Navigating Supervisory Safety Practices: Impact on Doctors' Organizational Attitudes and Safety Performance

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Abstract

Background: In physically demanding and high-risk job settings, when employees experience a sense of empowerment and identification with their organizations along with supervisory support, they tend to exhibit a more favorable work attitude. **Objective:** The primary focus of this study was to examine how perceived supervisory safety practices can moderate the relationship between organizational attitudes and safety performance among doctors. **Subjects and Method:** It was a cross sectional study, where already established questionnaires were used to measure study variables. The data is collected from doctors (*N*=375) of Government Hospitals in Rawalpindi and Islamabad. The age range of the doctors was 22-67 (*M*=28.95; *SD*= 8.08). 50.67 % of the sample were male doctors (*n*=190) whereas 49.33% were female doctors (*n*= 185). The data was analyzed in IBM SPSS-26. **Results:** The data fulfilled the assumptions of normal distribution and showed at p <.01 that there is high positive correlation among all the sub scales of psychological empowerment, organizational identification, safety performance, and perceived supervisory safety practices. It further showed that supervisory safety practices exacerbated the relationship between organizational attitudes and safety performance at p <.05. **Conclusion:** Through this investigation, the research aimed to provide valuable insights into how the quality of supervisory safety practices can influence the attitudes and performance of doctors, thereby promoting workplace safety and employee wellbeing. The significance, limitations and suggestions are also mentioned for the future researchers.

Keywords: organizational attitudes, psychological empowerment, organizational identification, perceived supervisory safety practices.

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Introduction

Organizations strive for their excellence, but it is only possible in case where their employee function optimally by ensuring safety practices and by being aware of the potential workplace hazards. Within the same organization employee's exposure to workplace hazards is different due to their safety performance and attitudes such as empowerment and identification. Here role of management and supervisors can't be overlooked as managers and supervisors are in a position to prioritize the goals of the organization, management is responsible for communicating organizational safety practices and train employees to make decisions that prioritize safety performance.

Psychological empowerment is an organizational attitude comprising of competency, determination, meaning, and impact that motivates to actively orient towards achieving goals and objectives of the organization (Shah, et al., 2019). Therefore, psychological empowerment reflects an active work role orientation that the employees perceive that they have potential in them, and they can shape their work (Turnipseed & Vande, 2020; Zhou & Chen, 2021). Psychological empowerment is a strong predictor of creativity, extra role performance and managerial effectiveness so it enhances organizational productivity. Lesser number of accidents are reported by the employees who are empowered (O'Donovan et al., 2021).

Organizational identification is another organizational attitude; it occurs in employees when they belong with the organization and consider the accomplishments and failure of organization as their own (Salameh et al., 2023). The more employees identify with their organization the more they commit to work, the more they perform extra roles, and add extra effort at work thus representing the organization. Such individuals place higher value on organizational outcomes like safety of the work environment (Salameh et al., 2023; Chen et al., 2019).

Management can implement measures for safety outcomes. When the management commits with safety practices it presets safety role among the employees. Along with positive organizational attitude safety practices in management and supervision can direct employees towards safety performance. Supervisory safety practices reflect the execution of the

organization's policies and procedures among the employees (Vitrano et al., 2023; Adhikari P. (2021; Kalteh et al., 2021).

Safety Performance is to comply and participate in safety policies and procedures (Kalteh et al., 2021). Safety compliance is to comply with rules and regulations following core safety activities. It is the use of protective clothing and equipment while working in hazardous situation to prevent any potential threat to self, others and the organization. Whereas safety participation is to volunteer self in educating and helping coworkers abide by the safety procedures. Safety Performance is also recognized as organization citizenship behaviors that is civic virtue, to help, raise voice, blow whistle be responsible, stewardship, civic virtue, and to initiate change related to safety (Testa et al., 2020). Organizational citizenship behaviors highly interrelate with safety participation and it's all components (Shimamura et al., 2021).

Understanding this dynamic is vital because it can offer insights into the effectiveness of supervisory safety practices in shaping doctors' attitudes and performance, which, in turn, can have far reaching implications for patient care, employee job satisfaction, and overall healthcare system performance (Asher et al., 2021). By exploring the role of perceived supervisory safety practices in this context, the study aims to contribute valuable information for healthcare organizations and policymakers in creating safer and more supportive work environments for doctors. Furthermore, it can aid in enhancing patient safety and healthcare quality by promoting positive doctor attitudes and improved safety performance. The pandemic has also underscored the importance of organizational identification in the healthcare sector. Healthcare workers have been on the front lines of the battle against COVID-19, and their commitment to their organizations has been vital (Sarfraz et al., 2022; Rana, Mukhtar, & Mukhtar, 2022).

The aims and objectives of this research are to examine the relationship of organizational attitudes and safety performance and to investigate the impact of perceived supervisory safety practices on organizational attitudes and safety performance.

Materials and Method

Participants

The sample was collected through purposive convenient sampling. The response rate was 75 % as 500 questionnaires were distributed, and 375 surveys were used in the study. The sample of the study comprised of doctors (*N*=375) from Benazir Bhutto Hospital (BBH; Rawalpindi; *n*=78), Cantt General Hospital (CGH; Rawalpindi; *n*=90), Holy Family Hospital (HF; Rawalpindi; *n*=97). Pakistan Institute of Medical Sciences (PIMS; Islamabad; *n*=85; and Islamabad Dental Hospital (IDH; Islamabad; *n*=25). 70.67 % of the doctors were from government hospitals of Rawalpindi (*n*=265) and 29. 33% from Islamabad (*n*=110). The age range of the doctors was 22-67 (*M*=28.95; *SD*= 8.08). 50.3% of the sample were male doctors (*n*=190) whereas, 49.4% were female doctors (*n*= 185).

Procedure

For carrying out data collection prior permission was sought from the administration and the relevant medical personnel, they were informed about the underlying objectives and aims of the study. With the permission of the staff and authorities of Benazir Bhutto Hospital (BBH; Rawalpindi), Pakistan Institute of Medical Sciences (PIMS; Islamabad), Cantt General Hospital (CGH; Rawalpindi), Islamabad Dental Hospital (IDH; Islamabad), and Holy Family Hospital (HF; Rawalpindi); the doctors were approached and given a detailed explanation of the research's nature. Those who expressed their willingness were provided with demographic sheets and questionnaires to continue. Data collection occurred in the researcher's presence. Clear explanations regarding the research's purpose were provided to the doctors, and any confusion or queries were promptly addressed by the researcher to facilitate a seamless data entry process. The doctors were reassured that their responses would be kept confidential and solely used for research purposes. Furthermore, the doctors were informed that they could opt to discontinue their participation at any point during the data collection if they no longer wished to proceed. The hospital's authorities and staff were sincerely appreciated for their cooperation in this endeavor.

Measures

The instruments used in the present study comprised of consent form, Psychological Empowerment Scale, Organizational Identification Scale, Perceived Supervisor Safety Practices Scale and Safety Performance Scale.

Psychological empowerment scale. Developed by Spreitzer (1996). It is based on the psychological empowerment model given by Thomas and Velthouse (1990). Psychological empowerment scale has 12 items. It is further divided into four subcomponents. Meaning is measured by item no 1, 2, and 3. Item no 4, 5, and 6 measure Competence; item no 7, 8, and 9 measure Self Determination. Item no, 10, 11, and 12 measure Impact. The items are rated on five-point Likert scale where 1 reflects strong disagreement to 5 on a continuum of strong agreement. The alpha reliabilities of the subscales came out to be Meaning (.87), Competence (.84), Self Determination (.86) and Impact (.93), the inter correlations among the subscales came out to be .24-.46. Subscales are used as single factor, single factor psychological empowerment scale α reliability coefficient is .86 (Spreitzer, 1996).

Organizational Identification Scale. Developed by Tanis and Beukeboom (2011). The scale has 8 items. There are two subscales: Affective Organizational Identification and Cognitive Identification. First 4 items measure affective component and the last 4 measure cognitive component of Organizational Identification. Item no 3 and 7 are negatively phrased and need to be recoded. The α reliability of the scale is .87 (Tanis & Beukeboom, 2011). The items are rated on five-point Likert scale on a continuum of strong disagreement to strong agreement. In the current study the word Organization X has been replaced by hospital as the data is collected by the doctors from government hospitals of Rawalpindi and Islamabad.

Perceived Supervisor Safety Scale. Developed by Zohar (2000). There are ten items of the scale that assess two dimensions Supervisor Actions and Supervisor Expectations. Zohar dropped 4 items that had low factor loadings to reduce the length of the survey, the current version that is used in the study has 6 items in total. First 3 Items measure Supervisor Actions and Last 3 Items measure Supervisor Expectations. Item no 1, 2, and 3 are positively phrased whereas item no. 4, 5, and 6 are negatively phrased, they need to be recoded. The items are rated on five-point Likert scale.

Safety Performance Scale. is the combination of use of personal protective equipment and safety participation. In the current study the first component of the scale is used i.e., Use of Personal Protective Equipment, that has an α reliability of .93 (Burke et al., 2002). There are no negatively phrased items in the scale. The second component of the scale is safety participation.

The Safety Participation Scale is the measure of safety citizenship behavior. Safety Participation Scale is developed by Hoffman and colleagues (Hofmann, Morgeson, & Gerras, 2003). The α reliability of the scale is .94 (Hofmann et al., 2003). The scale is measured on five-point rating system. All four items are positively stated.

RESULTS

The present study explored the interacting effect of perceived supervisory safety practices in relation between organizational attitudes (psychological empowerment and organizational identification) and Safety Performance. After data collection varying statistical analyses were carried out in IBM SPSS-26 to deduce results.

Table 1

Descriptive Statistics and Reliability Values for Study Variables (N=375)

Sr #	Variables	*k*	α	Range		*M*	*SD*	*Skew.*	*Kurt.*
				Actual	Potential				
1	Psychological empowerment	12	.88	12-84	25-84	61.84	11.52	-0.68	0.50
2	Organizational identification	8	.77	8-56	11-55	38.72	7.77	-0.42	0.23
3	Safety performance	10	.90	10-70	19-70	50.73	11.54	-0.50	-0.45
	Use of personal protective equipment	4	.80	4-28	6-28	22.42	4.60	-0.87	0.87
	Safety participation	6	.93	6-42	8-42	28.30	8.68	-0.51	-0.73
4	Perceived supervisor safety	6	.85	6-42	6-42	28.09	7.69	-0.46	-0.33
	Perceived supervisor action	3	.85	3-21	3-21	14.74	4.14	-0.89	0.10
	Perceived supervisor expectation	3	.83	3-21	3-21	13.35	4.70	-0.24	-0.89

Table 1 shows that the data is normally distributed. The skewness and kurtosis of normal distribution is 0 and the values nearby falling within the range of ±1.96 fulfill the assumptions of normally distributed data. *S* (skewness) and *K* (kurtosis) and their respective standard errors are produced by SPSS (Field, 2013). The alpha reliability of Psychological Empowerment Scale,

Safety Performance Scale and Perceived Supervisory Safety Scales was high, and the Cronbach alpha reliability of Organizational Identification Scale is acceptable. Cronbach's alpha reliability estimate of .6 is generally accepted, although the most widely accepted threshold criteria for Cronbach's alpha reliability is .7 (Peterson, 1994).

To explore the relationship among all study variables bivariate correlation was applied to the data.

Table 2

Correlations between the study variables among Doctors (N=375) from the Government Sector Hospitals of Islamabad and Rawalpindi.

Sr.#	Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	Psychological Empowerment	1	.73**	.82**	.88**	.95**	.55**	.54**	.43**	.61**	.37**	.61**	.42**	.47**	.27**
2	Meaning		1	.66**	.47**	.62**	.39**	.40**	.27**	.42**	.24**	.44**	.28**	.30**	.19**
3	Competence			1	.65**	.72**	.44**	.44**	.34**	.50**	.28**	.51**	.32**	.35**	.21**
4	Self Determination				1	.83**	.51**	.49**	.41**	.55**	.34**	.55**	.40**	.43**	.27**
5	Impact					1	.55**	.53**	.43**	.58**	.36**	.58**	.43**	.49**	.27**
6	Organizational Identification						1	.91**	.85**	.53**	.34**	.52**	.60**	.62**	.43**
7	Affective Identification							1	.55**	.46**	.27**	.47**	.58**	.57**	.44**
8	Cognitive Identification								1	.47**	.34**	.44**	.47**	.52**	.30**
9	Safety Performance									1	.74**	.94**	.54**	.50**	.44**
10	Use of Protective Equipment										1	.46**	.44**	.38**	.38**
11	Safety Participation											1	.48**	.47**	.38**
12	P. Supervisor Safety Practices												1	.85**	.89**
13	Perceived Supervisor Action													1	.51**
14	Perceived Supervisor Expectation														1

**$p<.01$

Table No. 2 shows that there is high positive correlation among all the sub scales of Psychological Empowerment Scale, Organizational Identification Scale, Safety Performance Scale, and Perceived Supervisory Safety Practices Scale (p <.01).

Table 3

Interaction of Perceived Supervisory Safety Practices and Organizational Attitudes on Safety Performance (N=375)

	Safety Performance	
Predictors	ΔR^2	β
Step 1	.002	
Control Variables		
Step 2	.46**	
Psychological Empowerment		.46
Perceived Supervisors Safety Practices		.34
Step 3	.007*	
Psychological empowerment × Perceived Supervisors Safety Practices		.07*
Total R^2	.47**	
Step 1	.003	
Control Variables		
Step 2	.35**	
Organizational Identification		.34**
Perceived Supervisors Safety Practices		.34**
Step 3	.009*	
Organizational Identification × Perceived Supervisor Safety Practices		.08*
Total R^2	.36*	

Table 3 shows the moderating role of perceived supervisory safety practices in relationship between organizational attitudes (i.e., psychological empowerment and organizational identification) and safety performance. Table shows that .07% and .09% variation in the model is caused by perceived supervisory safety practices on safety performance and it is significant at .05.

Fig. 1

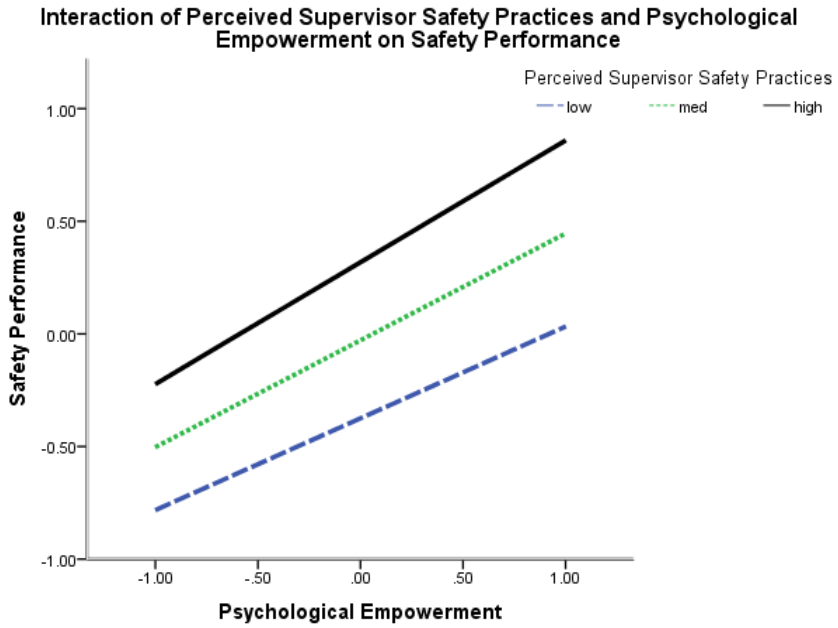

Fig. 2

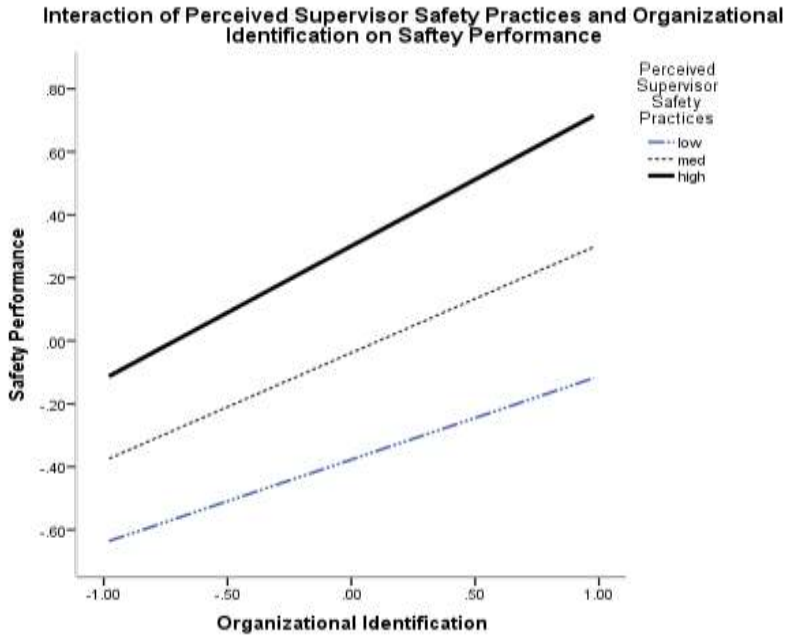

Fig.1 shows that at all three levels, low, medium, high, perceived supervisory safety practices is strengthening the relationship between psychological empowerment and safety

performance. It indicates that as the psychological empowerment tends to increase the safety performance also increases among the doctors whereas, supervisor's safety roles significantly boost the strength of this relationship. Fig. 2 shows, perceived supervisory safety practices is moderating the relationship between organizational identification and safety performance at all three levels low, medium, and high. It indicates that as the organizational identification tends to increase the safety performance also increases among the doctors whereas supervisory safety practices further exacerbate the strength of this relationship.

Discussion

The discussion section of this article highlights the key findings considering recent empirical studies, focusing on the conclusion that perceived supervisory safety practices play a crucial role in strengthening the relationship between psychological empowerment and safety performance among doctors. Additionally, the study indicates that perceived supervisory safety practices moderate the relationship between organizational identification and safety performance.

Recent empirical studies in the field of workplace safety have consistently demonstrated the significance of psychological empowerment in influencing safety performance (Al-Bsheish et al., 2019; Zhou & Chen, 2021). This aligns with our findings, as we observed a positive relationship between psychological empowerment and safety performance among doctors. The implications of these findings are substantial, as they suggest that interventions aimed at enhancing doctors' psychological empowerment may lead to improved safety outcomes within medical settings.

However, our study delves further by elucidating the role of perceived supervisory safety practices in this relationship. We found that supervisory safety practices significantly increase the strength of relationship between psychological empowerment and safety performance. This finding underscores the importance of strong leadership and the crucial role that supervisors play in creating a culture of safety. It emphasizes the need for medical institutions to invest in leadership training and development, ensuring that supervisors not only support but actively promote safety practices among their teams (World Health Organization, 2022).

Similarly, the relationship between organizational identification and safety performance has been a subject of interest in recent research. Our study aligns with previous findings, showing that increased organizational identification is associated with improved safety performance among doctors. This suggests that fostering a sense of belonging and commitment to the healthcare organization can positively impact safety outcomes. It is not humanly possible to conduct research without flaws and loops.

The gaps of a study maintain the need for exploring further that phenomenon by regarding the limitations of the past research. This research is inclined to be carried out in a short duration that limits on further aspects such as limited literature review. Qualitative data collected from the doctors can thus be taking more time but will be able to reveal complex, deep rooted problems while carrying out safety practices in the public hospitals of Pakistan. Occupational hazards can also be simultaneously studied to explore the nature of hazards in the government hospitals. Information on needle injuries, getting caught of contagious disease shall be gathered as well so that the safety performance isn't solely relied on safety performance scale. The musculoskeletal disorders among doctors must also be considered in future among Pakistani doctors as the number of doctors is very less and they work for constant hours in odd positions. Information on sleep duration shall also be gathered from doctors in Pakistan as workload and doctors on call have reduced hours of sleep thus hindering safety performance. The scales measuring psychological empowerment and organizational identification are used as unidimensional in the current study. Future researchers can look for the multidimensionality of the scales to gather findings.

Conclusion

Crucially, our research indicates that perceived supervisory safety practices act as a moderating factor in this relationship. When supervisors exhibit strong safety practices, they further enhance the relationship between organizational identification and safety performance. This highlights the integral role of supervisors in strengthening the organizational culture and ensuring that safety values are not only embraced but championed. In conclusion, this study contributes to the growing body of research on workplace safety by emphasizing the vital role of perceived supervisory safety practices in influencing safety performance among doctors. It underscores that enhancing psychological empowerment and organizational identification can be

pivotal, and when combined with effective supervisory safety practices, can result in even more significant improvements in safety outcomes. Therefore, healthcare institutions should place a strong emphasis on developing leadership skills and promoting a sense of organizational commitment to foster a culture of safety and improve the well-being of both doctors and patients.

Declarations:

Conflict of Interest

Authors have no conflict of interest to disclose

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Ethical approval

The paper obtained ethics approval from the Institutional Review Board of National Institute of Psychology, Centre of Excellence, Quaid-i-Azam University, Islamabad (F. No. D-107-2 (02)/PhD/2017-Admin). The paper is also compliant with the Ethical Standards of the journal. Informed consent was obtained from study participants.

Disclosure statement

Authors have no potential conflict of interest.

Data Availability Statement

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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