Journal of Population Therapeutics & Clinical Pharmacology

RESEARCH ARTICLE
DOI: 10.53555/62ny5k06

PSYCHOLOGICAL DISTRESS AND PROFESSIONAL COMPETENCY AMONG MEDICAL PROFESSIONALS: THE MEDIATING ROLE OF WORK MOTIVATION

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Abstract

Background. Psychological distress poses devastating effects on work motivation, and professional competency of the medical professionals (*i.e.*, Doctors and Nurses).

Objectives. The main objective of the study was to find out the association between psychological distress, work motivation, and professional competency. Moreover, to assess the mediational role of work motivation in the relationship between distress and professional competency in medical professionals.

Research Design. In this study cross-sectional correlational design was adopted. A total sample was comprised of N=220 medical professionals among them *n*=126 were doctors (*i.e., male=62, female=64*) and *n*=94 nurses (*i.e., male= 45, female=49*). The sample was having varied socioeconomic backgrounds with the age range from 28 to 37 years. The constructs of the study were explored by implementing standardized psychological research instruments (*e.g., "Kessler Psychological Distress Scale", "Work Extrinsic and Intrinsic Motivation Scale" and "Professional Competency Scale"*).

Findings. Psychological distress was negatively associated with work motivation and professional competency. Furthermore, work motivation partially mediated the relationship between psychological distress and professional competency in medical professionals. Additionally, medical professionals belonging to nursing (including male and female) and female medical professionals

(including doctors and Nurses) scored higher in work motivation as compared to doctors and male medical professionals.
Conclusion. Psychological distress should be controlled among medical professionals to boost their level of work motivation and professional competencies. For this very purpose, individual and group counseling sessions with medical professionals should be introduced, thus, they can effectively deal with psychological issues that they are facing.

Keywords: Psychological Distress, Work-motivation, and Professional Competency.

INTRODUCTION

In Pakistan, health care professionals (doctors and nurses) receive special prestige from the community. People call them *"Maseeha"* (who can save or heal). Although health care professionals receive respect still, they are facing inadvertent mental health issues. Psychological distress poses devastating effects on work motivation and professional competency among these professionals. Psychological distress encompasses non-specific symptoms of stress, anxiety, and depression among these professionals. Furthermore, it is also indicative of impaired mental health.[1] Psychological distress has become the main workplace mental health problem around the world that could be related to low work motivation and professional competency.[2] By directly exposing ill patients, and listening to their sufferings, such as the deaths of patients, doctors and nurses are usually exposed to a higher level of distress than the general population and other occupations.[3,4] A variety of issues such as time pressure, long hours of duty, effort-reward imbalance, and even a low ratio of doctors and nurses among the population can trigger distress in these professionals' lives. Pakistani doctors have to perform many exhausting and stressful tasks, and thus they are at high risk of psychological distress.[5] Pakistan, like many other nations, is struggling with a lack of trained health care professionals and workers. People's health in the nation is seriously impacted by the lack of medical personnel, particularly doctors and nurses. Maintaining the psychological fitness, satisfaction, and motivation of healthcare professionals and related personnel is essential for the efficient operation of the entire health system. In the health care departments, work motivation plays a vital role in retaining doctors and nurses.[6,7] Work motivation is defined as *"an individual's degree of willingness to exert and maintain an effort towards organizational goals"*.[7] Health care professionals who lack motivation can impair their own psychological health, individual facilities and the health system as a whole.[8] If health professional believes they are free of distress, doing their duties well and effectively, they will typically be motivated and exhibit job satisfaction.[9] Additional elements that affect motivation and job satisfaction include strong career development, enough remuneration, and appropriate living and working conditions. Having strong human resources mechanisms in the workplace and a good health care system helps to ensure the motivational factors that are adequate to keep health workers satisfied.[10,11]

The professional competency of doctors and nurses is vital to drive the quality of services. Further, professional attitude and professional behavior are the two essential elements of professional competency. A professional attitude is defined as improving the quality of care, maintaining professional competence, collaborating, and fulfilling professional responsibilities. Moreover, professional behavior can be shown through professional quality improvement actions and professional reactions to colleagues. Feeling professionally sound and competent could decrease distress and increase work motivation and self-confidence.[12] Studies reported the core themes of competencies among doctors and nurses, such as knowledge, skills, attitude, value-based practice, lifelong learning, professionalism, legal and ethical competencies, etc.[13] To date, burnout, and stress of medical professionals are known however, the effect, as well as the relationship of distress with work motivation and professional competency, is still an area of investigation.[14]

Considerable research evidence indicated health professionals' distress, work motivation, and professional competency in the western world, however, limited studies have investigated the mediating role of work motivation between the association of psychological distress and professional

competency in the context of medical professionals. Therefore, the prime objective of the existing study was to investigate the association between psychological distress and work competency. Further, investigate whether the association between distress and professional competency is mediated by work motivation, among Pakistani doctors and nurses.

Objectives

1. To assess the association of psychological distress, with work motivation and professional competence in medical professionals.
2. To investigate the mediational role of work motivation between the association of psychological distress and professional competence.

METHOD

The cross-sectional correlation research design was followed to examine the association among the study constructs. The participants of the study were engaged from different hospitals of Khyber Pakhtoon Khawa (KPK) through a non-probability purposive sampling technique. It is affirmative to mention here that the technical staff and other staff of the hospital were excluded from the sample.

Table 1

Demographic Characteristics of the Sample (*N*=220)

Demographics	*M(SD)*	*f*	%
Age	32.53(2.98)		
Doctors (126)			
Male		62	49.21
Female		64	50.79
Nurses (94)			
Male		45	47.87
Female		49	52.12
Marital Status			
Married		97	44.1
Unmarried		123	55.9
Area of Specialization			
Surgery		68	30.9
Medical ICU		152	69.1
Professional Experience			
1 to 5 Years of Exp.		137	62.3
6 to 10 Years of Exp.		46	20.9
11 and above Years of Exp.		37	16.8
Daily Working Hours			
1 to 8 Hours		113	51.4
9 and above		107	48.6
Working Sector			
Government		115	52.3
Sami-Government		53	24.1
Private		52	23.6

Note. M(*SD*)= Means and Standardization, f= Frequency of the Data, *%*= Percentage of the Data.

Research Measures

The researcher used different standardized psychological tools to measure the understudy variables. Psychological Distress was measured by using Kessler Psychological Distress Scale (*k*10). It was a 5-point Likert rating scale and consisted of 10 items. The internal consistency of the psychological distress scale in different researches was recorded as α=.85 to α=.95. [15]

Work motivation was measured through the *"Work Extrinsic and Intrinsic Motivation Scale"*. It was a 7-point Likert scale and consisted of 18 items. The WEIMS has six components having three items

each component (*i.e., Intrinsic Motivation, Integrated Regulation, Identified Regulation, Introjected Regulation, External Regulation, and A-motivation*). The alpha reliability of the scale reported in different researches was α=.64 to α=.83.[16]

The professional competency scale was used to gauge the professional proficiency of the participants.[17] The scale measure two main domains such as behavior and professional attitude. It consists of 23 items with a 5-point Likert scale to record the responses. The professional attitude further includes five subscales that are improving quality of care (4 items), maintaining professional competence (3 items), fulfilling professional responsibilities (4 items), Shared Education and Collaboration (5 items), and physician authority (2 items). The second subscale is professional behavior (PB) further consisted of 2 subscales; Quality Improvement Action (3 items) and Professional Reaction to Colleague Underperformance (2 items). The reported alpha reliability of the scale ranged from α=.77 to α=.78.[17]

Ethical Considerations.

This research was conducted after the approval of ethical committee. The permissions of respective authors for the original psychometrics used were also sought. Written consent of the hospital administrations as well as of research participants was taken before the conduction of the research. They were well informed about the research objectives and their role in the research however, their participation was voluntary. They were further ensured about the confidentiality of their provided information and their identity. It was done as a part of the ethical obligation of research. Queries of participants while filling in the questionnaire were responded to diligently.

RESULTS

The existing results of the study were drawn by using SPSS-26 and Amos-21.

Table 2

Psychometric properties of Psychological Distress, Work Motivation, and Professional Competence Scales (*N*=220)

Variable	α	*M*	*SD*	Range	
				Actual	Potential
Psychological Distress	.86	24.19	8.14	10-49	10-50
Work Motivation	.87	84.89	16.29	29-124	18-126
*Intrinsic Motivation (IM)	.53	15.55	07-21	03-21	2.93
*Integrated Regulation (IR)	.66	14.77	03-21	03-21	3.73
*Identified Regulation (IDR)	.60	14.89	04-21	03-21	3.40
*Introjected Regulation (IJR)	.70	14.67	04-21	03-21	4.17
*External Regulation (EXR)	.55	12.95	03-21	03-21	3.54
Professional Competence	.61	12.04	03-20	03-21	4.03
*Professional Attitude	.88	80.83	12.61	25-100	23-100
Professional Competence	.89	73.05	18-90	18-90	12.31
Improve quality care	.85	04-20	04-20	17.09	3.53
Maintaining professional competence	.54	03-15	03-15	12.85	2.29
Fulfilling professional responsibilities	.76	04-20	04-20	15.47	3.46
Shared education and collaboration	.81	05-25	05-25	19.94	4.25
Physician Authority	.74	02-10	02-10	7.68	2.38
*Professional Behaviors	.73	7.77	05-10	05-10	1.71
Quality improvement action	.63	03-06	03-06	4.61	1.12
Prof. Reaction to colleague's underperformance	.69	02-04	02-04	3.16	0.74

**Note.* α= Cronbach's alpha index of internal consistency, *M*=Mean, *SD*=Standard Deviation, *= Subscales.

The reliability analysis exhibited the acceptable Cronbach's alpha coefficient estimates (α) for all the measures and their subscales ranging from α=.53 to α=.89 respectively.

Table 3

Correlation Metrix of Psychological Distress, Work Motivation, and Professional Competence Between Doctors and Nurses (*N*=220)

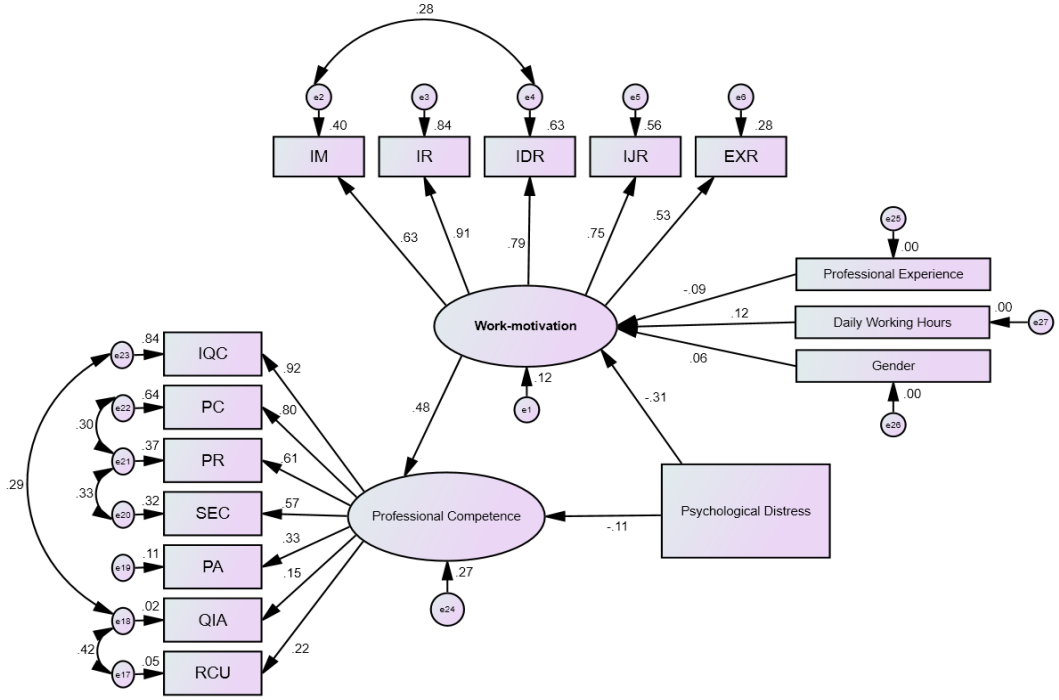
	1	2	3
1. Psychological Distress	-	-.284**	-.242**
2. Work Motivation		-	.412**
3.Professional Competence			-

*Note; **p*<.01, **p*<.05.

The results of correlation analysis showed a negative significant (*p*<.01) association of psychological distress with work motivation and professional competence. However, a positive association was explored between doctors and nurses in terms of work motivation and professional competence.

Figure 1.

Standardized Mediation Model: Wok-motivation as a Mediator Between Psychological Distress and Professional Competence (*N*=220)



**Note: IM*= Intrinsic Motivation, *IR*= Integrated Regulation, *IDR*= Identified Regulation, *IJR*= Introjected Regulation, *EXR*= External Regulation, *IQC*= Improve Quality Care, *PC*= Professional Competence, *PR*= Fulfilling Professional Responsibilities, *SEC*= Shared Education and Collaboration, *PA*= Physician Authority, *QIA*= Quality Improvement Action, *RCU*= Reaction to colleague's Underperformance.

Figure 1 demonstrated the standardized mediational model that showed the indirect path coefficient estimates between the variables *i.e.*, psychological distress to professional competence (*β*=-.11), and work-motivation (*β*=-.31); work motivation to professional competence (*β*=.48) in the medical professionals. Additionally, professional competence and work motivation are demonstrated as significant predictors. Results showed that work motivation partially mediated the relationship between psychological distress and professional competence (*p*<.01). Although the professionals' demographic variables (*e.g., professional experience, daily working hours, and gender*) have impacted the model as covariates. The total effect of the psychological distress on the medical professionals is c= -.258, into a *"direct effect" ć*=. -11 and a mediated effect (.48×-.31) = .17.[18]

Table 4

Standardized Mediation Model Work-motivation (*N*=220)

X to Y	Mediator	Indirect Effect	*β*	95% *CI*	
				LL	*UL*
Psychological Distress → *Professional Competence*	Work-motivation	(.11*, .48**)	.01	.07	.19

Note; X to Y= Independent Variables to Dependent Variable, *β*= Regression Coefficient, *LL*= Lower Limit, *UL*=Upper Limit.

The finding of the mediation analysis has shown the significant partial mediation of the work motivation between the relationship between psychological distress and professional competence in medical professionals. Furthermore, the mediation model fit indices exhibited that the model is well fitted for the statistics parameters ((χ^2= (97) = 3.16, p<.05, GFI=.90, CFI=.92, RMSEA=.08).

Table 5

Mean Difference Between Doctors and Nurses in terms of Study Variables (*N*=220)

Variables	Doctors (*n*=126)		Nurses (*n*=94)				95% *CI*		
	M	*SD*	*M*	*SD*	*t*(218)	*Sig*	*LL*	*UP*	Cohen's *d*
Psychological Distress	24.44	7.19	23.55	8.48	.84	.40	-1.19	2.97	.11
Work Motivation	82.18	11.89	89.47	18.28	-3.57	.01	-11.31	-3.27	.47
Professional Competence	81.63	9.30	82.43	10.97	-.58	.55	-3.50	1.89	.07
Gender Difference Between Medical Professionals (*N*=220)									Cohen's *d*
Above-mentioned Variables	Males (*n*=107)		Females (*n*=113)						
	24.28	7.98	23.85	7.58	.40	.68	-1.64	2.49	.05
	82.68	14.86	87.77	15.47	-2.48	.01	-9.13	-1.06	.33
	80.97	9.68	82.92	10.31	-1.44	.14	-4.61	.70	.01

Note. **p<.01, *LL*= Lower Limit, *UP*= Upper Limit.

The findings of the independent sample *t*-test exhibited significant differences in terms of medical professionals (*e.g.,* doctors, nurses. males, and females). Nurses were found significantly higher in work motivation as compared to doctors. Furthermore, female medical professionals also scored significantly higher in work motivation as compared to male professionals (p<.01). The values of Cohen's *d* indicated the significant effect size for work motivation in medical professionals.

DISCUSSION

Health professionals (doctors & nurses) are expected to deliver the best quality care to the patients. Along with they are expected to excel in the field of academics and research. To the available literature, this is the first indigenous research in Pakistan that was carried out to examine the association between psychological distress, work motivation, and professional competency in medical professionals including doctors and nurses.

Findings indicated that psychological distress has a significant negative association with work motivation. It can be said that when psychological distress increases then work motivation decreases or vice versa. This association confirms the similar observation in the previous findings of the studies.[19] Results also demonstrated that the higher the psychological distress lower the professional competency. Whereas, work motivation is positively associated with psychological competency that specifies if work motivation increases professional competency will also increase. Findings of the present study consolidated with the previous studies, which have also shown greater rates of psychological distress and burnout among medical professionals, have been examined as potential stressors.[19,20]

The finding of the mediation analysis depicted significant partial mediation of the work-motivation between the relationship of psychological distress and professional competence in medical professionals. It indicates that medical professionals with high levels of psychological distress are

likely to show a lower level of work motivation, which in turn contributes to lower levels of professional competency. These results are in line with the previous studies, findings suggested potential interpretation may be individuals with psychological distress are too much exegeted because of internal and external issues that effects work motivation that in turn affect professional competency.[21,22]

Consistent with our third objective of the study, work motivation is significantly different in doctors and nurses, nurses are more motivated than doctors whereas no significant difference was found between psychological distress and work competency in terms of profession. Same as work motivation is different in males and females, females are more motivated than males, but no significant difference was found in psychological distress and professional competency.[19, 20,23,24,25]

Conclusion

Psychological distress is negatively associated with work motivation and professional competency. If we control the distress among the medical professionals, we can improve work motivation and professional competency. Therefore, counseling medical professionals are pivotal to deal with psychological issues that they are facing. In this research medical professionals recruit only from the province of Khabar Pakhtun Khan (KPK). For future research and more generalizability of the study, the sample should be recruited from all the provinces of Pakistan. Additionally, a mixed method research design (*e.g.,* qualitative, and quantitative) should be implied for the deeper analysis of the variables and their association with the demographic characteristics of the medical professionals.

Declaration Section

Consent to participate

An informed consent was obtained from all participants. They participated voluntarily in this study.

Conflict of interest

There is no conflict of interest

Funding

Not applicable.

Acknowledgements

The authors would like to thank all the participants of this study who contributed.

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