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# Impact of workplace safety on employee retention using sequential mediation: evidence from the health-care sector

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## Abstract

**Purpose** – This study aims to examine the impact of workplace safety (WPS) on employee retention (ER) in the health-care sector in Azad Jammu and Kashmir (AJ&K), Pakistan. At the same time, a mediation relationship through job satisfaction (JS) and employee loyalty (EL) was also tested.

**Design/methodology/approach** – Structured questionnaires were used to collect the data from 300 doctors, using purposive sampling technique analysed using partial least squares (Smart-PLS 3).

**Findings** – This study's findings supported all hypotheses, such as WPS has a significant positive relationship with ER. In addition, a mediation relationship between JS and EL was also confirmed. Furthermore, a serial mediation effect of JS and EL between WPS and ER was also confirmed in this study.

**Research limitations/implications** – This study might not fit organisations from other regions due to regional norms. In the future, this study's model may be tested on other regions and segments of the health-care sector, such as nurses, management staff and support staff.

**Practical implications** – The present study is unique because it is based on a newly formulated framework,  $WPS \rightarrow JS \rightarrow EL \rightarrow ER$ , under the social exchange theory, which has not been tested before.

**Social implications** – In a safe environment, doctors will feel relaxed, stay longer and provide better services; resultantly, patients will get better treatment.

**Originality/value** – This study tested the sequential mediation effect through JS and EL for the first time in ER, which was missing previously, to the best of the authors' knowledge. This will add more insights to the safety-retention literature in health-care settings. Furthermore, this study is



also the first attempt to explore the relationship between WPS and ER in the health-care sector in AJ&K.

**Keywords** Workplace safety, Job satisfaction, Employee loyalty, Employee retention, Health-care sector, Azad Jammu and Kashmir

**Paper type** Research paper

## Introduction

Given that occupational safety and health, including benefits for employers and employee retention (ER), play an essential role in organisations, it has drawn the attention of many researchers. Research on workplace safety (WPS) has gained momentum in the past two decades when researchers tried to resolve the safety paradox (McPhee, Samnani, & Schlosser, 2019). According to Neal & Griffin (2006), safety directly or indirectly affects the costs, bringing loss to the organisation. However, the absence of safety also affects employees by hurting them physically and mentally, for instance, through accidents, hazards and violent events at the workplace. In the existing literature, safety tends to be linked with the occurrence of accidents and hazards resulting in injuries and fatalities (Wiengarten & Longoni, 2018). However, the present study is meant to explore the link between WPS and employees' behaviour.

Occupational health and safety (OHS) practices have been followed worldwide to address health and safety concerns. However, most developing countries, including Pakistan, seem to lag in this aspect. Until 2018, Pakistan did not have specific safety laws; instead, it followed the *Factories Act 1934*. In Pakistan, the first occupational safety law covering all hazardous events at the workplace was introduced in 2018 (OECD, 2019). However, these laws are yet to be enforced in the workplace. McCaughey, McGhan, & Landry (2020) include health-care jobs in inherently dangerous occupations, as employees from this sector remain exposed to aggressive public behaviours and hazardous substances, hence justifying the need for strict safety rules and regulations. Bronkhorst, Tummers, Steijn, & Vijverberg (2015) added that incidents of violence, injuries, burnout and anxiety are very high in the health-care sector.

Pakistan is not an exception; Ahmed, Memon, & Memon (2018) found that 85% of health-care employees felt unsafe at their workplace, as most of them had confronted a violent event at least once during their career. They added that Pakistani hospitals do not have a proper system to report violent events or safety negligence. Hence, it is not uncommon for patients and their attendants to harass, threaten, injure or even kill the doctors on some occasions (Shaikh *et al.*, 2020). Furthermore, the absence of safety has a substantial impact on employees' attitudes and behaviours, such as job satisfaction (JS) (Ayim Gyekye, 2005), employee loyalty (EL) (Hermawan, Wijayanti, & Nugroho, 2019) and ER (Jha, 2019). According to McCaughey *et al.* (2020), most of the prior studies on WPS focussed on care provision during accidents and its administration; however, the impact of WPS on employee behaviour, including ER, has been rarely studied. Furthermore, violence in the context of WPS has also been largely ignored in the existing literature. Hence, this study is an effort to fill this gap concerning as well its impact on ER.

ER in the health-care sector is a serious concern that requires urgent attention. According to Aman-Ullah, Aziz, & Ibrahim (2020) and Mir, Shaikh, Rashida, & Mankani (2015), retention is a prime concern of the health-care sector in Pakistan. As most employees, including doctors, prefer to serve in developed countries (Haider, 2020), Mir *et al.* (2015) reported that Pakistan's Azad Jammu and Kashmir (AJ&K) lack human resources for health, especially doctors, more than other regions. In addition, brain drain was also considered high in this region (Ghulam *et al.*, 2019). Based on these facts, this study was formulated to mitigate the issues of low retention in this region.

Furthermore, this study also examined the serial mediation effect of JS and EL on the relationship between WPS and ER. Prior researchers articulated that loyalty is a subdivision of satisfaction, and both are essential attributes of employees' behaviour, such as ER (Vesel & Zabkar, 2009). Similarly, Kumar, Dalla Pozza, & Ganesh (2013) and Lonial & Raju (2015) stated that satisfaction and loyalty can influence the service sector organisations, including health care, that highly depend on their employees' behaviour.

Therefore, this study decided to test these two concepts as a serial manner to link WPS with ER. These mediators have not been tested together with ER in previous studies, and, to the best of the authors' knowledge, this is the first time the serial mediation effect has been tested. Furthermore, JS and EL are considered important attitudes that affect employees' behaviour at the workplace. Besides, Chuah, Marimuthu, Kandampully, & Bilgihan (2017) found an association between JS and EL. Therefore, the mediation relationship is expected to provide a valuable addition to the literature.

## Theoretical support and hypothesis development

### *Theoretical underpinning*

Several researchers have studied the concept of *safety* along with ER under different theories. For instance, Salman, Mahmood, Aftab, & Mahmood (2016) studied the concept of safety in the pharmaceutical industry under Maslow's hierarchy of need, a need-based theory saying that satisfaction depends upon the need as the one need fulfils second comes. Similarly, Taylor, Murphy, & Price (2006) explained the concept under Goldratt's Theory of Constraints, focusing on system efficiency instead of individuals. Furthermore, Wilkins (2011) studied the concept under the cognitive dissonance theory, which is based on conflicting attitudes, beliefs and behaviours. Finally, Huang *et al.* (2016) tested the connection between safety climate, JS, engagement and turnover connections under the social exchange theory (SET) in the USA. The present study has also applied the SET to explain the relationships in a newly formulated research model (WPS → JS → EL → ER) among health-care employees (doctors), which has not been explored previously, making it worth studying.

Besides, this study seeks to explain the employee–organisation relationship under the SET. This phenomenon explains the involvement and interest of individuals and the organisation in a relationship where both parties work for their own interests (Wu, Chen, & Liu, 2010). Meanwhile, SET explains the exchange process in relationships within organisations (Blau, 1964). The social exchange process flourishes better in an environment where people can socialise and interact with each other on a specific platform. The social exchange also has a significant impact on the behaviour of individuals and organisations.

The exchange process involved in the employee–organisation relationship was conceptualised by March & Simon (1958), and since then, this concept has been elaborated by many other academic scholars, such as Coyle-Shapiro & Shore (2007). According to Tetrick *et al.* (2004), the employee–employer relationship is impacted by different factors at the micro and macro levels. At the micro-level, its impact happens through employees' psychological contracts with the organisation, resulting in satisfaction and loyalty towards the organisation (Alcover, Chambel, Fernández, & Rodríguez, 2015; Kuvaas, 2008). At the macro-level, its impact happens through perceived organisational support; for example, the WPS provided by the organisation strengthens the relationship with employees and has a positive impact on employees' behaviour, including ER (Gillis, 2017).

### *Workplace safety and employee retention*

WPS denotes the organisation's policies and procedures to ensure the safety, health and well-being of employees within the workplace (Maurice *et al.*, 2001). Safety at work is

equally important for individuals and organisations (Pal, 2019). Beus, McCord, & Zohar (2016) defined WPS as “an attribute of work systems reflecting the minimum likelihood of physical harm to the people at work”. Jha (2019) expounded on the importance of safety in keeping employees loyal to the organisation as it promotes positivity among employees and motivates them psychologically, which will increase their satisfaction and commitment towards the organisation (Clarke, 2010). In other words, psychologically motivated employees will stay longer with the organisation (Clarke, 2010). Boakye-Dankwa, Teeple, Gore, Punnett, & Team (2017) found a significant association between WPS and ER. Huang *et al.* (2016) say that a safe environment sends positive signals to employees that their organisation is concerned about their well-being.

As a result, positive thoughts trigger their minds, and they decide to stay. Similarly, past literature evinced a positive association between WPS and ER (Fink-Samnick, 2018; Salman *et al.*, 2016). Based on the existing literature, this study argues that WPS could positively influence ER in the health-care sector. Therefore, the first hypothesis developed for this study is as follows:

*H1. WPS is significantly associated with ER.*

#### *Workplace safety and job satisfaction*

OHS guidelines provide a standardised procedure for the workplace environment. According to Yusuf, Eliyana, and Sari (2012), organisations following OHS guidelines have more energetic employees staying for longer durations. Accordingly, Stoilkovska, Zileska Pancovska, & Mijoski (2015) stated that employees working in safer environments are happy, committed and satisfied. Furthermore, employees prefer to work at a place with a safe environment, even at minimal wages, because it is human nature to avoid putting themselves in danger (Schwatka *et al.*, 2018). Hence, it is not surprising that the literature shows that OHS significantly improves employees' JS (Mihiravi & Perera, 2016; Nankervis, Compton, & Baird, 2005).

The existing literature also shows that all the organisations that do not implement safety laws properly face more violent events than those strictly following the OHS laws (Hills & Joyce, 2014). Besides, organisations that adhere to safety rules have more satisfied employees. Ayim Gyekye (2005) found a significantly positive association between WPS and JS. The above discussion advocates that those organizations can improve employee satisfaction through WPS. Therefore, it is hypothesised that:

*H2. WPS is significantly associated with JS.*

#### *Workplace safety and employee loyalty*

Safety plays a vital role in employees' behaviour. Kang (2012) suggested that employees have the right to demand safety and refuse to work at unsafe places. Sohn, Lee, & Yoon (2016) added that if employees face an environment that makes them feel unsafe, they may prefer to leave the organisation when they find a suitable alternative (Fruhen, Weis, & Flin, 2015). Similarly, Patwardhan *et al.* (2020) stated that an unsafe environment, combined with a perception of casualty, directly affects employees' future intentions and behaviours. According to Unaam, Adim, & Adubasim (2018), loyalty is a crucial component of employee behaviour. In the light of the SET, in an employee–organisation relationship, positivity from one party will bring out positivity from the other party (Coyle-Shapiro & Shore, 2007). Based on the theory and the

above discussion, it can be argued that a safety initiative from the organisation can make employees loyal with the organisation. Therefore, it is hypothesised that:

*H3. WPS is significantly associated with EL.*

*Mediation relationship between workplace safety, job satisfaction, employee loyalty and employee retention*

Satisfaction and loyalty are two important attitudinal and behavioural attributes that significantly impact ER (Kumar *et al.*, 2013). This study proposes a serial mediation relationship through JS and EL to see the combined impact of WPS on ER. The existing literature has confirmed the positive role of JS (Lu, Zhao, & While, 2019) and EL (Book, Gatling, & Kim, 2019) in organisational settings. Kumar *et al.* (2013) found a significant association between JS and EL, indicating that satisfied employees are more likely to remain loyal to the organisation. Further, organisational behaviour researchers say that there is a wide range of work-related employee attitudes and behaviours, ranging from loyalty to retention (Alcover, Rico, Turnley, & Bolino, 2017).

Furthermore, supported by SET, it is expected that organisations and employees that make a psychological contract will result in employees' reciprocal attachment (Riketta & Van Dick, 2005), satisfaction (Chung & Jeon, 2020) and loyalty (Rather & Hollebeek, 2019) towards the organisation. Previous literature also advocated that employees working in safe workplaces tend to be more satisfied with their jobs (Huang *et al.*, 2016), and also they are found to be more loyal with their organisations (Ahrholdt, Gudergan, & Ringle, 2019) and prefer to stay at their jobs (Aman-Ullah, Aziz, & Ibrahim, 2021). Whereas Shafique & Ahmad (2020) say that satisfaction is important to motivate action, satisfaction alone is not enough. They added EL as an essential factor affecting retention. Based on the above discussion, this study argues that JS and EL mediate the relationship between WPS and ER. Hence, it is hypothesised that:

*H4a. JS mediates WPS and ER.*

*H4b. EL mediates WPS and ER.*

*H4c. JS and EL have a serial mediation relationship with WPS and ER.*

## **Methodology and results**

### *Participants and procedure*

Data for this study were collected from 279 doctors from 10 different hospitals located in AJ&K, Pakistan. Respondents were selected using purposive sampling from hospitals with large numbers of doctors and considering respondents' willingness to participate in the study. The respondents were allowed to quit if they felt uncomfortable about their participation at any study stage. Before distributing the questionnaires, we contacted each hospital's medical superintendent (MS) to explain the study's purpose and obtain permission to include their doctors in it. Subsequently, self-administered questionnaires were distributed to 300 on-duty doctors. From the distributed questionnaires, 21 were dropped (15 were not returned and 6 had incomplete information). Finally, 279 questionnaires were deemed suitable for this study. Common method variance (CMV) was applied using SPSS version 25 to check the data biasness and demographic characteristics in this study.



### Measurements

The instrument used in this study was written in English and rated on a seven-point Likert scale. Instrument selection was based on the instrument's popularity and representation of the issue under study. After completing the instrument structure, we sent the questionnaire to two medical doctors and two academicians to check content reliability. Upon obtaining their approval, the questionnaire was considered fit for distribution.

The questionnaire was divided into two main parts: the first asked for demographic information (gender, years in service, marital status, residential location and designation), and the second part had specific questions about the variables. For WPS, a seven-item unidimensional scale was taken from [Spector, Coulter, Stockwell, & Matz \(2007\)](#), with the reliability of  $\alpha = 0.911$ . For JS, a five-item unidimensional scale was adopted from [Ackfeldt & Coote \(2005\)](#), showing the reliability of  $\alpha = 0.862$ . EL towards the organisation was measured using a four-item unidimensional scale adopted from [Zeithaml, Berry, & Parasuraman \(1996\)](#). The instrument reported the estimated reliability of  $\alpha = 0.826$ . Finally, for ER, an 11-item unidimensional scale was adopted from [Kyndt, Dochy, Michielsen, & Moeyaert \(2009\)](#), reporting the estimated reliability of  $\alpha = 0.945$ . The reliabilities of all variables were above the threshold level of 0.70.

### Consistency of the instrument and model fitness

Following [Podsakoff, MacKenzie, Lee, & Podsakoff \(2003\)](#), Harman's single-factor test was applied in this study to address CMV issues. The findings revealed only 48.26% variance for a single factor. In addition, the common method bias was reduced by intermingling the items ([Som, 2008](#)). Further, model fitness was calculated as it covers the overall fitness of the model. Therefore, standardised root means square residual (SRMR), Chi-Square and normed fit index (NFI) were calculated through the PLS algorithm. The study findings are SRMR 0.061, Chi-Square 680.20 and NFI 0.91. Based on [Sarstedt \(2019\)](#) recommendations, all these values show that the model is fit to proceed ([Table 1](#)).

### Demographic characteristics

[Table 2](#) provides the demographic characteristics, including age, gender, education level, location, marital status and profession of the respondents. The first part of the survey instrument asked demographic questions to obtain information about the respondents' background. Out of 279 doctors that participated in this study, male doctors made up 62.01% of the sample. Regarding the length of working experience, 46.34% of the respondents informed that they had been working for 6–10 years and only 12.80% had more than 11 years of working experience. General practitioners made up the most significant proportion of the respondents (48.03%), followed by medical officers (31.89%), specialists (13.73%) and postgraduate trainees (6.35%). About 81.36% of the respondents were married. Approximately 30.11% stayed within the hospital compound in the residential area provided by the hospital, 51.97% lived in the same city where they worked and 17.92% lived in another city. The demographic information shows a few things. First, women had a low representation in this study. Second, only one-tenth of the respondents had more than

Factors	Saturated model	Estimated model
SRMR	0.061	0.062
Chi-Square	680.20	680.21
NFI	0.91	0.91

**Table 1.**  
Model fit

Demographic profile	<i>n</i>	(%)
<i>Gender:</i>		
Female	106	37.99
Male	173	62.01
<i>Year in service:</i>		
1 – 5	114	40.86
6 – 10	129	46.34
11- above	36	12.80
<i>Designation:</i>		
General practitioners	134	48.03
Postgraduate trainees	18	6.35
Medical officers	89	31.89
Specialist	38	13.73
<i>Marital status:</i>		
Unmarried	52	18.64
Married	227	81.36
<i>Residential location:</i>		
Hospital premises	84	30.11
Same city	145	51.97
Another city	50	17.92

**Notes:** total respondents = 279, *n* = number of persons, % = percentage

**Table 2.**  
Statistical details of  
respondents'  
demographic  
characteristics

11 years of working experience, indicating a shortage of personnel with expert skills and specialities. There was also a shortage of specialist doctors, as they formed only 13.73% of the respondents. Moreover, new enrolment for specialisation was also very low, with only 6.35% of the respondents comprising postgraduate trainees.

### *Multicollinearity and descriptive assessment*

The values for latent variable correlations are reported in [Table 3](#). This study's highest correlation result was between WPS and JS at (0.764%), whereas the lowest correlation was found between JS and EL (0.285%). Following [Hair, Matthews, Matthews, & Sarstedt \(2017\)](#), findings indicate that latent variable correlation is acceptable to proceed as no value is above 80%. Then, the variance inflation factor (VIF) values were calculated to assess inter-item correlations ([Table 4](#)). The VIF values were in the range of 1.651–3.062, which fulfilled the threshold criterion of  $< 5.0$  ([Hair et al., 2017](#)). For the descriptive assessment ([Table 3](#)), mean and standard deviation, skewness and kurtosis were measured. This study reported mean values of 3.468–4.512 and standard deviation values of 1.350–1.428, whereas

Variables	EL	ER	JS	WPS	Mean	SD	Skewness	Kurtosis
EL	1.000				3.468	1.396	−0.221	0.280
ER	0.681	1.000			3.852	1.399	−0.269	0.239
JS	0.285	0.286	1.000		4.416	1.350	−0.250	0.213
WPS	0.312	0.336	0.764	1.000	4.512	1.428	−0.159	0.090

**Table 3.**  
Correlation matrix

**Notes:** Employee Loyalty (EL); Employee retention (ER); Job satisfaction (JS); Workplace safety (EL)



skewness values are between  $(-0.159$  to  $-0.269)$  and kurtosis is  $(0.280$  to  $0.090)$ . According to Joseph, Barry, Rolph, & Rolph (2010), if the extracted values for skewness lie between  $-2$  to  $+2$  and kurtosis between  $-7$  to  $+7$ , the data is considered normal. Thus, there was no collinearity issue in the data based on these results.

*Measurement model assessment.* To measure validity and reliability of the instrument, this study utilised the measurement model analysis in PLS-SEM using the algorithm technique, following Hair, Ringle, & Sarstedt (2013); see Table 4. Based on outer loading results, five items, namely, WPS6, EL4, ER2, ER3 and ER4, were deleted as their loadings were lower than 0.60, which could affect the instrument's reliability. Cronbach's alpha ( $\alpha$ ) values, crucial for testing the instrument's reliability, ranged between 0.826 and 0.945, indicating good to high reliability.

Still following Hair *et al.* (2017), we determined *average variance extracted* (AVE), i.e. "the measure of the amount of variance that is captured by a construct in relation to the amount of variance due to measurement error". The AVE threshold value is 0.50, and the values in this study range between 0.558 and 0.680). *Composite reliability* (CR) reported values range from 0.827 to 0.944, thus surpassing the minimum threshold of 0.70.

Discriminant validity indicates to what extent constructs are distinct from each other (Gold, Malhotra, & Segars, 2001). Following Henseler, Ringle, & Sarstedt (2015), *heterotrait-monotrait ratio* (HTMT) was used to measure the discriminant validity, as it provides better control over relevancy and accuracy (Henseler, 2012). This study calculated the HTMT ratio

Construct	Items	Outer loadings	VIF	Alpha	AVE	CR
WPS				0.911	0.632	0.911
	WPS1	0.830	2.559			
	WPS2	0.770	2.420			
	WPS3	0.820	2.473			
	WPS4	0.727	1.987			
	WPS5	0.851	2.324			
	WPS7	0.764	3.062			
JS				0.862	0.558	0.862
	JS1	0.749	1.956			
	JS2	0.776	1.959			
	JS3	0.816	1.919			
	JS4	0.641	1.651			
	JS5	0.742	2.027			
EL				0.826	0.616	0.827
	EL1	0.740	1.678			
	EL2	0.784	2.146			
ER	EL3	0.828	1.987	0.945	0.680	0.944
	ER1	0.899	3.735			
	ER5	0.665	2.756			
	ER6	0.855	3.611			
	ER7	0.810	3.050			
	ER8	0.833	2.965			
	ER9	0.875	3.289			
	ER10	0.798	3.048			
	ER11	0.840	2.575			

**Note:** WPS6, EL4, ER2,3,4 were deleted due to lower loadings

**Table 4.**  
Standardized  
loading, average  
variances extracted  
and composite  
reliabilities

following Henseler *et al.* (2015), who says that HTMT is the most reliable source of validity. They also added that the HTMT values are optimal when below 1. This study's results are between 0.685 and 0.333, which are considered normal to carry out the study (Table 5).

Structural model assessment

For the path coefficients and hypothesis testing, this study used structural model analysis through PLS-SEM using the bootstrapping and blindfolding techniques, respectively. To test the predictive relevance, the estimated predictive relevance  $Q^2$  was calculated through the blindfolding technique following Geisser (1975) and Stone (1974). The results for  $Q^2$  indicate a more significant predictive relevance between WPS and ER at 0.370; they also show more considerable predictive relevance between WPS and JS at 0.386 and between WPS → EL at 0.373 (Table 6). Similarly, the results for the coefficient of determination,  $R^2$ , showed that WPS explained 65.7% of the variance of ER, 74.7% of the variance of JS and 11.3% of the variance of EL. Further, WPS had an effect size ( $f^2$ ) of 0.105 on ER, 2.957 on JS and 0.128 on EL, indicating substantial effects of WPS on the latent variables.

Structural model assessment

For the structural model assessment, bootstrapping technique was applied to test the direct relationships  $H1$ – $H3$ . The indirect relationships via JS and EL were also calculated through bootstrapping from  $H4a$  to  $H4c$ ; the hypothesis testing the  $\beta$ -values,  $t$ -statistics and  $p$ -values were calculated as well (Table 7). The results showed that WPS had a significant relationship with ER ( $\beta = 0.076$ ;  $t = 1.922$ ,  $p = 0.035^*$ ), thus confirming  $H1$ . However, its intensity was weaker than the other hypotheses. The results also showed that WPS had a significant relationship with JS ( $\beta = 0.864$ ;  $t = 24.953$ ,  $p = 0.000^{***}$ ), thus confirming  $H2$ . Similarly, WPS had a significant relationship with EL ( $\beta = 0.337$ ;  $t = 6.745$ ,  $p = 0.000^{***}$ ), thus confirming  $H3$ .

Moreover, the mediation effects using JS and EL were calculated through bootstrapping technique which is good for non-parametric testing and also shows more significant results.

Table 5.  
Discriminant validity  
measurement

	Heterotrait–monotrait ratio (HTMT)			
	EL	ER	JS	WPS
EL	1			
ER	0.685	1		
JS	0.333	0.300	1	
WPS	0.353	0.352	0.568	1

Table 6.  
Relationship analysis  
through consistent  
bootstrapping

Sr. no	Hypothesis	$\beta$	T statistics	$p$ -values	Decision
$H1$	WPS → ER	0.076	1.922	0.035*	Accepted
$H2$	WPS → JS	0.864	24.953	0.000***	Accepted
$H3$	WPS → EL	0.337	6.745	0.000***	Accepted
$H4a$	WPS → JS → ER	0.134	2.329	0.015**	Accepted
$H4b$	WPS → EL → ER	0.053	3.216	0.001***	Accepted
$H4c$	WPS → JS → EL → ER	0.227	5.617	0.000***	Accepted

Note: Significance levels \* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$

The result for *H4a* was accepted at ( $\beta = 0.134$ ;  $t = 2.329$ ,  $p = 0.015^{**}$ ), while the result for *H4b* was accepted at ( $\beta = 0.053$ ;  $t = 3.216$ ,  $p = 0.001^{***}$ ). Furthermore, the serial mediation relationship was tested using consistent bootstrapping on PLS as this technique explains well the multiple mediation relationships and reflective models. For the serial mediation (*H4c*), results showed that the relationship of “WPS  $\rightarrow$  JS  $\rightarrow$  EL  $\rightarrow$  ER” was significant ( $\beta = 0.227$ ;  $t = 5.617$ ,  $p = 0.000^{***}$ ), thus confirming *H4c* (Table 6).

## Discussion

Literature advocates that safety is a fundamental human right that every organisation is liable to provide to its employees at the workplace. Organisations are losing their valuable employees, especially in the health-care sector, where they have to deal with the public regularly, making them vulnerable at all times. Aljabri *et al.* (2020) stated that the absence of safety measures has increased the prevalence of injuries and violent events, resulting in negative employee perception and behaviour towards organisations. JS, EL and ER can be adversely affected by the absence of safety at the workplace.

The WPS problem has been discussed in previous studies (Beus *et al.*, 2016; Zohar, 2010). However, health-care organizations’ safety concept has received little attention (Lame & Dixon-Woods, 2020), leaving room for further exploration. Furthermore, the role of WPS in preventing violent events and influencing ER has not been explored thoroughly in prior studies. Therefore, this study attempts to create a mechanism using WPS and its impact on ER in health-care organisations through a sequential mediation relationship involving JS and EL.

This study found a positive association between WPS and employees’ intention to stay in the organisation. This result indicates that organisations that can provide a safe work environment where employees feel free to work without any fear of being hurt at any time may be able to retain their employees for the long term. This finding is consistent with the existing study by Imna and Hassan (2015). Furthermore, organisations that provide a safer environment have more satisfied and loyal employees (Su, Nguyen-Phuoc, & Johnson, 2019). According to Hofmann and Mark (2006), safety climate is positively related to JS among nurses, consistent with this study’s result that found a significant link between WPS and JS. This finding also highlights the importance of mental peace and happiness, which can only happen when employees feel comfortable at their workplace.

The existing literature also shows a strong association between JS and loyalty (Chuah *et al.*, 2017), indicating that satisfied employees are more likely to remain loyal to their organisation. In the same vein, Su *et al.* (2019) found a significant relationship between perceived safety, satisfaction and loyalty. The present study also tested mediation through JS and EL and found that both relationships have significant impact. Further, this study also tested serial mediation through JS and EL. This study’s findings confirmed the sequential mediation relationship of “workplace safety  $\rightarrow$  job satisfaction  $\rightarrow$  employee loyalty  $\rightarrow$  employee retention”. This result is backed by the SET theory, as organisations initiate a process using WPS to increase employees’ satisfaction levels (Ayim Gyekye, 2005). The more satisfied employees are, the more they will become loyal to the organisation (Chuah *et al.*, 2017).

Variables	$R^2$	$f^2$	$Q^2$
WPS $\rightarrow$ ER	0.657	0.105	0.370
WPS $\rightarrow$ JS	0.747	2.957	0.386
WPS $\rightarrow$ EL	0.113	0.128	0.373

**Table 7.**  
Predictive relevance  
of the constructs

A previous study also demonstrated that loyal employees prefer to work with the organisation instead of leaving (Chen, 2001), indicating that satisfaction and loyalty are psychologically controlled factors representing human emotions. If one occurs, there are chances that the other will also occur, causing a chain reaction that starts with WPS and ends with ER. Based on the results, we can conclude that WPS strongly influences ER, both directly and indirectly, through JS and EL.

## **Implications of the study**

### *Practical implications*

This study has several implications for policymakers, management professionals and practitioners. First of all, policymakers should design practical policies and practices that can be implemented, given that many organisations have policies that look good on paper but are not applicable in the workplace. The process of drafting policies should involve representatives of all stakeholders, such as security staff, management, doctors, nurses and the people directly or indirectly involved in safety assurance. They should design a safety process that facilitates reporting by employees of any unforeseen event. Training on the required response action when an event occurs should be provided to all employees and security personnel. Procedures should be in place to penalise any stakeholder's negligence for gaining employees' trust and confidence in the organisation. The organization's management, including security staff and the people responsible for implementing policies, needs to ensure that the planned policies and procedures function as designed and everyone follows those policies and procedures. Reporting should be fast and well-coordinated across departments and with the security staff. Such practices can improve employees' satisfaction and loyalty to the organisation. If implemented properly, these strategies may help the organisations retain their employees, as the issue of safety and ER is widespread. For instance, the government should encourage employers to adopt WPS actions for workers' health and retain employees. Based on this study's findings, practitioners can explore new avenues for ensuring safety and formulate strategies that ensure WPS.

### *Theoretical and social implications*

This study provides theoretical contribution on specific grounds. For instance, this study is unique as its model  $WPS \rightarrow JS \rightarrow EL \rightarrow ER$  has not been studied in the past; therefore, this provides a valuable insight into the literature. Furthermore, this study tested serial mediation relationship of JS and EL which has not been tested previously in the health-care industry, making it unique. Furthermore, most of the previous studies on WPS covered hazards related to safety, such as accidents, burns and thefts, but this study focused on an important issue rarely discussed previously: safety against violence.

This study is supported by the SET, which will significantly add to the existing literature. Similarly, this study also carries some social implications. For instance, employees' satisfaction and loyalty will significantly improve in safety, increasing positive behaviour towards their work. Such positive behaviour will ultimately benefit society in the form of better services and patient care. In addition, it will result in better disease control and improvement of public health.

## **Limitations and recommendations**

This study has several limitations. Although they are not severe, there is room for improvement. This study looked at only one segment of the health-care industry, consisting

of doctors. Therefore, future research should look at all the stakeholders, encompassing doctors, nurses, paramedics, management and security staff. Moreover, the safety problem is widespread across the globe, affecting many organisations, specifically those operating in the service sector such as health-care, hospitality, leisure and telecommunication. Future research can engage all these service sector components to obtain comprehensive insight into the issue. In addition, embeddedness is a fast-growing concept in management literature that can be incorporated into future studies. Due to regional norms, this research may not apply to organisations in other regions. Therefore, this study's model may be extended in other locations in the future.

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