MINDFULNESS AND RESILIENCE AS PREDICTORS OF JOB BURNOUT AMONG NURSES IN PUBLIC HOSPITALS

Abstract: The purpose of this study was to investigate the combined effects of two variables, namely, mindfulness and resilience on one outcome measure, namely, job burnout, as well as investigating the relative contribution of mindfulness and resilience to job burnout among nurses in public hospitals. Additionally, the aim was to find out if there were relationships between and among mindfulness, resilience and job burnout in nurses in public hospitals. The sample was composed of 130 nurses (all of them were females). The average age was 26.4 years (SD=8.23). Quantitative survey research was employed. The independent variables are mindfulness and resilience, while the dependent variable is job burnout. The Freiburg Mindfulness Inventory (FMI) (Walach et al., 2006), The Connor Davidson-Resilience Scale (CD-RISC). (Connor & Davidson, 2003), and Maslach Burnout Inventory (1996- 2016) were employed for data collection. Findings indicated that there were significant correlations between mindfulness, resilience and job burnout. On the other hand, job burnout was found to be negatively correlated with resilience. The two independent variables (mindfulness and resilience) when put together yielded a coefficient of multiple regression (R) of 0.764 and a multiple correlation square of 0.621. This shows that 62.1% of the total variance in job burnout of those who participated in the study is accounted for by the combination of mindfulness and resilience.

Keywords: mindfulness, resilience, job burnout, nurses, public hospitals

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INTRODUCTION

The burnout syndrome has become a serious problem in modern working environments and as it increased substantially nowadays. It is widely well- known that the healthcare industry is stressful as there are manpower shortage as well as high demands (Wei, Arul, Shu and Matthew 2014). Burnout can be defined as "person's feeling of exhaustion physically, emotionally and mentally (Schaufeli and Greenglass, 2001, 501). McCormack and Cotter (2013, 17) see burnout as something that causes changes on behaviours, emotions, thoughts and health. Burnout is considered to be someone's feelings of hopelessness, difficulties in dealing with work and doing his/her job in an effective way. The most widely used scale is Maslach, Schaufeli and Leiter's (2001) who presented burnout as a construct consisting of three dimensions: emotional exhaustion, depersonalization, and low personal accomplishment. Nurses, compared to other healthcare professionals, suffer from higher levels of burnout (Aiken et al. 2001).

Nurses have the greatest share of stress and burnout. This is because other healthcare professionals such as doctors do not spend enough time with patients. Nurses are at the forefront of dealing directly with patients. Accordingly, they spend the most time with patients and are liable to emotional strains that result from dealing with the sick and dying. Such stressful incidents may lead to burnout (Bloniasz 2011).

This may lead to some negative consequences, such as making clinical errors increasingly as well as patient may be dissatisfied with their care and staff turnover (Lyckholm 2001).

MINDFULNESS AND JOB BURNOUT

Mindfulness is used for to addressing job burnout. For example, Fortney, Luchterhand, Zakletskaia, Zgierska, and Rakel (2013) found that burnout decreased in primary care physicians as a result of participating in an 8-week Mindfulness Based Stress Reduction intensive training course. Goodman and Schorling (2012) had similar findings concerning job burnout after participating in mindfulness training with health care providers that included physicians, nurses, psychologists, and social workers.

As for nurses, Bazarko, Cate, Azocar, and Kreitzer (2013) implemented a Mindfulness Based Stress Reduction Course They administered the program in sessions through group telephone. Nurses who participated in this study demonstrated decrease in job burnout in post – testing (after eight weeks) and at follow-up stage (after four months). Irving, Dobkin, and Park (2009) reviewed and examined the benefits of using mindfulness-based stress reduction (MBSR) programs for enhancing well-being and coping with stress in clinicians. They found that clinicians benefited from their participation in mindfulness-based stress reduction in physical and mental health. Moreover, Michelle and Amanda (2016) found that the use of mindfulness practice reduced job burnout among health care professionals and teachers.

Jung and Myung (2015) found a positive influence between job satisfaction and mindfulness. However, job stress and burnout could be considered negative influences. It was concluded that mindfulness had a positive impact, but job stress and burnout had a negative impact, on job satisfaction.

Jing, Xiaohui and Hui (2019) surveyed nurses working in a tertiary Chinese hospital (n = 763), using mindfulness (i.e. acting with awareness, describing, and non-judging of experiences), burnout (i.e. emotional exhaustion, depersonalization, and personal accomplishment). Those who scored high on the three facets of mindfulness scored less on emotional exhaustion and depersonalization. Acting with awareness was the highest in regression coefficients. Personal accomplishment correlated positively with acting with awareness and describing and negatively with to non-judging of experiences.

RESILIENCE AND JOB BURNOUT

Some researchers (e.g. Mealer et al. 2014; Moon, Park, and Jung, 2013) came to investigate the correlation between resilience and burnout. They showed that resilience is the resource anybody can use to get away in a productive way from experiences that are traumatic or stressful. Resilience is regarded as one's ability to adapt coping strategies to lessen distress, and it is thought to help people in their endeavour to alleviate moral distress and burnout (Antanaitis, 2015).

Resilience was found to be a protective factor against work-related stress and an important variable for nurses' well-being as well as mental and physical health (McDonald, Jackson, Wilkes, and Vickers, 2013). Resilience among nurses is a necessary quality in order for them to overcome the negative effects of the places where they work. They acquire adversity and challenges by developing personal strengths (Tusaie and Dyer 2004).

Yu-Fang, Yuan-hui, and Jing (2018) found that nurses who participated in their study experienced severe burnout symptoms. Nevertheless, their level of resilience was moderate. The three components of burnout correlated negatively with the composite score of resilience.

PROBLEM STATEMENT

Findings of different research studies (Karanikola and Papathanassoglou, 2013; Leka, Hassard and Yanagida 2012; Hamaideh 2011; Currid 2009; Lautizi, Laschinger and Ravazzolo, 2009) concluded that work related stress has been in acceleration, which in turn, may lead to burnout among medical professionals, especially nurses. Nurses are exposed to the greatest stress and complex emotional demands because, as we know, it is a profession that involves offering helpings and close interpersonal working relationships with others, doctors and patients (Breen and Sweeney, 2013). All these episodes expose them to what is called burnout. While every person is considered to be an individual case, the effects of these stressors have a negative impact on the quality of the rendered care by nurses.

This study poses the following questions:
1 - Are there relationships between and among mindfulness, resilience and job burnout among nurses in public hospital?
2 - What are the combined effects of mindfulness and resilience on job burnout among nurses in public hospital?
3 - What is the relative contribution of mindfulness and resilience to job burnout among nurses in public hospital?

SIGNIFICANCE OF THE STUDY

This study could contribute to the literature on burnout among nurses working in public hospitals in Egypt. It can be said that awareness of burnout among nurses working in public hospitals in Egypt can be raised to the high level. Findings from this study can also inform policy makers about the prevalence of burnout in nurses as well as other employees, so they can adopt well valid and reliable scales to address burnout among nurses and other employees.

HYPOTHESES

Hypothesis 1: There is a negative correlation between mindfulness and job burnout.
Hypothesis 2: There is a negative correlation between resilience and job burnout.
Hypothesis 3: There is a positive correlation between mindfulness and resilience.
Hypothesis 4: There are combined effects of mindfulness and resilience on job burnout.
Hypothesis 5: Mindfulness and resilience contribute to job burnout.

METHOD

DESIGN

For the purpose of this study, quantitative survey research was employed. The independent variables are mindfulness and resilience, while the dependent variable is job burnout.

PARTICIPANTS

A convenient sampling method was used to recruit the participants. They were from different departments in the public hospitals El Mahalla El Kobra General Hospital, Chest Hospital, and El Mabrah hospital and Mahalla Fever Hospital selected: internal medicine, digestive medicine, neurology, nephrology, rheumatology, cardiology, pneumology, oncology, haematology, reception, and intensive care. The sample was composed of

130 nurses (all of them were females). The average age was 26.4 years (SD=8.23). The researcher told them that although he hoped that all of them could continue with him till the end of this study, that they were free to refuse or discontinue participation at any time. There are some exclusion criteria which consisted of medical condition or any other circumstances that would may or likely hinder or interfere with the ability and wish to participate in the study. The researcher told them that any information they would provide would be top secret and confidential. It would not be revealed to anyone.

INSTRUMENTS

The Freiburg Mindfulness Inventory (FMI). (Walach et al., 2006). It is a short form scale with 14 items. Each item was evaluated using a four-point Likert scale ranging from 1 (strongly disagree) to 4 (strongly agree). Cronbach alpha coefficients was 0.90. For convergent validity of The Freiburg Mindfulness Inventory (FMI), correlation with The Five Factor Scale of Mindfulness (Al Beheri, Al Dabei, Teleb and Al Awamla,2014) was significant (r= 0.65, p< .01).

The Connor Davidson-Resilience Scale (CD-RISC). (Connor and Davidson, 2003). It is a 5-point Likert scale was used (0=not true at all, 4=true all the time). The scale is 25 items over three subscales (tenacity, strength and optimism). Respondents (here nurses) are asked to rate each item with reference to the previous month. Cronbach alpha coefficients were 0.93 for the composite score, 0.87, 0.85 and 0.90 for the three subscales. Using factor analysis procedure, the scale items loaded on the same three factors: tenacity, strength and optimism. For convergent validity of The Connor Davidson-Resilience Scale (CD-RISC), correlation with The Five Factor Scale of Resilience (Othman 2009) was significant (r= 0.60, p< .01).

Maslach Burnout Inventory (1996- 2016). It is 22 items with a 6-point Likert scale from 1 (never) to 6 (every day). The inventory consists of three subscales: emotional exhaustion, depersonalization, and personal accomplishment. Maslach Burnout Inventory Human Services Scale-Medical Personnel was designed to assess various aspects of burnout in health care workers, especially nurses and physicians. Those who had higher scores on both emotional exhaustion, depersonalization but lower scores for personal accomplishment are suffering from burnout. Total scores typically range from 22 – 132. The reliability of the scale in terms of internal consistency was assessed by Cronbach's α. The items demonstrated a satisfactory level of internal consistency reliability for the three subscales: emotional exhaustion, depersonalization, personal accomplishment and the scale as a whole (α = 0.89, 0.88, 0.90, and 0.92) respectively. For convergent validity of The Maslach Burnout Inventory Human Services Scale-Medical Personnel, correlation with the Burnout scale (Adel, 1994) was significant (r= 0.64, p< .01).

PROCEDURES

Prior to administering the scales, nurses were informed about purpose of the study and voluntarily completed a consent form. To ensure that the respondents responded to the items honestly and sincerely, they were told not to identify themselves in any way on the scale paper. They were also informed that they should not be concerned with anything concerns their participation in the study and their responses are for research purposes only and would be kept confidential. Each questionnaire took about 25 minutes to complete. All data were entered in an SPSS file.

DATA ANALYSIS

The data were analysed with Pearson correlation and multiple regression. Multiple regression was used to explore the relative contributions of both mindfulness and resilience to the prediction of job burnout among nurses in public hospital.

RESULTS

Descriptive data and inter-correlations

Table 1 shows the means, descriptive statistics and inter-correlations of mindfulness, resilience and job burnout. Table 1. shows that there are significant correlations between mindfulness, resilience and job burnout. Mindfulness correlates negatively with job burnout (*r* = -0.586), and

positively with resilience (r = 0.611). On the other hand, job burnout was found to be negatively correlated with resilience (r = -0.633).

Table 1. Descriptive statistics and inter-correlations of mindfulness, resilience and job burnout

Variables	1	2	3
Mindfulness	1.00		
Resilience	0.611**	1.00	
job burnout	-0.586**	-.633**	1.00
Mean	40.22	80.22	109.54
Standard deviation	8.63	7.19	7.29
** P <.01			

Mindfulness and Resilience as Predictors of Job Burnout

Results presented in table 2 show that the two independent variables (mindfulness and resilience) when put together yielded a coefficient of multiple regression (R) of 0.664 and a multiple correlation square of 0.621.

This shows that 62.1% of the total variance in job burnout of those who participated in the study is accounted for by the combination of mindfulness and resilience.

The table also indicates that the analysis of variance of the multiple regression data produced an F-ratio value significant at 0.05 level (F(2, 127) = 6.279; P < 0.01).

Table 2. The regression results of the Predictor Variables (mindfulness and resilience) and the Outcome Measure (job burnout). Model Summary b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change statistics				
					R Square change	F Change	Df1	Df2	Sig. F change
1	0.300a	0.664	0.621	18.20103	0.090	6.279	2	127	0.003

a. Predictors: (Constant), Resi, Min
b. Dependent Variable: JB

Table 3. Summary of Multiple Regression Analysis between the Predictor Variables (mindfulness and resilience) and the Outcome Measure (job burnout). ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	4160.269	2	2080.134	6.279	0.003a
Residual	42072.231	127	331.277		
Total	46232.500	129			

a. Predictors: (Constant), Resi, Min
b. Dependent Variable: JB.

As for results displayed in table 4, each of the two independent variables made significant individual contributions to the prediction of job burnout. The results indicated that the following beta weights which represented the relative contribution of the independent variables to the prediction were observed. Mindfulness (b = -0.840, t = -3.313; P < 0.01) and resilience (b = 0.414, t = 1.921, P < 0.05). Although the two variables made significant relative contribution to the prediction of job burnout, mindfulness is a more potent predictor.

Table 4. Relative Contribution of the Independent Variables to the Prediction of job burnout.

Coefficients a

Model	Unstandarized coefficients		Standarized coefficients	t	sig
	B	Std error	Beta		

1 (constant)	54.963	8.246		6.666	.000
Min	-0.840	0.253	-0.287	-3.313	0.001
Resi	0.414	0.215	0.166	1.921	0.057

a. Predictors: (Constant), Resi, Min
b. Dependent Variable: JB.

Figure 1. Regression Standardized Residual

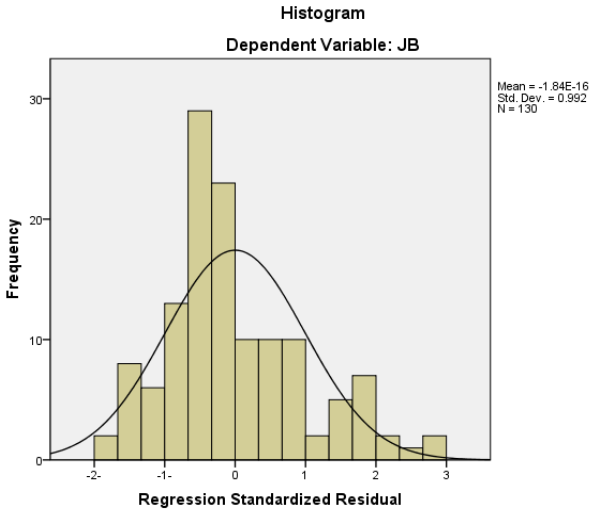


Figure 2. Normal P-P Plot of Regression Standardized Residual

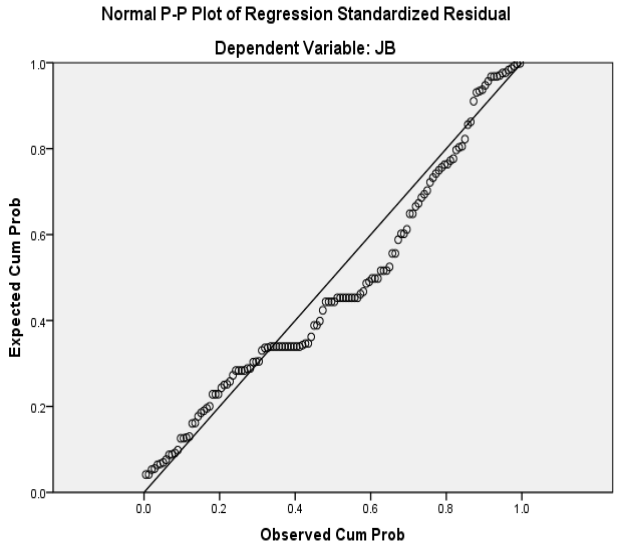
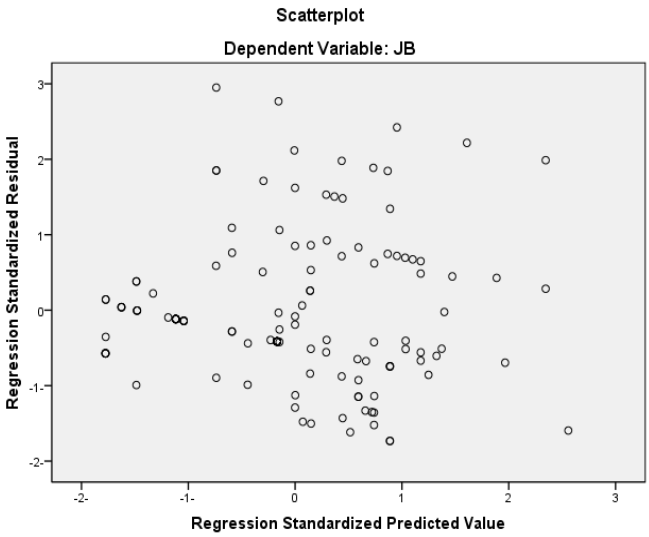


Figure 3. Scatterplot

As is shown in figure 1., the histogram of the residuals with a normal curve superimposed. The residuals look close to normal. The normal probability plot of the residuals as shown in figure 2.is approximately linear. This supports the condition that the error terms are distributed in a normal way. Overall, as shown in figure 3, the residual plot (see below) shows the residuals and a histogram with a normal distribution overlay.



DISCUSSION

The purpose of this study was to investigate the combined effects of two variables, namely, mindfulness and resilience on one outcome measure, namely, job burnout, as well as investigating the relative contribution of mindfulness and resilience to job burnout among nurses in public hospital. Additionally, the aim was to find out if there were relationships between and among mindfulness, resilience and job burnout in nurses in public hospitals. In this regard, the findings extend our knowledge on the association between mindfulness, resilience and job burnout in nurses in public hospitals.

Findings from table 1. indicated that there are significant correlations between mindfulness, resilience and job burnout. Mindfulness correlates negatively with job burnout and positively with resilience. Mindfulness is among many other factors that may facilitate well-being and buffer against stress and burnout in healthcare professionals such as emotional intelligence,

empathy, self-compassion, mindfulness and resilience (Satterfield, Swenson and Rabow 2009).

On the other hand, job burnout was found to be negatively correlated with resilience. This finding is in the same wine with Satterfield, Swenson and Rabow's (2009) who found that physician empathy and emotional intelligence were not significantly correlated with burnout or resilience. Self-compassion and mindfulness were positively associated with resilience and inversely associated with burnout. And with Sarah et al. (2017) who concluded that dispositional mindfulness was supported as a protective factor against burnout.

Table 4. showed that two independent variables made significant individual contributions to the prediction of job burnout. The results indicated that the following beta weights which represented the relative contribution of the independent variables to the prediction were observed. Although the two variables made significant relative contribution to the prediction of job burnout, mindfulness is a more potent predictor.

Nurses are exposed to high stress levels more than others in the healthcare profession and this in turn can lead to decreased job satisfaction and perhaps their increased intent to leave nursing practice altogether (Rushton, Batcheller, Schroeder and Donohue, 2015) Nurses who possess the ability to respond to life and career challenges mindfully and resiliently can stand in the face of burnout. They have the ability to turn stressful events into opportunities for personal growth and benefit, as indicated by Santhosh and James (2013).

One can presume that what distinguishes those nurses who are able to handle their job burnout from others is that they are characterized by mindfulness and resilience. It can be assumed that individuals with higher levels of total mindfulness and resilience, are more likely to have lower scores in job burnout or at least their job burnout decreases.

CONCLUSION

In conclusion, the present study provided evidence that the two independent variables made significant individual contributions to the prediction of job burnout. Burnout scores are significantly higher for hospital nurses than for other healthcare professionals. However, when an individual (nurse, here) is able to be mindful and resilient, the impact of job burnout is lessened. Mindfulness and resilience are more likely to buffer the negative effect of job burnout. They can be important protective factors against job burnout and its negative consequences.

Finally, the findings have implications for prevention of job burnout among nurses in Egypt. Therefore, policy makers are invited to combat job burnout among nurses and other healthcare professionals. This they can be through teaching them how to be mindful and resilient. The results of this study pointed to the importance of including mindfulness and resilience in job burnout prevention programs.

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