GRADUATE SCHOOL OF
BUSINESS AND ADVANCED
TECHNOLOGY MANAGEMENT

ORGANIZATION DEVELOPMENT INSTITUTE
ABAC Graduate School of Business

ABAC ODI JOURNAL Vision. Action. Outcome

ISSN: 2351-0617 (print), ISSN: 2408-2058 (electronic)

The Mediating Role of Psychological Distress on the Relationship of Mindfulness and Social Support on Psychological Well-Being Among Private Hospital Nurses in Kerala, India.

Jancy P Paul, Parvathy Varma

ABAC ODI JOURNAL Vision. Action. Outcome Vol 11(1) pp. 179-195

www. http://www.assumptionjournal.au.edu/index.php/odijournal

Published by the
Organization Development Institute
Graduate School of Business and Advanced Technology Management
Assumption University Thailand

ABAC ODI JOURNAL Vision. Action. Outcome
is indexed by the Thai Citation Index and ASEAN Citation Index

The Mediating Role of Psychological Distress on the Relationship of Mindfulness and Social Support on Psychological Well-Being Among Private Hospital Nurses in Kerala, India

Jancy P Paul[1], Parvathy Varma[2]

[1]Ph.D. candidate in Counseling Psychology at Assumption University of Thailand, Bangkok, Thailand. Email: jesjan33@gmail.com
[2]Ph.D. Programme Coordinator, Graduate School of Human Sciences, Assumption University of Thailand, Bangkok, Thailand.
Email: psyamalakumari@au.edu

Received: 28 June 2023. Revised: 31August 2023. Accepted: 17 September 2023.

Abstract

The present study aimed to investigate the effect of mindfulness and social support on the psychological wellbeing of private hospital nurses in Kerala, India, mediated by psychological distress. Data were collected through a survey of 1050 nurses working in private hospitals in Kerala, India. The mediation analysis was carried out using Andrew Hayes Process Macro. The results of the mediation analysis indicated that psychological distress partially mediated the relationship of mindfulness, and social support on psychological well-being. Statistical evidence indicated that the higher levels of mindfulness and social support experienced by these nurses in Kerala reported to have lower psychological distress and lower the psychological distress, better were their psychological well-being. The nurses in private hospitals of Kerala have various challenges including long working hours, physical strain, exposure to human suffering and high job demands that necessitate constant vigilance in a complex and potentially chaotic environment. In light of these findings, it is suggested that private hospital administrators allocate resources to promote mindfulness and social support as part of an incentive and staff development program for their nurses. The hospital administration can augment their employees' psychological well-being, in spite of the taxing job demands that they are driven through to achieve relatively high productivity. One who has a balanced psychological wellbeing will tend to administer their duties nearer to perfection and as such, all stakeholders of the hospital industry would be happy and satisfied.

Keywords: mindfulness, social support, psychological distress, psychological well-being, SEM (structural equation model), mediation, mediation analysis.

Introduction

The primary role of a nurse is to be a caregiver for patients by managing physical needs, preventing illness, and treating health conditions. In 1859 Florence Nightingale wrote: “The elements of nursing are all but unknown. There are millions of nurses working in hospitals and other healthcare centers across the world. As such, the role of nurses is crucial in every

healthcare system, as they help individuals and families achieve and maintain optimal health, improving their quality of life. The primary responsibility of a nurse is to provide holistic care for the patients which includes establishing good relationship with them (Ko, 2017). The quality of care provided to patients depends on the performance of the nursing staff. Priceless are the services rendered by the nurses to the humanity; however, nurses encounter various challenges in their profession as they strive to make significant decisions and provide the best care possible to their patients. However, the stress and challenges faced by nurses in their workplace can negatively impact their ability to carry out their jobs efficiently and reach their full potential. (Anbazhagan et al., 2016). Studies have shown that decreased psychological well-being inevitably affects the performances, engagement, job satisfaction, work relationships and collaboration of the health workers. Such phenomena in turn reflect in rendering erroneous care service to the patients and families. (Chana et al., 2015; Hall et al., 2016). Several researchers have made detailed studies on stress and physical and mental health-related problems of nurses to create awareness among employers, hoping to bring out appropriate coping skills and preventive measures in the health care related environments.

The present study focuses on the plight and experiences of nurses from Kerala, India. Before delving into the local context, it is pertinent to examine research findings of other countries with regards to their nurses' psychological distress, including depression, anxiety, and stress. In Australia, psychological distress, such as depression and anxiety, are considered major psychological disorders that disrupted the psychological wellbeing of the nurses. Australian Statistics indicated that on an average, nurses were found to have suffered from depression (4% of nurses) and anxiety (14% of nurses) in a year (Australian Bureau of Statistics, 2018). Similar studies indicated that 20% of midwives from Australia suffered from anxiety (Creedy et al., 2017).

Chana et al., (2015) and Robert and Grubb (2014) have reported that nursing in many Asian countries is considered as one of the most stressful jobs in the healthcare industry among health workers that leads to depressive and anxiety symptoms. For instance, in China anxiety rates ranging from 32% – 43% and depression rates of 35% have been documented (Cheung & Yip, 2015; Gao et al., 2012; Li et al., 2016). In Iran, 40-46% of nurses have reportedly suffered from anxiety (Ghods et al., 2017; Nooryan et al., 2014). Similarly, in India, 35% of nurses suffer from depression, while 11% – 80% nurses reportedly suffer from anxiety (Ardekani et al., 2008; Tabrizi & Kavari, 2011).

The participants of the present study were the nurses working in the private hospitals in Kerala, India. The nursing profession particularly in private hospitals in Kerala, India was characterized by challenging circumstances, including low remuneration, taxing overtime work, shortage of nurses, status issues, motivational issues, etc. Incidentally, these factors negatively affect the health personnel’s life and work behavior. This is in stark contrast to the situation faced by government nurses. The nursing profession itself has historically been perceived as a low-status job. The literature underscores how nursing as a profession in India has evolved over time. The history of the nursing profession in India reveals that prior to India’s independence in 1947, nursing was not widely recognized as a profession. The popularity of the nursing profession was minimal and predominantly nurses were from Anglo-Indian or Christian communities (Raghavachari, 1990). However, in the late 18th century, the popularity of nursing increased, and the first Nursing training school for midwives and nurses was

established in Madras (Jaggi, 2001). Despite the growing popularity of nursing, it was initially perceived as a profession suitable for women who were marginalized in the society, such as widows, discarded wives, and orphans, who lacked privileges or profiles in Indian patriarchal society (GOI (Government of India), 1929). During and after British rule in India, numerous schools and educational institutions were established to cater the educational needs of women, to empower them in the society. The Christian community in Kerala played a significant role in promoting women's education, resulting in the training of many young Christian women in nursing. (Abraham, 2004).

However, nurses were overlooked compared to other women professionals such as teachers and doctors (Percot & Irudaya, 2007). As mentioned above, in the context of private hospitals, nurses face challenges in terms of salary disparities compared to their counterparts in government hospitals. Research shows that the nurses in private hospitals receive low salaries and have less favorable working conditions than those in government hospitals. (Nair et al., 2016). In 2009, a study based on nurses in Delhi found that many nurses who dedicate their lives to serve in private hospitals were paid astonishingly low salaries and did not comply with labor laws regarding perks and leave packages (Nair, 2010). In 2016, the Supreme Court of India emphasized that nurses of private hospitals need to be treated more humanely and is to be paid reasonably considering the phenomenal service they render (Trained Nurses Association of India v. Union of India, n.d.).

Nurses working in circumstances such as these truly need other sources of support to complement their quality work life. The researcher hypothesized that nurses working in private hospitals under these tiring circumstances find time and effort to practice mindfulness and receive adequate social support, can effectively manage their diverse psychological distresses while maintaining equilibrium in their quality work life. Furthermore, the researcher hypothesized that by incorporating these strategies of mindfulness and adequately receiving social support from colleagues, relatives and family members of the nurses, who were working in the private hospitals in Kerala can enhance their psychological well-being. Therefore, this study aimed to investigate the effect of mindfulness and social support on psychological well-being mediated by psychological distress of private hospital nurses in Kerala, India.

This study investigates the psychological well-being of nurses and aims to identify the factors that can contribute to their wellbeing. The researcher was convinced that a high level of mindfulness and social support would help nurses manage negative emotions. In the Indian context, particularly in Kerala, mindfulness practice like yoga is commonly used to improve their psychological well-being. Social support also was valued due to the collectivistic nature of Indian Society. The study focused on four variables: mindfulness and social support as predictors, psychological well-being as outcome and psychological distress (depression, anxiety and stress) as a mediating variable. By investigate these variables, the study aimed to provide insights into promoting the psychological wellbeing of the private hospital nurses in Kerala, India.

Literature Review

The following sections investigate the effect between predictor variables (mindfulness, social support) and mediating variable (psychological distress) on the criterion variable (Psychological wellbeing).

Mindfulness, Psychological Distress and Psychological Wellbeing

This mediation model (mindfulness is independent variable, psychological wellbeing is a dependent variable and psychological distress is a mediating variable), elucidated that those who have high level of mindfulness would recede to their psychological distresses and enhances their psychological well – being. MBSR program involves eight-ten weekly sessions that aimed at reducing stress and enhancing mental health resilience (Fortney et al., 2013). MBCT is also designed to help individuals to disengage from their rumination, depressive thoughts and feelings by promoting detachment (Kabat-Zinn, 1994). There is empirical support that MBCT sessions can enhance wellbeing, happiness and reduce stress (Phang et al., 2013).

Nursing professionals experience significant strain from their job demands and their work environment (Foureur et al., 2013). The primary causes of emotional disturbance, tension, and stress among nurses are interpersonal conflict among colleagues and a lack of support from the organization in which they are employed (Westphal et al., 2015). Stress negatively impacts clinical performance and psychological well-being (McConville et al., 2017). Buddhist meditation and mindfulness are recommended as effective stress relief techniques for nurses promoting reduced stress and burnout (Hulsheger et al., 2013; Heard et al., 2013; Hunter, 2016; Walker & Mann, 2016). Mindfulness creates a balance between stress and well-being, diminishing fatigue and alleviating stress (Brady et al., 2012; Huang et al., 2015; Penprase et al., 2015).

Practicing mindfulness helps the healthcare professionals, including nurses, by reducing stress, anxiety and fostering a sense of calmness. Qualitative studies indicated improvements in the well-being of nurses such as a sense of calmness, awareness, and enthusiasm, better job performance through improved communication with coworkers and patients, increased sensitivity to patients' experiences, improved problem-solving skills, and better emotional regulation in stressful situations. Meditation, a mindfulness practice, helps reduce nurses' stress and improves their well-being (Bazarko et al., 2013; Craigie et al., 2016; Goodman & Schorling, 2012; Guillaumie et al., 2016; Reid-Ponte & Koppel, 2015).

Social Support, Psychological Distress and Psychological Wellbeing

This mediation model (social support is independent variable, psychological wellbeing is a dependent variable and psychological distress is a mediating variable), elucidated that those who receive adequate social support would recede to their psychological distresses and enhances their psychological well – being. Thriving theory, as proposed by Brook and Nancy explained the theoretical aspect of the relationship between social support, emotions, and psychological well-being. Thriving is referred to flourishing, prospering, and successfully reaching goals (Brooke & Nancy, 2015). The authors (Brook & Nancy) aimed to develop and test interventions for enhancing social support and general well-being. Good-quality

relationships have been shown to care for health and well-being, while poor-quality relationships can hamper them. Social support plays a crucial role in enhancing happiness, self-reliance and good relationships with others (Collins et al., 2014).

Heerde and Hemphill (2018), defined social support as the aid provided by members of a social network to each other to manage stress. Nandi et al., (2008) emphasized the critical role of social support on nurses in reducing adverse physical and mental effects due to stress. Studies highlight the importance of social support from colleagues, managers, friends, and families in helping nurses effectively cope with work related stressors (Roohafza et al., 2014). Research has also acknowledged the positive effects of social support on nurses' job satisfaction, work commitment, health, and well-being (Choi, 2018; Hu et al., 2017). Liu and Aungsuroch (2019), reported that during the COVID-19 pandemic, higher perceived social support was associated to lowered anxiety. In a study of doctors and nurses, higher social support scores were negatively associated with anxiety, depression, and sleep disorders, indicating that enhancing social support could reduce the psychological symptoms of healthcare workers during the COVID-19 pandemic (Hou et al., 2020). Positive social support has been linked to reduced psychological distress, increased self-efficacy, improved sleep quality, and decreased anxiety and stress levels among nurses (Xiao et al., 2020; Yu et al., 2020). Positive social support can alleviate anxiety and depression, which consequently enhances psychological well-being (Feng et al., 2018; Jibeen, 2015; Pidgeon et al., 2014).

Research Methodology

Research Design

A correlational quantitative study design was utilized to address the objectives. Initially the researcher employed exploratory factor analysis to determine the factor structure of the questionnaires used in the study that were translated to the local language Malayalam from English. To establish the psychometric properties of the questionnaires, confirmatory factor analysis (CFA) was carried out using Structural Equation Modeling (SEM). The mediation analysis was carried out by Process Macro by Andrew Hayes. The mediation effect of Psychological distress on the relationship of the independent variable’s mindfulness and social support to the dependent variable psychological well-being was estimated.

Population and Sample

Private hospital nurses from Kerala state, India, were the study population. According to a household survey done in 2016 that was representative of Kerala's population has 68,161 nurses. Without a doubt, several articles showed that the number of nurses has increased every year in the last four years. The selection of the participants was based on the accessibility and convenience of the researcher to access the data needed for the analysis. Thus, the researcher applied quota sampling to collect the data. The researcher approached hospital administrators and other concerned people to get personnel help in conducting the study and distributed the questionnaires in the private hospitals, subsequently collecting the required data. The researcher collected the data from the private hospitals, which comprised of seven districts in Kerala state. Although the data comes from seven districts, the nurses working in these hospitals were from all over Kerala; therefore, the data represented almost the entire area of

Kerala state; because, all nurses in all 14 districts of Kerala has an equal and right to be employed at any of the hospitals in Kerala. This is the prevalence of nurses working in Kerala.

Sample size

The Monte Carlo simulation method (Wolf et al., 2013) allows researchers to construct a model to their exact specifications and then test the model on thousands of "random" datasets of varying sample sizes. This lets the researcher see approximately how often the effects in the model will be significant (i.e., statistical power) in a sample of any given size. The main advantage of this method is that it allows researchers to determine an appropriate sample size for the specific model researcher was going to test. The population of the study was well above 100,000 nurses in Kerala and as such, the researcher collected a sample of 1050 private hospital nurses from seven districts' private hospitals, which represented nurses from all 14 districts of Kerala, India. Total districts in Kerala are 14. All nurses from 14 districts of Kerala have a right and equal chance of being employed in any of the hospitals across Kerala. The participants were selected on the accessibility and convenience for the researcher using quota sampling. The questionnaires were distributed to seven private hospitals in seven districts of Kerala. This sampling approach ensured representations from nurses working in different districts of Kerala, providing a comprehensive data of the nurses in the entire state. The data collected from 1050 nurses across Kerala was used for two separate analyses and they were as follows. One set of data (300) were used for Reliability and EFA analysis. The balance 750 data sets were used for CFA and mediation analysis.

Research Instruments

The questionnaire contained a covering letter explaining the study's general nature, informed consent, and purpose. Part 1 of the questionnaire contains items written to tap the participants' demographic characteristics age, education, marital status, income, work experience. Part II consists of the Mindful Attention and Awareness Scale (MAAS), a 15-item scale. Higher scores indicate a more conscious state of being. Based on Cronbach's alpha coefficient, it was revealed that the questions' internal consistency ranged from 0.80 to 0.87. (Brown & Ryan, 2003). Part III consists of the Multidimensional Scale of Perceived Social Support (MSPSS). Zimet et al., (1988), created the Multidimensional Scale of Perceived Social Support (MSPSS). It has 12 questions that evaluate three types of support: assistance from friends, family, and a "significant other." Cronbach's Alpha coefficient of 0.83-0.91 indicated that MSPSS have a good factorial validity and construct validity for each subscale. The degree of social support is more meaningful when the score is higher. Part IV consists of the Depression, Anxiety, and Stress Scale (DASS-21), which is designed to measure the emotional states of psychological distress. Lovibond and Lovibond (1995) introduced the short form of this scale known as Depression, Anxiety, Stress 21 (DASS21). Corrected Item-Total Correlations ranged from 0.50 - 0.73 and with a Cronbach's Alpha of 0.92. Part V consists of the Satisfaction with Life Scale (SWLS), which is designed to measure the individual's own judgement of their quality of life. Diener et al. (1985) developed this five-item scale that demonstrated an internal consistency coefficient (Cronbach's alpha) of 0.87 and a test-retest reliability correlation of 0.82 (Diener et al., 1985).

Data Collection Procedure

A pre-test of the survey questionnaire was conducted on 30 nurses from one hospital, from Kerala. The pre-test data were subjected to a reliability test to obtain Cronbach's alpha values. Besides, the researcher obtained permission from the administrators of the hospitals to collect the required data. Before distributing the questionnaire, the researcher explained the research rationale and the questionnaire to the administrators of the hospitals. They explained it to the nurses according to their shifts. The researcher also explained the confidentiality of any information obtained from the participants would be kept strictly confidential. An informed consent form was also attached to the questionnaires for the participants. The data obtained from the respondents would be used for academic purposes only, and participation was voluntary. In other words, the nurses could withdraw from participating without hesitation. The researcher employed the quota sampling method to obtain data from nurses from Kerala.

Data Analysis

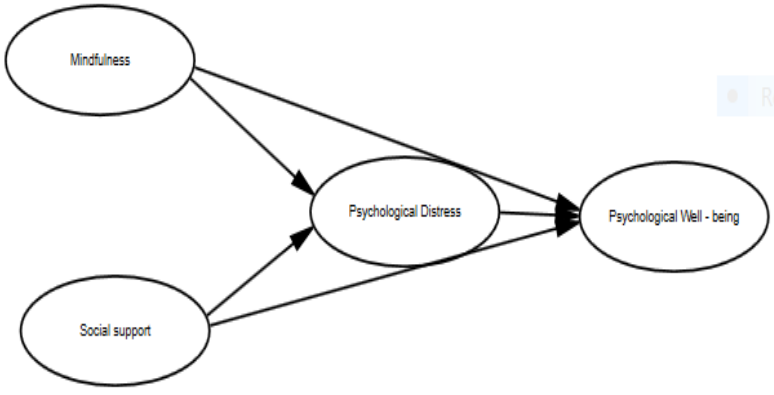
The study aimed to investigate the mediation effects of social support and mindfulness on the psychological well-being of private hospital nurses, as mediated by psychological distress. The total number of collected data was 1050. Approximately 30% (300) were used for the reliability analysis and exploratory factor analysis (EFA). The remaining 70 % data (750) was used for the analyses of confirmatory factor analysis (CFA) and mediation analysis. For this study, reliability, EFA and CFA analysis were used Structural Equation Model (SEM), and the indirect model analyses utilized Andrew Hayes' Process Macro. The samples represent private hospital nurses in Kerala India,

Conceptual Framework

The following conceptual model was derived from the review of the literature and eliciting results for the hypothesis. The purpose of this research was to investigate the relationships between mindfulness and social support (predictor variables), on psychological well-being (criterion variable), mediated by psychological distress (mediating variables). Based on the hypotheses, this study investigates the mediation effects of psychological distress on the relationship between mindfulness and social support on psychological well-being. Figure 1 illustrates the mediation model proposed in the study.

Figure 1

Conceptual Framework – Mediation Model



Mediating relationships between Predictors (Mindfulness and Social support) on the criterion variable (psychological well-being) mediated by a mediator variable (psychological distress).

Research Questions

1. Is there a Mediation effect of psychological distress on the relationship between mindfulness and psychological well-being among private hospital nurses in Kerala?

2. Is there a Mediation effect of psychological distress on the relationship between Social Support and psychological well-being among private hospital nurses in Kerala?

Research Hypothesis

H1: Mindfulness has an indirect effect on psychological wellbeing of Nurses in Kerala, India, mediated by psychological distress, such that those with higher levels of mindfulness would experience lower level of psychological distress and consequently a higher level of psychological well being.

H2: Social Support has an indirect effect on psychological wellbeing of Nurses in Kerala, India, mediated by psychological distress such that those nurses with a high level of social support would experience a lower level of psychological distress, and consequently augment a higher degree of psychological well-being.

Results and Discussion

In the present study, before the mediation analysis, Confirmatory factor analysis (CFA) was carried out in order to establish the psychometric properties of the instruments used in the study so as to verify the factor structure of a set of observed variables. CFA allows the researcher to test the hypothesis that a relationship between observed variables and their underlying latent constructs exists. CFA allows the researcher to explicitly propose a priori model based on the factors identified through Exploratory Factor Analysis (EFA) and evaluate how well this model fits the observed data.

All 4 latent factors in the conceptual framework were investigated using confirmatory factor analysis using SEM (CFA). Convergent validity of the latent constructs was determined by averaging the squared standard loadings of each item pertaining to each latent construct, otherwise referred to as AVE (average variance extracted). Composite reliability (CR) was worked out by taking the ratio of true variance to total variance of the constructs. Any value of CR above 0.70 is considered as high. The internal consistency of the items was determined by Cronbach's alpha coefficient which is the average item-total correlations. The hypothesized mediation was tested using mediation regression procedure provided in Andrew Hayes process macro. For this analysis, 5000 bootstrap samples with replacement were utilized. The significance test for the mediated effect is set at 95% bias corrected (BC) bootstrapped confidence intervals (CIs).

CFA Analysis

All four latent factors in the conceptual framework were investigated using confirmatory factor analysis (CFA). The chi-square goodness-of-fit value for the four-factor model (Mindful Attention Awareness Scale, Multidimensional Perceived Social Support Scale,

Depression, Anxiety and Stress 21 Scale, Satisfaction with Life Scale) is statistically significant, $\chi 2$ (df =111) = 200.73, p<0.000, indicating that the posited model's covariance matrix does not fit with the observed sample covariance matrix. According to Ho (2013), the chi-square is highly sensitive on sample size; the larger the sample, the more likely this value is significant. Hence, this research considered other fit indices into consideration. The incremental fit indices Goodness of Fit Index (GFI= 0.93), Comparative Fit Index (CFI= 0.98), Tucker-Levis index (TLI= 0.98), Parsimony Normed Fit Index (PNFI= 0.79) and Root mean square error of approximation (RMSEA= 0.052; 90% CI = 0.40 to 0.06) and P-close = 0.37, indicating that the posited model's covariance matrix does fit with the observed sample covariance matrix. All fit indices are well within accepted levels and demonstrates that the four-factor model fits well with the data.

The convergent validity for all four constructs represented was very high to moderate suggesting a good convergence. The AVEs are 0.80, 0.91, 0.70 and 0.76 respectively for the construct's mindfulness, social support, psychological distress and psychological wellbeing. All the AVEs are above 0.5 the minimum required levels.

The perceived social support scale shows a very high degree of convergence (0.91), very high with composite reliability (0.98) and Cronbach's alpha reliability (0.981). The degree of convergence for Mindfulness construct is sufficiently high with AVE = 0.80, CR = 0.95 and alpha = 0.95. Its discriminant validity is also acceptable though it is very close to the constructs perceived social support and psychological wellbeing. The convergent validity of psychological wellbeing construct is also sufficiently high with AVE = 0.76, CR = 0.91 and alpha = 0.88. It overlaps with the construct perceived social support as its AVE is slightly lesser than that of its squared correlation with perceived social support. The construct validity of psychological distress looks though sufficient but lower. It has AVE = 0.70, CR = 0.92 and alpha = 0.92. The construct is quite unique and distinct from other constructs as its AVE is lesser than its squared correlations with other constructs. See table 1.

Table 1

Discriminant validity and correlation among first – order latent factors model 1

Latent Factors		Mind	PSS	DAS	SWL
MIND		0.80			
PSS	R2	0.78	0.93		
	R	0.88			
DAS	R2	0.53	0.57	0.70	
	R	-0.73	-0.75		
SWL	R2	0.75	0.77	0.52	0.76
	R	0.86	0.88	-0.72	
MIND: Mindfulness, PSS: Social support, DAS: Psychological Distress, SWL: Psychological Well - being					

Hypothesis Testing: Andrew Hayes Process Macro

Hypothesis 1

Psychological distress (DAS) is the mediator between Mindfulness and Psychological wellbeing.

The results of the mediation analysis of psychological distress on the relationship between mindfulness and psychological wellbeing of private hospital nurses in Kerala are exhibited in table 2. One unit of change in mindfulness is estimated to increase 0.36 units in psychological wellbeing, when psychological distress levels are kept constant (psychological wellbeing is constrained to be equal for all cases). When psychological distress levels are left free to vary (unconstrained), one unit of change in mindfulness is estimated to increase 0.30 units in psychological wellbeing as a result of the tendency for those with higher mindfulness tend to feel less psychological distress (B = -0.51), which in turn increases psychological wellbeing (B=-0.12). While psychological distress is unconstrained to be free to vary, one-unit increase in mindfulness increases 0.30 units of psychological wellbeing. Hence psychological distress contributes 0.058 (5.8%) of effect of mindfulness on psychological wellbeing. Irrespective of psychological distress being constrained (1) or unconstrained (2), effect of mindfulness on psychological wellbeing is significant and lower psychological distress augments higher psychological wellbeing by 5.8%. Hence, it can be concluded that psychological distress has partially mediated the effect of mindfulness on psychological wellbeing. Hypothesis 1 is partially accepted. See table 2.

Hypothesis 2

Psychological distress (DAS) is the mediator between social support and psychological wellbeing.

The results of the mediation analysis of psychological distress on the relationship between social support and psychological wellbeing of private hospital nurses in Kerala. This mediation effect is similar to the mediation effect of psychological distress between mindfulness and psychological wellbeing. One-unit change in social support is estimated to increase 0.33 units in psychological wellbeing, when psychological distress levels are kept constant (psychological wellbeing is constrained to be equal for all cases). When psychological distress levels are left free to vary (unconstrained), one unit change in social support is estimated to increase 0.29 units in psychological wellbeing as a result of the tendency for those with higher social support tend to feel less psychological distress (B=-0.45), which is translated into increased psychological wellbeing (B=-0.09). Hence, it can be concluded that psychological distress has partially mediated the effect of social support on psychological wellbeing. See table 2. Hypothesis 2 is partially accepted.

Table 2

Bootstrapping results mediation analysis of mindfulness, Social support and psychological wellbeing

Antecedent - Mind							**Consequent-DAS & SWL**					
Variable	R2	F	B	SE	β	P	R2	F	B	SE	β	P
MIND	0.60	1117.74	-0.51	0.02	-0.77	.000	0.69	832.99	0.30	0.01	0.67	0.000
DAS									-0.12	0.02	-0.18	0.000
Antecedent - PSS							**Consequent-DAS & SWL**					
Variable	R2	F	B	SE	β	P	R2	F	B	SE	β	P
MIND	0.58	1010.18		0.01	-0.76	.000	0.74	1049.32	0.29	0.01	0.75	0.000
DAS									-0.09	0.02	-0.14	0.000

Discussion

For the Confirmatory Factor Analysis (CFA) analysis, the four-factor measurement approach (Mindfulness Attention Awareness (MAAS), Multidimensional perceived social support scale, (MSPSS), Psychological Distress scale (DASS21), Satisfaction with life scale (SWLS) has demonstrated that the Chi-square, df, p, and $\chi 2/df$ values of the model were in the range that assured the researcher that the data was well fitted the model.

The findings of the study and the hypothesis testing indicate that mindfulness plays a key role in the psychological well-being of private hospital nurses working in Kerala, India. The study revealed that practicing mindfulness had both direct and indirect impact, on the psychological well-being of private hospital nurses in Kerala, India. The study suggests that incorporating mindfulness practices such as meditation techniques to live in the present moment, accepting one's reality, focusing on breathing and engaging in Yoga can contribute to reducing stress, anxiety and fear among nursing staff in Kerala, thereby improving the quality of care provided. Previous research has shown that higher levels of mindfulness have been associated with lowered psychological distress and more adaptive coping strategies and more effective ways of perceiving and reacting to the situations (McConville et al., 2017). Therefore, research studies affirmed that mindfulness practice is an important tool for stress reduction. The present study's results reinforced the McConville et al., 2017 research findings that mindfulness training positively impacted the mental health of private hospital nurses in Kerala, leading to a significant decrease in negative emotions.

According to the findings of the study, the hypothesis psychological distresses mediate the relationship between social support and psychological wellbeing has shown a positive and significant relationship between social support and psychological wellbeing. The results indicated that individuals who were associated with other significant members and garners a network of family, friends, neighbors, and community members who are available in times of need to give psychological, physical, and financial help tend to decrease psychological distress and consequently increase psychological wellbeing. The mediation is a partial mediation, suggesting that social support has both direct and indirect effects on psychological well-being of private hospital nurses in Kerala, India.

In India, particularly in Kerala, all nurses are members of workers' union organization that stands up for their rights. These organizations provide support during challenging situations such as trauma or other critical conditions. An example illustrating this point is the negotiation conducted by welfare organizations with hospital administrators just before COVID pandemic. As a result of the negotiations with the hospital administration has yielded a good result and the basic salary of the private nurses was successfully increased from Rs. 12,000.00 to Rs. 20,000.00 implemented in all the hospitals across Kerala, India. Such positive remunerations do play substantial motivational impact on health care professionals in Kerala, India and welfare organizational agencies lend their support to health care professionals to have their pay increased. Support such as these plays a crucial role in the lives of health care professionals and their wellbeing is enhanced (Trained Nurses Association of India v. Union of India, n.d.).

India, especially Kerala, is a land of tradition and cultural heritages that people are very protective of traditional customs, culture, religions, rituals, and practices. Dravidian ethos of accommodation, acculturalization and assimilation translated into a collectivistic culture

characterized by social cohesion, interdependence, a sense of community adherence and living. The current study positively supported that nurses who have higher rates of assimilation and acculturalization in their working milieu found to have a higher degree of psychological wellbeing. Consequently, these nurses made significant contributions to their patients' wellbeing and administered medications with compassion and empathy.

Limitations of the Study

The researcher did not collect any data from government nurses to make an alluded comparison comprehensive and definite. The data were collected only from women nurses, who were working in the private hospitals in Kerala, India, and thus gender-based comparisons were not possible. Participants were nurses, and due to the nature of their duties and that too during Covid Pandemic, they may not have-sufficient time to answer all questions continuously; they may have been called back for emergency situations, while they were filling the answers to the questionnaire and the disruption in filling the answers may have influenced their answers and the mental frame with which the nurses filled the answers.

Conclusion and Recommendations

The findings of this study have implications for the nursing field. The findings of this study showed indirect positive connections to the nurses' psychological wellbeing with that of many latent variables that were scrutinized. Should the private hospital administrators organize resources that promote mindfulness and social support as an incentive as well as staff development program for their nurses, the hospital administration can augment their employees' psychological well-being. From the research findings, it is evidenced that when one has a balanced psychological wellbeing augmented by good social support and mindfulness practices, which can consequently subside to psychological distress in nurses' lives. It is deemed that when one enjoys a comfort of their psychological well-being and lower mental distress, they have higher tendency to administer their duties near to perfection and as such, all stake holders of the hospital industry would be happy and satisfied, because their employees are productive. Should the nurses feel engaged, empowered, and satisfied with their working environment, their patients are more likely to do well, too. Research studies have consistently demonstrated a link between nurse job satisfaction and patient outcomes. Nurses certainly need a high level of social support to meet the emotional demands of their profession. They might benefit from having frequent consultation with their managers, taking part in stress-reduction programs, or attending workshops on improving their interpersonal communication abilities. Personal occupational constraints may be lightened by creating guidelines that standardize interpersonal communication strategies that are tailored to the unique features of nursing units. The results obtained from these quantitative studies will help nurses plan interventional nursing studies for the development of mental well-being and social support networks. De Boer et al. (2014) and Kay-Eccles (2012) and Lim et al. (2010) and discusses the issue of burnout among nurses and the important of the social support for nurses and implementing other interventions that increase engagement and satisfaction of the nurses.

In summary, the purpose of this research study was to investigate the psychological wellbeing of the private hospital nurses in Kerala, India. The researcher investigated the indirect effect of the relationship between mindfulness and social support (predictors) on psychological wellbeing as mediated by psychological distress. The findings indicated that the mediation had partial mediation.

References

Abraham, B. (2004). *Women nurses and the notion of their empowerment*. Centre for Development Studies.

Anbazhagan, S., Ramesh, N., Nisha, C., & Joseph, B. (2016). Shift work disorder and related health problems among nurses working in a tertiary care hospital, Bangalore, South India. *Indian Journal of Occupational and Environmental Medicine*, *20*(1), 35. https://doi.org/10.4103/0019-5278.183842

Ardekani, Z. Z., Kakooei, H., Ayattollah, S., Choobineh, A., & Seraji, G. N. (2008). Prevalence of mental disorders among shift work hospital nurses in Shiraz, Iran. *Pakistan Journal of Biological Sciences*, *11*(12), 1605-1609. https://doi.org/10.3923/pjbs.2008.1605.1609

Australian Bureau of Statistics. (2018, September 18). *National Survey of Mental Health and Well-being: Summary of Results*. http://www.abs.gov.au/ausstats/abs @.nsf/ Latestproducts/4326.0Main%20Features32007

Bazarko, D., Cate, R. A., Azocar, F., & Kreitzer, M. J. (2013). The impact of an innovative mindfulness-based stress reduction program on the health and well-being of nurses employed in a corporate setting. *Journal of Workplace Behavioral Health*, *28*(2), 107-133. https://doi.org/10.1080/15555240.2013.779518

Brady, S., O'Connor, N., Burgermeister, D., & Hanson, P. (2012). The impact of mindfulness meditation in promoting a culture of safety on an acute psychiatric unit. *Perspectives in Psychiatric Care, 48*(3), 129-137. doi:10.1111/j.1744-6163.2011.00315.

Brooke, C., & Nancy, L. C. (2015). A New Look at Social Support: A Theoretical Perspective on Thriving Through Relationships. *Personality and Social Psychology Review, 19*(2), 113-147.

Brown, K. W., & Ryan, R. M. (2003). The benefits of being present: Mindfulness and its role in psychological well-being. *Journal of Personality and Social Psychology*, *84*(4), 822-848. https://doi.org/10.1037/0022-3514.84.4.822

Chana, N., Kennedy, P., & Chessell, Z. J. (2015). Nursing staffs' emotional well-being and caring behaviours. *Journal of Clinical Nursing*, *24*(19-20), 2835-2848. https://doi.org/10.1111/jocn.12891

Cheung, T., & Yip, P. (2015). Depression, anxiety and symptoms of stress among Hong Kong nurses: A cross-sectional study. *International Journal of Environmental Research and Public Health*, *12*(9), 11072-11100. https://doi.org/10.3390/ijerph120911072

Choi, B. (2018). Influence of social support and resilience on the nurse job performance. *Indian Journal of Public Health Research & Development*, *9*(3), 788. https://doi.org/10.5958/0976-5506.2018.00385.6

Collins, N. L., Jaremka, L. M., & Kane, H. S. (2014). *Social support during a stressful task reduces cortisol reactivity, promotes emotional recovery, and builds caring relationships* [Unpublished manuscript]. University of California Santa Barbara.

Craigie, M., Slatyer, S., Hegney, D., Osseiran-Moisson, R., Gentry, E., Davis, S., Dolan, T., & Rees, C. (2016). A pilot evaluation of a mindful self-care and resiliency (MSCR) intervention for nurses. *Mindfulness*, *7*(3), 764-774. https://doi.org/10.1007/s12671-016-0516-x

Creedy, D. K., Sidebotham, M., Gamble, J., Pallant, J., & Fenwick, J. (2017). Prevalence of burnout, depression, anxiety and stress in Australian midwives: A cross-sectional survey. *BMC Pregnancy and Childbirth*, *17*(1), 2-8. https://doi.org/10.1186/s12884-016-1212-5

de Boer, J., van Rikxoort, S., Bakker, A. B., & Smit, B. J. (2014). Critical incidents among intensive care unit nurses and their need for support: Explorative interviews. *Nursing in Critical Care, 19*(4), 166-174.

Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment*, *49*(1), 71-75. https://doi.org/10.1207/s15327752jpa4901_13

Feng, D., Su, S., Wang, L., & Liu, F. (2018). The protective role of self-esteem, perceived social support and job satisfaction against psychological distress among Chinese nurses. *Journal of Nursing Management, 26*(4), 366-372. https://doi.org/10.1111/jonm.12523

Fortney, L., Luchterhand, C., Zakletskaia, L., Zgierska, A., & Rakel, D. (2013). Abbreviated mindfulness intervention for job satisfaction, quality of life, and compassion in primary care clinicians: A pilot study. *The Annals of Family Medicine*, *11*(5), 412-420. https://doi.org/10.1370/afm.1511

Foureur, M., Besley, K., Burton, G., Yu, N., & Crisp, J. (2013). Enhancing the resilience of nurses and midwives: Pilot of a mindfulnessbased program for increased health, sense of coherence and decreased depression, anxiety and stress. *Contemporary Nurse*, *45*(1), 114-125. https://doi.org/10.5172/conu.2013.45.1.114

Gao, Y., Pan, B., Sun, W., Wu, H., Wang, J., & Wang, L. (2012). Anxiety symptoms among Chinese nurses and the associated factors: A cross sectional study. *BMC Psychiatry*, *12*(1), 1-9. https://doi.org/10.1186/1471-244x-12-141

Ghods, A. A., Sotodehasl, N., Emadi Khalaf, M., & Mirmohamadkhani, M. (2017). Situational anxiety among nurses. *Middle East Journal of Rehabilitation and Health*, *4*(4), 1-5. https://doi.org/10.5812/mejrh.57560

GOI (Government of India). (1929). *Triennial report on the working of the civil hospitals and dispensaries in the Madras Presidency for the years 1926, 1927 and 1928*. Government Press.

Goodman, M. J., & Schorling, J. B. (2012). A mindfulness course decreases burnout and improves well-being among healthcare providers. *The International Journal of Psychiatry in Medicine*, *43*(2), 119-128. https://doi.org/10.2190/pm.43.2.b

Guillaumie, L., Boiral, O., & Champagne, J. (2016). A mixed-methods systematic review of the effects of mindfulness on nurses. *Journal of Advanced Nursing*, *73*(5), 1017-1034. https://doi.org/10.1111/jan.13176

Hall, L. H., Johnson, J., Watt, I., Tsipa, A., & O'Connor, D. B. (2016). Healthcare staff wellbeing, burnout, and patient safety: A systematic review. *PLOS ONE*, *11*(7), e0159015. https://doi.org/10.1371/journal.pone.0159015

Heard, P. L., Hartman, S., & Bushardt, S. C. (2013). Rekindling the flame, using mindfulness to end nursing burnout. *Nursing Management*, *44*(11), 24-29. https://doi.org/10.1097/01.numa.0000436366.99397.10

Heerde, J. A., & Hemphill, S. A. (2018). Examination of associations between informal help-seeking behavior, social support, and adolescent psychosocial outcomes: A meta-analysis. *Developmental Review*, *47*, 44-62. https://doi.org/10.1016/j.dr.2017.10.001

Ho, R. (2013). *Handbook of Univariate and Multivariate Data Analysis with IBM SPSS* (2nd ed.). Chapman and Hall/CRC. https://doi.org/10.1201/b15605-3

Hou, T., Zhang, T., Cai, W., Song, X., Chen, A., Deng, G., & Ni, C. (2020). Social support and mental health among health care workers during coronavirus disease 2019 outbreak: A moderated mediation model. *PLOS ONE*, *15*(5), e0233831. https://doi.org/10.1371/journal.pone.0233831

Hu, S. H., Yu, Y., Chang, W., & Lin, Y. (2017). Social support and factors associated with self-efficacy among acute-care nurse practitioners. *Journal of Clinical Nursing*, *27*(3-4), 876-882. https://doi.org/10.1111/jocn.14129

Huang, S., Li, R., Huang, F., & Tang, F. (2015). The potential for mindfulness-based intervention in workplace mental health promotion: Results of a randomized controlled trial. *PLOS ONE*, *10*(9), e0138089. https://doi.org/10.1371/journal.pone.0138089

Hülsheger, U. R., Alberts, H. J., Feinholdt, A., & Lang, J. W. (2013). Benefits of mindfulness at work: The role of mindfulness in emotion regulation, emotional exhaustion, and job satisfaction. *Journal of Applied Psychology*, *98*(2), 310-325. https://doi.org/10.1037/a0031313

Hunter, L. (2016). Making time and space: The impact of mindfulness training on nursing and midwifery practice. A critical interpretative synthesis. *Journal of Clinical Nursing*, *25*(7-8), 918-929. https://doi.org/10.1111/jocn.13164

Jaggi, O. P. (2001). Nursing profession in India. In O. P. Jaggi, & D. Chattopadhyaya (Eds), *Medicine in India: Modern Period History of Science, Philosophy and Culture in Indian Civilization* (pp. 203-212). PHISPC Centre for Studies in Civilization.

Jibeen, T. (2015). Perceived social support and mental health problems among Pakistani University students. *Community Mental Health Journal*, *52*(8), 1004-1008. https://doi.org/10.1007/s10597-015-9943-8

Kabat-Zinn, J. (1994). *Wherever You Go, There You Are: Mindfulness Meditation in Everyday Life.* Hyperion.

Kay-Eccles, R. (2012). Meta-analysis of the relationship between coworker social support and burn outusing a two-level hierarchical linear model. *Western Journal of Nursing Research, 34*(8), 1062-1063. doi:10.1177/0193945912453684.

Ko, H. S. (2017). A philosophical study on ethics of caring in nursing focused on Mencius' mind- nature theory. *Philos Med, 24,* 3-38.

Li, S., Li, L., Zhu, X., Wang, Y., Zhang, J., Zhao, L., Li, L., & Yang, Y. (2016). Comparison of characteristics of anxiety sensitivity across career stages and its relationship with nursing stress among female nurses in Hunan, China. *BMJ Open*, *6*(5), e010829. https://doi.org/10.1136/bmjopen-2015-010829

Lim, Nayoung & Kim, Eun & Kim, Hyunjung & Yang, Eunjoo & Lee, Sang. (2010). Individual and work-related factors influencing burnout of mental health professionals: A meta-analysis. *Journal of Employment Counseling, 47*(2), 86-96. 10.1002/j.2161-1920. 2010.tb00093. x.

Liu, Y., & Aungsuroch, Y. (2019). Work stress, perceived social support, self-efficacy and burnout among Chinese registered nurses. *Journal of Nursing Management*, *27*(7), 1445-1453. https://doi.org/10.1111/jonm.12828

Lovibond, P., & Lovibond, S. (1995). The structure of negative emotional states: Comparison of the depression anxiety stress scales (DASS) with the Beck Depression and Anxiety Inventories. *Behaviour Research and Therapy*, *33*(3), 335-343. https://doi.org/10.1016/0005-7967(94)00075-u

McConville, J., McAleer, R., & Hahne, A. (2017). Mindfulness training for health profession students-The effect of mindfulness training on psychological well-being, learning and clinical performance of health professional students: A systematic review of randomized and non-randomized controlled trials. *EXPLORE*, *13*(1), 26-45. https://doi.org/10.1016/j.explore.2016.10.002

Nair, S. (2010). Nurses' strikes in Delhi. *Economic and Political Weekly, 45*(14), 3-25.

Nair, S., Timmons, S., & Evans, C. (2016). Nurses in the private health sector in Kerala: Any lessons learnt from their strikes in recent years?. *Indian Journal of Gender Studies*, *23*(1), 8-25. https://doi.org/10.1177/0971521515612858

Nandi, A., Galea, S., Lopez, G., Nandi, V., Strongarone, S., & Ompad, D. C. (2008). Access to and use of health services among undocumented Mexican immigrants in a US urban area. *American Journal of Public Health*, *98*(11), 2011-2020. https://doi.org/10.2105/ajph.2006.096222

Nooryan, K., Sasanpour, M., Sharif, F., & Ghafarian Shirazi, H. (2014). Anxiety in physicians and nurses working in intensive care units in Yasuj's hospitals/Iran. *Procedia - Social and Behavioral Sciences*, *122*, 457-460. https://doi.org/10.1016/j.sbspro.2014.01.1372

Penprase, B., Johnson, A., Pittiglio, L., & Pittiglio, B. (2015). Does mindfulness-based stress reduction training improve nurse satisfaction?. *Nursing Management*, *46*(12), 38-45. https://doi.org/10.1097/01.numa.0000470772.17731.e6

Percot, M., & Irudaya, R. (2007). Female Emigration from India: Case Study of Nurses. *Economic and Political Weekly, 42*(9-10), 318-355.

Phang, C. K., Chiang, K. S., Ng, L. O., & Oei, T. P. S. (2013). *The Effectiveness of Brief Mindfulness-based Cognitive Behavioral Therapy Program for Stress Reduction among Medical Students in a Malaysia University*. International Mindfulness Conference.

Pidgeon, A. M., Ford, L., & Klaassen, F. (2014). Evaluating the effectiveness of enhancing resilience in human service professionals using a retreat-based Mindfulness with Metta Training Program: a randomized control trial. *Psychology, Health & Medicine, 19*(3), 355-364.

Raghavachari, R. (1990). *Conflicts and adjustments: Indian nurses in an urban milieu.* Academic Foundation.

Reid-Ponte, P., & Koppel, P. (2015). Cultivating mindfulness to enhance nursing practice. *AJN, American Journal of Nursing*, *115*(6), 48-55. https://doi.org/10.1097/01.naj.0000466321.46439.17

Robert, R. K., & Grubb, P. L. (2014). The consequences of nursing stress and need for integrated solutions. *Rehabilitation Nursing*, *39*(2), 62-69. https://doi.org/10.1002/rnj.97

Roohafza, H. R., Afshar, H., Keshteli, A. H., Mohammadi, N., Feizi, A., Taslimi, M., & Adibi, P. (2014). What's the role of perceived social support and coping styles in depression and anxiety? *Journal of research in medical sciences: the official journal of Isfahan University of Medical Sciences*, *19*(10), 944-949.

Tabrizi, K. N., & Kavari, S. H. (2011). A study of depression prevalence in nurses and its effective factors in Shiraz Namazi hospital. *European Psychiatry*, *26*(S2), 640-640. https://doi.org/10.1016/s0924-9338(11)72346-x

Trained Nurses Association of India v. Union of India. (n.d.). *Writ Petition (Civil) No. 7291 of 2018 & CM Applications Nos. 27848 of 2018, 31375 of 2018*. Association of Healthcare Providers (India).

Walker, M., & Mann, R. A. (2016). Exploration of mindfulness in relation to compassion, empathy and reflection within nursing education. *Nurse Education Today*, *40*, 188-190. https://doi.org/10.1016/j.nedt.2016.03.005

Westphal, M., Bingisser, M., Feng, T., Wall, M., Blakley, E., Bingisser, R., & Kleim, B. (2015). Protective benefits of mindfulness in emergency room personnel. *Journal of Affective Disorders*, *175*, 79-85. https://doi.org/10.1016/j.jad.2014.12.038

Wolf, E. J., Harrington, K. M., Clark, S. L., & Miller, M. W. (2013). Sample size requirements for structural equation models. *Educational and Psychological Measurement*, *73*(6), 913-934. https://doi.org/10.1177/0013164413495237

Xiao, H., Zhang, Y., Kong, D., Li, S., & Yang, N. (2020). The effects of social support on sleepquality of medical staff treating patients with coronavirus disease 2019 (COVID-19) in January and February 2020 in China. *Medical Science Monitor, International Medical Journal of Experimental and Clinical Research, 26,* 1-8. https://doi.org/10.12659/msm.923549

Yu, H., Li, M., Li, Z., Xiang, W., Yuan, Y., Liu, Y., Li, Z., & Xiong, Z. (2020). Coping style, social support and psychological distress in the general Chinese population in the early stages of the COVID-19 epidemic. *BMC Psychiatry*, *20*(1), 1-11. https://doi.org/10.1186/s12888-020-02826-3

Zimet, G. D., Dahlem, N. W., Zimet, S. G., & Farley, G. K. (1988). The multidimensional scale of perceived social support. *Journal of Personality Assessment*, *52*(1), 30-41. https://doi.org/10.1207/s15327752jpa5201_2