



Nurse's Prospective of Work Resilience and Its Influence on Vocational Moral Courage and Psychological Well-being

Ghada Mosaad Mohamed Elghabbour⁽¹⁾ *, Omnya Sobhy Mohamad El-ayari⁽²⁾,
Heba Dakrory Ali El-Said⁽³⁾

(1) Lecturer, Nursing Administration, Faculty of Nursing, Port Said University, Egypt

(2) Lecturer, Psychiatric Nursing & Mental Health, Faculty of Nursing, Kafrelsheikh University, Egypt.

(3) Lecturer of Nursing Administration, Faculty of Nursing, Minia University, Egypt

*Corresponding author: ghadaghabbour@yahoo.com

Abstract

All health professionals, especially nurses, confront numerous stressors within their clinical practice, including time pressures, workload, multiple roles, and emotional issues. Workplace stress can affect negatively moral courage and the physical and mental well-being of health professionals. These outcomes can influence not only the well-being of nursing professionals, and vocational moral courage but also on their ability to practice effectively, beside that, can reduce the quality of their nursing care services and therefore, negatively affect patient outcomes. **Aim:** The current study aims to systematically explore relationship between work resilience and vocational moral courage, and psychological well-being among nurses. **Design:** A descriptive, correlational research design was utilized to achieve the aim of the study. **Method:** The study was conducted in all inpatient departments at Port-Said and Elzohor general hospitals. **The sample size** was 177 nurses. The study used three instruments: Davidson-Connor resilience Scale, the professional moral courage scale, and the psychological well-being scale. **Results:** It was evidenced that the majority of nurses have a high level of work resilience (67.8%) and 50.8% of them have a high level of vocational moral courage, in addition, 62.1% of nurses have a moderate level of psychological well-being. **Conclusion:** There was strongly a positive statistically significant correlation between the total score of work resilience, vocational moral courage, and psychological well-being. **Recommendation** Determining factors affecting moral courage, psychological well-being, and resilience, as well as finding strategies and creating an appropriate moral climate can increase nurses' morally courageous behaviors, well-being, and work resilience.

Keywords: Nurse's Prospective, Psychological Well-being, Vocational Moral Courage, Work Resilience.

Introduction

Nursing is among health professions that experience high levels of stress and high physical and mental workload (Sharma, Dhar, Tyagi, 2016; Daniel & Smith, 2018). The nurse's role

has long been regarded as stress-filled and is considered a hard job (Babapour, Gahassab-Mozafari & Fathnezhad-Kazem, 2022) and have many problems such as stressful work life, problems that occur during caregiving and the

problems that exist in the healthcare system, physical labor, human suffering, work hours, staffing, and interpersonal relationships that are central to the work nurses do (McCann, Beddoe, McCormick, Huggard, 2013). After all, nurses often work long, irregular hours in very busy environments while caring for multiple patients, and at times the stakes are life and death. Besides that, the COVID-19 pandemic has increased the stress level even more for nurses everywhere. High-stress levels can affect a nurse's health, well-being, and moral courage even drain their energy and impede their critical thinking (Nikbakht, Khoobi, Cheraghi, Joolaei, Hedayat, 2018; Bayat, Shahriyari, Keshvari, 2019). Work resilience was found to positively affect personal and work outputs, nurses' professional skills improve, job and life satisfaction increase, and the rates of leaving or considering leaving the job, the sense of exhaustion, and psychological problems such as depression and stress reduce, increase psychological well-being (Zander, Hutton, King, 2010; Ju & Oh, 2016). In this regard, Çam and Buyukbayram (2017), defined resilience as the ability to adapt to or collect oneself after a trauma, threat, tragedy, family or relationship problems, serious health problems, or work and financial problems or to cope with changes or disasters. It also means the strength to quickly recover and deal with difficulties and to resist them with flexibility and strength (Foster, Roche, Delgado, Cuzzillo, Giandinoto, et al., 2019). Resilience is the ability to bounce back from a negative event as well as the ability to

maintain one's status quo when facing negative events (Davydov, Stewart, Ritchie, & Chaudieu, 2010). In addition, resilience is defined as mental health attention and thus includes psychopathology outcomes associated with moral courage and well-being (Kleemola, Leino-Kilpi, Numminen, 2020; Ghassemi, Zhang, Marigliano, 2019).

Recently, developments in medical sciences have greatly impacted on clinical nursing work. Also, many factors affecting resilience are ethical difficulties in the healthcare system (Oh & Gastmans, 2015), cultural differences, end-of-life issues, organ donation, violence, medical errors, and workplace abuse increase moral conflicts and affect on psychological well-being in nurses (Ajri-Khameslou, Abbaszadeh, & Borhani, 2017; Fazljoo, Abbaszadeh, Loghmani, 2018). As moral agents, nurses need to have vocational moral courage, as an important component of moral competence, to properly manage ethical problems and professional obligations. Moral courage is a valuable force that helps nurses make right ethical decisions at moral intersection and when observing unethical actions (Kleemola, Leino-Kilpi, & Numminen, 2020).

The nature and importance of moral courage have been debated and discussed for at least years. Vocational moral courage is described as one of four cardinal virtues (along with justice, wisdom, and moderation (Lee, 2003). Courage has even been called the most important virtue because without it there will be many failures to enact other virtues (Scarre, 2010). Likewise,

vocational moral courage seems to be quite important and relevant in modern workplaces. Courage is a virtue, attribute, trait, or behavior needed for effective leadership (Amos & Klimoski, 2014). Vocational courage is also expected to have an effect of a lower occurrence of psychological problems such as paranoid ideation and obsessive-compulsive symptoms (Gustems; Calderon, 2014); it contributes positively to work and life satisfaction (Bockorny, 2015), and it helps people to resist external problems and stimulates agency (Osswald, Greitemeyer, Fischer, & Frey, 2010; Sosik, Gentry, & Chun, 2012). Courage has also been shown to play an important role in the achievement of goals related to the work context (Palanski, Cullen, Gentry & Nichols, 2015; Tkachenko, Quast, Song, Jang, 2018).

In nursing, moral courage is described as the capacity of nurses to overcome fear in facing problems directly contrary to the core values of nursing professionals (Numminen & Katajisto, 2018). Ethical courage can overcome fear due to shame and humiliation in admitting mistakes, opposing immoral or unwise orders, preventing injustice, and rejecting evil conformity (Miller, 2002). Moreover, nurses face ethical problems in their daily practice, which must be resolved for the benefit of the patient, leading to nursing morale (Numminen & Katajisto, 2018). In addition, sometimes personal or organizational barriers have restricted nurses from fulfilling their moral duty towards their patients and acting according to their values, leading to nurses' moral distress (Oh & Gastmans, 2015). Vocational

moral courage is associated with moral pressure to support nurses in dealing with the negative consequences of moral disturbance (Iseminger, 2010; Epstein & Delgado, 2010; Gallagher, 2011). In the context of several situations require moral courage, including violation of human rights, the occurrence of injustice, humiliation of one's dignity, people being maltreated, discrimination against foreigners or minority groups, violence against individuals, and harassment (Numminen & Katajisto, 2018).

Well-being has been strongly associated with many important areas of life. High levels of well-being are associated with social relationships (Seligman, 2011), physical health including mortality and longevity (Diener & Chan, 2011; Diener, Pressman, Hunter, & Delgadillo-Chase, 2017), mental health (Diener & Seligman, 2002), academic and work performance (Tenney, Poole, & Diener, 2016), creativity (Amabile, Barsade, Mueller, & Staw, 2005), and citizenship (Dunn, Akinin, & Norton, 2014). Additionally, evidence suggests that a nurse's well-being is an important outcome of satisfactory, healthy, and duty performance across these domains, but may also be an important predictor of them as well (Thomson, Lockyegianettr, Camic, & Chatterjee, 2018).

Psychological well-being is closely related to mental health, and many researchers consider prosperity or high subjective well-being on the one hand with depression, anxiety, and other mental health difficulties on the other. Not surprisingly, the happiest people have very low

levels of mental health symptoms (**Diener & Seligman, 2002**). High subjective well-being may also be linked to a lower likelihood of developing mental health problems including depression, anxiety, loneliness, and poor self-worth (**Kansky et al., 2016**). Many mental illnesses are characterized by symptoms interfering with daily functioning and well-being. The awareness of one's symptoms impacting their well-being often is what brings an individual to seek professional help via counseling, therapy, or medication (**Merikangas et al., 2010**).

Significance of the study

Nurses, the largest share of hospitals' human resources in the healthcare system (**Daniel & Smith, 2018**), often face complex problems due to their professional role (**McCarthy & Gastmans, 2015**). Nursing is among the professions with high stress and high physical and mental workload (**Nikbakht, Khoobi, Cheraghi, Joolaei, Hedayat, 2018; Bayat, Shahriyari, Keshvari, 2019**). Enduring such conditions and completely performing nursing duties require resilience (**Delgado, Upton, Ranse, Furness, Foster, 2017**). Nurse resilience has been described as a tool or skill that enables nurses to overcome workplace adversity, focus on building or enhancing capacity, modify, balance, and control themselves in unfavorable environments, or seek solutions to challenges. In high-pressure and high-stress nursing specialties, resilience has been described as an innate energy or life force to cope more effectively during difficult situations and fortify a nurse's psychological and spiritual well-being (**Yu, Raphaelb, Mackayc, Smithb, & King, 2019**).

As well workplace resilience can relieve mental and emotional problems and therefore,

promote mental health. Also, developing resilience-promoting environments within the health professions can be explored as a means to reduce negative, and increase positive, outcomes of stress in health professionals. In this regard, Few studies have been conducted on issues related to resilience- and factors that influence it, including psychological well-being and moral courage in clinical settings. The importance of these issues in the quality of nursing services, and their potential and widespread future effects on nurses, patients, and the healthcare system, reinforce the need to address such issues. so, the research study aimed at exploring the relationship between work resilience, vocational moral courage, and psychological well-being of nurses occupied in Port Said hospitals.

Aim of the study

The present study aimed to explore the relationship between work resilience, vocational moral courage, and psychological well-being among nurses at Port Said hospitals, which covered the following objectives are:

- To assess the levels of work resilience among nurses.
- To determine the levels of vocational moral courage among nurses.
- To identify the degree of psychological well-being among nurses
- To Find out the relationship between work resilience, vocational moral courage, and psychological well-being among nurses.

Subject and Methods

Technical design:

The research design, settings, subjects, and data collection tools are all included in this design.

Research design

A descriptive, correlative research design was utilized in two general hospitals in Port Said governorate, Egypt.

Research Settings:

The study was conducted in all units/departments distributed in inpatient at two general hospitals; Port Said and El-Zohour which are affiliated with the Ministry of Health in Port Said governorate, Egypt. Port Said General Hospital with a total capacity of 147 beds and 21 departments and El-Zohour general hospital with a total capacity of 71 beds and 9 departments. Participants were from all inpatient departments including internal medicine, surgery, urology, pediatric, obstetrics, intensive care unit (ICU), coronary care unit (CCU), and emergency department.

Research Subjects

A systemic random sampling was used in each hospital, from 328 nurses working in these two hospitals, 177 nurses were selected to participate in the study (59 from El-Zohour general hospital and 118 from Port Said general hospital). The inclusion criteria were as follows: Participants had the desire to contribute to this study, had no physical or mental problem, had at least six months of experience, and who work in all departments/units in the aforementioned settings during the time of data collection.

The sample size was determined to measure the study variables with a 95% confidence level, and 0.05 error tolerance by the following equation:

$$S = \frac{X^2 N P (1 - P)}{d^2 (N - 1) + X^2 P (1 - P)} \quad (\text{Krejcie \& Morgan, 1970})$$

Where,

s: sample size

N: Population size (328)

p: the probability (30% – 60%) or =50%=0.50

d: error proportion =0.05

X: confidence level at 95% (standard value of 1.96) $X^2 = 3.841$

$$s = \frac{3.841 \times 328 \times 0.50 (1 - 0.50)}{(0.05)^2 \times (328 - 1) + 3.841 \times 0.50 (1 - 0.50)}$$

$$= 177.16 \cong 177 \text{ nurses}$$

Tools of Data Collection:

To collect data for the present study

Tool (I): Psychological Work Resilience Scale (PWRS):

This tool consists of two parts.

Part I. Personal identification questionnaire:

This part was developed by the researchers who encompassed information regarding the study subjects' personal and general characteristics, such as (age, gender, hospital/department names, marital status, educational levels, years of work experience, and qualifications).

Part II: The Connor –Davidson Resilience Scale (CD-RISC):

The original form of this tool was developed by Connor and Davidson (2003) and was adopted in version Arabic language from Khatib and El Helw, (2007). It aimed to measure personal competence and

acceptance of self, life, and work. The CD-RISC contains 25 items subdivided into the subsequent seven subdomains: hardiness, coping, adaptability, meaningfulness, optimism, regulation of emotion and cognition, and self-efficacy.

Scoring system and interpretation:

Connor-Davidson 25-item resilience scale questionnaire ranged along a five-point Likert Scale of responses, as follows scoring: “not true at all” =(zero), “rarely true” = (one), “sometimes true” = (two), “often true” = (three), and “true nearly all the time” = (four). The scale is rated based on how the participant has felt over the past month, and each nurse chose one answer only after carefully reading and comprehending it. Finally, the score for each dimension was added up and converted to a percentage. The total score ranges from zero to 100, with higher scores reflecting greater resilience, and the scoring cutoff point classification was set if the percentage is equal to or more than 75% of the total score is a High resilience score, moderate or average resilience ranging from 50% to less than 75%, and Low resilience if the percentage is less than 50% (Oshio, Taku, Hirano, & Saeed, 2018).

Tool (II): Professional moral courage Scale (PMCS)

This tool was developed by Sekerka, Bagozzi, & Charnigo (2009), the original form in the English language, and translated into Arabic version by the researchers. It consisted of 15 items covering five factors: Moral agency, multiple values, the endurance of threat, going beyond compliance, and moral goals. Each factor includes three separate items.

The scale was aimed to assessing the perception of ethical behaviour in five factors, as follows: The first factor, **moral agency**; concerns the ethical efficacy relates to nurses' willingness and heartfelt desire to manage and solve ethical and moral problems, and thus the willingness to practice moral behaviors. The second factor, **multiple values** indicate to nurses' capability to concentrate and incorporate personal values with vocational and organizational values. The third factor, **the endurance of threat** refers to the nurses' perception and recognition of threats, pressures, and fears. The fourth factor, **going beyond compliance** indicate to a nurse who is first to manage moral behaviors in the organization, prevent amoral acts, and have a try to enhance moral ideals. The fifth and final factor, **moral goals** indicates simplification and setting of goals considering respect, honesty, and other moral virtues.

Scoring system and interpretation:

The response categories ranged along a seven-point Likert scale, ranging from “never true”= one to “always true”= seven. Each nurse member chose one answer only after carefully reading and comprehending it; finally, the score for each factor was added for each factor (three questions) and the total was divided by three and then converted to a percentage with the total score range of each factor was 3 to 21. For overall professional moral courage, the total scores for all items (15 questions) are divided by 15, the minimum and maximum total scores were 15 and 105, respectively. Finally, The semantic scoring method is summative, for each aspect was added up and converted to a percentage, The mean score of items in each factor and the whole item was considered a higher score indicates a greater moral courage level. The scoring cutoff point

classification was set if the percentage is equal to or more than 75% of the total score is a high vocational moral courage score, moderate or average vocational moral courage ranging from 50% to less than 75%, and Low vocational moral courage if the percentage is less than 50% (Sekerka, Bagozzi, & Charnigo (2009).

Tool (III): Psychological Well-Being Scale (PWBS)

The original form of this tool was developed by **Sisodia and Choudhary (2012)** in the English version and was translated into the Arabic language by researchers. This scale aimed to evaluate psychological well-being based on the multidimensional model and its psychometric properties. This scale consists of 41 questions and categories into six dimensions: self-acceptance, positive relationships, autonomy, control of the environment, personal growth, and purpose in life.

Scoring system and interpretation:

the well-being scale was on a Six-point Likert scale ranging from "one=strongly disagree" to "six=strongly agree". Scoring Instruction: 1) Recode negatively phrased items: (3, 5, 10, 13,14, 15,16, 17,18,19, 23, 26, 27, 30,31,32, 34, 36, 39, 41). (i.e., if the score is 6 in one of these items, the adjusted score is 1; if 5, the adjusted score is 2, and so on...) 2) Add together the final degree of agreement in the 6 dimensions: Autonomy: items (1,7,13,19,25, 31, 37), environmental mastery: items (2,8,14,20,26,32,38), personal growth items (3,9,15,21,27,33,39), positive relations items (4,10,16,22,28,34,40), purpose in life items (5,11,17,23,29,35,41), self-acceptance items (6,12,18,24,30,36,42). The final score is obtained by adding the values obtained for the 41 items, considering 17 inverse items distributed among the instrument's six dimensions. The scoring cutoff point

classification was set if the percentage is equal to or more than 75% of the total score is a high vocational moral courage score, moderate or average vocational moral courage ranging from 50% to less than 75%, and Low vocational moral courage if the percentage is less than 50% (Sisodia & Choudhary, 2012).

Validity:

The instrument of the psychological well-being and Professional moral courage scale was verified for face and content validation by nine specialists of experts in the nursing administration and mental and psychiatric nursing of various nursing faculties throughout different universities, in Egypt, to assess the coverage, relevance, and clarity of each statement. According to the opinions of experts, suggested modifications have been made and the study tools were used in their final form, and the CVI index was 81%. While, the Connor –Davidson Resilience Scale was validated by **Connor and Davidson (2003)** in the English version and **Khatib and El Helw, (2017)** in the version Arabic languish.

Reliability:

In a previous` study, the reliability of the Connor –Davidson Resilience Scale using Cronbach's alpha method was 0.89 (**Connor & Davidson, 2003; Khatib & El Helw, 2017**). And in the current study was 0.90. Also, the reliability of the second tool; the overall moral courage scale showed good internal consistency, with a Cronbach's alpha coefficient of 0.853 by **Connor, (2017)**, and the reliability in the present study was $r = 0.90$. Finally, the scale of psychological well-being presents internal consistency levels between 0.68 and 0.83 (self-acceptance 0.83, positive relationships 0.81, autonomy 0.73, environmental mastery 0.71, personal growth 0.68, and life purpose 0.83) (**Díaz, Rodriguez-Carvajal, Blanco, Moreno-Jime, 2006**).

While the overall psychological well-being presents internal consistency levels were $r = 0.89$ in the current study.

Pilot Study:

Over a month, the pilot study was conducted. It was carried out on 18 nurses, representing 10% of the total sample (12 nurses from Port-Said general hospital and 6 nurses from Elzohor hospital), who were excluded from the entire sample of the research study. It was conducted with tools to ensure the applicability, consistency, clarity, understandable language, stability, feasibility, objectivity, and suitability of the instruments, as well as to control any potential obstacles encountered during data collection, and to estimate the time required to fill out the questionnaire. As a result, data obtained from the pilot study were analyzed and according to necessary modification would be done, and the responding times for the first tool was (10 min.), the second tool was (15 min.), and the third tool was (10 min.)

Ethical Considerations

Preceding the beginning of this work, ethical consent was attained from the Scientific Research Ethics Board of the Faculty of Nursing; Port Said University. as well as, and approval was attained from the selected setting from which the data were collected. Also, an informed agreement was attained from the studied nurses after a plain description of the intention of the study. Anonymity was strictly maintained through a code number attached to each studied nurse's instrument. Voluntary participation of the studied

nurses was guaranteed as they were told that they are free to extract from the study whenever they wanted without any negative consequences. Confidentiality was affirmed to all participants in the study and the researcher declared that information would be used merely for the research aim. Finally, the process of data collection was not disturbing the harmony of the work in the above-mentioned setting.

Fieldwork

The actual field work of data collection consumed 16 weeks and was collected from two hospitals in parallel, from the beginning of December 2021 to the end of March 2022. The researchers before embarking on the fieldwork, the records of the studied nurses were reviewed, the questionnaire was distributed, and the researchers began collecting data from each previously mentioned sitting on the same day or after two days at two days per week for 16 weeks alternately until the required sample size was fulfilled. Besides that, the researchers met and spoke with the nurses in the two hospitals during their morning as well as afternoon shifts according to the nurses' and researcher's time and distributed the final version of an interviewing questionnaire sheet that the researchers utilized to collect data from study participants in complete privacy. Also, each nurse had individual interviews at hospital departments, which takes 20 to 30 minutes in filling the three studies tools.

Statistical Analysis:

Collection, organizing, tabulating, and statistical analysis of data was done with SPSS-22.0 software

computer statistical. The normality of data was first tested with a one-sample Kolmogorov-Smirnov or Shapiro-Wilk test. Data were presented using descriptive statistics in the form of frequencies and percentages for qualitative variables, means, and standard deviations for quantitative variables, t-test, variance analysis, ANOVA test, and Person's correlation coefficient analysis were used for the assessment of the inter-relationships among quantities variables. Statistical significance was considered at P-value <0.05.

Study Results:

Table (1): Shows the distribution of the studied nurses according to their personal characteristics data in the study setting. It was found that the majority of the total studied nurses were female (92.9%) at two hospitals. Whereas (7.9%) of nurses were male in total studied nurses. Moreover, 35.6 % of the total studied nurses age between 30 to 40 years old which is distributed equally in the two hospitals.

In addition, the highest percentage (84.7% and 79.7%) of nurses in two hospitals (Elzohor and Port-Said general hospital respectively) were married. Regarding educational level, more than two-thirds of nurses (83.6%) have a secondary nursing school diploma compared to the baccalaureate of science in nursing in Elzohor (zero) and Port-Said general hospital (1.7%). And, 19.2% of the total studied nurses were distributed in the emergency department. While 5.1% of the total studied nurses were in the pediatric department at Port-Said general hospital only (7.9%) and 2.2% of nurses were in the obstetrics department at Port-Said general hospital (3.4%).

Figure (1): Reveals the years of experience in the current job of the studied nurse in the study setting. As observed in the figure, the near-half of the total studied nurses had less than 10 years and between 10 to 20 years in the current department (49.2% and 45.2% respectively). While only 5.6% of the total studied nurse had more than 20 years in their current job.

Figure (2): Indicates the years of experience in the nursing field of the studied nurse in the study setting. As observed in the figure, less than half of nurses (41.2%) worked as a nurse between 10 to 20 years of experience. While only 24.9% of nurses worked as a nurse for less than 10 years of experience.

Table (2): Indicates the levels of work resilience, vocational moral courage, and psychological well-being among the studied nurses in the study setting. As shown in the table, nurses reported that the majority of nurses have a high level of work resilience (67.8%) with Mean± SD 58.06±12.71. Regarding vocational moral courage level half of the nurses have high vocational moral courage (50.8%) with Mean± SD 42.09±6.61. Looking at psychological well-being level, 62.1% of nurses have a moderate level of psychological well-being with Mean± SD 59.51±7.76.

Table (3): Shows the correlation between the total score of work resilience dimensions among studied nurses and their total vocational moral courage, and psychological well-being in the study setting. It was evidenced that there was a statistically significant correlation between total work resilience and total vocational moral courage, and total psychological well-being

($p=0.000$). In addition, there was a statistically significant correlation between work resilience dimensions; Hardiness, Adaptability, Meaningfulness, Self-efficacy, and total vocational moral courage ($p= 0.014, 0.007, 0.012, \text{ and } 0.001$, respectively). Moreover, there was a statistically significant correlation between work resilience dimensions; Coping, Adaptability, Optimism, Regulation of emotion and cognition, Self-efficacy, and total psychological well-being ($p=0.032, 0.000, 0.039, 0.008, \text{ and } 0.014$, respectively).

Table (4): Delineates the correlation between the total score of vocational moral courage factors among studied nurses and their total work resilience, and vocational moral courage in the study setting. It was revealed that there was a statistically significant correlation between total vocational moral courage factors and total work resilience, and vocational moral courage ($p=0.000^*$). Also, there was a statistically significant correlation between all factors of vocational courage and total work resilience ($p=0.000$). Moreover, there was a statistically significant correlation between moral agency, multiple values, moral goals, and total vocational moral courage ($p= 0.001, 0.014, \text{ and } 0.000$, respectively).

Table (5): Shows the correlation between the total score of psychological well-being dimensions among studied nurses and their total work resilience, and vocational moral courage in the study setting. There was a statistically significant correlation between total psychological well-being and total work resilience, and vocational moral courage ($p=0.000$). Also, there was a statistically

significant correlation between self-acceptance, positive relationships, autonomy, personal growth, purpose in life, and total work resilience ($p= 0.012, 0.000, 0.037, 0.000, \text{ and } 0.000$, respectively). Moreover, there was a statistically significant correlation between positive relationships, autonomy, personal growth, purpose in life, and total vocational moral courage ($p= 0.001, 0.007, 0.011, \text{ and } 0.000$, respectively).

Table (6) Reveals the comparison of the mean work resilience, vocational moral courage, and psychological well-being of nurses in the study setting. As shown in the table, the hospital with the highest mean value in work resilience is Port Said Hospital, $87.86 (SD \pm 9.19)$. Also, Port Said Hospital's highest mean value in vocational moral courage is $86.94 (SD \pm 10.8)$. While, the hospital with the highest mean value in psychological well-being is El-Zohar Hospital, $85.24 (SD \pm 16.2)$. Although there is a difference in the mean value of work resilience, vocational moral courage, and psychological well-being, this is not significant. As evidenced by the results, the p -value is $0.081 (p > 0.05)$, $0.126 (p > 0.05)$, and $0.073 (p > 0.05)$ respectively. It concluded that there is no significant difference in nurses' level of work resilience, vocational moral courage, and psychological well-being between a hospital in the city of Port Said, Egypt.

Table (7): Delineates the correlation matrix between the total score of work resilience, vocational moral courage, and psychological well-being among studied nurses in the study setting. It was evidenced that there was strongly a positive statistically significant correlation between the total score of work resilience,

vocational moral courage, and psychological well-being ($p= 0.000$).

Table (8): Reveals the relationship of personal characteristics data with the total score of work resilience, vocational moral courage, and psychological well-being among studied nurses in the study setting. It was evidenced that there was no statistically significant relationship between the total score of work resilience, vocational moral courage, and psychological well-being among studied nurses and their personal characteristics data. While there was a

statistically significant relationship between the total score of work resilience and age with the highest mean (79.30 ± 8.77) regarding the age under (30-40), with a positive statistically significant was ($p=0.00$). Also, there was a positive statistically significant relationship between the total score of work resilience and vocational moral courage and their educational level with the highest mean (6.82 ± 0.54 , 82.33 ± 9.08 , respectively) This means is related to the Baccalaureate of Nursing with a positive statistically significant ($p=0.01$).

Table (1): Distribution of the studied nurses according to their personal characteristics data in the study setting (n=177).

Personal characteristics data	Elzohor Hospital (n=59)		Port-said General Hospital(n=118)		Total (n=177)	
	No.	%	No.	%	No.	%
Gender:						
Male	7	11.9	7	5.9	14	7.9
Female	52	88.1	111	94.1	163	92.9
Age:						
<30	23	39.0	39	33.1	62	35.0
30-40	21	35.6	42	35.6	63	35.6
>40	15	25.4	37	31.4	52	29.4
Mean \pm SD	1.944\pm .8028					
Marital status:						
Unmarried	9	15.3	17	14.4	26	14.7
Married	50	84.7	94	79.7	144	81.3
Widow	0	0	4	3.4	4	2.3
Divorcee	0	0	3	2.5	3	1.7
Educational level:						
Secondary Nursing School	45	76.3	103	87.3	148	83.6
diploma. Technical HealthInstitute diploma.	14	23.7	13	11.0	27	15.3
Baccalaureate of Science in Nursing.	0	0.00	2	1.7	2	1.1
Unit name:						
Medical department.	7	11.9	25	21.2	32	18.1
Surgical department.	9	15.3	12	10.2	21	11.9
intensive care unit (ICU).	11	18.6	21	17.8	32	18.1
Pediatric department.	0	0	9	7.6	9	5.1
Emergency department.	12	20.3	22	18.6	34	19.2
urology department.	14	23.7	6	5.1	20	11.3
Obstetric department.	0	0	4	3.4	4	2.2
coronary care unit (CCU).	6	10.2	19	16.1	25	14.1

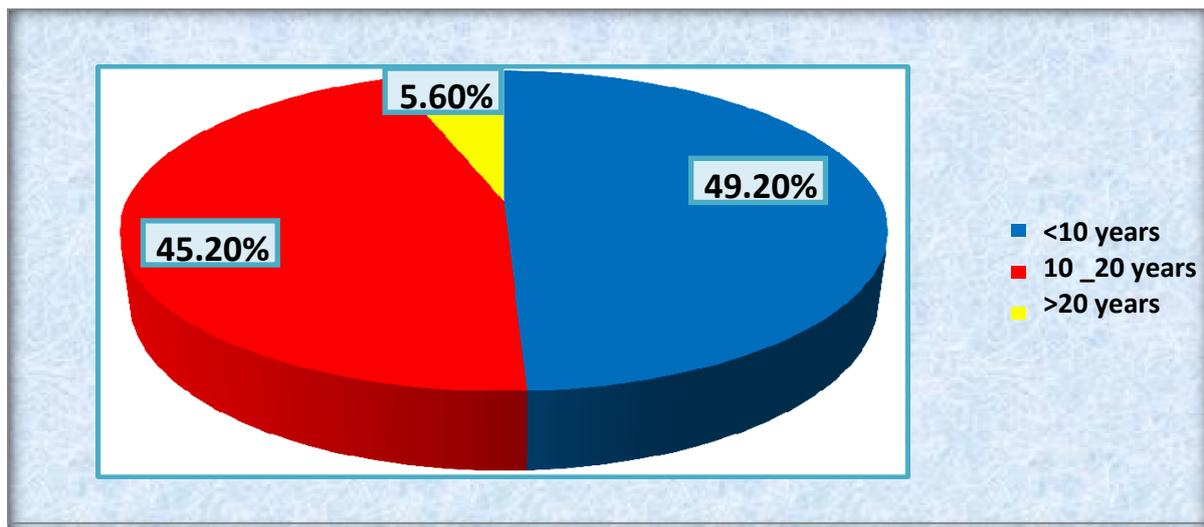


Figure (1): Distribution of the studied nurses according to their Years of experience in the current job in the study setting (n=177).

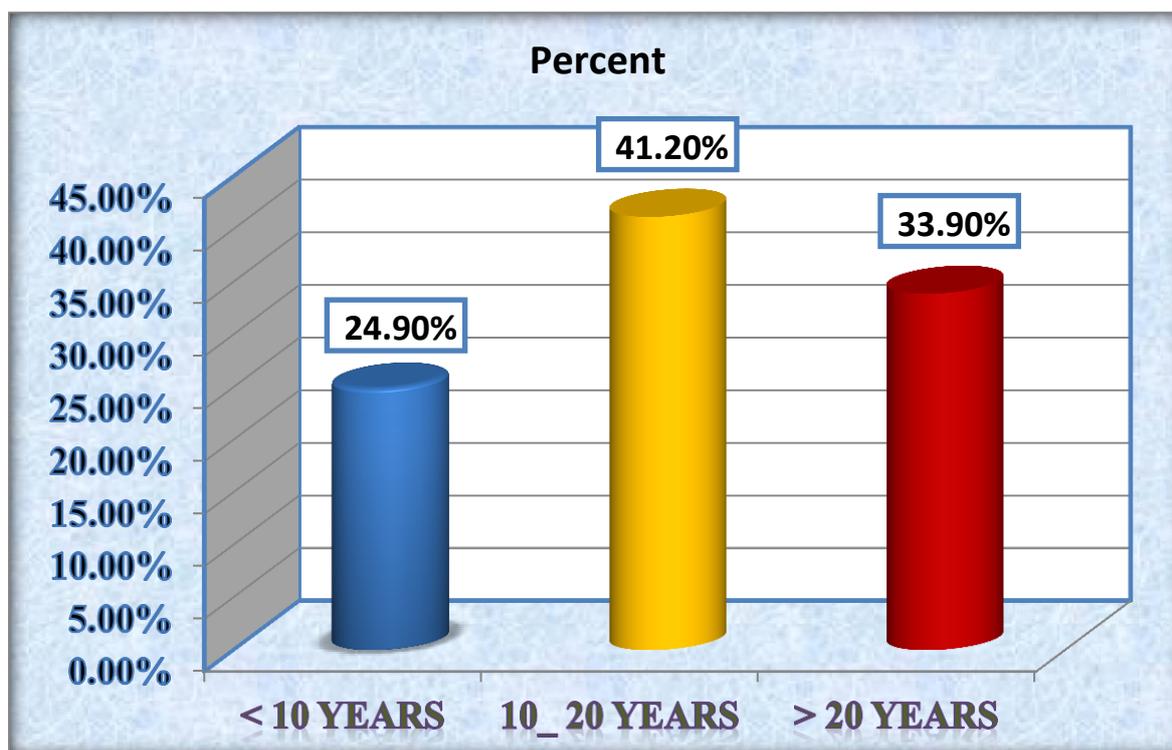
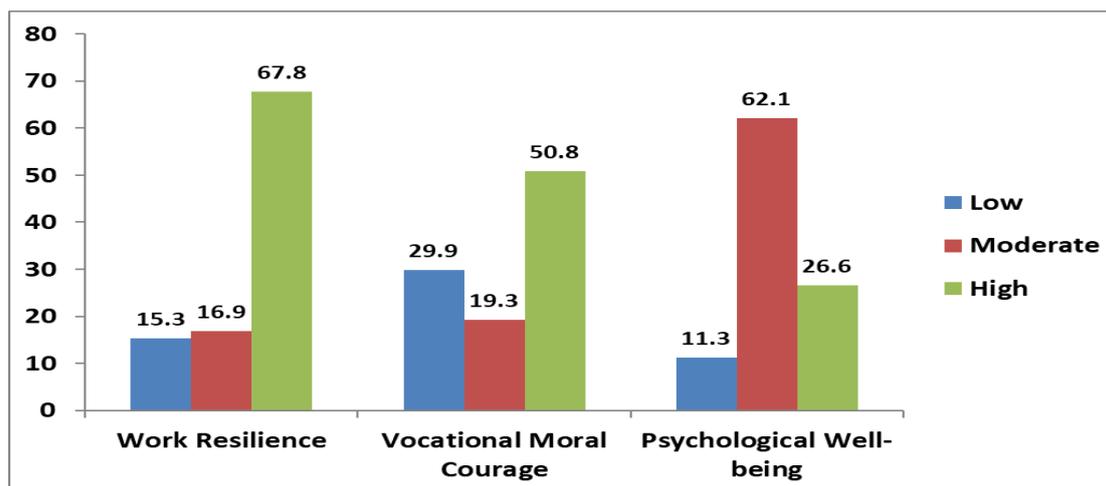


Figure (2): Distribution of the studied nurses according to their years of experience in the nursing field in the study setting (n=177).

Table (2): Distribution of the studied nurses according to the work resilience, vocational moral courage, and psychological well-being in the study setting (N=177).

Total Score	Min-Max	Mean± SD	Percent Score					
			Low		Moderate		High	
			No.	%	No.	%	No.	%
Work Resilience	25-85	58.06±12.71	27	15.3	30	16.9	120	67.8
Vocational Moral Courage	28-55	42.09±6.61	53	29.9	34	19.3	90	50.8
Psychological Well-being	37-73	59.51±7.76	20	11.3	110	62.1	47	26.6

**Figure (3):** Frequency distribution and allocation of the studied nurses according to the levels of work resilience, vocational moral courage, and psychological well-being in the study setting (n=177).**Table (3):** Correlation between the total score of work resilience dimensions among studied nurses and their total vocational moral courage, and psychological well-being in the study setting (n=177).

Work Resilience Dimensions	Vocational Moral Courage		Psychological Well-being	
	r_s	P-value	r	P-value
-Hardiness	0.165	0.014*	0.121	0.054
-Coping	0.048	0.263	0.140	0.032*
-Adaptability	0.185	0.007*	0.353	0.000*
-Meaningfulness	0.169	0.012*	0.030	0.347
-Optimism	0.024	0.377	0.133	0.039*
-Regulation of emotion and cognition	0.027	0.359	0.182	0.008*
-Self-efficacy	0.233	0.001*	0.165	0.014*
Total work resilience	0.549	0.000*	0.602	0.000*

*: significant at $p \leq 0.05$ level. r_s : Pearson's coefficient test

Table (4): Correlation between the total score of vocational moral courage factors among studied nurses and their total work resilience, and vocational moral courage in the study setting (n=177).

Vocational moral Courage Factors	Work Resilience		Psychological Well-being	
	r_s	P-value	r	P-value
-Moral Agency	0.1	0.00*	1.020	0.001*
-Multiple Value	0.2	0.00*	0.165	0.014*
-Endurance of threat	0.1	0.00*	0.104	0.084
-Going beyond compliance	0.2	0.00*	0.048	0.263
-Moral Goals	0.1	0.00*	0.353	0.000*
Total vocational moral courage	0.549	0.000**	0.649	0.000**

*: significant at $p \leq 0.05$ level. r_s : Pearson's coefficient test

Table (5): Correlation between the total score of psychological well-being dimensions among studied nurses and their total work resilience, and vocational moral courage in the study setting (n=177).

Psychological Well-being Dimensions	Work Resilience		Vocational Moral Courage	
	r_s	P-value	r	P-value
-Self-acceptance	0.169	0.012*	0.274	0.000*
-Positive Relationships	0.285	0.000*	0.222	0.001*
-Autonomy	0.134	0.037*	0.85	0.007*
-Control of the Environment	0.430	0.806	0.36	0.315
-Personal Growth	0.402	0.000*	0.152	0.011*
-Purpose in life	0.649	0.000*	0.323	0.000*
Total Psychological Well-being	0.602	0.000*	0.649	0.000*

*: significant at $p \leq 0.05$ level. r_s : Pearson's coefficient test

Table (6): Comparison of the mean work resilience, vocational moral courage, and psychological well-being of nurses in the study setting (n=177).

Study Variables	El-zohor Hospital (n=59)	Port-Said General Hospital (n=118)	P-value
	Mean±SD	Mean±SD	
-Work Resilience	84.34±21.2	87.86±9.19.	0.081(p >0.05)
- Vocational Moral Courage	84.35±13.6	86.94±10.8	0.126 (p > 0.05)
-Psychological Well-being	85.24±16.2	82.90±10.3	0.073 (p >0.05)

probability using the Kruskal-Wallis Test

Table (7): Correlation matrix between the total score of work resilience, vocational moral courage, and psychological well-being among studied nurses in the study setting (n=177).

Study Variables Total Score	Work Resilience		Vocational Moral Courage		Psychological Well-being	
	r	P-value	r	P-value	r	P-value
Vocational Moral Courage	0.549	0.000**				
Psychological Well-being			0.649	0.000**		
Work Resilience					0.602	0.000**

*: significant at $p \leq 0.05$ level. r_s : Pearson's coefficient test

Table (8): The relationship of personal characteristics data with the total score of work resilience, vocational moral courage, and psychological well-being among studied nurses in the study setting (n=177).

Personal data	Total (n=177)		Work resilience	Vocational moral courage	Psychological well-being
	No.	%	Mean±SD	Mean±SD	Mean±SD
Gender:					
Male	14	7.9	77.70 ±11.28	6.23 ± 0.54	8.33 ± 0.78
Female	163	92.9	79.69 ± 8.48	6.33 ± 0.49	9.80 ± 0.55
P-value			0.07*	0.1*	0.3*
Age:					
<30	62	35.0	78.70±8.79	77.70±7.79	6.39±0.41
30-40	63	35.6	79.30±8.77	88.78±9.82	6.55±0.70
>40	52	29.4	78.78±10.81	69.30±7.77	6.66±0.26
P-value			0.00**	0.1**	0.6**
Marital status:					
Unmarried	33	18.7	88.72±8.45	66.22±5.45	6.33±0.53
Married	144	81.3	67.78±9.81	64.38±6.81	6.36±0.47
P-value			0.4*	0.9*	0.5*
Educational level:					
diploma of Nursing	175	98.9	6.35±0.50	79.69±8.48	77.40±9.10.23
Baccalaureate of Nursing	2	1.1	6.82±0.54	82.33±9.08	79.22±10.33
P-value			0.03*	0.01*	0.02*
Years of experience in the department:					
<10	87	48.15	88.72±8.45	82.42±4.42	6.35±0.50
10-20	80	45.19	67.78±9.81	64.48±7.41	6.19±0.54
<20	10	5.6	67.78±9.81	57.78±9.81	6.19±0.54
P-value			0.7**	0.8**	0.3**
Years of experience in the nursing field:					
<10	44	24.9	89.62±7.25	82.22±5.45	88.72±8.45
10-20	73	41.2	56.78±9.84	66.88±9.41	67.78±9.81
<20	60	33.9	68.78±4.77	62.58±9.81	67.78±9.81
P-value			0.1**	0.06**	0.2**

*Independent sample T-test

**ANOVA

statistically significant at $p \leq 0.05$

Discussion

Elevation patient acuity, rapid assessments and discharge, and increased service use by clients mean that nurses are dealing with sicker people who are likely to have multiple conditions that may complicate both the treatment and the recovery. The problems related to workplace adversity can be negative, stressful, and traumatic, resulting in difficult situations or episodes of hardship for nurses. Despite all of these challenges, moral courage, resilience, and psychological well-being enable nurses to cope with their work environment and maintain health and stable psychological functioning (Yilmaz, 2017). So, the current study aimed at exploring the relationship between work resilience, vocational moral courage, and psychological well-being among nurses at Port Said hospital in Port Said city, Egypt.

So, we discuss the current study's findings concerning recent literature and other relevant studies to clarify the extent to which the results were confirmed by other studies, explain the implications of the current findings, and discuss the novel thought generated by the findings.

The findings of the present study denoted that the high percentages of the studied nurses have a high level of work resilience. presently, in nursing, managers should be focusing on enhancing effective strategies for nurses, such as the encouragement of nurses to talk with other people, seek advice from friends, and learn new strategies to help nurses maintain effective coping mechanisms during difficulties (Ren, zhou,

Wang, Luo, Huang, & zeng, 2018). As such, resilience appears to be dependent on external characteristics and life circumstances and does not necessarily depend merely on a nurse's personal attributes. Our findings align with a study that claims that those who have the human attributes or the characteristics of resilience can more easily weather and survive stress in the workplace and even thrive despite stress (Alkaissi, Said, Almahmoud, Al-ziben, Zaitoun, 2020). This emphasis can be significant in engaging healthcare organizations and hospital management on board with developing strategies to help improve and enhance resilience for all nurses and the health profession as a whole. Also, the current results were supported by the study conducted by Kutlurkan, Sozeri, Uysal, & Bay, (2016) and Elmalahy (2020) finding refers that there is a high level of resilience among studied nurses.

Also, the present study is in line with a study by Mealer, Jones, Newman, McFann, Rothbaum, et al., (2012) who found that high levels of resilience in nurses, especially in the intensive care unit; nurses work in different wards depending on their level of resilience, and resilient nurses tend to work and remain in the intensive care unit. And these results were supported by Gillespie, Chaboyer, Wallis, Grimbeek, (2007) who reported a high level of resilience of nurses working at operating room in Australia. From this point of view, the variation in the results can be attributed to the assessment of resilience according to various psychological, mental, and behavioral attributes in nurses

besides their different environmental and personal factors.

While **Rushton, Batcheller, Schroeder, Donohue (2015)** contradicted this study, studied resilience among intensive care unit nurses, and found that the level of resilience was low while the level of burnout was high among studied nurses, this finding was supported by **Ren et al., (2018)** who studied the resilience and its influencing factors among hospital nurses and found that there was a low level of resilience among nurses. Also, the results by **Deldar, Froutan, Dalvand, Gheshlagh, Mazloum (2018)** studied the relationship between resilience and professional moral courage in nurses working in hospitals. Nurses' mean resilience score was in the moderate range, and in the study conducted by **Çam and Büyükbayram, (2017)** resilience was also reported to be moderate.

The findings showed that the participating nurses had a high degree of vocational moral courage scores, in agreement with the study's results by **Moosavi, Borhani, Abbaszadeh, (2016)** conducted on nurses in Tehran hospitals. Also, this is consistent with the result of the study by **Mahdaviseresht, Atashzadeh-Shoorideh, Borhani, (2015)**, The studies by **Taraz, Loghmani, Abbaszadeh, Ahmadi, Safavibiat, et al., (2019)**, also reported a high rate of moral courage among nurses. Nonetheless, the study by **Mohammadi, Borhani, Roshanzadeh, (2014)**, reported nurses' moral courage at a moderate level, while nurses' mean moral courage score was moderate in a study by **Hannah, Avolio, Walumbwa, (2011)** and was poor in a study by

Gallagher (2011). From this point of view, the variation in moral courage level in these studies can be attributed to the effect of certain factors on moral courage, including ethical work climate, nurses' age, organizational culture, managers' and organization's support (**Moosavi, Borhani, Abbaszadeh, 2016**). In the current study, a significant positive relationship was observed between nurses' educational level and moral courage, such that baccalaureate of nursing had greater vocational moral courage, in agreement with the results by **Mahdaviseresht, Atashzadeh-Shoorideh, Borhani, (2015)**.

The results of the current study revealed that resilience plays a key role in supporting psychological well-being. This is consistent with the results of the study of **Sagone and Caroli (2014)** which stressed that the more the individuals would be likely to resist under stressed situations, the more they would score highly in the six dimensions of psychological well-being. Individuals who feel resilient would also see themselves improving and growing, and satisfied with themselves. This outcome demonstrated that psychological and work resilience is a good predictor of psychological well-being. Moreover, The study finding concludes that psychological resilience enhances nurses' ability to share good social activities with others and encourages them to build strong friendship networks. Finally, the study findings also show that the feeling of resiliency improves employees' psychological well-being by raising their self-satisfaction about life and increasing their optimism about the future.

As noticed by the present study's findings showed a significant positive relationship between work resilience and vocational moral courage besides psychological well-being, such that the changes in work resilience level/perception are due to changes in vocational moral courage and their effect on psychological well-being. Along the same line, **Ebrahimi Ghassemi, Zhang, Marigliano, (2019)** found a positive significant correlation between resilience and moral courage among nursing students. From this point of view, nurses with higher levels of moral courage have an understanding of their abilities due to features such as the tolerance of threats, moral goals, and multiple values; therefore, increased nurses' work resilience through managing stressors.

In the current study, a significant relationship was observed between the total mean score of work resilience and its relation to the nurse's age and educational levels; nurses with an age range from 30 to 40 years had a relation with higher resilience because they had matured enough, as well as a significant relationship with an educational level related to a bachelor degree. However, work resilience had no relationship with other demographic details such as gender, marital status, experience years in the department, and experience years in the nursing field, these results agree with the results of **Abdollahzadeh, Moodi, Allahyari, Khanjani, (2015)**. Meanwhile, the current study findings were in disagreement with **Lee, Forbes, Lukasiewicz, (2015)** who found that the nurses working in the pediatric intensive care unit had less than seven

years of work experience had higher resilience. Also, several studies showed that many factors can affect nurses' resilience; such as self-esteem, self-efficacy, and economic factors (**Abbasi, Fadavi, Bazmi, 2017; Oshio, Taku, Hirano, Saeed, 2018**).

Also, **Elmalahy, (2020)** contradicted the current study, the result showed that most female nurses have a high level of resilience, and the relationship is statistically significant. This results in the same line as **Ren, zhou, Wang, Luo, Huang, & zeng, (2018)**, similarly, **Park, Choi, & Kim (2019)**, in their study conducted in South Korea proved that nurses who have the highest level of resilience were female. This result is not consistent with **Mathad, Pradhan, & Rajesh (2017)**, who revealed there is no single demographic, personality, or biological factor that can predict or enhance resilience.

Conclusion

The current research concluded that a high percentage of nurses have a high level of work resilience, half of them had a high level of vocational moral courage, also, most nurses were at a moderate level of psychological well-being. As well as a positive statistically signification correlation between work resilience, vocational moral courage, and psychological well-being of study subjects.

Recommendations

In the light of findings discussed above, the study has the following suggestions:

- Healthcare providers can overcome stressors by applying proper coping mechanisms,

leading to growth and the ability to thrive from the experience or resiliency.

- Happier work environments also build and sustain resilience along with supportive professional relationships.
- enhancing Social support programs among nurses have been associated with higher well-being outcomes.
- Train nurses on beneficial ways to cope with stress to augment resilience.
- in Education; resilience, vocational moral courage, psychological well-being is incorporated into curriculum nursing schools and faculty and recognized as an important feature of health professionals.
- Integrating programs during nursing schools and faculty and advanced practice education that develop character and self-awareness skills could increase the future of well-being and enhance resiliency while combating burnout.
- Adequate social resources and economic support should be provided to these nurses who have social, emotional, economic, and time difficulties.
- Some centers should be established to provide psychological support for groups and individuals.
- Increasing nurses' moral courage through a talk with, friends, to overcome the problem of moral distress in nurses.
- Enhancing the undergraduate nursing curriculum as well as continuing professional development in terms of resilience, moral courage, and psychological well-being education.
- In institutions, administrators should organize courses, seminars, conferences, panels, workshops, and structured educational programs (such as Stress Management and Resiliency, ...etc) and ensure their continuity
- Nurses should be aware of their and others' moral values and respect others' lifestyles or personal and social values to improve moral values.
- Nurses should realistically identify problems, believe in solutions to problems, and feel confident about obtaining the resources to resolve problems.
- Creating a safe and ethical environment through encouraging staff to express their feelings and suggestion about work issues fairly.
- Managers should maintain support and respect for staff members that help to promote moral courage and well-be in clinical practice by listening to them carefully
- Improving communication opportunities and formal systems for the exchange of information, views, concerns, or ideas through conferences, workshops, meetings, and sharing knowledge with them.
- Conduct continuous and regular in-service educational programs and other development activities such as workshops, conferences, and seminars to achieve the application of strategies for improving work resilience and professional well-being.
- Periodically assess and manage work resilience, vocational moral courage, and psychological well-being.

- Regularly implementation of strategies that increase work resilience, vocational moral courage, and psychological well-being in healthcare organizations.

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