

MEDIATING EFFECT OF EMPLOYEE ENGAGEMENT IN THE RELATIONSHIP BETWEEN PSYCHOLOGICAL SAFETY AND ADAPTIVE PERFORMANCE OF NURSES IN GHANA¹

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Abstract:

There is attention to adaptive performance because it is crucial to employee success due to alterations in task demands resulting from changes in the work environment. Based on the employee engagement theory, we examined the relationship between psychological safety and adaptive performance through employee engagement. The sample size was 761 nurses. The sampling technique was multistage sampling. The analysis relied on the smart partial least square structural equation model. The results revealed that psychological safety promoted adaptive performance and employee engagement. Additionally, psychological safety significantly and positively predicted employee engagement. Moreover, employee engagement positively mediated the relationship between psychological safety and adaptive performance. Thus, nurses' positive feelings regarding freedom from the fear of harm to their careers and self-images at work generally enhance employee engagement, improving their abilities to respond to changing contingencies.

Keywords: Adaptive performance, employee engagement, psychological conditions, psychological safety

1. INTRODUCTION

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The contexts in which modern organisations operate are continuously evolving, necessitating rapid adaptation by both organisations and employees (Collins et al., 2020; Kebede & Wang, 2022; Malhotra, 2021; Tsaousis & Vakola, 2018). As a result, adaptive performance (AP) has garnered increasing research attention (Park & Park, 2019). Pulakos et al. (2000) define AP as the ability of employees to quickly adjust and make decisions in response to new, uncertain, and ambiguous situations. AP is crucial for employee success, as it serves as a prerequisite for effective performance (Jundt et al., 2014). While existing literature on AP has explored its distinct characteristics (e.g., Naami et al., 2014), a critical gap remains in understanding the underlying drivers of AP and the mechanisms through which it is enacted. Given the theoretical and practical significance of AP in navigating uncertain work environments (Zeng et al., 2020), further exploration is needed to examine how psychological work experiences, such as psychological safety (PS), can stimulate AP through employee engagement (EE).

Employees' psychological conditions, including PS, have been identified as key factors influencing workplace behaviours, particularly employee engagement (EE) (e.g., Gatti, 2016; Łaba & Geldenhuys, 2016). Given that individuals' perceptions of PS significantly impact their level of EE, it follows that PS may positively influence AP. A number of studies have substantiated this positive relationship between PS and employees' ability to adjust to changing work situations (e.g., Groenen, 2021). Specifically, high levels of PS may foster AP, primarily through their impact on EE. This is because PS can enhance self-efficacy, confidence in one's abilities, self-consciousness, psychological empowerment, and self-esteem, all of which contribute to an employee's willingness to be fully immersed in their work (Kahn, 1990) and perform effectively (Kahn, 1990; Taylor, 2019). More specifically, employees' AP may be influenced by both PS and EE. Therefore, PS and EE are interconnected and jointly affect AP, with these relationships being amenable to examination through the lens of Employee Engagement Theory (EET) (Kahn, 1990).

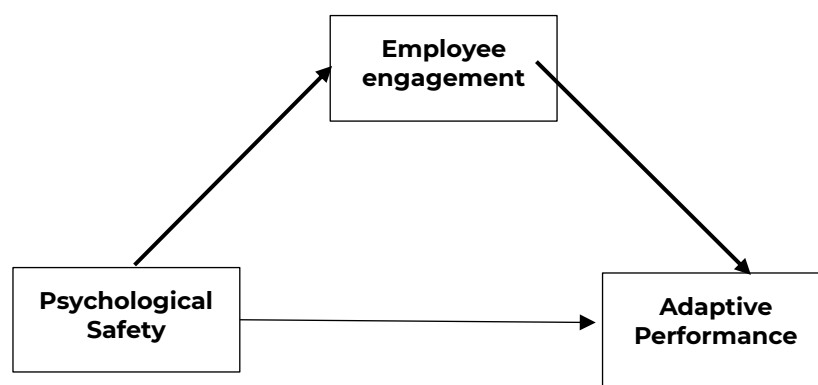


Figure 1: Theoretical framework.

As illustrated in Figure 1, EET elucidates the relationships between PS and AP, PS and EE, as well as the indirect effects of PS on AP through EE. The experience of PS, characterised by a sense of freedom from fear of harm, including risks to self, career, and interpersonal relationships, can serve as an internal motivator for employees. This internal motivation fosters engagement, manifesting as enthusiasm, dedication, and passion for one's work (Kahn, 1990), which, in turn, contributes to AP. Thus, psychological factors such as PS form the foundation for both EE and performance outcomes, including AP (Taylor, 2019). Moreover, since EE is associated with positive feelings toward one's job (Shuck et al., 2017), expressed through employee dedication, passion, and enthusiasm, it may provide the necessary resources for employees to effectively navigate changing work situations.

In dynamic work environments, nurses' ability to swiftly adjust to contingencies, alter behaviours, and maintain focus during changes in work conditions is essential for success

(Charbonnier-Voirin & Roussel, 2012; Pulakos et al., 2000). Nurses play a pivotal role in healthcare delivery systems (Fernandez et al., 2020), and their capacity to respond to rapidly changing situations is particularly critical when attending to patients with diverse behaviours and complex needs. In this context, their ability to adapt to evolving work circumstances is vital to both their personal success and that of the healthcare organisations they serve (Borkowski & Meese, 2020). Consequently, understanding how nurses' AP is influenced by their PS, mental readiness, and emotional and physical engagement at work is crucial.

In Ghana, concerns have been raised regarding the overall performance of the public sector, particularly within the healthcare system (Ministry of Health of Ghana, 2018; Public Service Commission of Ghana, 2015, 2016). Specifically, the performance of public sector nurses in Ghana has consistently fallen short of expectations (Abubakari, 2013), a situation that may be attributed to low pay levels within the public sector (Dartey-Baah et al., 2023). However, efforts to improve performance through financial incentives have been largely ineffective since the 1900s (Ministry of Health of Ghana, 2018; Public Service Commission of Ghana, 2015, 2016). Research suggests that enhancing employee performance in rapidly changing work environments requires employees who are flexible and adaptable (Ilgen & Pulakos, 1999), particularly in service-oriented professions such as nursing (Naami et al., 2014).

The performance challenges faced by nurses in Ghana may be attributed to issues with AP and psychological factors such as PS and EE. Psychological factors, including PS, play a crucial role in explaining behavioural outcomes (Albrecht et al., 2023). For example, PS is a significant predictor of an employee's ability to solve work-related problems (Groenen, 2021; Pitafi et al., 2019). The nature of nursing work is particularly embedded with psychological demands for optimal performance (Birtch et al., 2016). In Ghana, the high demands on nurses, particularly in rural areas where they often assume additional roles due to a shortage of doctors, create a unique need for these psychological factors and AP. This work overload can lead to anxiety, stress, emotional exhaustion, and decreased effectiveness in performance (Kaburi et al., 2019; Nimako, 2021; Okyere et al., 2017). Additionally, inadequate resources, exacerbated by insufficient funding for primary healthcare, further challenge nurses' ability to perform effectively (Umeh, 2018). As such, developing adaptive behaviours to cope with the psychologically demanding nature of their work, particularly in situations where they take on roles without adequate training, is essential for maintaining high levels of performance.

Despite this, research on psychological factors among nurses in Ghana, such as PS, EE, and AP, has been sparse (e.g., Kaburi et al., 2019; Nimako, 2021). This gap in research limits the development of comprehensive human resource management policies aimed at enhancing nurses' performance. Consequently, this hampers the achievement of key objectives in the Ghana Shared Growth and Development Agenda (GSGDA) II (2014–2017), which identifies healthcare sector performance, particularly nursing, as a critical component of national development (Abubakari, 2013). The Health Sector Medium-Term Development Plan (2014–2017) also recognises the centrality of the health sector in Ghana's development (Ministry of Health, 2017). These issues underscore the importance of exploring how non-financial factors like PS, EE, and AP can contribute to improving nursing performance in light of extensive fiscal deficits in the public sector (Younger & Osei-Assibey, 2017).

However, the empirical exploration of the predictive effects of PS on AP and the mediating role of EE remains limited. The relationship between PS and AP has not been extensively studied, particularly in the context of EET, despite the growing application of the theory in various fields (e.g., Franks, 2017; Gatti, 2016). Similarly, the potential mediating effect of EE in this relationship remains underexplored. Therefore, this study seeks to examine the connections between PS, EE, and AP, focusing on how PS influences AP through EE. This investigation will contribute to the AP literature by elucidating the role of PS in fostering AP.

2. LITERATURE REVIEW

2.1 PSYCHOLOGICAL SAFETY AND ADAPTIVE PERFORMANCE

AP, in the view of Allworth and Hesketh (1999), involves employees' ability to alter behaviours due to job conditions and requirements. AP involves the employees' capacity to alter performance behaviour and swiftly decide how to respond to new, ambiguous and unexpected circumstances and happenings (Pulakos et al., 2000). Chan (2000) identifies AP indicators as feeling at ease when tasks change and staying focused and calm during a stressful situation or work-related emergencies. Cullen, Edwards, Casper and Gue (2014) identify supervisor support and management support as influencing AP. Other manifestations of AP include self-efficacy or confidence (Marques-Quinteiro et al., 2015), EE (Eldor & Harpaz, 2016), mental capacity (Good, 2014), emotional stability (Huang et al., 2014), job demands (Sherehiy & Karwowski, 2014) and learning (Kanten et al., 2015).

Psychological safety is the absence of feelings of fear of harm to one's image, career, and interpersonal relations and a workplace that will not punish employees when at work (Khan, 1990; Koopmann et al., 2016; Zhang et al., 2010). Safety is characterised by the absence of fear of harm to the self at work and is embedded with intrinsic motivation (Kahn, 1990). Consequently, safety creates conducive environments (Edmondson, 2019) where new ways of doing things, providing feedback, and not being upset or judged exist (Pulakos et al., 2019). These might provide employees with the ability to adapt to alterations in the work environment by keeping calm during stressful situations and keeping one's focus during emergencies. In this regard, when the work environment is psychologically safe, it allows for faster responses to problems and the tendency to promote AP (Groenen, 2021; Pitafi et al., 2019). As a result, safety might increase AP.

However, apart from Groenen's (2021) study, which found that safety was a driver of AP, this relationship had yet to be explored extensively. Since context affects behaviour (Morris & Tsakissiris, 2017; Tomoaia-Cotisel et al., 2013) and it is relevant for social science investigations (vom Brocke et al., 2016), including the effect of safety on AP, examining the relationship further within the Ghanaian context will be worthwhile. Therefore, we hypothesised that:

Hypothesis 1: Psychological safety positively affects AP.

2.2 PSYCHOLOGICAL SAFETY AND EMPLOYEE ENGAGEMENT

Research has demonstrated a positive relationship between PS and EE. For example, Ge (2020) found a positive association between PS and EE among manufacturing employees in China, and similar results were observed in a study of private sector employees in Thailand (Mat et al., 2019). Other studies have also highlighted the connection between PS and EE (e.g. Tiwari & Lenka, 2016). However, as organisational settings differ across countries and occupations, the results from other contexts may not directly apply to Ghanaian nurses. Based on EET, we propose that Ghanaian nurses who experience PS, characterised by freedom from fear of harm to their careers, self-image, and status, are likely to exhibit higher levels of EE, manifesting as passion, dedication, and enthusiasm toward their work. Therefore, we hypothesise:

Hypothesis 2: Psychological safety positively affects employee engagement.

2.3 EMPLOYEE ENGAGEMENT AND ADAPTIVE PERFORMANCE

EET assumes that engaged employees harness their mental, physical and emotional selves in performance (Kahn, 1990). Therefore, employees who experience high levels of EE exhibit

higher levels of performance because of the passion, dedication and enthusiasm associated with EE (Cudjor, 2022; Kaya & Karatape, 2020). Kaya and Karatape (2020) and Park, Lim, Kim and Kang (2020) found that EE positively affected AP. Consequently, we deduce that nurses with high levels of engagement can exhibit high AP. However, support for the effect of EE on the AP of nurses is rare. For example, Ghazawy et al. (2021) showed that nurses' engagement was positively related to performance. Al Badi et al. (2023) also found a positive association between EE and performance. These studies concentrated on employee performance in general rather than on AP.

Additionally, Zahari and Kaliannan (2023) asserted that there needs to be more focus on the outcomes of EE in the public sector. EE is associated with AP because the increased motivation levels associated with EE may entail benefits beyond the cognitive, affective and physical deployment of the self in performance (du Plooy & Roodt, 2010), in line with the prediction in the EET (Kahn, 1990). One can conjecture that EE may lead to AP of nurses. We, therefore, propose that:

Hypothesis 3: Employee engagement positively predicts AP

2.4 MEDIATING ROLE OF EMPLOYEE ENGAGEMENT

The EET implies that positive psychological work experiences enhance employees' emotive, cognitive and physical presence (EE) and build psychological bonds between the employee, the job and the organisation (Biswas & Bhatnagar, 2013; Kahn, 1990). As a result, EE possesses the potential to serve as a mechanism through which the psychological work experience of safety can be related to AP. This proposition is consistent with the EET argument that safety stimulates EE, which results in positive organisational and individual outcomes (Han et al., 2020; Kahn, 1990).

Previous research has shown that EE mediates relationships between various factors. For instance, Han et al. (2020) demonstrated that EE mediated the relationship between job meaningfulness and in-role performance. Besides, EE indirectly affected the relationships between job characteristics and job performance (Christian et al., 2011), job meaningfulness and performance (Van Wingerden & Van der Stoep, 2018), and person-environment fit and AP (Shahidan et al., 2018). Qurrahtulain et al. (2020) also revealed that employee vigour (a dimension of EE) mediated the effect of inclusive leadership on AP. While there is a lack of empirical evidence of the indirect relationship between psychological safety and AP through EE, relevant pieces of literature have highlighted EE as a mediator between various drivers and outcomes of EE (Christian et al., 2011; Han et al., 2020; Qurrahtulain et al., 2020; Van Wingerden & Van der Stoep, 2018). Research is needed to determine the underlying mechanism by which safety relates to AP. In EET, favourable perceptions about the work environment result in positive psychological work experiences. Since employees' feelings of safety reflect their freedom from fear of harm at work, they are more likely to show enthusiasm and commitment toward their work (EE). It is reasonable to assume that employees who experience safety will display more AP when they are enthusiastic, passionate and dedicated to their jobs (Cudjor, 2022). Therefore, relying on the earlier argument that safety is a driver of EE and in alignment with the EET, it can be deduced that EE may serve as a mechanism through which safety may be related to AP, leading to the hypothesis that:

Hypothesis 4: Psychological safety positively affects AP through EE

Figure 2 presents the conceptual framework derived from the literature, illustrating the relationships between PS, EE, and AP, and highlighting EE as a mediating factor in the PS-AP relationship.

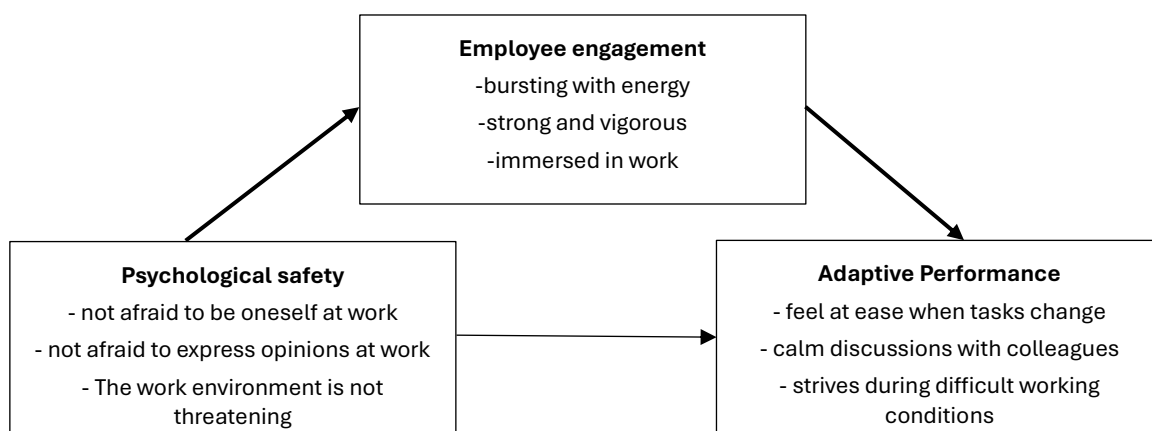


Figure 2: Conceptual model of the links between Psychological Safety, Employee Engagement and Adaptive Performance.

3. METHODOLOGY

3.1 RESEARCH DESIGN, POPULATION, SAMPLE SIZE AND SAMPLING

The study employed a quantitative, cross-sectional research design. The target population consisted of 37,190 registered nurses in Ghana (Ministry of Health [MOH], 2018). The sample size was calculated to be 847 using Cochran's (1963) formula for determining sample size for large populations.

To achieve the study's objectives and ensure the sample was representative of public sector nurses in Ghana, a multistage sampling technique was used to select respondents from hospitals across 14 Metropolitan, Municipal, and District Assemblies (MMDAs) within eight regions of Ghana. The regions and MMDAs were selected based on the geographic distribution of nurses across the country (Saunders et al., 2009). This sampling approach was necessary due to the broad dispersion of nurses within Ghana, with the multistage process ensuring representativeness (Saunders et al., 2009).

The sampling process consisted of five stages. In the first stage, Ghana was divided into 16 administrative regions, which formed the first sampling frame. Given the small size of the population, a minimum of 30% of the population was deemed appropriate for the sample (Nardi, 2003; Neuman, 2007). This resulted in a sample size of approximately five regions. A population sampling factor of three additional regions was added to account for potential sampling errors (Gogtay, 2010), bringing the total to eight regions. The second stage involved randomly selecting 14 MMDAs from the 140 MMDAs across the eight regions. Following Bullen's (2021) guidelines, 10% of the total MMDAs (i.e., 14) was considered an appropriate sample size for the study. The third stage involved randomly selecting one district hospital or major healthcare facility from each selected MMDA, forming the third sampling frame. The fourth stage involved creating a sampling frame of nurses within each of the selected hospitals, and the fifth stage consisted of randomly identifying individual nurses using the lottery method.

3.2 MEASUREMENT OF CONSTRUCTS

AP was measured using Pulakos et al.'s (2000) AP scale, which includes four components: managing work stress, dealing with uncertain situations, adaptability to unpredictable circumstances, and handling emergencies and crises. A 7-point Likert scale, ranging from 1 (strongly disagree) to 7 (strongly agree), was used to assess these components. Sample items included: "I strive to adapt to difficult working conditions."

PS was measured using May et al.'s (2004) scale. Items were rated on a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). A sample item was: "I have no fear of harm to my career at work."

Employee engagement was assessed using the Utrecht Work Engagement Scale (Schaufeli et al., 2006), which consists of 9 items. A 7-point frequency scale was used, ranging from 0 (never) to 6 (always). A sample item was: "I get carried away when working."

Prior to administering the questionnaires, written informed consent was obtained from all participants. Out of the 847 distributed questionnaires, 761 were deemed usable for analysis.

3.3 DATA ANALYSIS PROCEDURE

Data analysis was performed using descriptive statistics in IBM SPSS, while Smart PLS-SEM 3 was employed to assess the hypothesised relationships. The analysis proceeded in two stages: first, the measurement model was evaluated, followed by the structural model analysis. The measurement model was assessed for construct reliability, convergent validity, discriminant validity, and common method bias. Construct reliability was measured using composite reliability (Chin, 1998), while convergent validity was assessed via average variance extracted (AVE) (Fornell & Larcker, 1981). Discriminant validity was evaluated using the heterotrait-monotrait ratio (HTMT) (Henseler et al., 2015), and common method bias was checked using the variance inflation factor (VIF) (Kock, 2015).

The structural model evaluation focused on path coefficients, the coefficient of determination (R^2), and effect size (f^2). The R^2 value was considered substantial at around 0.67, moderate at 0.33, and weak at 0.19. A bootstrapping sample size of 5,000 with 95% confidence intervals was used for significance testing. Relationships were considered significant when the t-value exceeded 1.96, and the p-value was less than 0.05.

4. ANALYSIS AND DISCUSSION OF RESEARCH RESULTS

4.1 BACKGROUND CHARACTERISTICS OF RESPONDENTS

The background characteristics of the study respondents were analysed, focusing on sex and nurse type. Of the 761 valid responses, 263 (34.6%) were male, while 498 (65.4%) were female. In terms of the type of nurse, the majority of respondents, 542 nurses (71.2%), were registered nurses, while 219 nurses (28.8%) were enrolled nurses.

4.2 DESCRIPTIVE STATISTICS OF CONSTRUCTS

Descriptive statistics, including means, standard deviations, and correlation coefficients, were computed to interpret the data collected from the respondents. These statistical measures provided insights into the relationships among the study variables. The results, as summarised

in Table 1, were generated using IBM SPSS Statistics Version 21. Notably, all correlations were statistically significant at $p < 0.01$.

Table 1: Descriptive Statistics of Constructs

	Mean	Standard deviation	PS	EE	AP
PS	5.230	1.087	1		
EE	4.719	.786	.669	1	
AP	4.772	.630	.477	.456	1

4.3 EVALUATION OF MEASUREMENT MODEL

The results presented in Table 2 were derived from the structural model analysis using Smart PLS 2. The findings demonstrate that convergent validity, as assessed using Fornell and Larcker's (1981) average variance extracted (AVE), was satisfactory, with all values exceeding the threshold of 0.5 ($AVE > 0.5$). Internal consistency was evaluated using Chin's (1998) composite reliability (CR) and Cronbach's Alpha (α). The results indicated that all construct items exhibited internal consistency, with CR values greater than 0.6 (Nunnally & Bernstein, 1994) and α values exceeding 0.75. Furthermore, convergent validity was confirmed, as all AVE values were above the 0.5 threshold.

Table 2: Construct Reliability and Validity

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
AP	0.889	0.894	0.912	0.565
PS	0.950	0.954	0.955	0.571
EE	0.911	0.911	0.927	0.559

Discriminant validities were checked using the heterotrait-monotrait correlation ratio (HTMT) (Henseler et al., 2015). The results from Table 3 revealed that the criteria for discriminant validity had been met ($HTMTs < 0.85$) [Henseler et al., 2015].

Table 3: Discriminant Validity

	AP	EE	PS
AP			
EE	0.546		
PS	0.627	0.707	

Collinearity was assessed using the variance inflation factor (VIF). The results presented in Table 4 showed that multicollinearity was not a concern ($VIF < 5$) [Kock, 2015].

Table 4: Collinearity

	AP	EE	PS
AP			
EE	1.819		
PS	1.189	1.000	

4.4 STRUCTURAL MODEL ANALYSIS

From the structural model in Figure 3, PS and EE accounted for 37% of the variance in AP ($R^2=0.370$). The f^2 results in Table 5 revealed that the contributions of H1, H2, and H3 were moderate, large, and small ($f^2 > 0.02$), respectively (Cohen, 1988). Table 5 shows that increases in PS positively and significantly increase AP. Thus, hypothesis 1 was confirmed. This finding is consistent with the propositions of the EET. Furthermore, the results revealed that PS significantly and positively predicted EE, thereby endorsing hypothesis 2 and supporting the EET proposition that positive psychological work experiences are the basis for EE (Kahn, 1990). Additionally, EE predicted AP positively and substantially. Therefore, hypothesis 3 is supported. This result confirmed the EET, which viewed EE as a positive construct with positive individual outcomes (Khan, 1990).

Table 5: Results for Structural Model Analysis

Path	Coefficient (B)	Effect size (f^2)	t-statistics	p-value	R^2
H1: PS -> AP	.478	.199	12.741	.000	37 %
H2: PS -> EE	.671	.819	25.666	.000	
H3: EE->AP	.174	.026	3.204	.001	

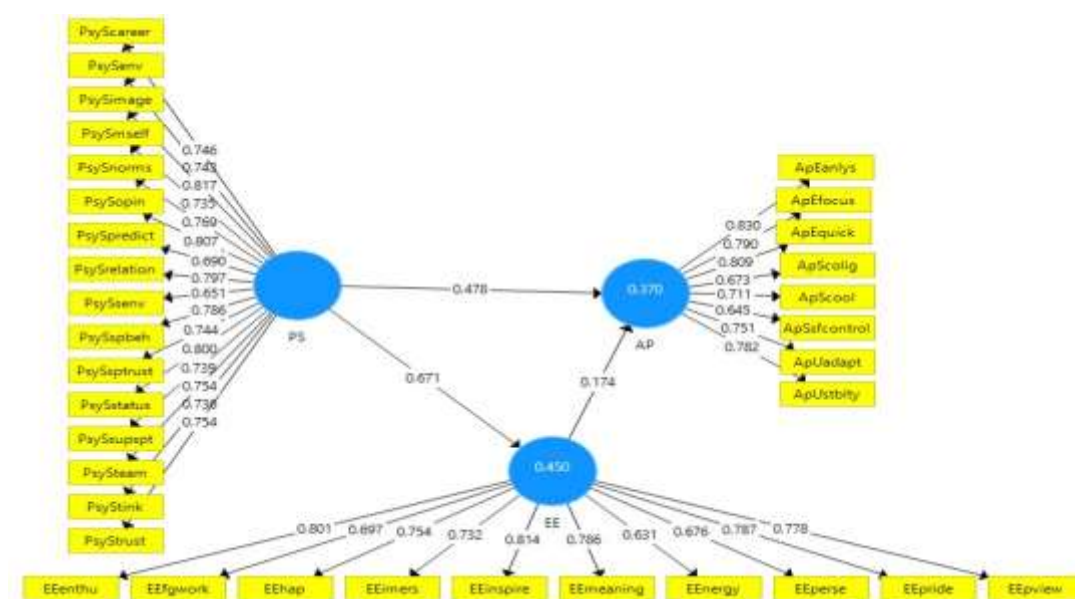


Figure 3: Structural model of the mediating effect of employee engagement in the relationship between psychological safety and adaptive performance.

4.5 MEDIATION ANALYSIS

This paper examined the mediating effect of employee engagement in the association between PS and AP. As shown in Table 6, employee engagement positively and substantially mediated the relationship between PS and adaptive performance, supporting hypothesis 4. From the table, the total effect of PS on AP was also significant. The direct effect of the relationship between PS and AP was also significant and positive. Therefore, employee engagement partially mediated the relationship between PS and AP.

Table 6: Mediation Results

total effect (ps->ap)			direct effect (ps->ap)			indirect effect (ps->ee->ap)		
*Path coeff.	**t-s	***p-v	*path coeff.	t-s	p-v	*path coeff.	**t-s	***p-v
.594	15.941	.000	.478	12.741	.000	.117	3.238	.001

*path coefficient **t-statistics ***p-value

4.6 DISCUSSIONS

The primary aim of this study was to evaluate the mediating role EE in the relationships between PS and AP among hospital nurses in Ghana. Additionally, the study examined the direct relationships between EE and AP, PS and EE, and PS and AP. As hypothesised, PS was found to have a positive effect on AP. One possible explanation for this is that PS fosters an environment in which employees feel comfortable sharing information, taking risks, and learning, thereby equipping nurses with the resources necessary to adapt to challenges in the workplace (Tiwari & Lenka, 2016). This finding is consistent with Groenen's (2021) study, which showed that higher levels of PS predicted greater AP in the Netherlands.

Furthermore, PS was positively associated with EE, aligning with similar studies (e.g., Ge, 2020; Tiwari & Lenka, 2016). Additionally, EE was found to significantly and positively predict AP, a result consistent with the work of Dickinson (2021), who found that EE promotes higher levels of AP by enhancing positive emotions and motivation (Kaltainen & Hakanen, 2020).

Lastly, the study revealed that EE significantly mediated the relationship between PS and AP. This finding suggests that the internal motivation, energy, and passion associated with both PS and EE enable employees to exceed their prescribed roles and engage in voluntary performance behaviours, such as AP. These results support previous research that highlights the role of EE as a mediator between various drivers and outcomes, as demonstrated in studies by Han et al. (2020), Quratulain et al. (2020), and Van Wingerden and Van der Stoep (2018).

4.6.1 Theoretical implications

This study makes a significant contribution to the human resource management (HRM) literature by integrating psychological constructs with EE and examining AP as an outcome variable. By exploring the intricate relationships between PS, EE, and AP, this research enriches the understanding of AP from an HRM perspective.

The study's context in Ghana adds relevance to the HRM field, as it examines how working conditions influence motivation and attitudes, a factor that can vary across different cultural and national settings (Quratulain & Khan, 2015). In Ghana, nurses often take on roles beyond their

formal training (Okoyere et al., 2017), making this research especially important. Given the significance of the outcomes of this study, the work environment in Ghana highlights the necessity for employees to experience positive psychological states at work. The study's design effectively demonstrated the role of PS in enhancing AP through EE. Conducting similar research in different work environments would provide further insight into how work context influences these relationships.

This study underscores the importance of PS as a predictor of both EE and AP. This insight is crucial for HRM, particularly in the health sector, where there is limited understanding of how EE mediates the relationship between PS and AP. Additionally, the analytical approach of the study provides valuable insights into how positive psychological work experiences can foster higher EE, ultimately leading to improved AP. The findings of this research introduce a new phase in academic discussions within HRM, emphasising the need to improve psychological work experiences and enhance AP through the lens of employee engagement theory. Furthermore, the study reinforces the idea that nurses who feel psychologically safe tend to exhibit higher levels of EE. When engaged, their intrinsic motivation, dedication, passion, and enthusiasm contribute to better performance outcomes, including AP.

In conclusion, the findings of this study offer important theoretical implications. The investigation contributes empirical evidence to the growing body of literature on the role of PS in enhancing both EE and AP. Kahn (1990) suggests that PS is a key factor in fostering EE, which in turn leads to positive individual and organisational outcomes (Kahn, 1990; Saks & Gruman, 2014). This study confirms that PS and EE are integral to enhancing AP, as they are fuelled by internal motivation, aligning with ongoing debates in the literature about the influence of PS and EE on employee behaviour (Obuobisa-Darko, 2019; Uddin et al., 2019).

4.6.2 Practical implication

This study has practical implications for organisations and policymakers. By understanding how employee's psychological work experiences, which manifest in feelings of freedom from harm to the self at work, and the extent of employee dedication, passion and enthusiasm towards their work, organisations can develop interventions and policies that increase psychological experiences at work, enthusiasm, dedication and absorption. Therefore, organisations and policymakers must pay attention to these factors if they want employees to respond favourably to changing work conditions.

Consequently, the findings implied that PS is a relevant driver for nurses to amend their behaviours to adapt to changing work circumstances. As such, health policymakers and managers need to focus on the issues vital to the needs of nurses, hence their levels of AP. Health sector managers and policymakers need to extend attention to improving the psychological work experiences of health workers. These findings are relevant for nurses, especially in developing countries like Ghana, where there are pressures on nurses to deliver quality health care despite the lack of adequate health facilities and equipment, making their work more psychologically daunting. This will increase their enthusiasm, passion and dedication to the work.

The findings also imply that health managers and policymakers on health in developing countries, particularly Ghana, where financial incentives are not adequate to motivate employees, must put measures in place and create EE environments. Because EE is nonmonetary, it might be the panacea for low performance and promote the nurses' abilities to cope with the changing health sector environments due to its impacts on several individual and organisational outcomes.

To learners and researchers, the findings of this research can become an essential source of reference. This paper has shown the potential influence of EE on the effect of safety on AP. This study showed that PS positively and significantly influenced AP and EE. These results align with the proposition of the EET that because psychological work experience is characterised by

internal motivation, they tend to result in positive outcomes (Kahn, 1990), including AP. This signifies that increased freedom from the fear of harm at work results in high levels of their ability to alter their behaviours in response to changes in work conditions.

In the field of human resource management, the findings of this study have divulged insights into factors that human resource professionals in the health sector can rely on to ensure that nursing professionals can face the rapidly altering work environments in which nurses work and develop the capacity to quickly adjust their behaviours in response to the changes (Borkowski & Meese, 2020; Park & Park, 2019). AP can be promoted and sustained by recognising the importance of PS and EE. Therefore, human resource practitioners must create work environments that promote positive psychological work experiences, including freedom from internal personal risk at work, if they want their employees to be engrossed in their work and amend their behaviours in response to rapidly changing work situations. Consequently, the findings of this study inform human resource management strategies regarding how to improve the AP of nurses.

Regarding the implications for performance, managers and policymakers in the health sector may gain insight from this investigation into how nurses' feelings about their work environment factors can improve performance. Furthermore, managers in the health sector, where employees value the extent of the freedom from fear of harm to their self-image, career, and status, must create organisational climates that promote these factors. This is because of the positive effect of these factors on the level of enthusiasm, dedication, and passion toward work, which enhances employees' ability to cope with changing work situations in the health sector and overall performance. The findings of this investigation also imply that health sector managers should provide conditions that foster positive psychological work experiences, which are required to effectively handle the arduous nature of a health worker's job.

5. CONCLUSIONS, SUGGESTIONS AND LIMITATIONS OF THE STUDY

Generally, positive feelings about the work environment promoted the nurses' ability to respond favourably to workplace alterations. To a large extent, nurses could manage stress, work in uncomfortable situations, and make quick decisions when there are changes in their work circumstances due to positive feelings, which resulted from a lack of fear of harm to their career or self-image when expressing themselves at work. Furthermore, the nurses' dedication, passion, and enthusiasm towards their work enhanced their abilities to handle changes in their work situations.

Besides, when nurses perceive that they are free to express themselves at work without injuring their careers and reputations, this will likely increase their passion, dedication, and enthusiasm toward work. This, in turn, will likely improve their ability to make quick decisions and remain calm during variations in their work situations.

A limitation of this study is that multilevel analyses were not conducted. While the paper recognises individual differences in responses to work environment cues, the study did not sufficiently explore how these findings might be impacted by contextual factors such as cultural differences, healthcare system variations, the age of nurses, their marital status, work experience, their locations, facilities in the hospitals where they work, years of training, or differences in nursing roles and responsibilities. These could be vital in further explaining the relationships established.

Besides, due to the cross-sectional nature of this study, it will be difficult to conclude a cause-and-effect relationship among the variables studied. Establishing trends is also difficult because cross-sectional studies are unable to lend themselves to the analysis of behaviour over time.

Finally, although performance literature categorizes performance into process performance (adaptive performance, extra-role performance, and counterproductive performance) and outcome performance (job/task performance), this study did not explore how PS and EE might impact extra-role performance, counterproductive performance, and task performance.

Following the limitations of this study, we recommend that future research should examine the relationships among the PS, EE and AP with a focus on multilevel analysis that includes contextual factors including cultural differences, healthcare system variations, age of nurses, their marital status, work experience, their locations, facilities in the hospitals where they work and years of training or differences in nursing roles and responsibilities. Additionally, we suggest that future research could assess the established relationships in this study in a longitudinal investigation in order to establish trends of behaviour. Lastly, future research could assess the roles of PS, EE and performance with a focus on extra-role performance, task performance and counterproductive behaviour.

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