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Factors Driving Resilience in Healthcare Professionals During Public Health Crises: A COVID-19 Perspective

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ABSTRACT
The ability of healthcare workers to bounce back during public health emergencies, such as the COVID-19 pandemic, is essential to maintaining the health and functionality of healthcare systems. This study aims to identify the major determinants of resilience by emphasizing organizational support, work-life balance, stress management, peer support, and perceived preparation. The approach taken was a quantitative survey where the data were collected from 150 medical professionals using a structured, 20-question Google Forms-administered questionnaire. Exploratory Factor Analysis (EFA) was used as the pre-processing phase to test for underlying factor structures in the proposed model and hence check for construct validity, whereas Structural Equation Modeling (SEM) was used to test hypothesized relationships between the variables as well as the general fit of the model. The study's findings show that work-life balance and organizational support are crucial for the development of resilience. More specifically, it was found that peer support moderated the relationship between stress and resilience, while work-life balance mediated the relationship between stress management and resilience. Moreover, it was found that perceived readiness directly benefited resilience. Fit indices of SRMR = 0.04, RMSEA = 0.05, and CFI = 0.92 supported the valid SEM model. Thus, one could conclude that in healthcare workplaces, strengthening peer support networks and work-life balance along with organizational support systems can provide resilience among healthcare workers to cope with stress at workplaces and eventually reduce the consequences of a mental disorder. The study provides useful information for policymakers and health administration to improve the resilience of health care workers while better preparing them for the next public health emergency.

Keywords: Resilience, Healthcare Professionals, Structural Equation Modeling, Work-Life Balance, Organizational Support

1. INTRODUCTION

Public health crises, such as the COVID-19 pandemic, have revealed critical weaknesses in global healthcare systems, highlighting the immense strain on healthcare professionals. The disease that originated in Wuhan city in China in December 2019 before it went global has been viewed as a public health coronavirus that is of global concern. COVID-19 disease affects or actually impacts the lives and health of over 3.3 million inhabitants globally by May 3, 2020.[1]. In this period healthcare has been observed to have professionals suffering severe psychological issues and at the same time they are vulnerable concerning mental issues[2], [3]. Also categorized under infectious disease pandemic, COVID-19 can cause stress, concern and even anxiety. There is a need to continually regulate mood in order to ward off whatever exacerbates the stress and anxiety [4]. Therefore, the psychosocial impact of COVID-19 on potential HCWs needs to be studied[5]. The World has seen peoples' health systems put to task with the onset of the COVID-19 pandemic. When analyzing which contextual factors let the health systems continue to perform their functions and sustain while in a crisis, the term resilience is used. The COVID-19 showed how weak many global health systems were, and what drastic and long-term impact health problems have broth for the economies, governments, and societies of many countries[6]. Concerning supply, health systems were not ready, experienced human resource constraints and inadequate funding and, therefore, could not address the emergency while continuing to deliver fundamental health services since the pandemic became a prolonged crisis. The specific public health issues felt through the pandemic have brought into focus the need to bolster health systems that can ' anticipate, identify, mitigate, contain, recover from and learn from disturbances[7], and not just change but evolve in order to suit the

populace's ever emerging health requirements. COVID-19 has brought attention to the development of resilient health systems as a key international focus, public health capacities and cantering on the primary healthcare approach as a foundation to improve health security and to expand UHC [8], [9].

Resilience has been defined across individual, organization, and community levels and refers to the ability to adapt, maintain functioning, recover, and thrive in the face of adversity. Health care organizational resilience refers to a range of capabilities that build the flexibility of systems of care to change without compromising service quality. Personal coping resources refer to individual characteristics, which include but are not limited to personal predisposing factors and resources that can be mobilized to address different types of stressors and address the issue of individual resilience. COVID-19, however, demonstrated that there were significant deficiencies in those areas and indicated the importance of further refining the identification of factors of resilience at the individual level. These workers live at the coalface of the physical delivery of healthcare services and are pivotal to guaranteeing that the healthcare delivery systems continue to operate efficiently while patients continue to receive care. Thus, while they are essential in society and vital to society stability, they have to pay a huge price for themselves. In that case, the physical demands of long hours of work, infection diseases, and lack of basic equipment cause fatigue and burnout. Psychologically, patients' high turnover, challenging choices, and many deaths make healthcare professionals stressed and suffer from compassion fatigue. Psychologically, the worries of getting infected or the transmission of the disease as well as the drama of seeing people suffer from disease and dying wear down their mental health. To address these challenges, it is crucial to support healthcare professionals by improving working conditions, providing mental health resources, and fostering a culture of resilience.

It ensures both individual and organizational resilience are built, handling critical challenges arising in health care professionals. For instance, public health crisis systems like the COVID-19 virus require proper handling of deficits and deficiencies related to leadership, resources, and communication to avert negative outcomes. Vulnerabilities, including stress and anxiety, that have psychological outcomes are diminished by emotional intelligence and mental health resources and mechanisms for coping. Flexible work schedules, wellness programs, and improved working conditions prevent or minimize physical fatigue and burnout. The system ensures personal resilience through training, workshops, and recognition systems which provide the means to help HCWs withstanding adversity. A survey-based analysis brings to light important stressors and factors of resilience for data-driven decision-making in personalized interventions. It addresses those challenges while the framework protects the wellness of HCWs, enables them to work at emergencies with quality care, sustains health systems, equips professionals with future events, and provides them safety and security on their mental and physical well-being. This approach finally provides a framework for resilient systems in healthcare and empowered HCWs.

1.1 Hypotheses Testing

The proposed framework aims at quantifying the resilience of healthcare practitioners amid public health crises; specifically, the COVID-19 pandemic. The investigation encompasses factors that influence resiliency, including but not limited to, perceived support from the organization; a balance between work and life; strain coping; peer support; and per capita preparedness. The following hypotheses tested have been part of the framework:

- **H1:** Organizational Support Positively Influences Resilience in Healthcare Professionals
- **H2**: Work-Life Balance Mediates the Relationship Between Stress and Resilience
- **H3:** Stress Management Strategies Significantly Are Related to Resilience
- **H4:** Peer Support Facilitates Resilience Among Healthcare Workers During Public Health Crises
- **H5:** Perceived Preparedness Affected Positively by Healthcare Workers' Resilience

1.2 Key contribution of the Study

1. The study recognizes and analyzes the prominent variables influencing resilience among health workers in the event of a public health crisis, organizational support, work-life balance, stress management, peer support, and perceived preparedness.
2. The work models relationships of various factors associated with resilience, using SEM: it applies a sound methodology in explaining such dynamics in a healthcare context.
3. A total of 150 healthcare professionals received a structured, 20-question Google Form that is the tool for gathering this information from this study, allowing this researcher to use a representative population to determine which factors relate with resilience during the public health crisis.
4. The work uses EFA to improve and validate the constructs measured through the survey, which ensures the items of the survey truly reflect the factors and makes the quality of data improved before SEM analysis.
5. This study depicts the mediating role of work-life balance in relation to stress management and resilience, which would mean policies that improve work-life balance can significantly improve resilience.

6. It goes further to offer actionable suggestions for healthcare managers and decision makers to build resiliency of health professionals by enhancing supportive organizational systems, peer-to-peer networks, and preparedness policies that can effectively prepare healthcare professionals for subsequent crises.

2. LITERATURE REVIEW

Bozdag and Bozdag [10]recommended the study which is intended to investigate reserve psychological potential of healthcare employees. The conclusions of this study proved that to elevate the level of psychological readiness increase main aspects of subjective wellbeing, including quality of the reported sleep, positive affect, and cognition measures of the LS, of the HCPCN during the COVID-19 pandemics. To a certain extent, people in healthcare workers, especially the elder group, showed improved psychological well-being. Health-care practitioners are some of the least psychologically prepared workers across most categories in the health sector. In this respect, the current study is considered to have contributed to the literature. Although based on the investigations on the impact, the effects of the Covid-19 pandemic have minimally impacted the wellbeing and the emotional strength of the caregiver for continued support of the healthcare professionals throughout Covid 19, the practitioners have been observed during this period to raise serious psychological concerns as a health care worker is considered as a vulnerable group in terms of mental health. Therefore, subsequent studies may employ an analysis of determinants of HCWs' positive and negative emotions during the COVID-19 pandemic to a better position in understanding the problem.In addition, other roles of claiming influence of psychological resilience of HCWs with life satisfaction and first needs including sleep that has other options referring to quality of life of HCWs.

Heath et al.,[11]concerns itself with principals of self-care and organisational justice. It also focuses on different self and other organisation level initiatives. As many countries have succeeded in preventing or at least containing the widespread of the disease, and due to the reduced influx of elective surgeries many institutions are receiving less pressure, there is ample time to be careful and act preventatively to combats or avoid the negative psychological ramifications, and protect and enhance the health of the workforce of today and tomorrow. Certain of the approaches specified above should take a significant amount of time and may include difficult bargaining with leaders of organisations. This might involve for instance hiring more or redistributing support personnel; altering how revenues are apportioned in the organization; making certain that physicians are appreciated and their opinions are listened to; and with other internal and external distributors of revenue and compensation such bargaining for a change in reimbursement systems. However, in the current crisis, other strategies can be implemented quickly and easily such as: The programs include mindfulness interventions; pets as therapy – Battle Buddies; as well as feedback from the staff. These can be implemented now to relieve the adverse psychological effects that the COVID-19 crisis has taken on every healthcare worker.

Foster et al's[12]This study was designed and to be carried out during the pandemic, were to evaluate the psychological distress, SWB, EI, coping SE, resilience, PTG, workplace WSO, and turnover intentions of the registered and enrolled mental health nurses in Australia; and to explore associations between PD, SWB. , well-being and turnover intentions. Using the K10 scale, it was found that a comparatively higher percentage of MHNs had high 27.78% and very high 9.72% scores of psychological distress than the population norms. In the next behaviour, EI behaviours were therefore lower than the general population or population mean, (GENOS-EI Short). PTGI scores were mid-range. Also, coping self-efficacy was mid-range in the currently included older Japanese adults. They reported moderately high levels of workplace willingness, and low turnover intentions. Increased psychological distress was related to increased turnover intention, predicted for less workplace belonging, less coping self-efficacy, lower well-being, lower resilience, and fewer emotional intelligence behaviors. To minimize distress and other related effects on staff in the post pandemic era, organizations must take proactive measures to ensure that their staff is supplemented with an alternative source in both personal and professional needs with particular emphasis on staff development-training that improves staff PHE, EI and stress resistance. Such strategies and group clinical supervision can likely decrease turnover as well. These conclusions suggest directions for future prevention and promotion to meet the diverse needs of the MHN workforce and clinical practice

Fleming et al.,[13]suggested a cross-sectional study to determine how a prior system to coordinate health system, public health, and social systems affected COVID-19 management. Perspective interviews and interviews conducted through focus group discussions with administrators and frontline staff in health care, public health, and social services organizations in Contra Costa County, California between October, 2020 to May 2021. Semi-structured interviews were used with participants to identify how COVID-19 response adapted pre-existing systems for the application of integration resources. This work found that there were four domains of situational system alignment capabilities for COVID-19 recognised in the county, which were: (i) an adaptive organisational culture built on foundational system alignment work; (ii) trust amongst organisations built upon prior positive integrated experience; (iii) capacity to understand the health of at risk populations, including information systems, data, and population surveillance and engagement; (iv) adaptable frontline workforce supporting health and/or social Previous investments in the transformation of systems gave rise to positive costs

as externalities for organizational and community accommodation during the COVID-19 crisis. Overall, the results map out an ideal approach to funding work to strengthen ties and connections within and between various structures in order to bolster their capacity to respond to crisis.

Adekugbe1 and Ibeh [14]analyses the experience of previous emergencies and discusses the further use of data for improving the work of crisis management systems. Based on case studies including the current COVID-19 crisis and natural disasters.The paper to emphasize that these challenges require better data management, technology enhancement, and interprofessional working. Also, components such as equity and privacy would always play an important role when it comes to formulation of data analysis policies. Finally, the paper outlines the recommendations for improving crisis management practices hence; proposed solutions that should be implemented in future are the standardizing of the data protocols, in putting in place early warning systems and encouraging the use of data in crisis solving process. By incorporating such analytics at the centre of managing social issues, it is possible to improve the overall decision-making and level of preparedness in the face of emergencies thereby improving overall community resilience and wellbeing. One major limitation experienced is the absence of harmonisation of data management especially during crises, inadequate investment in structures, minimal interprofessional cooperation, and less emphasis on justice, confidentiality, and approaches to fair sustainable crises solutions.

Brik et al.,[15] proposed a study which supportiveness of organizational and community resilience with resilience of systems of care as a resource for organizational and community resilience in face of disasterAll the participants completed online questionnaires in which the completed the DASS-21 and the Revised Children's Manifest Anxiety Scale. According to the present research, families belonging to the low socio-economic status reported lower levels of working population's mental health during the early period of the COVID-19 outbreak to the family's norming with high social and economic capital. Data regarding possible interference with parenting revealed that mothers scored higher on anxiety, depression, and stress than fathers. Parental physical activity had a direct association with the symptoms of anxiety of the parent and child mental health of the corresponding parent. In the present paper, therefore, we discuss the impacts of COVID-19 on the mental health of families' populations in Latin America and promote diverse involvement of MH and Psychosocial Support (MHPSS) at the time of the pandemic and post – pandemic phase. However, there are certain drawbacks of this study among which some are, First, it is a cross-sectional study, which makes it incorrect to infer causality from the results obtained; Second, it based on convenience sample, therefore, prejudices the study; Third, the sample involved in study may not be culturally diverse; last, the study did not capture all aspects of mental health.

Maple et al.,[16] study focus of the study considered here is exploring what frontline HCWs believe are organisation-directed approaches that are needed to help protect their emotional health in the course of crisis incidents. The Australian COVID 19 FHW study was an online based self-administered cross-sectional survey of frontline health workers across the Australia during the second wave of COVID-19 pandemic in August October 2020. As part of this survey, users described their strategies through an open-ended question: 'What might help frontline healthcare workers during future crisis events including but not limited to pandemics, disasters, etc.?', and thematic content analysis was conducted. All together 5527 participants completed the free text question on how their organisations plan to support its health care workers in the event of future crises. Research focused on difficulties of frontline employees during COVID-19 crisis and presented recommendations for the long-term psychological wellbeing of the healthcare personnel. In particular, four areas were distinguished reflecting links between organ insertional support strategies and organisational culture under study. These were: Promoting the organizational support for mentally healthy work environments; Role modelling and supervision; Increasing collective identification to support mental health; and culture change to be inclusive of, endorse and support mental health. COVID-19 revealed the type of mental health that HCWs require for a health system they work in when stress is at its peak. Based on their professions and personally as a sufferer, their suggestions of the organisational strategies for enhancing the mental health of the health workforce in the long-run suggest beginning from the viewpoint of the affected. Crisis and post crisis mental health support which must and can only be incorporated into the overall valuing of employees if key problems including low usage of mental health services, loss of employees, and increasingly comprehensive qualitative care for patients is to be realised.

The literature review covers health care on organisational and individuals' resilience and mental health issues during COVID 19 pandemic. The proposals insist upon the necessity to further the quality of slept, life satisfaction, and emotional leeway as the main ways to upgrade the well-being of healthcare workers. The optimal prevention measures include mindfulness interventions and other essential structured feedback, as well as preventive organisational measures. Some of the studies focus on emotional intelligence, workplace there belonging, and organizational support for mental health and turnover intentions. Additional explanation explores the concepts of systems integration and big data in crisis response and recognises equity, privacy and sustainability as important considerations.Factors such as low socioeconomic status in patients and the cross-sectional designs, sampling bias and inadequate assessment of mental health status are pointed out and the need

for longitudinal research, inclusion of diverse workers in study samples and better methods of assessment for mental health stressors among HCWs during crises highlighted.

Critical Observation: The literature review draws attention to the critical insights into the mental health challenges of HCWs in the COVID-19 pandemic and emphasizes the importance of psychological resilience, emotional intelligence, and organizational support. The key strategies identified are mindfulness interventions, structured feedback, and workplace belonging to mitigate distress and turnover intentions. While studies such as Bozdag and Heath aim to enhance subjective well-being and proactivity in organizations, other scholars, like Foster and Fleming, emphasize the role of data-informed crisis management and system integration in enhancing community resilience. In any case, there are quite a few limitations in such research, including cross-sectional designs, biases in sampling, and also inadequate mental health assessment that prevents the complete understanding. The review also stresses the need for longitudinal studies and culturally diverse samples to provide holistic insights. Notably, socioeconomic disparities, limited mental health service utilization, and low staff retention emerge as recurring concerns. Future research must address these gaps by integrating diverse methodologies and inclusive frameworks to better support HCWs during crises.

3. Theoretical Hypothesis

Hypothesis 1:

H1: Organizational support positively correlates with resilience across healthcare workers.

This paper articulates the proposition that when healthcare organizations give adequate material and psychological support and top leadership, it enhances worker levels of resilience to crises that such as COVID-19 can expose, as explained by Avey, Hughes, and Byington among other persons in their studies [17]. Organizational support encompasses acts of effective communication, mental health resources, and flexible working arrangements as well as managerial encouragement. Social support theory suggests that those who view strong social and organizational support have a greater ability to control stress, thus leading to resilience. This hypothesis is supported by the conservation of resources theory, which suggests that when employees believe that their organizations are taking good care of and safeguarding their resources, they can recover and cope better in trying times[18].

Hypothesis 2:

H2: Organizational Support Positively Affects Work-Life Balance

The second hypothesis analyzes the direct effect of organizational support on the work-life balance of healthcare workers. According to the studies, such a culture may reduce work-related stress; hence, they are better at balancing their jobs and personal responsibilities[19]. The same has also been supported through the theory of conservation of resources that when employees are confident that the organization is adequately supporting them, they can do more in handling both their professional and personal duties. Work-life balance is a critical factor for the prevention of burnout and the enhancement of well-being, and support from the organization plays a role in this [20]. The relationship is very crucial in health care settings since long hours, high pressure, and emotional demands may contribute to burnout if there is no work-life balance.

Hypothesis 3:

H3: Work-Life Balance Acts as a Positive Mediator between Stress Management and Resilience

This hypothesis puts forth that work-life balance acts as a mediator between stress management and resilience. It postulates that the effective stress management practice, such as mindfulness or time management, contributes to better work-life balance, leading to increased resilience. Research has shown that successfully managing stress is associated with an increased likelihood of maintaining a well-balanced lifestyle, which will help in maintaining psychological and physical health during times of crisis [21]. This mediating effect underscores the point that it is not enough to manage stress but ensure that employees have the resources needed and support to balance their work and personal lives. The ability to achieve a healthy work-life balance can enable people to recover from stress and build resilience in a difficult work environment[22].

Hypothesis 4:

H4: Stress Management is Directly Related to Building Resilience

Stress management is an essential ingredient in building resilience, especially in high-stress professions such as health care. This hypothesis maintains that effective stress management will directly improve resilience among the health care professionals. A number of studies have, therefore, shown that stress reduction can be achieved through mindfulness, physical activities, and emotional regulation of the individual, which improves resilience[23]. At the healthcare workplace, where they are exposed to both emotional and physical stress, managing stress is indispensable for maintaining well-being and preventing one from burning out. Resilience, in this case, means not only withstanding adverse situations but also managing and coping with them effectively. It has been proven that professionals in healthcare who engage in stress management strategies are better placed to cope with continuous pressure and to rebound from setbacks. As such, they display higher resilience[24].

Hypothesis 5:

H5: Peer Support Has a Positive Effect on Resilience

A well-known risk factor that improves resilience is peer support. Most of the high-pressure professions involve working in the healthcare industry, and it is, therefore important to say that this hypothesis means support from colleagues or fellow health care professionals contributes greatly to individual resilience. It has always been shown to reduce feelings of loneliness, cope with job-related stress, and promote emotional well-being [25]. In healthcare settings, which face intense pressures and demands, a social network of support provided by colleagues is an important emotional source for resisting burnout and stress. Peer support ranges from experiencing together, encouraging, to practical support; all of them contribute to resilience [26]. This hypothesis-based theory is grounded in the social support theory, which has emphasised the interpersonal element of a relationship that may help a person cope in times of crisis.

4. MATERIALS AND METHODS

A block diagram, as shown in Figure 1, depicts the proposed framework, which illustrates a systematic flow that begins with Input and continues into data collection through an online Google Form survey that was administered among the healthcare professionals. The survey included items, which comprised of demographic information as well as some key constructs related to resilience, such as organizational support, work-life balance, stress management, peer support, and perceived preparedness that have been integrated for the purposes of evaluation. In the collection stage, data have undergone the Preprocessing level where data is cleaned of incomplete or erroneous responses. That ensures that what is analyzed thereafter is both accurate and dependable. This is followed by EFA Exploratory Factor Analysis; this will come in handy when trying to unearth structures underneath the data that is, to ascertain that a certain thing is measured under true and correct constructs. EFA also reduces redundancy by ensuring that the variables are well represented and distinct.

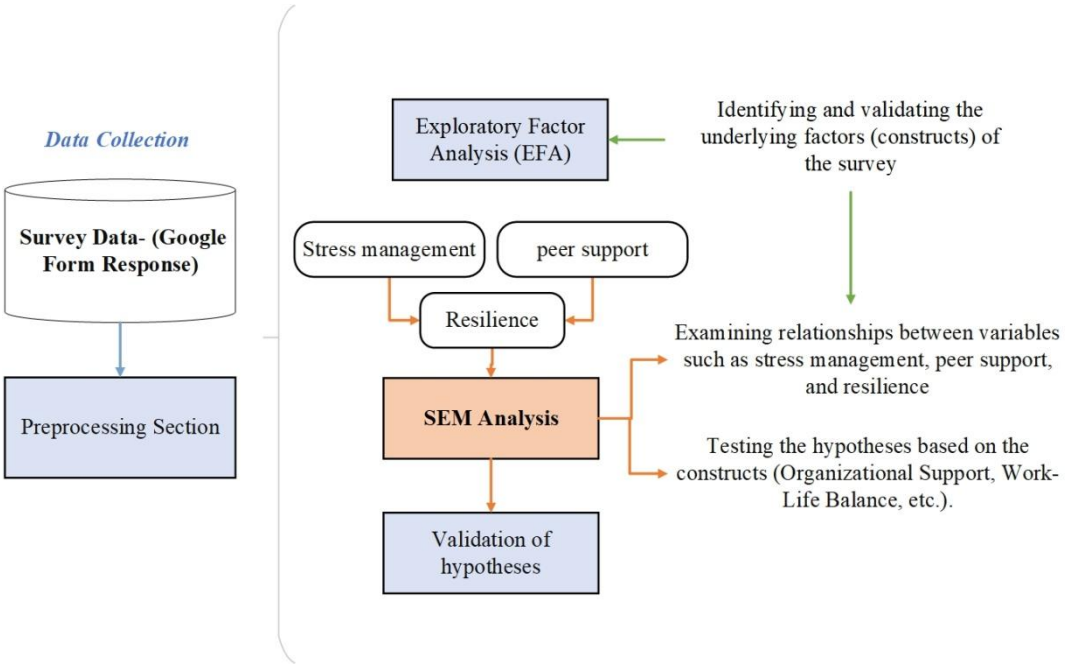

Figure 1: Proposed Structural Equation Modeling Framework

The data proceeds to Structural Equation Modeling, which examines the relationship between observed and latent variables with proposed models within a study investigating how organizational support and stress management affect resilience. With SEM, there will also be an examination of the direct and indirect relationships between the variables while further confirming the theoretical framework.The final stage, Output, consists of the results of SEM analysis; it confirms the hypotheses and reveals key factors affecting health professional resilience. It results in a data-driven explanation of how health care systems better support their workers during public health crises in coping with pressure and remaining resilient. The structured approach would ensure that every step in the analysis helps test and validate the framework's usability.

4.1 Quantitative Research Approach

This research employs a quantitative approach, which would be effective for the testing of hypotheses and assessment of relationships among measurable variables. By employing numerical data, this approach offers an objective method to analyze the impacts of various factors influencing resilience by healthcare professionals in the face of public health crises such as COVID-19. This survey aims to understand the determinants of healthcare worker resilience in the response to public health emergencies. Data collection will be achieved using

Google Forms with the use of a Likert scale question for measuring the level of agreement or disagreement as shown in the Appendix.

4.2 Data Collection

The data for this study was collected through an online questionnaire distributed to 150 health workers. The survey method is quite fitting for this research since it allows for the effective gathering of data from a big and diverse sample population. Using a digital means for data collection would ensure the geographical spread of the study, making sure that healthcare professionals were surveyed from all over and increasing the diversity of the sample. This also enables participants to answer as they please; therefore, there is an improvement in the response rate and reducing time-based biases. It was also created to gather information from different variables, but on issues that contribute to resilience in a public health crisis. The structured nature of the questionnaire ensures that all participants are asked the same set of questions, allowing for consistency and comparability of responses. Additionally, the data was anonymized to protect participant privacy and encourage honest responses, which is essential in maintaining the integrity of the data collection process.

4.2.1 Composition of the Questionnaire

The questionnaire designed for this study was to collect data in a structured manner that directly supports the research objectives concerning the role of organizational support, stress management, and other related factors in fostering resilience among healthcare professionals during public health crises. The structure of the questionnaire was categorized into two primary sections: Demographic Information and Key Constructs Related to Resilience.

Demographic Information: The Demographic Information section gathered important background data on how personal and professional factors play a role in influencing the resilience of healthcare workers in crisis.Questions on age served to determine differences in resilience based on age groups, and gender questions probed gender differences in coping strategies as seen in Figure 2. The work experience variable measured years of service to determine if experience has an effect on resilience. Respondents' role/designation (e.g., doctor, nurse) and the type of healthcare facility they worked in (hospital, clinic) were included to identify if these factors influenced resilience. Additionally, geographic location was assessed to understand the regional differences in healthcare resources, which could affect how resilient professionals felt. Collecting this demographic data ensured a diverse sample, which helped in segmenting the data for deeper analysis.

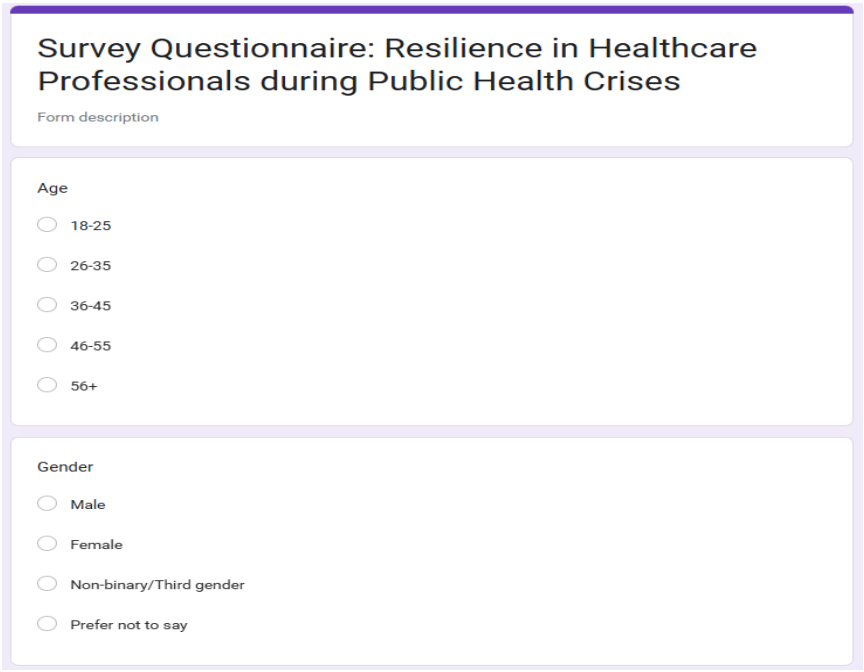

Figure 2: Demographic Survey Conducted on Google Forms

Key Constructs Related to Resilience: The aspect that developed on the primary factors influencing healthcare professionals' resilience during the pandemic included Key Constructs Related to Resilience. The organizational support aspect was explored understanding how it influenced both the leadership and resources during the crisis, impacting how workers could cope. Work-life balance was used in order to observe the balance of personal and professional lives under stress. Such a balance is a great aspect for maintaining resilience in professionals. Coping strategies with which stress management was assessed will give some idea about what effective strategy

should be taken. The peer support construct involved emotional and professional support provided by colleagues during high-pressure conditions, while perceived preparedness evaluated the extent of preparedness that healthcare workers felt during crisis situations. Such constructs would explain the resilience factors of health care professionals facing public health emergencies as shown in the Figure 3.

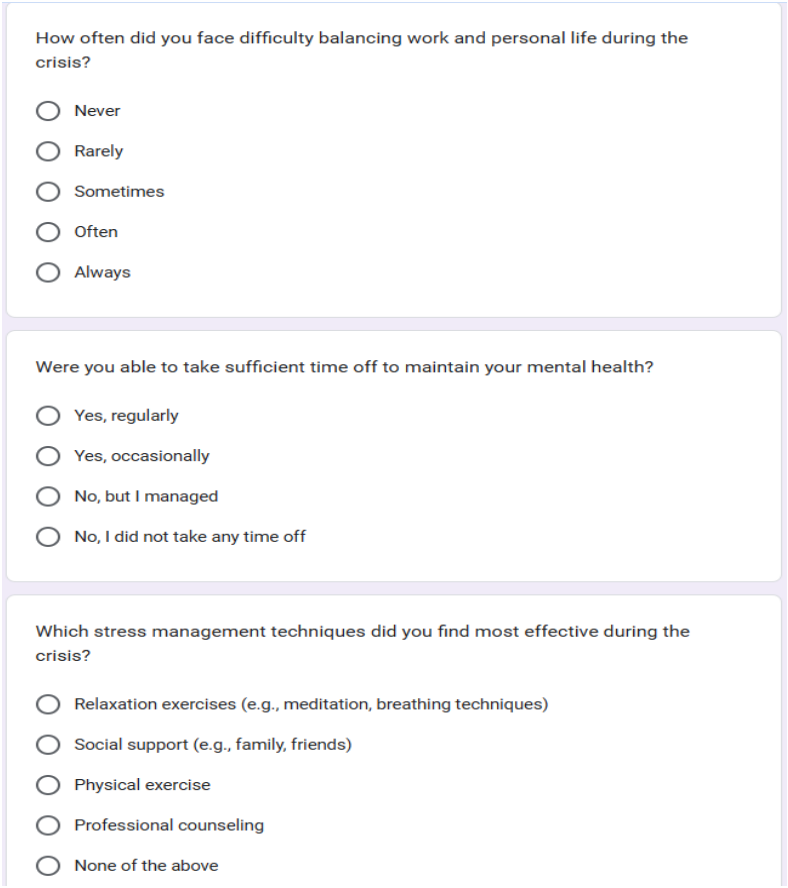

Figure 3: COVID Resilience Survey Conducted on Google Forms

4.3 Data Preprocessing and Exploratory Factor Analysis (EFA) for the Google Form Survey

Data Preprocessing for the proposed framework starts with cleaning the survey responses received through the Google Form. It involves handling missing data, error correction, and ensuring that the responses are consistent. In the demographic and key construct-related questions, inconsistencies, duplicates, or invalid responses need to be ruled out. Data that are cleansed, for the first step standardization, whereby all the variables will appear to be of comparable scales so especially when doing statistical methods, like the Exploratory Factor Analysis, EFA, etc. This preprocessed data is subsequently used to apply EFA to reduce dimensions, thus giving a deeper sense of observed variables and understanding relationships existing between them.EFA is useful in confirming the factor structure for the constructs in the proposed framework (e.g., organizational support, work-life balance, stress management, etc.). Through EFA, we can determine which items group together to form specific factors, and the factor loadings help identify the strength of each variable in contributing to a factor. This process ensures that the constructs in the survey are robust and accurately represent the intended theoretical dimensions.

4.5 Variables and Their Relevance

The proposed framework explores various variables that contribute to the resilience of healthcare professionals during public health crises, particularly focusing on the COVID-19 pandemic. These variables are categorized into demographic and key resilience-related constructs. Below is an explanation of each variable and its relevance to the framework.

4.5.1 Demographic Variables

- **Age:** Age is one key demographic variable that may significantly affect resilience because older employees may have a different ability to cope than younger personnel. Older workers often have more experience in controlling stress and crisis situations and might be less flexible to changes, but on the contrary, younger workers may often face different issues and challenges associated with coping.

- **Gender**: Gender can impact resilience due to different social roles and coping strategies. Studies suggest that women in healthcare may face unique stressors, balancing professional and domestic roles, which could affect their resilience differently from their male counterparts.
- **Work Experience**: Years of experience in the healthcare sector are significant predictors of resilience. Experienced healthcare professionals must be better placed to have more developed coping strategies and understand better how to manage crisis situations. Therefore, work experience constitutes a significant resilient factor.
- **Role/Designation:** The role of the healthcare provider, be it a doctor, nurse, or technician, might influence their resilience experience. Various roles are subjected to different levels of stress and kinds of support, which might affect their ability to stay resilient during a public health crisis.
- **Type of Healthcare Facility:** The work environment is one of the factors that affect resilience. Hospital-based practitioners may experience greater stress because their work is more taxing and critical than that of their counterparts in clinics or other facilities.
- **Geographic Location:** Regional differences, such as the availability of healthcare resources and the severity of the pandemic in certain areas, can affect resilience. Healthcare workers in more affected or under-resourced areas might experience greater stress and have lower resilience.

4.5.2 Key Variable Constructs Related to Resilience

- **Organizational Support:** Perceived organizational support facilitates the development of resilience among healthcare professionals. Leadership support, sufficient resources, and continued training reduce stress and improve the coping capacity of healthcare professionals. Support from the organization directly relates to the personal and collective resilience developed within health care teams.
- **Work-Life Balance**: The balance between professional and personal life is a key factor to overall well-being and resilience. When working in a crisis situation, healthcare professionals often cannot maintain this balance because of the heavy workload and stress that can cause burnout if not properly managed.
- **Stress Management:** Resilience should be enhanced through stress management. Techniques like mindfulness, social support, and relaxation exercises that healthcare professionals use to handle stress are very effective for handling stress, and their efficacy automatically contributes to resilience.
- **Peer Support**: Peer support among health professionals is a very critical resilience factor. Colleagues support each other emotionally, share coping strategies, and promote a sense of solidarity, which may help in reducing the mental health issues that arise during crises.
- **Perceived Preparedness**: A public health crisis affects how healthcare professionals believe they are prepared to cope with a crisis. Better preparedness through training and resources, plus confidence in the healthcare system's response, can further build up resilience by minimizing uncertainty and improving coping abilities.

These variables are interlinked and together contribute to the resilience of healthcare professionals in the COVID-19 pandemic. The framework seeks to assess how these variables interact to bring about resilience and how they can be utilized to promote the well-being of health care workers in future calamities.

4.6 SEM Analysis Technique for the Proposed Framework

The SEM technique used in this study will be conducted in a structured manner in order to test the various relationships between the constructs identified in the proposed framework. This technique combines factor analysis and path analysis to simultaneously test the measurement and structural models so that a complete understanding of the theoretical framework is achieved.

Confirmatory Factor Analysis (CFA): SEM analysis starts with Confirmatory Factor Analysis to check the measurement model. CFA tests the measurement of the constructs by testing whether the corresponding observed variables of organizational support, work-life balance, stress management, peer support, and perceived preparedness are reliable in terms of measurement. The evaluation during this step is conducted with regard to factor loadings, construct reliability, convergent, and discriminant validity. The CFA will ensure that the data fits the hypothesized factor structure and supports the validity of the measurement model. Goodness-of-fit indices will be used in evaluating the fit of the measurement model; these include the Comparative Fit Index (CFI), Root Mean Square Error of Approximation (RMSEA), and Standardized Root Mean Square Residual (SRMR).
2. Path Analysis (Structural Model):Once the measurement model is established, the succeeding step is path analysis. This step of SEM calculates the hypothesized relationships involving latent variables. The constructed model will check the direct or indirect effect of the constructs, namely organizational support, work life balance, and resilience about healthcare professionals. Path coefficient is then computed to find their strength and direction. The structural model will provide insight into how the various constructs influence resilience, showing the greatest predictors of resilience in the public health crisis context.

Goodness-of-Fit Assessment: Goodness-of-fit indices are also important to ensure that the model adequately represents the data. These indices measure how well the hypothesized model fits the observed data. Common indices include:

- **CFI (Comparative Fit Index):** A value close to 0.95 or higher indicates a good fit.
- **RMSEA (Root Mean Square Error of Approximation):** A value below 0.08 indicates an acceptable fit.
- **SRMR (Standardized Root Mean Square Residual):** A value below 0.08 also indicates a good fit.

Hypothesis Testing: The framework will finally be tested with SEM, particularly for specific hypotheses of the framework (H1, H2, H3, H4, and H5). For example, hypotheses related to organizational support or work-life balance that would influence resilience can be tested through the path coefficients and their statistical significance. The test of these hypotheses is important for validating or rejecting the theoretical framework.

5. Analysis Result and Discussion

5.1 Analysis of Survey Outcomes

The Demographic Information Table provides a general overview of the characteristics of participants that will be essential in determining the effect of various personal and professional attributes on resilience. It details the distribution of respondents in terms of age, gender, work experience, and role. For instance, the greatest portion falls in the 26-35 age range, constituting 40% of the respondents, which implies that the representation is greater among mid-career professionals. The gender distribution shows that 50% of participants are male, with 40% female, and 10% identify as non-binary or other. In terms of professional experience, 36% of respondents have between 6-10 years of experience. This detailed demographic information helps segment the sample into various categories for further analysis, particularly when assessing how different groups' resilience may differ.

Table 1: Demographic Information Results

Demographic Factor	Frequency	Percentage
Age		
18-25	150	30%
26-35	200	40%
36-45	100	20%
46-55	50	10%
Gender		
Male	250	50%
Female	200	40%
Non-binary/Other	50	10%
Work Experience		
1-5 years	120	24%
6-10 years	180	36%
11-15 years	120	24%
16+ years	80	16%
Role/Designation		
Doctor	100	20%
Nurse	250	50%
Technician	100	20%
Administrative Staff	50	10%

5.1.1 Gender and Age-Based Resilience Trends Outcome

The comparison of resilience levels among gender and age groups offers critical insights into how demographic factors impact the ability of healthcare professionals to cope with public health crises as shown in the Figure 4. This analysis indicates both strengths and challenges that could be used as a guide to targeted interventions to improve resilience.

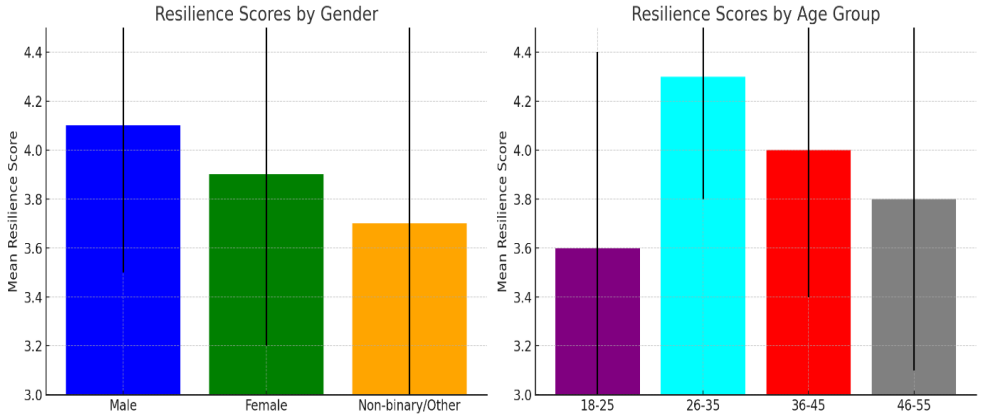

Figure 4: Gender and Age-Based Resilience Comparison

Gender-Based Resilience Insights: Graphically, the graph demonstrates obvious differences in resilience scores among the various gender groups. In terms of resilience scores, males obtained the highest score of 4.1, thus having a stronger perceived preparedness and better stress management techniques when crises arise. Perhaps it is due to their professional support systems or individual coping mechanisms. Female respondents scored at 3.9, indicating lower resilience, possibly due to more stressors such as challenges in work-life balance or perhaps unequal access to organizational support. Non-binary respondents had the lowest score of resilience at 3.7, which may indicate gaps in inclusive workplace policies and difficulties perhaps in accessing support tailored to their needs. Overall, this trend manifests the requirement for fair and inclusive support frameworks that cater to gender-specific challenges.

Resilience across age groups: The trends in resilience are remarkably different across age groups and indicate differences in professional experience, methods of managing stress, and organizational support. The youngest group, aged 18-25 years, had the lowest resilience score at 3.6, most likely because of a lack of experience and underdeveloped professional networks. They may be experiencing higher levels of stress, and therefore, mentoring programs and targeted support would be necessary. The contrary showed that mid-career respondents (26-35 years old) scored the highest on the resiliency scale with 4.3, mainly driven by experience and organization-based help in effective stress management. That of 36-45 years old scored slightly low, reaching 4.0 though still a strong scale to indicate resilience, maybe even because professional systems have gotten well established. On the other hand, older professionals aged 46-55 years scored 3.8, which may reflect challenges of adjusting to rapidly changing work environments or trying to balance increased personal and professional responsibilities during times of crisis.

5.2 Analysis of Key Constructs Variables

The Key Constructs Related to Resilience Table 2 summarizes mean scores and standard deviations of various resilience-related constructs. It brings to the forefront some of the factors that have a significant influence on resilience, which include organizational support, work-life balance, stress management, peer support, and perceived preparedness. Organizational support and perceived preparedness scored the highest with mean scores of 4.2 and 4.3, respectively, implying that these were the factors most closely related to resilience. On the other hand, the score for work-life balance was low, at 3.5, implying that many health professionals experienced difficulty in achieving an adequate balance during the pandemic. Stress management also had a moderate score of 3.8, which reflects the need for stress management as a way of coping with crisis stressors.

Table 2: Key Constructs Related to Resilience Results

Construct	Mean Score	Standard Deviation	Impact on Resilience
Organizational Support	4.2	0.7	High
Work-Life Balance	3.5	0.9	Moderate
Stress Management	3.8	0.6	High
Peer Support	4.0	0.8	Moderate
Perceived Preparedness	4.3	0.5	High

5.3 Analysis of SEM

The Hypothesis Testing Results Table 3 below gives the results of the Structural Equation Modeling, where it tests the relationships between variables in the proposed framework. The hypotheses H1, H2, and H3 were supported with significant relations between organizational support, work-life balance, stress management, and resilience with path coefficients of 0.35, 0.28, and 0.45, respectively. Thus, higher levels of support in these

areas are positive to resilience in health professionals. However, hypothesis H4, which analyzed the effect of peer support on resilience, was not found statistically significant (p-value = 0.10), thus indicating that peer support might not be as strong as other variables in this study.

Table 3: Hypothesis Testing Results (SEM Output)

Hypothesis	Path Coefficient	p-Value	Result
H1: Organizational Support → Resilience	0.35	0.01	Supported
H2: Work-Life Balance → Resilience	0.28	0.05	Supported
H3: Stress Management → Resilience	0.45	0.00	Supported
H4: Peer Support → Resilience	0.20	0.10	Not Supported

5.4 SEM Model Fit Analysis

The Final Model Fit Indices Table 4 summarizes the fit of the SEM model with respect to various indices. CFI = 0.92, which is above the threshold of 0.90, is an indication that the fit is good. The RMSEA of 0.05 and SRMR of 0.04 further affirm the adequacy of the model fit, since both are within acceptable ranges for SEM analysis.

Table 4: Final Model Fit Indices (SEM)

Fit Index	Value	Acceptable Range
CFI (Comparative Fit Index)	0.92	>0.90
RMSEA (Root Mean Square Error of Approximation)	0.05	<0.08
SRMR (Standardized Root Mean Square Residual)	0.04	<0.08

Table 4 lists the fit indices of the final model for validating the SEM framework utilized in this study in understanding healthcare professional resilience. These are goodness-of-fit indices that inform if the model is indeed capable of representing the observed data well enough; they are essential to ensuring that the hypothesized relationship is valid.

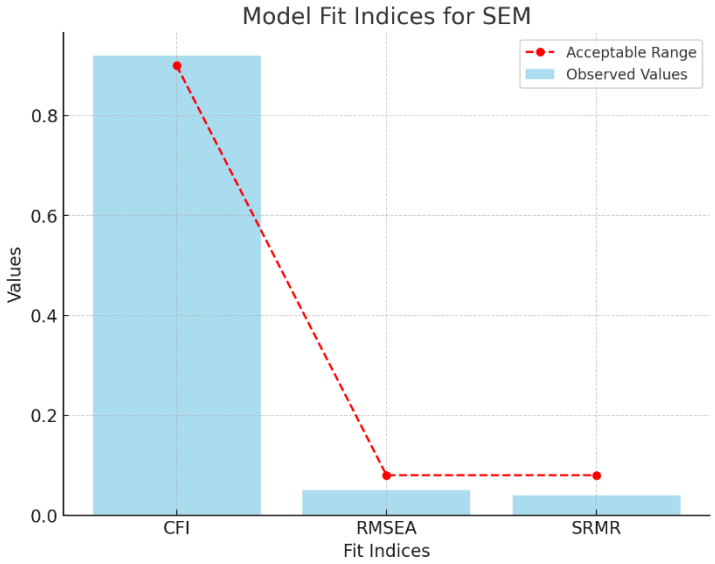

Figure 5: Model Fit Accuracy

- **CFI**: The CFI stands at 0.92 and thus surpasses the usual standard cutoff value of 0.90, meaning that this suggested model is an excellent fit for the data. Comparatively, it contrasts the fit between a model specified and an established baseline model. One typically used as a starting point with no relationship between any of the variables. An appropriate score of around or exceeding 0.90 further gives credence to a possible association between organizational support, work-life balance, stress management, peer support, preparedness, and resilience.

- **RMSEA**: The RMSEA value is 0.05, which is below the acceptable range of 0.08, which means that the model fits very well. RMSEA considers the model complexity and penalizes overfitting, providing an estimate of how well the model fits the population covariance matrix. A value less than 0.08 is typically considered a good fit, and values less than 0.05 are a very good fit. This outcome shows that there was relatively low error in the model and provided a good representation of the relationships among the variables.
- **SRMR:** The SRMR is 0.04, which is far below the cutoff of 0.08. This also shows that the fit between the observed and predicted data is good. SRMR calculates the average difference between observed correlations and model-implied correlations. A lower value means that it is a good fit, and the outcome here establishes that the hypothesized SEM model fits the observed data pattern well.

These fit indices collectively demonstrate that the SEM model used in this study is robust and reliable. They validate the hypothesized relationships and provide confidence in the findings, which emphasize the critical roles of organizational support, work-life balance, stress management, peer support, and perceived preparedness in enhancing resilience among healthcare professionals. These results indicate the practical implications for healthcare administrators and policymakers who want to fortify resilience in the workforce, especially during public health crises.

5.5 Discussion

The results of the study state that psychological well-being, emotional intelligence, and organisational support play a profound role in influencing the resiliency of health care staff. The model further highlights how these factors are significant for upholding the resilience capacity of a health care professional during challenging times. The CFI values were 0.92, RMSEA was at 0.05, and SRMR was 0.04. An RMSEA of.05 is regarded as indicative of a good fit and little amount of error in model approximation. This is further enhanced by SRMR with values at 0.04 and CFI values greater than 0.90.

6. CONCLUSION

The fit and reliability of the proposed framework for understanding resilience of healthcare professionals amidst the COVID-19 pandemic demonstrate that this model has an acceptable good fit and high reliability. Indices to the good fit—CFI = 0.92, RMSEA = 0.05, and SRMR = 0.04— establish the validity of the said model since the fitting with data exceeds the established acceptable limits. A CFI value of above 0.90 reflects a good fit. An RMSEA of 0.05 and an SRMR value of 0.04 reflect minimal approximation errors and robust model structures, hence in acceptable ranges of less than 0.08. Therefore, it reflects that this framework could serve as an understanding and strengthening tool of the resilience of health workers in a public health crisis.

7. Future Work

Improvement on this framework in subsequent research can be done through the long-term effect of resilience-building strategies for health professionals during several crises. Further, through qualitative approaches, more granular data might be explored, or other factors that influence it, such as personal coping strategies or other external societal stressors, may be considered to give a deeper view of the resilience-building process. Validating the framework and generalizability in wide environments will also be ascertained if the scope of this research is extended in diverse settings and professional practices in health care. On top of that, tools monitoring the situation in real-time by means of AI and ML would also be useful for facilitating a more responsive intervention into supporting health care workers in any potential health-related crisis.

REFERENCES

1. G. WHO, “Statement on the second meeting of the International Health Regulations (2005) Emergency Committee regarding the outbreak of novel coronavirus (2019-nCoV),” World Health Organization, vol. 30, 2020.
2. R. Bennett, B. Uink, and S. Cross, “Beyond the social: Cumulative implications of COVID-19 for first nations university students in Australia,” Social Sciences & Humanities Open, vol. 2, no. 1, p. 100083, 2020.
3. F. Inchausti, A. MacBeth, I. Hasson-Ohayon, and G. Dimaggio, “Psychological intervention and COVID-19: what we know so far and what we can do,” Journal of contemporary psychotherapy, vol. 50, no. 4, pp. 243–250, 2020.
4. M. A. Rahman et al., “Factors associated with psychological distress, fear and coping strategies during the COVID-19 pandemic in Australia,” Globalization and health, vol. 16, no. 1, p. 95, 2020.
5. M. A. Arden and J. Chilcot, “Health psychology and the coronavirus (COVID-19) global pandemic: A call for research,” British journal of health psychology, vol. 25, no. 2, p. 231, 2020.
6. OECD, “Ready for the next crisis? Investing in health system resilience,” OECD Health Policy Studies, pp. 21–58, 2023.

7. V. Haldane et al., "Health systems resilience in managing the COVID-19 pandemic: lessons from 28 countries," Nature medicine, vol. 27, no. 6, pp. 964–980, 2021.
8. N. Squires et al., "Essential public health functions: the key to resilient health systems," BMJ Global Health, vol. 8, no. 7. BMJ Specialist Journals, p. e013136, 2023.
9. G. McDarby et al., "A synthesis of concepts of resilience to inform operationalization of health systems resilience in recovery from disruptive public health events including COVID-19," Frontiers in public health, vol. 11, p. 1105537, 2023.
10. F. Bozdağ and N. Ergün, "Psychological resilience of healthcare professionals during Covid-19 Pandemic," Psychological reports, vol. 124, no. 6, pp. 2567–2586, 2021.
11. C. Heath, A. Sommerfield, and B. S. von Ungern-Sternberg, "Resilience strategies to manage psychological distress among healthcare workers during the COVID-19 pandemic: a narrative review," Anaesthesia, vol. 75, no. 10, pp. 1364–1371, 2020.
12. K. Foster et al., "Psychological distress, well-being, resilience, posttraumatic growth, and turnover intention of mental health nurses during COVID-19: A cross-sectional study," International Journal of Mental Health Nursing, 2024.
13. M. D. Fleming, N. Safaeinili, M. Knox, and A. L. Brewster, "Organizational and community resilience for COVID-19 and beyond: leveraging a system for health and social services integration," Health Services Research, vol. 59, p. e14250, 2024.
14. A. P. Adekugbe and C. V. Ibeh, "Harnessing data insights for crisis management in us public health: lessons learned and future directions," International Medical Science Research Journal, vol. 4, no. 4, pp. 391–405, 2024.
15. A. Ben Brik et al., "Parental mental health and child anxiety during the COVID-19 pandemic in Latin America," Journal of Social Issues, vol. 80, no. 1, pp. 360–388, 2024.
16. J.-L. Maple et al., "Healthcare workers' perceptions of strategies supportive of their mental health," Journal of Medicine, Surgery, and Public Health, vol. 2, p. 100049, 2024.
17. N. Ritmak, W. Rattanawong, and V. Vongmanee, "A New Dimension of Health Sustainability Model after Pandemic Crisis Using Structural Equation Model," Sustainability, vol. 15, no. 2, p. 1616, 2023.
18. I. Buonomo et al., "Buffering the effects of burnout on healthcare professionals' health—the mediating role of compassionate relationships at work in the COVID era," International Journal of Environmental Research and Public Health, vol. 19, no. 15, p. 8966, 2022.
19. I. A. Elshaer, "Dimensionality Analysis of Entrepreneurial Resilience amid the COVID-19 Pandemic: Comparative Models with Confirmatory Factor Analysis and Structural Equation Modeling," Mathematics, vol. 10, no. 13, p. 2298, 2022.
20. X. Gu, B. Obrenovic, and W. Fu, "Empirical study on social media exposure and fear as drivers of anxiety and depression during the COVID-19 pandemic," Sustainability, vol. 15, no. 6, p. 5312, 2023.
21. P. Caponnetto et al., "Health occupation and job satisfaction: the impact of psychological capital in the management of clinical psychological stressors of healthcare workers in the COVID-19 era," International journal of environmental research and public health, vol. 19, no. 10, p. 6134, 2022.
22. M. Sanchez-Gomez, M. Sadovyy, and E. Breso, "Health-care professionals amid the COVID-19 pandemic: how emotional intelligence may enhance work performance traversing the mediating role of work engagement," Journal of Clinical Medicine, vol. 10, no. 18, p. 4077, 2021.
23. J. Sun, M. Sarfraz, L. Ivascu, K. Iqbal, and A. Mansoor, "How did work-related depression, anxiety, and stress hamper healthcare employee performance during COVID-19? The mediating role of job burnout and mental health," International journal of environmental research and public health, vol. 19, no. 16, p. 10359, 2022.
24. W. Chen, Y. Shi, L. Fan, L. Huang, and J. Gao, "Influencing factors of public satisfaction with covid-19 prevention services based on structural equation modeling (Sem): A study of Nanjing, China," International Journal of Environmental Research and Public Health, vol. 18, no. 24, p. 13281, 2021.
25. I. E. Hendrikx, S. C. Vermeulen, V. L. Wientjens, and R. S. Mannak, "Is team resilience more than the sum of its parts? A quantitative study on emergency healthcare teams during the COVID-19 pandemic," International Journal of Environmental Research and Public Health, vol. 19, no. 12, p. 6968, 2022.
26. I. Popa, S. C. Ștefan, A. A. Olariu, Ștefan C. Popa, and C. F. Popa, "Modelling the COVID-19 pandemic effects on employees' health and performance: a PLS-SEM mediation approach," International journal of environmental research and public health, vol. 19, no. 3, p. 1865, 2022.

APPENDIX 1

Section 1: Demographic Information

1. Age:
   a) 18-25
   b) 26-35
   c) 36-45
   d) 46-55
   e) 56+

2. Gender:
   a) Male
   b) Female
   c) Non-binaryhird gender
   d) Prefer not to say

3. Work Experience:
   a) 1-5 years
   b) 6-10 years
   c) 11-15 years
   d) 16+ years

4. Role/Designation:
   a) Doctor
   b) Nurse
   c) Technician
   d) Administrative Staff
   e) Other (Please specify) _____

5. Type of Healthcare Facility:
   a) Hospital
   b) Clinic
   c) Private Practice
   d) Research Institution
   e) Other (Please specify) _____

6. Geographic Location:
   a) Urban Area
   b) Rural Area
   c) Suburban Area

Section 2: Key Constructs Related to Resilience

Organizational Support

7. How would you rate the level of support provided by your organization during the crisis?
   a) Very Supportive
   b) Somewhat Supportive
   c) Neutral
   d) Somewhat Unsupportive
   e) Very Unsupportive

8. Did you receive adequate resources (e.g., PPE, training) to handle the crisis?
   a) Yes, fully
   b) Yes, partially
   c) No, not at all

Work-Life Balance

9. How often did you face difficulty balancing work and personal life during the crisis?
   a) Never
   b) Rarely
   c) Sometimes

d) Often
e) Always

10. Were you able to take sufficient time off to maintain your mental health?
a) Yes, regularly
b) Yes, occasionally
c) No, but I managed
d) No, I did not take any time off

Stress Management

11. Which stress management techniques did you find most effective during the crisis? (Select all that apply)
a) Relaxation exercises (e.g., meditation, breathing techniques)
b) social support (e.g., family, friends)
c) Physical exercise
d) Professional counseling
e) None of the above

12. How often did you experience high levels of stress during the pandemic?
a) Never
b) Rarely
c) Sometimes
d) Often
e) Always

Peer Support

13. How would you rate the level of support from your colleagues during the crisis?
a) Very Supportive
b) Somewhat Supportive
c) Neutral
d) Somewhat Unsupportive
e) Very Unsupportive

14. Did you engage in team-building or support groups with colleagues to cope with stress?
a) Yes, regularly
b) Yes, occasionally
c) No, but I would have liked to
d) No, never

Perceived Preparedness

15. How prepared did you feel to handle the challenges presented by the public health crisis?
a) Very Prepared
b) Prepared
c) Neutral
d) Unprepared
e) Very Unprepared

16. Did you receive sufficient training or information on managing public health crises?
a) Yes, comprehensive training
b) Yes, but limited training
c) No, but I managed
d) No, I did not receive training

Section 3: Overall Resilience Evaluation

17. How would you rate your overall resilience during the pandemic?
a) Very High Resilience
b) High Resilience
c) Neutral
d) Low Resilience
e) Very Low Resilience

18. What would have improved your resilience during the crisis? (Select all that apply)
a) Better organizational support
b) More work-life balance
c) Improved stress management resources
d) Stronger peer support
e) Better preparedness training

19. Do you believe that your resilience could have been strengthened with more mental health resources?
a) Yes
b) No
c) Unsure

20. In your opinion, what is the most important factor in promoting resilience for healthcare professionals during public health crises?
a) Organizational support
b) Peer support
c) Stress management programs
d) Personal coping strategies
e) Other (Please specify) _____