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Role of Mental Well-Being in the Relationship between Mindfulness and Self-Compassion among Doctors

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ABSTRACT

The aim of the current study was to determine how mental health affects doctors' levels of self-compassion and mindfulness. The sample consisted of 332 doctors, 138 of whom were men and 194 were women. A convenient sampling technique was used to collect data from both the public and private sector hospitals in Islamabad, Sargodha, and Mianwali. Participants had a minimum of an MBBS degree and at least six months of work experience following the completion of their medical degree. The Cognitive and Affective Mindfulness Scale (CAMS-*R*), Self-compassion Scale-Short form (SCS-SF), and Warwick-Edinburgh Mental Well-Being Scale (WEMWBS) were employed to operationalize and gauge the research variables. The study concluded that mindfulness is a positive predictor of self-compassion. Furthermore, mental well-being moderated the relationship between mindfulness and self-compassion such that higher level of mental well-being strengthened the existing positive relationship of the two. The study offers useful implications for the doctors with recommendations for doctors to improve their performance through training in self-compassion, mindfulness, and well-being.

Keywords: mindfulness, self-compassion, mental well-being, doctors, Pakistan

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INTRODUCTION

Doctors tend to their patients under extremely stressful conditions. They have a lot of responsibility on their shoulders because of long hours of duty and management of emergency and life-threatening circumstances. It is not easy for doctors to build trust with their patients and bear the responsibility of saving lives on a daily basis. In order to perform optimally, mental well-being, mindfulness, and self-compassion in doctors is of pivotal importance. A doctor with enhanced well-being and mindfulness is known to be more careful, vigilant, and compassionate while treating patients (Figley, 2002). As care-providers under immense pressure, doctors themselves require consolidated mental health and seamless mind-body integration. Furthermore, a doctor's ability to manage stress effectively has a positive impact on their level of concentration, decision-making skills, and communication (Enochs & Etzback, 2004).

A doctor's job, in addition to providing services to the patient, includes tasks related to administrative duties and coordination with work colleagues, which can be extremely stressful (Germer, 2009; Bashir et al., 2021). Having to multi-task and work on multiple fronts means that mindfulness is extremely important for them. Mindfulness makes practitioners more aware of their thoughts, mental functions, psychological status, and predefined judgements and viewpoint. Mindful doctors are more attentive and compassionate, and they acquire potential advantages over doctors who lack this skill in their professional practice (Dobkin & Hutchinson, 2013; Wimmer et al., 2020). The goal of the current study is to determine how doctors working in both the private and public sectors feel about their mental health in connection to mindfulness and self-compassion.

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LITERATURE REVIEW

Mindfulness

The practice of mindfulness focuses attention on present-moment events (Kabat-Zinn, 1990). Advanced mindfulness meditation techniques basically originated from Buddhist spiritual practices (Hanh, 1976). It is a mental state in which one's attention is fully and unconditionally focused on the present moment, which fosters clarity and acceptance (Kabat-Zinn, 1994). The ability to accept oneself is mindfulness, which may be developed via practices like meditation (Germer, 2009).

In addition to the cognition-based rewards, studies have shown that mindfulness-based interventions (MBIs) have favorable benefits on one's physical and mental health (e.g., Hofmann et al., 2010; Keng et al., 2011). Practitioners and academics continue to employ MBIs in a number of settings, including higher education. In a number of cross-sectional studies, trait mindfulness has been shown to remain connected with improved performance in higher education (Scherer et al., 2017; Chiang & Sumell, 2019). Siegel (2010) found that Buddhist culture contributed to the evolution of mindfulness over the last 25 years, decades of cultural evolution developed mindfulness practice. Through Buddhist mindfulness meditation, a person can learn to pay attention calmly and respond compassionately (Maex, 2011). Zoogman and colleagues (2015) explored three aspects of mindfulness, namely: attention, intention, and attitude. Their study found that mindfulness reduces anxieties, depression, emotional instability, and post-traumatic stress disorders. Mindfulness is helpful in daily life as it can enhance responsiveness, control, openness in personal life, and happiness in daily duties (Shier & Graham, 2011).

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A mindful person, in an unsatisfactory situation can process that nothing is permanent, and things will change with the passage of time. These positive thoughts alleviate suffering and bring positivity (Dermatis & Egelko, 2014). These positive thoughts make a person open-minded and enlightened. Depending on the activities one does in the present, one's future situation can be better or worse. An open-minded individual has a positive outlook and understands how the past, present, and future are interconnected. Individuals are also known to alleviate psychological suffering internally through mindfulness (Kudesia & Nyima, 2015).

Shapiro and colleagues (2007) investigated the advantages of mindfulness by working with medical professionals and therapists. They found that mindfulness enhanced self-compassion between doctors and therapist trainees. Studies have also revealed a positive connection between self-compassion and kindness, mindfulness, and drive to perform better at the workplace (Neff & Germer, 2018).

Self-compassion

Self-compassion, according to research by Neff (2003), entails taking good care of oneself when going through a difficult time. Self-compassion can be learned (Germer & Neff, 2013), and enables people to acknowledge and handle errors, take on challenges, and change ineffective behavior (Neff, 2009). Self-compassionate individuals are driven to develop themselves and uphold their self-worth (Breines & Chen, 2012).

Compassionate people are found to elevate pain during painful situations (Goetz et al., 2010). The presence of pain is necessary to experience compassion. Different facets of well-being are linked to self-compassion, such as: happiness, encouragement, and optimism (Neff et al., 2007). Mindfulness is found to be significantly correlated with self-compassion (Birnie et al., 2010). Self-compassion aids people in general and doctors in specific for overcoming health

related issues besides the real life challenges in routine life (Hope et al., 2014). Self-compassionate doctors are known to deal with patients more competently because of their own mental well-being and ability to focus on the patient's health.

There is an evident relationship between self-compassion and mental health, and the latter's attributes such as happiness, optimism, positivism, life satisfaction, and social connectivity (Neff et al., 2007; Wei et al., 2011). In fact, some studies show that self-compassion is crucial for fostering general well-being in individuals (Marshall et al., 2015; Neff & Vonk, 2009). Neff and Vonk (2009) found that high scores on self-compassion indicated a negative relationship with social comparison, self-consciousness, annoyance, and the requirement for cognitive closure.

Measures of self-development, meaning in life, and emotional intelligence are positively related to self-compassion (Heffernan et al., 2010; Phillips & Ferguson, 2013). People with mental health issues have low self-confidence. Self-compassion is known to prevent development of mental health issues and low self-esteem in individuals (Marshall et al., 2015; Zeller et al., 2015). Doctors have also described well-being as a condition of contentment and realizing one's full potential, both of which may be gauged subjectively and objectively (Simons & Baldwin, 2021).

Mental Well-being

Aristotle introduced the idea of well-being (Edmondson & MacLeod, 2015), which he described as originating from happiness and gratification with life (Parkinson, 2006). Mental well-being is further described as having positive psychological functioning and positive mental health (Ryan & Deci, 2001). Neff and colleagues (2007) found that mental well-being has significant correlation with self-compassion. An association has also been found between medical practitioners' psychological health and work motivation (Ghazala et al., 2006).

Role of Well-being in the Relationship with Mindfulness and Self-Compassion

According to Buddhist psychology, mindfulness has a significant relationship with self-compassion (Brach, 2003). Interventions with mindfulness are known to decrease stress and boost compassion (Gustin & Wagner, 2013). Mental well-being has not only a direct relation with self-compassion, but also self-compassion's indirect contribution to the mindfulness link and well-being has a positive impact on this relationship even during stressful times (Sirois et al., 2015).

Self-compassionate people are known to have increased well-being (Neff, 2009), and can manage anxiety and stress better (MacBeth & Gumley, 2012). Mental well-being has a direct impact on the relationship between mindfulness and self-compassion and has an inverse relation with stress, anxiety, and depression (Brown & Ryan, 2003). Benn and colleagues (2012) have found in a 5-week mindfulness training program that all participants showed improvement in their personal growth, mindfulness, awareness, patience, empathy. Furthermore, the study also found that mindfulness training decreased stress and improved mental well-being. Well-being increases the ability to focus, concentrate on things attentively, and observe and respond effectively.

Current research into the applications of mindfulness-based therapies is growing (Keng et al., 2011). Evidence suggests that mindfulness-based therapies are beneficial for controlling cognitive and behavioral complications in different ages and stimulating well-being in individuals (Phang et al. 2016). In both clinical and non-clinical contexts, research has shown that mindfulness-based therapies have favorable benefits on patient outcomes (De Vibe et al., 2013), and provides guidance for adaptations of mindfulness (Kazdin, 2008).

Keeping in view the above-mentioned discourse the current research aims to investigate the importance of mental health and how it relates to mindfulness, empathy, and self-compassion at both public and private medical institutions in Punjab, Pakistan. Though research is available

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regarding mindfulness in the developed world, there is comparatively less research available in developing countries like Pakistan, and this study hopes to bridge this gap. A mentally healthy doctor is likely to have higher level of mindfulness, which suggests that a high level of mental well-being in doctors may enhance their empathy and self-compassion as well. It seems safe to infer that mental well-being plays an intervening or moderating role in the connection between self-compassion and mindfulness. The hypothesis for the preset study is: H1: Mental well-being has a moderating effect on the relationship between mindfulness and self-compassion, such that higher levels of well-being will strengthen the positive relationship between them.

METHOD

Research Design

The objective of this study is to statistically explain the association between mindfulness, self-compassion, and well-being. The study has been carried out using a descriptive correlational survey research approach.

Sample

Medical professionals made up the sample (N = 332) for this study. They were designated in hospitals of Mianwali, Sargodha, and Islamabad. A convenient sampling strategy was adopted and a final sample of 138 men and 194 women were surveyed. Both government and private doctors were sampled. The participants' ages varied from 29 to 53 years (M = 37, SD = 6.54).

Instruments

The following standardized instruments were used for this study:

Cognitive and Affective Mindfulness Scale (CAMS-R)-

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CAMS-R was used to measure the level of mindfulness. Its Cronbach alpha reported by the authors was 0.78 (Feldman et al., 2007). CAMS-R consists of 10 items which are anchored on 4-point Likert-type scaling format (Feldman et al., 2007). High scores on the scale indicate higher mindfulness and vice versa.

Self-compassion Scale-short Form (SCS-SF)-

SCS-SF, developed byRaes et al. (SCS-SF, 2011), was used to measure self-compassion. The SCS-SF demonstrated adequate internal consistency (Cronbach's alpha ≥ 0.86) (Neff, & Germer, 2012). The SCF-SF consists of 12 items which are anchored on a 5-point Likert-type scale (Raes, 2010). Higher scores on the scale are indicative of high self-compassion and vice versa.

Mental Wellbeing Scale (WEMWBS)-

Warwick-Edinburgh Mental Well-Being Scale (WEMWBS) was designed by Tennant et al. (2007) to measure well-being. It contains 7 items which are positively worded with a Cronbach alpha of 0.87 (Tennant et al., 2007). High scores on the scale are indicative of good mental well-being and vice versa.

Procedure

The Postgraduate Research Committee of the University of Sargodha's Department of Psychology approved this research. All procedures used in human subject research adhered to the 1964 Helsinki Declaration and its modifications as well as equivalent professional standards. Additionally, these practices complied with institutional and/or national research committee ethical standards. All volunteers who participated were properly informed of the study's objectives and provided informed consent. To conduct this study, authors requested formal approval from the hospital administration and the related employees.

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During off-duty hours at the hospital, the physicians were approached, and they were told that all personal information would be kept private and that the data obtained would only be utilized for research. After being briefed about the study's goals and having signed informed permission indicating their willingness to participate, participants were given specific scales and a demographic sheet. To equalize the impact of scale administration, every scale was presented in a random sequence. The responders were given both written and verbal instructions. Depending on when the questions were asked, all of the participants' concerns were answered either right away or later. In order to evaluate dependability, Cronbach's alpha was obtained. Pearson correlation was then used to measure correlation. Quantitative variables' descriptive statistics findings were all presented as either the number of replies (in percentage points) or the mean (M) and standard deviation (SD). To evaluate the hypotheses, moderation analysis was used. The 25th edition of SPSS was utilized for this data analysis.

RESULTS

Table 1 describes alpha coefficients and inter-correlations among variables. Self-compassion and mental well-being scales demonstrates relatively high-reliability coefficients. Mindfulness yielded a low alpha coefficient i.e., 0.63. Low reliability of this scale can be justified in the light of the recommendation made by Iacobucci and Duhachek (2003) who identified that a greater number of items in the scale leads to higher alpha coefficients. The Mindfulness scale contained 10 items only, therefore a relatively lower reliability coefficient of this scale was observed. The rest of the scales showed a reliability of 0.70 or which was quite acceptable as suggested by George and Mallery (2003).

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Table 1

Alpha Reliabilities and Correlation Matrix for all the Variables Used in the Study (N= 332)

Variables	*M*	*SD*	*a*	1	2	3
1. Mindfulness	26.25	3.6	.63	--	.49***	.10
2. Self-compassion	34.7	5.1	.71	--	--	.63***
3. Mental well-being	23.41	4.4	.70	--	--	--

***p< .001.

Table 2 presents the interaction effect of mental well-being on the relationship between mindfulness and self-compassion. Table 2 reveals that the first model is significant with (R^2 = .23, F (1, 331) = 102, p< .001). Mindfulness is a significant positive predictor of the outcome variable (β = .49, t = 10.08, p < .001) and has been found to contribute to 23% variance in the outcome variable (R^2 = .23).

In the second model, mindfulness and mental well-being are entered and the model is found to be significant, (ΔR^2 = .02, ΔF (2, 330) =56, p < .001). Beta values exhibit that both variables are significantly positive predictors of outcome variables where mindfulness is a positive predictor (β = .50, t = 10.4, p < .001), and mental well-being is a significant positive predictor of outcome variable (β = -.13, t = -2.7, p < .01). The product of these variables contributes 13% variance in the dependent variable (R^2 = -.13).

Model 3 of Table 2 demonstrated an interaction of mindfulness and mental well-being in predicting self-compassion. Overall the model is found to be significant and the product of these variables contributes to an additional 4% variance in self-compassion (ΔR^2 = .04, ΔF (3, 229) = 46.3, p< .001). (R^2 = .04).

Table 2

Summary of the Results for Moderating Role of Well-being in the Relationship of Mindfulness and Self-compassion (N = 332)

	Self-compassion

Models	Predictor	*B*	ΔR^2
Model 1	Mindfulness	.49***	.23
Model 2	Mindfulness	.50***	.02
	Mental well-being	.13**	
Model 3	Mindfulness*Mental well-being	1.45***	.04.
	Total		.29

***p* < .01. ****p* < .001.

The slope line in Figure 1 indicates that a low level of mental well-being significantly moderates the relationship between mindfulness and self-compassion.

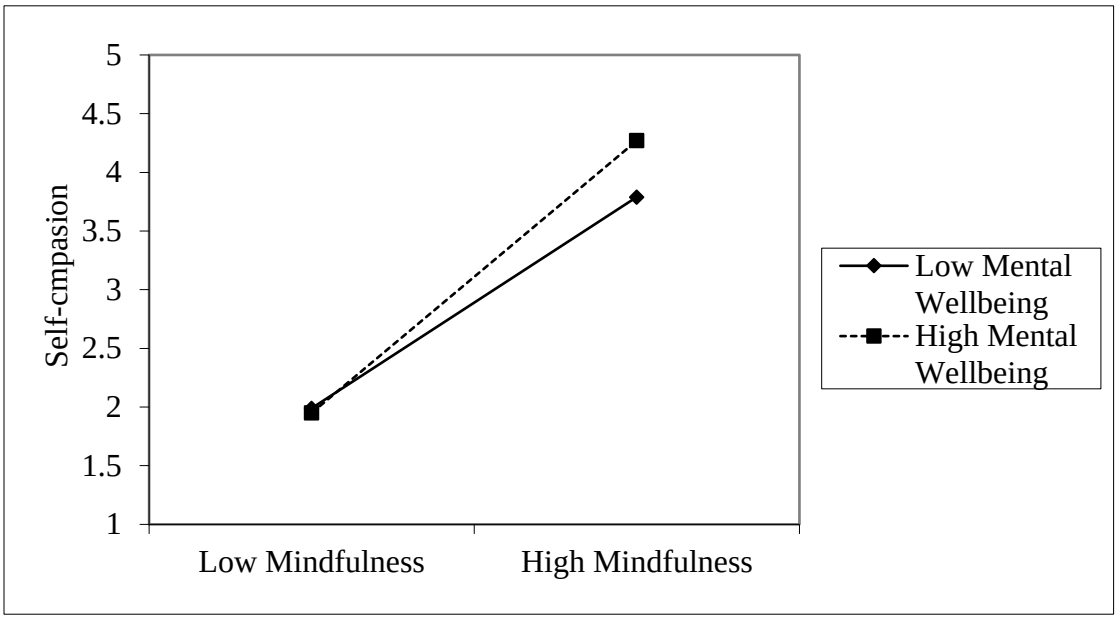

Figure1. Interaction effect of mindfulness and well-being on self-compassion.

DISCUSSION

Along with the growing popularity of Positive Psychology and Health Psychology, there has been a thriving interest in people's well-being, its correlates, and its positive outcomes. In the past decade there has been a significant increase in research endeavors examining the factors

contributing to the well-being of healthcare professionals who partake the responsibility of tending and catering to the needs of patients. Practitioners themselves may be requiring care and attention, which may inherently benefit others under their care. Research evidence has highlighted that well-being is related with various positive attributes such as mindfulness and self compassion. The findings from this study show that self-compassion is strongly predicted by both mindfulness and well-being and by their interaction. The relation of mindfulness and self-compassion is also shown to be significantly moderated by a high level of well-being which strengthened the positive relation of the two.

Research interest in this area further heightened during the COVID 19 pandemic years. Doctors and other healthcare professionals played a pivotal role in combating the virus as front-line soldiers in the war against COVID-19. There was a greater risk of doctors being affected by the virus as they were frontline practitioners and because treatment management was unclear in the early months of the pandemic, this led to an increase in levels of stress and fear amongst doctors. Positive psychological variables acted as a safeguard in such an unpredictable situation. Researchers have highlighted the role of different mechanisms of courage, gratitude, positive emotions and relational aspects, positive coping strategies, meaning in life and above all, self-compassion (Waters et al., 2022). Studies concluded that a self-compassionate and mindful doctor dealt with personal and professional problems better (Babenko et al., 2019; Neff, 2009). Our study confirms that self-compassion is predicted by higher level of mindfulness.

An individual who is mindful, often possesses a balanced and refined awareness about one's own self as well as having a more realistic analysis of the resources and environment around. For doctors, this may include the awareness of non-availability of financial and other resources, deficiencies of the apparatus, medicines, or medical equipment, as well as their own and

paramedical staff ‘s insufficient training. It has also been found that the higher the mindfulness, the greater was the level of self-compassion. Previous researchers have supported this notion, for instance, Bluth and Blanton (2014) reported that mindfulness and self-compassion are positively linked with each other, and that the emotional well-being acted as a third variable in this relationship. In a systematic review Conversano and colleagues (2020) summarized that mindfulness based interventions successfully affected self-compassion, negative and positive affectivity as well as quality of life of health care professionals.

Having more mental well-being is associated with positive outcomes since it enhances the psychological resources of the individuals. Doctors with greater mental health often have higher level of hope, resilience, self-efficacy, and optimism (Manzano-García & Ayala, 2017). This positive outlook leads doctors to have more positive cognitive appraisals of circumstances and patient management (Luthans & Youssef-Morgan, 2017). This positive cognitive appraisal may enable them to analyze patient cases more positively and thus, those who are more aware of their limited resources (as an outcome of high mindfulness), ultimately become more self-compassionate.

Limitations and scope for future research

Although the study offers important contributions in the field of positive psychology as well as giving important findings for the physicians, the study is not void of certain limitations. This study didn’t sample doctors working in emergency wards, special wards (such as COVID-19 or dengue wards), and general non-emergency wards. In emergency situations and under chronic stress and pressure, the mechanisms of self-compassion and mindfulness may be different from those in routine conditions. Future research should study these variables and their interactions for doctors working in emergency or special wards. Many other factors such as availability of resources,

workload, employment sector, and marital status may also affect these variables and their interactions which were not controlled in the study. Time-lagged studies should be designed in the future to ensure causal relationships among the variables.

CONCLUSION

This study offers important implications on both the theoretical and practical levels. On a theoretical level, it offers well-being as a third variable between mindfulness and self-compassion. On the practical level, it asserts the role of positive psychological variables specifically mindfulness and well-being among doctors. Based on the findings of this study, the authors recommend that ongoing workshops for doctors be arranged targeting their level of mindfulness, mental well-being, and other positive psychological constructs. In addition, there needs to be curriculum development in medical education for Pakistani healthcare professionals to train them in self-compassion and mindfulness. Mental healthcare professionals can further be advised by this research to develop interventions to support doctors and other healthcare professionals for improving self-compassion and mindfulness. Finally, regular assessment by the healthcare administration is needed to assess the mental-health, mindfulness, level of burnout, and overall wellbeing in doctors and other healthcare professions to secure optimal service delivery and patient safety in the health sector of Pakistan.

Conflicts of Interest

The authors declare no conflict of interest.

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Ethics and Permissions

Study was approved by the Institutional Research Board and Ethical Review Committee of the Department of Psychology, University of Sargodha (SU/PSY/1476). Written Informed consent was taken from the participants of the study.

Data sharing and availability statement

Data of the present study is available to the corresponding author and can be obtained upon reasonable request.

Author Contributions

Conception and design by IB, MA; Collection and assembling of data by NIM, IFM; Analysis and interpretation of data by IB, MA, IFM, NIM; all the authors have equally contributed to writing and finalizing the manuscript.

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