

The Effectiveness of Digital Training in the Post-Pandemic Era: Evidence from Community Health Worker

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Abstract

This study investigates the relationship between digital training effectiveness and job performance while considering the mediating role of digital self-efficacy, grounded in Social Cognitive Theory. A sample of 194 community health workers in southern Africa participated in the study. Digital training effectiveness, digital self-efficacy, and job performance were measured using validated scales. Various statistical techniques were utilized to analyze the data and examine the hypothesized mediation model. The results indicated a notable and positive association between the effectiveness of digital training and digital self-efficacy. Furthermore, digital self-efficacy significantly mediated the relationship between digital training effectiveness and job performance. These results suggest that effective digital training programs can enhance community health workers' self-efficacy beliefs, which, in turn, positively influence their job performance. The implications of these findings emphasize the importance of designing and implementing effective digital training initiatives that foster digital self-efficacy among community health workers. Strengthening digital self-efficacy through training interventions can have a substantial impact on improving job performance in healthcare settings. Additional investigation is warranted to delve into supplementary factors and mechanisms that might impact the interplay among digital training effectiveness, digital self-efficacy, and job performance.

Keywords: Digital training; digital self-efficacy; job performance.

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I. Introduction

The COVID-19 pandemic has underscored the crucial role played by community health workers (CHWs) in delivering healthcare services to vulnerable populations (Rahman et al., 2021). As the world transitions into the post-pandemic era, it becomes increasingly important to provide CHWs with advanced digital training to enhance their performance and improve healthcare outcomes (Gadsden et al., 2022). The term "community health worker" encompasses a range of individuals who serve as health aides within their communities. The community health workers in question are chosen, educated, and engaged in employment within the precise communities to which they are affiliated. A definition proposed by a WHO Study Group states that community health workers should be community members themselves, chosen by the community, accountable to the community's needs and priorities (Ingram et al., 2008). While they receive support from the health system, they may not necessarily be part of the government and typically undergo shorter training compared to professional health workers. This definition captures the essential characteristics and principles of community health workers, highlighting their close connection to the communities they serve and their integral role in addressing community health needs. In remote areas where healthcare professionals are scarce, CHW programs have emerged as an effective strategy to improve access to and quality of primary healthcare (Agarwal et al., 2019). These programs have been integrated into the healthcare delivery systems of many countries worldwide for several decades. Particularly in developing nations, CHW programs have been successfully implemented, recognizing the valuable role CHWs can play. CHWs are instrumental in identifying common illnesses, providing referrals as needed, and even managing simple health conditions directly at the household level. Employing the knowledge and community presence of CHWs, healthcare services can reach underserved populations in remote areas, ensuring that essential healthcare is delivered efficiently. An effectively managed Community Health Worker (CHW) program integrated into a well-functioning primary healthcare system has the potential to revolutionize healthcare delivery (Agarwal et al., 2019). By bringing care directly to households and establishing a crucial connection between community members and the primary health care system, CHWs ensure a seamless continuum of care across multiple points. These dedicated individuals, who often come from the communities they serve, enhance access to healthcare services, provide health promotion and education, facilitate referrals, and build trust within the community. Moreover, CHW programs prove to be cost-effective, preventing the progression of diseases and reducing the burden on specialized healthcare facilities. Ultimately, the integration of CHWs into a well-functioning primary health care system empowers individuals, improves

health outcomes, and fosters community engagement in healthcare. However, the importance of appropriate training during such times has been highlighted, as the performance of health workers is vital for the resilience of the health sector. With changing expectations and the emergence of new tools and technologies, organizations are compelled to reassess effective training methods. Ensuring that CHWs receive training on infection prevention and control, telehealth utilization, effective communication with diverse populations, data management and analysis, and community engagement has become paramount (Kalluru et al., 2023; Musoke et al., 2019).

However, in the post-pandemic era, advanced digital training for CHWs should focus on enhancing their capacity to provide high-quality healthcare services that are responsive to diverse community needs. The utilization of digital tools and platforms can be leveraged to improve healthcare outcomes (Naslund et al., 2019). Digital training is particularly relevant for frontline workers in the post-pandemic era, as it aligns with the increasing use of technologies and digital services in pandemic control efforts. However, there is a gap in the literature concerning frontline workers and their adaptation to new technologies. Digitalization, encompassing technical and social aspects of applying digital technologies in a context, holds the potential to benefit healthcare systems. However, it is acknowledged that many promises associated with digital technologies in healthcare have yet to materialize, with challenges such as non-use, resistance, and workarounds hindering their integration into healthcare work practices. One crucial determinant of successful technology adoption and utilization is self-efficacy, which refers to an individual's belief in their capabilities to effectively perform specific tasks. Bandura's Social Cognitive Theory posits that self-efficacy plays a significant role in determining an individual's motivation, behavior, and performance outcomes. In the context of digital technologies, digital self-efficacy refers to individuals' beliefs in their ability to use and navigate digital tools and platforms.

This article examines the efficiency of digital training in improving the performance of health workers of South African backgrounds. Specifically, it explores the literature on digital training efficiency and the performance of health workers. While the relationship between training effectiveness and job performance has been widely studied, there is a gap in understanding how digital self-efficacy mediates this relationship in the context of CHWs. Therefore, this study aims to investigate the mediating role of digital self-efficacy in the relationship between digital training effectiveness and job performance among community health workers. The study's methodology, including data collection and analyses, is detailed in the subsequent section. The results of the study are presented, followed by a discussion of the findings and the prioritization of training interventions to help CHWs reach their full potential. Finally, avenues for future research are proposed to facilitate the successful digitalization of healthcare in low and middle-income countries.

II. Theoretical Background and Hypothesis Development

This study relies on Social Cognitive Theory as a theoretical framework to examine the relationship between digital training effectiveness, digital self-efficacy, and job performance among community health workers (CHWs). Social Cognitive Theory, as proposed by (Bandura et al., 2003) highlights the significance of self-efficacy beliefs in shaping human motivation, behavior, and performance. According to this theory, individuals' self-efficacy beliefs play a crucial role in determining their confidence in their capacity to accomplish specific tasks, ultimately influencing their behavior and performance outcomes (Pajares, 2003).

In the specific context of digital training effectiveness and job performance among CHWs, Social Cognitive Theory suggests that enhancing digital self-efficacy, which refers to CHWs' beliefs in their ability to effectively utilize digital tools and technologies, can have a positive impact on their job performance. When CHWs have higher levels of digital self-efficacy, they are more likely to approach digital training with confidence, actively engage with the content, and effectively acquire the necessary skills and knowledge. This, in turn, can lead to improved job performance outcomes, such as increased proficiency in using digital tools, better data management, enhanced communication with stakeholders, and more efficient delivery of healthcare services. In adopting Social Cognitive Theory as a theoretical lens, this study aims to explore how digital training effectiveness influences CHWs' digital self-efficacy and, subsequently, their job performance. Understanding this relationship can provide valuable insights for designing and implementing digital training programs that effectively enhance CHWs' skills, confidence, and overall job performance. Furthermore, it highlights the importance of considering self-efficacy beliefs as a key factor in promoting the successful integration of digital tools and technologies in the community health workforce.

2.1 Digital Training Effectiveness and Job Performance

The impact of technology is significant in the health sector, whereby there is a growing need for delivering digital health interventions (Sasseville et al., 2023). The scope of digital health interventions is wide, encompassing software and technological applications that enable the delivery of necessary treatments to patients (Finucane et al., 2021). In certain situations, healthcare professionals operating in rural and remote areas find digital health technologies highly advantageous due to their efficiency (Haleem et al., 2021). These

technologies enable them to provide services through electronic devices (Manyazewal et al., 2021). The utilization of big data allows for the gathering of information that can serve multiple purposes, such as training new doctors and enhancing existing care methods for COVID-19 (Secundo et al., 2021). Healthcare professionals, especially lay health workers in low- and middle-income contexts, acknowledge the capabilities of digital health technologies in enhancing care coordination. These technologies enable them to establish connections with various stakeholders in the healthcare system, clients, and communities, thereby facilitating more effective delivery of healthcare services. According to Buehler et al. (2013), technology has the capacity to empower community health workers, enhancing their efficiency in addressing primary healthcare necessities, fostering synergy within the healthcare system, and amplifying their impact. However, it is important to acknowledge that not all health workers perceive digital health interventions as efficient. In some cases, these interventions fail to minimize their workload and, in fact, may increase it. Health workers may perceive the introduction of digital health interventions as an additional burden, particularly when it entails maintaining both digital and paper-based systems.

However, the performance of Community Health Workers (CHWs) can be hindered by inadequate training and re-training, lack of supportive supervision, and ineffective job aids (Hill et al., 2014; Roome et al., 2014). To maximize the potential of CHWs in the emerging digital health field, management should adopt innovative and powerful approaches to strengthen health system support for them, thereby increasing their effectiveness in accomplishing their tasks. Several studies have investigated the impact of digital health interventions on CHW performance (Ballard & Montgomery, 2017; Deussom et al., 2022; Feroz et al., 2021). For example, in Tanzania, CHWs were trained to utilize smartphone applications designed to improve data management, such as patient tracking, and to deliver essential health and nutrition messages to pregnant women and mothers (Hackett et al., 2019). These interventions highlight the potential benefits of digital health technologies in enhancing the capabilities and performance of CHWs in delivering healthcare services. In a study by (Qin et al., 2013) assessing the appropriateness of a telemedicine system in the Kenyan context, Community Health Workers were consistently identified as requiring technology and the necessary "respect required to utilize medical equipment" for the benefit of the community.

(Alipour & Payandeh, 2022) argue that health workers' existing digital literacy can impact their acceptance, adoption, and utilization of digital health interventions. Health workers with lower levels of digital literacy may face challenges when using digital health interventions. Health workers with lower levels of digital literacy may face challenges when using digital health interventions. Whereas Health workers who are proficient in using mobile devices tend to hold positive views about their usefulness. However, health workers who struggle with technology may have negative perceptions, difficulties understanding the generated information, and anxiety about making errors. In some cases, inadequate digital literacy poses a threat to job security. Nonetheless, even technologically competent users require ongoing support and repeated training in software and device usage. Health workers prioritize user-friendly and dependable equipment, as well as continuous technical support. The acceptance and utilization of digital health systems by health workers are greatly influenced by their training. Although some health workers may encounter difficulties in understanding and using digital health technologies, both the health workers themselves and their trainers believe that training and familiarity with these technologies can effectively address these challenges. Furthermore, the involvement of clinical mentors who actively use mobile health technologies is vital for ensuring successful adoption and progress in learning among health workers.

Hypothesis 1: Digital training efficiency significantly influences CHWs' job performance

2.2 The mediation of digital self-efficacy

Prior studies on the acceptance and adoption of information technologies have highlighted the importance of perceived self-efficacy in influencing users' attitudes. For instance, research conducted by (Rahman et al., 2016) has examined how self-efficacy perceptions impact user attitudes toward health technology, revealing a positive relationship between self-efficacy and attitudes toward the use of health technologies. Individuals who are characterized by a high degree of self-efficacy exhibit an absence of intimidation in the face of emergent technology; instead, they are imbued with a motivation to assiduously embrace novel challenges. Furthermore, research suggests that self-efficacy beliefs can influence the perceived usefulness and ease of use of technology, including health informatics applications (Zhang et al., 2017). It is recognized that the evaluation of self-efficacy beliefs ought to be congruent with the distinct performance and realm of interest. As a result, self-efficacy that is specific to a particular domain is anticipated to possess greater predictive potency compared to scales of general self-efficacy. In the healthcare arena, for instance, application-specific self-efficacy denotes an individual's assurance in their capacity to utilize health information portals (HIP) for the acquisition of health-related data and services. General self-efficacy is believed to influence task-specific self-efficacy within the computer domain and may even have an accumulative effect on software-specific self-efficacy. However, there is currently limited empirical evidence establishing the connections

between general and task-specific self-efficacy. Previous research has established positive connections between Internet self-efficacy and Internet usage, highlighting the significance of individuals' confidence in effectively mastering new technology for adoption. Furthermore, self-efficacy that is tailored to a specific application has been demonstrated to prognosticate the adoption of health information portals by end-users. SE refers to how individuals evaluate their capacity to accomplish a specific task and is a crucial determinant influencing the future use of new technology. In the context of technology, SE represents an individual's strong conviction in their aptitude and skill set to successfully handle technology-related tasks. It is believed that one's self-efficacy affects how widely telemedicine, a ground-breaking technology, is adopted. This, in turn, shapes how individuals gauge the expected ease or effort needed to utilize it. A few studies have suggested that self-efficacy can act as a mediator in the relationship between training and job performance. For example, (Chang & Tsai, 2022) found that university students' self-efficacy mediated the relationship between their educational environment and academic performance. (Zaki et al., 2019) argued that training interventions can influence self-efficacy, which in turn, affects job performance. However, specific literature examining self-efficacy as a mediator between digital training effectiveness and CHWs' job performance is scarce. Therefore, this research seeks to verify this assumption in the context of the study.

Hypothesis 2: Self efficacy mediates the relationship between Digital training effectiveness and CHWs job performance

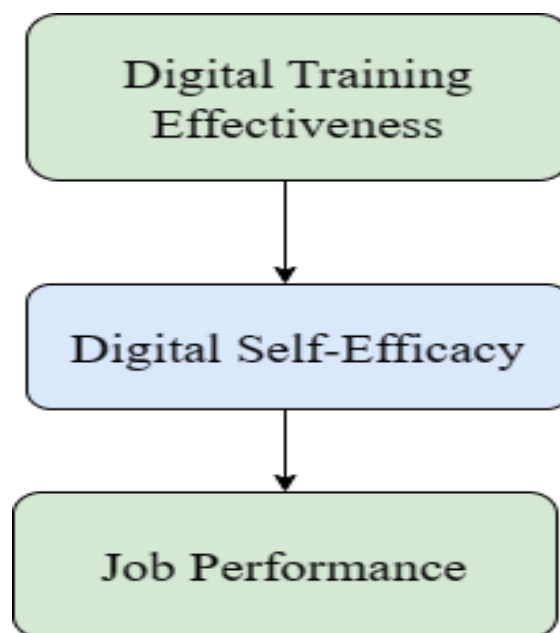


Figure 1 Conceptual framework

III. Methodology

This study adopts a quantitative research approach to examine the relationship between digital training effectiveness, digital self-efficacy, and job performance among community health workers (CHWs). A cross-sectional design has been utilized to collect data at a specific point in time, allowing for the examination of these variables and their interconnections.

3.1 Data

The study involved a sample of 194 community health workers from various healthcare facilities in the target region. Participants were selected using a purposive sampling technique, from southern African background, with diverse experience levels. Inclusion criteria for participants included being actively engaged as community health workers and having undergone digital training as part of their professional development.

The demographic profile of the participants in table 1 reveals several notable aspects. First, there is a relatively balanced representation in gender, with males slightly outnumbering females. This indicates that both genders are actively participating in community health work and digital training programs. Significantly, most of the participants fall within the age group of 21 to 30 years, highlighting the presence of a younger workforce in community health care. This could be indicative of a generation that is more adaptive to technological advancements, which is crucial in the context of digital training. When considering the experience levels, a substantial portion of the sample has less than one year of experience, which emphasizes the need for effective

training programs for newcomers in the field. Moreover, the almost equal distribution of educational qualifications between bachelor's and master's degrees points towards a well-educated sample population. This can have implications on the ease with which they adopt digital tools and platforms for training. Furthermore, the educational background may also influence the expectations and outcomes of the training programs. This demographic data provides a foundation for understanding the varied backgrounds of community health workers, which is essential in tailoring digital training programs and evaluating their effectiveness and impact on job performance.

Table 1 Demographic Characteristics

		Frequency	Percent	Valid Percent	Cumulative Percent
Gender	Female	91	46.9	46.9	46.9
	Male	103	53.1	53.1	100.0
Age	21 to 30 years	126	64.9	64.9	64.9
	31 to 40 years	29	14.9	14.9	79.9
	41 to 50 years	39	20.1	20.1	100.0
Experience	Below one year	80	41.2	41.2	41.2
	one to two years	48	24.7	24.7	66.0
	two to five years	27	13.9	13.9	79.9
	Above five years	39	20.1	20.1	100.0
Education	Bachelor's degree	96	49.5	49.5	49.5
	Master's degree	98	50.5	50.5	100.0
	N	194	100.0	100.0	

3.2 Measurement

To measure digital training effectiveness, a validated scale such as the Digital Training Effectiveness Scale (DTES) was utilized adapted from (Alsweed et al., 2014). The scale assessed the participants' perception of the effectiveness of their digital training in enhancing their skills, knowledge, and abilities to perform their job responsibilities. Digital self-efficacy was measured using a reliable and validated instrument, such as the Generalized Self-Efficacy Scale (GSE) adapted for the digital context (Venkatesh et al., 2003). The scale assessed the participants' belief in their capabilities to effectively use digital tools and technologies in their work as community health workers. Job performance was assessed using a multidimensional scale adapt from Williams, L. J., & Anderson, S. E. (1991). Whereas in the context of the study it captures various dimensions of performance relevant to the role of community health workers. This may include measures of task performance, communication skills, patient satisfaction, and adherence to protocols.

Table 2 Items Measurement and reliability

Constructs	Items	Loadings	Alpha	CR	AVE
Digital Training Effectiveness Scale (DTES)	DTE1	0.456	0.7	0.655	0.504
	DTE2	0.79			
	DTE3	0.629			

Generalized Scale (GSE)	Self-Efficacy	DSE1	0.812			
		DSE2	0.83	0.841	0.895	0.741
		DSE3	0.936			
community health workers Job performance (CHW_PER)		HWP2	0.895			
		HWP3	0.584	0.701	0.828	0.623
		HWP5	0.853			

The above results in table 2 provide important insights into the measurement items used to assess digital training effectiveness, digital self-efficacy, and job performance. For digital training effectiveness DTE1 demonstrates a moderate factor loading (0.456), indicating its contribution to measuring this construct. Although the factor loadings for DTE2 (0.79) and DTE3 (0.629) are also provided, their specific contributions to the construct remain unclear. Nonetheless, DTE1 exhibits acceptable internal consistency (alpha = 0.7) and contributes to the overall reliability (CR = 0.655). It captures a moderate amount of variance (AVE = 0.504), suggesting its relevance to the construct. Regarding digital self-efficacy, DSE1 exhibits a strong factor loading (0.812), indicating its significant association with the construct. Additionally, DSE2 (0.83) and DSE3 (0.936) demonstrate notable factor loadings. DSE1 displays good internal consistency (alpha = 0.841) and contributes to the overall reliability (CR = 0.895). It captures a substantial amount of variance (AVE = 0.741), suggesting its importance within the construct. For job performance (HWP), HWP2 demonstrates a strong factor loading (0.895), indicating its pivotal role in measuring the construct. HWP3 (0.584) and HWP5 (0.853) also exhibit significant factor loadings. HWP2 demonstrates acceptable internal consistency (alpha = 0.701) and contributes to the overall reliability (CR = 0.828). It captures a moderate amount of variance (AVE = 0.623), indicating its relevance to the construct. Considering these results, the measured items show acceptable to strong factor loadings and reliability coefficients, suggesting their effectiveness in measuring digital training effectiveness, digital self-efficacy, and job performance. The items were transformed accordingly to the respective constructs. However, further analysis is needed to evaluate interrelationships between the variables.

IV. Results and Discussion

4.1 Regression Results

At first a multiple regression analysis is conducted in table 3 to examine the influence of digital training effectiveness, digital self-efficacy on job performance, including control variable such as the demographic variables among community health workers (CHWs).

Table 3 Regression results

Variables	B	Std. Error	Beta	T	Sig.
(Constant)	-3.824	0.252		-15.2	0.000
Gender	-0.436	0.102	-0.175	-4.267	0.000
Age	-0.002	0.13	-0.001	-0.013	0.99
Experience	-0.239	0.1	-0.222	-2.387	0.018
Education	0.424	0.116	0.17	3.644	0.000
DTSE	0.79	0.07	0.485	11.292	0.000
GSE	1.065	0.06	0.664	17.857	0.000

The above regression results indicate that Digital Training Effectiveness (DTSE) and Digital Self-Efficacy (GSE) have significant positive influence on job performance among community health workers. The beta coefficient for DTSE is 0.485, which indicates a strong positive relationship, and the t-value (11.292) and significance level (0.000) confirm that this relationship is statistically significant. Similarly, the GSE shows a strong positive relationship with job performance with a beta coefficient of 0.664. In contrast, the demographic variables have varying relationships with job performance. Gender has a significant negative relationship with job performance (Beta = -0.175), while experience also exhibits a negative relationship (Beta = -0.222), though with a lower level of significance (0.018). Age does not show a significant relationship with job performance, as evidenced by the very high significance level (0.990). Education appears to have a positive and significant relationship with job performance (Beta = 0.170), indicating that higher educational qualifications may positively impact job performance among CHWs. These findings suggest that digital training effectiveness and self-efficacy in using digital tools are key factors influencing job performance among community health

workers, even more than demographic factors such as age, gender, and experience. Furthermore, the education level of CHWs may also play a significant role in their job performance.

4.2 Mediation Analysis

To assess the mediation effect of Generalized Self-Efficacy (GSE) on the relationship between Digital Training Effectiveness (DTSE) and Community Health Worker Performance (CHW_PER), a mediation analysis is conducted through multiple regression models using Macro Process.

Table 4 Mediated Regression Analysis

Model 1	Variables	Coeff	Se	t	P	LLCI	ULCI
DV: CHW_PER	DTSE	0.7987	0.0556	14.3638	0.0000	0.689	0.9084
	GSE	0.8887	0.0547	16.251	0.0000	0.7808	0.9965
	constant	-2.914	0.194	-15.019	0.0000	-3.2967	-2.5313
Model 2							
DV: GSE	DTSE	0.5538	0.0615	8.9994	0.0000	0.4325	0.6752
	constant	1.4872	0.2325	6.3976	0.0000	1.0287	1.9458
M1 R-squared	0.846						
M2 R-squared	.2967						

From Model 1, both DTSE and GSE have significant positive effects on CHW_PER, as indicated by the t-values and p-values. In Model 2, DTSE significantly predicts GSE. Since DTSE significantly predicts both GSE and CHW_PER, and GSE also significantly predicts CHW_PER, it suggests that GSE mediates the relationship between DTSE and CHW_PER. To be more precise, the significant coefficient for DTSE in Model 2 indicates that as Digital Training Effectiveness increases, Generalized Self-Efficacy also increases. In turn, the increase in Generalized Self-Efficacy (GSE) is associated with an increase in Community Health Worker Performance (CHW_PER), as shown in Model 1.

This suggests that enhancing Digital Training Effectiveness not only has a direct impact on the performance of community health workers but also improves their self-efficacy, which further contributes to better performance. The mediation effect of GSE implies that self-efficacy is an essential mechanism through which digital training influences performance among community health workers. Model 1 demonstrates a high R-squared value of 0.846, suggesting that around 84.6% of the variation in Community Health Worker Performance (CHW_PER) can be explained by Digital Training Effectiveness (DTSE) and Generalized Self-Efficacy (GSE). This indicates that the model fits the data well and both DTSE and GSE are strong predictors of CHW_PER. On the other hand, Model 2 has a lower R-squared value of 0.2967, indicating that approximately 29.67% of the variance in Generalized Self-Efficacy (GSE) can be explained by Digital Training Effectiveness (DTSE). While this R-squared value is lower compared to Model 1, it still suggests that DTSE is a significant predictor of GSE. The high R-squared value in Model 1 further supports the previously discussed mediation effect of GSE between DTSE and CHW_PER, as evident from the coefficients, t-values, and p-values.

Table 5 Direct, Indirect and Total effects

	Effect	BootSE	BootLLCI	BootULCI
Total effect of DTSE on CHW_PER	1.2909		1.1493	1.4325
Direct effect of DTSE on CHW_PER	0.7987		0.6890	0.9084
Indirect effect(s) of DTSE on CHW_PER:				
- GSE	0.4922	0.0628	0.3688	0.6104
Completely standardized indirect effect(s) of DTSE on CHW_PER:				
- GSE	0.3020	0.0292	0.2411	0.3548

The total effect is 1.2909, indicating that for every one-unit increase in Digital Training Effectiveness (DTSE), Community Health Worker Performance (CHW_PER) increases by approximately 1.291 units. This effect is statistically significant. The direct effect is 0.7987, suggesting that for every one-unit increase in DTSE, CHW_PER increases by approximately 0.799 units. This effect is statistically significant. The indirect effect through Generalized Self-Efficacy (GSE) is 0.4922. This means that the effect of DTSE on CHW_PER is partially mediated by GSE. For every one-unit increase in DTSE, there is an indirect increase of approximately 0.492 units in CHW_PER through GSE. This indirect effect is statistically significant. Completely standardized indirect effect(s) of DTSE on CHW_PER: The completely standardized indirect effect through GSE is 0.3020.

This represents the standardized effect size of the indirect pathway. It indicates that for every standard deviation increase in DTSE, there is a 0.302 standard deviation increase in CHW_PER through GSE.

4.3 Path Analysis

This path diagram illustrates that the DTSE affects GSE, which in turn affects CHW_PER. There is also a direct effect of DTSE on CHW_PER (0.80). The numbers in parentheses are the coefficients for each path, representing the strength and direction of the relationships. In this case, all the paths are positive, indicating that higher scores in DTSE are associated with higher scores in GSE, which in turn are associated with higher CHW_PER. Additionally, higher DTSE scores are directly associated with higher CHW_PER scores.

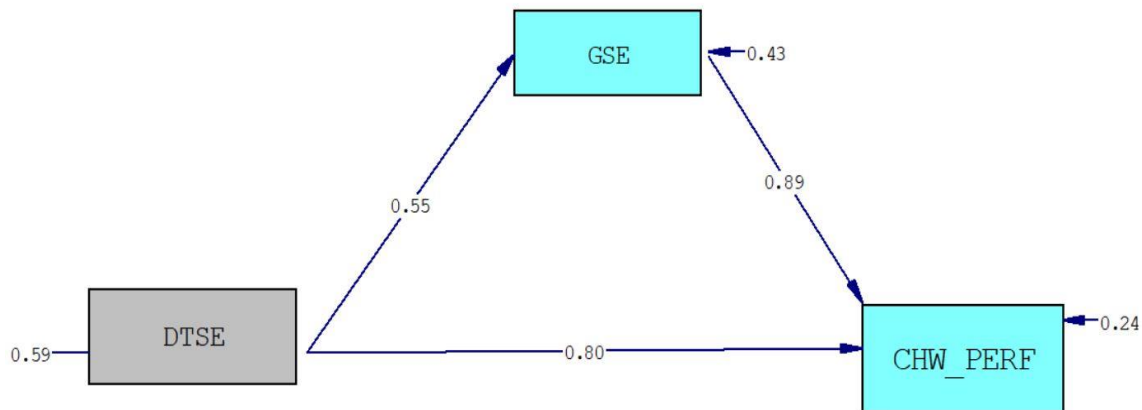


Figure 2 Path diagram

The positive relationship between digital training effectiveness (DTSE) and generalized self-efficacy (GSE) is logical. When community health workers perceive their digital training as effective, they are likely to gain more confidence in their abilities to utilize digital tools and technologies. This increase in confidence is captured through the increased self-efficacy. The positive relationship between self-efficacy (GSE) and community health worker performance (CHW_PER) also makes sense. When individuals believe that they have the capabilities to effectively use digital tools (high self-efficacy), they are likely to be more engaged, put in more effort, and perform better in their roles as community health workers. The direct positive relationship between digital training effectiveness (DTSE) and community health worker performance (CHW_PER) reflects that effective training inherently leads to better job performance, even without considering self-efficacy. This could be due to the acquisition of new skills and knowledge that directly contribute to job tasks. Furthermore, the paper estimated the variance accounted for (VAF) which is the direct-indirect effect ratio, to prove the mediation role of GSE. The VAF value of 38% indicates that self-efficacy partially explains how digital training effectiveness impacts job performance. The above findings reflect the importance of effective digital training in enhancing not only the skills and knowledge of community health workers but also their self-belief in utilizing these skills, which in turn contributes to better job performance. This is particularly relevant in the post-pandemic era where digital tools and technologies have become even more integral to healthcare delivery.

V. Conclusion and implications

In conclusion, this study examined the effectiveness of digital training in the post-pandemic era among community health workers (CHWs) and investigated the role of digital self-efficacy as a mediator between training effectiveness and job performance. The findings provide valuable insights into the relationships and mechanisms that contribute to the success of digital training initiatives for CHWs. The results demonstrated that digital training effectiveness has a significant positive effect on CHW performance, both directly and indirectly through digital self-efficacy. The direct effect indicates that effective training programs enhance CHWs' performance, while the indirect effect reveals that digital self-efficacy partially mediates this relationship. In other words, as CHWs perceive their digital training as effective, their self-efficacy in using digital tools increases, which further enhances their job performance. These findings emphasize the importance of considering not only the content and delivery of digital training programs but also the psychological factors, such as self-efficacy, that influence CHW performance. Incorporating strategies to enhance self-efficacy, such as providing ongoing support, training reinforcement, and building confidence in digital skills, can maximize the impact of digital training interventions on job performance.

The study's results have implications for policymakers, healthcare organizations, and training providers in designing effective digital training programs for CHWs. By recognizing the significance of digital self-efficacy and its mediation role, interventions can be tailored to address specific training needs and enhance CHWs' confidence in utilizing digital technologies, ultimately leading to improved performance and quality of care. As the post-pandemic era continues to reshape healthcare delivery, the integration of digital training for CHWs is vital. Future research should explore additional factors that may influence the effectiveness of digital training interventions, such as organizational support, resource availability, and the adaptability of training programs to meet diverse needs. By further understanding the dynamics of digital training and its impact on CHW performance, we can ensure the successful integration of technology in healthcare systems, ultimately benefiting both CHWs and the communities they serve.

VI. Limitations and prospects

Limitations such as the sample characteristics, cross-sectional design, and self-report measures should be considered when interpreting the findings. Moving forward, future research should focus on addressing these limitations and exploring new avenues. Longitudinal studies would provide valuable insights into the long-term effects of digital training on CHW performance and the dynamics of digital self-efficacy over time. Additionally, incorporating mixed methods approaches and intervention studies can enhance our understanding of the factors influencing the effectiveness of digital training and allow for more rigorous evaluations of training programs. Contextual factors, such as organizational support and digital infrastructure, should also be examined to determine their impact on training outcomes. Lastly, expanding the range of outcome measures beyond job performance to include patient health outcomes and cost-effectiveness would provide a more comprehensive assessment of the impact of digital training for CHWs. By addressing these research prospects, we can further advance the field and develop evidence-based practices that maximize the potential of digital training in improving healthcare delivery by CHWs.

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