWs at Islamic Hospital is absolutely influenced by transformational leaders. Transformational leaders motivate and inspire their subordinates to share and express ideas on how to cope with the ensuing problems (Zhang, Z. et al. 2012). Similarly, as stated by Santoso et al. (2022), transformational Leadership is the most comprehensive and successful strategy to use in crises such as COVID-19.

## **5. Conclusion**

Transformational leadership has been proven to improve the positive affect of HCW's Islamic Hospital in crises. Similarly, a positive Affect has been shown to increase the resilience of HCW's Islamic Hospitals in crises. Another result is that a positive Affect has been shown to mediate transformational effects on the resilience of HCW's Islamic Hospital in crises. The current study's findings have several practical implications for leaders regarding the significance of the elements enhancing crisis management hospitals. Additionally, a leader who has handled a crisis before is better equipped to handle one now. Healthcare administrators are encouraged to help their leaders develop a positive effect so that they can be more effective during difficult times. Leaders with a positive affect are more likely to be successful. This research has limitations, such as not considering the type of hospital. In Indonesia, hospitals are classified into 4 types based on their facilities and capabilities, namely type A, type B, type C and type D. Type A is the highest type, and Type D is the lowest type. Thus, type A hospitals have the best facilities and services. Therefore, further research is recommended to consider the type of hospital so that it can be known in more detail how much impact the crisis has on the resilience of healthcare workers

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