

Exploring Medical Practitioner`s Dual Practice: Motivating Factors and their Impact on Work Performance

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Abstract: - Physician dual practice, a global phenomenon involving simultaneous employment in both public and private healthcare sectors, is a topic of increasing interest. This research aimed to understand the outcomes of medical practitioners' dual practice and their influence on doctors' performance in Kenya. The study, which applied a survey design, targeted general medical practitioners practicing dual practice in Kenya. Dual Practice practitioners/medical practitioners were reached through semi-structured questionnaires (n=347). The quantitative data was analyzed using descriptive and inferential statistics using structural equation modeling (PLS-SEM) and SmartPLS4 software. The findings reveal the intricate nature of dual practice and identify factors that positively contribute to medical practitioners' performance, particularly knowledge spillover and career development. These insights directly affect healthcare policies in Kenya, providing practical guidance on enhancing performance and motivation among dual practitioners in the public healthcare system. The findings would help develop a further monitoring mechanism for the levels of Dual Practice and its causal factors in Kenya. From a theoretical perspective, the findings introduce knowledge spillover as a valuable resource that originates outside the organization in the context of the Job Demand-Resources (JD-R) Model, thereby contributing to the academic discourse on healthcare management.

Key-Words: - Dual practice, performance, doctor reaction, knowledge spillover, infrastructural resources, working environment, promotion, income, career development.

Received: May 19, 2024. Revised: October 3, 2024. Accepted: November 5, 2024. Published: November 28, 2024.

1 Introduction

Physician dual practice, involving simultaneous employment in both public and private healthcare sectors, is a widespread phenomenon globally addressing various healthcare system challenges and personal financial needs, [1], [2]. This practice manifests in different forms across countries, reflecting diverse healthcare landscapes and economic realities, [3], [4]. In high-income countries, dual practice often serves as a means for professionals to supplement income and diversify their expertise, [5], [6]. Conversely, in lower- and middle-income countries (LMICs), it frequently arises out of necessity due to resource limitations and inadequate public sector support, [7], [8], [9].

Existing studies have identified knowledge gaps in understanding the motivating factors behind dual practice and its consequences on healthcare outcomes, [10], [11], [12]. For instance, while previous research has explored factors influencing healthcare worker motivation and retention, few studies have addressed the dual practice dynamics within the public health sector, [10]. Researchers

and practitioners agree that the dual practice phenomenon has profound implications for healthcare delivery and practitioner performance, especially in LMIC countries. However, our knowledge about this phenomenon is still limited.

This study focuses on healthcare workers in Kenya, an African country. African countries, including Kenya, face significant healthcare challenges such as funding shortages, workforce deficits, and inequitable service access, [13]. Researchers observed that the public healthcare sector lacks efficiency and effectiveness, and healthcare professionals do not feel motivated, [14]. As a result, many healthcare professionals engage in dual practice to address these gaps, balancing public-sector obligations with private-sector opportunities, [15].

Dual practice among healthcare professionals in Kenya reflects a complex interplay of economic necessity, professional autonomy, and systemic healthcare challenges. Addressing these issues requires evidence-based insights into the motivations and impacts of dual practice,

underscoring the study's relevance and potential contributions to healthcare policy and practice. Over the past decade, the country has witnessed a notable exodus of healthcare workers from the public sector, driven by dissatisfaction with working conditions, delayed payments, and inadequate resources, [16], [17]. This implies that the employer provides little motivation to the doctors and nurses in the public health sector. There were increased cases of patient mortality where patients were forced to seek health care services from private hospitals, incurring catastrophic financial liabilities. These events denote problems in the public health sector where timely and quality services are inhibited, resulting in increased mortalities and emergencies, among others. This trend has been exacerbated by prolonged strikes among medical staff, such as the historic 150-day nurses' strike in 2017, highlighting systemic issues in public healthcare management, [18]. These challenges underscore the critical need for empirical research on dual practice's impact on healthcare service quality and practitioner performance in Kenya.

Only a few studies have been conducted in Kenya to address the knowledge gap on the quality of healthcare services. For instance, [10] sought to investigate the interventions to manage dual practice among health workers. [11], assessed the factors affecting the motivation and retention of primary healthcare workers in Kenya but did not look at the dual practice of healthcare practitioners in the public health sector. [12], investigated the strike action by doctors in Kenya. However, despite shedding light on the strikes in Kenya, there was little focus on how dual practice has been motivated and its effect on medical practitioners' performance in the Kenyan public health sector. According to [10], there is a lack of evidence regarding the consequences of dual practice on the delivery of services and management of Kenyan healthcare organizations. There is little empirical evidence on the motivating factors of DP that influence medical practitioners' performance in dual practice, thus forming the basis of the current study.

This *research aims* to understand the outcomes of medical practitioners' dual practice – analyze motivation factors and medical practitioners' reactions to factors that contribute to doctors' performance. More specifically, this research intends to identify which factors influence the performance of medical practitioners who engage in dual practice, find the moderation effect of the nature of dual practice, as well as identify any positive effects from dual practice, namely, the

effect of knowledge spill-over on dual practice medical practitioners' performance.

The current study seeks to fill the knowledge gap related to the dual practice phenomenon by applying the Job-Demand Resource (JD-R) model, which posits that job stress arises from a mismatch between job demands and available resources, [19], [20]. In Kenyan healthcare, where public sector practitioners face significant job demands amidst limited organizational support, understanding dual practice's motivational drivers and performance outcomes becomes crucial. By exploring these dynamics, the study provides empirical evidence on how dual practice influences medical practitioners' performance in Kenya's public health sector. This research is timely as it addresses pressing concerns regarding healthcare service delivery, workforce sustainability, and the broader implications for health policy and management in LMICs. It seeks to inform policymakers and healthcare leaders on strategies to enhance workforce retention, improve service quality, and optimize healthcare outcomes in Kenya and similar contexts.

2 Theoretical Framework and Hypotheses

Overall, the motivating factors for dual practice physicians leading to higher performance involve a combination of intrinsic motivators, contractual incentives, market forces, and the balance between job demands and available resources. From Herzberg's Two-Factor Theory perspective, motivating factors, such as recognition, responsibility, advancement, and the work itself, are linked to intrinsic motivation, [21], [22]. For dual practice physicians, the autonomy to pursue different medical activities, the challenge of varied work environments, opportunities for professional growth, and the sense of achievement in providing diverse services could be motivating factors. They might find fulfillment in the complexity and diversity of their roles, which can contribute to higher performance. According to the Contract Theory, the design of contracts and incentives is crucial in motivating individuals. Dual-practice physicians might be motivated by the opportunity to earn supplementary income beyond their primary practice through their secondary roles. Their contractual agreements with different healthcare institutions, financial incentives, and flexibility in schedules might be driving factors for higher performance, [23].

The supply of Labour Theory considers market forces and individual choices. In the context of dual practice physicians, the theory explains that individuals choose to supply labor based on demand and available opportunities in the market, [24]. Factors like the scarcity of specific medical specialties, market demand for certain services, or geographical gaps in healthcare provision could influence physicians to engage in dual practices. The potential for professional growth, experience, and financial gain might lead to higher performance as they navigate these opportunities.

The job Demand-Resources (JD-R) Model suggests that high job demands, when balanced with adequate resources, can lead to positive work outcomes, [25], [26], [27]. Researchers have identified several issues related to high work demands in hospitals and other medical institutions [28]; therefore, balancing them with adequate resources is crucial.

In the case of dual practice physicians, the demands of managing different roles, diverse patient populations, and varied healthcare settings might require specific resources like adequate support staff, access to technology, and efficient workflows to perform well. The ability to manage these demands with appropriate resources could lead to higher motivation and performance, [29]. In contrast, insufficient resources will lead to stress and burnout, [28]

The following section is devoted to developing a research model and specific research hypotheses within the framework of these four theories.

The research model was designed based on the theoretical studies (Figure 1), and the research variable was identified. The current study, grounded in the JD-R model [29] and an extensive literature review, delves into the motivators compelling medical practitioners to engage in multiple jobs while maintaining permanent public positions. Noteworthy factors driving this phenomenon include infrastructural resources, working conditions and environment, promotion prospects, income considerations, and career development opportunities, [30]. Kenya-specific studies touch on dual practice but fail to consider JD-R factors [10], [11]. Further, the research variables, their operationalization and theoretical justifications are presented.

For example, [31] found that working conditions and the environment significantly affect employee engagement and thus have the potential to increase performance.

This study's dependent variable is Dual Practitioners' Performance, measured using a scale

proposed by [32] (see the model in Figure 1). This scale measures two aspects of performance that researchers have identified as necessary: task and contextual, [33]. [10] highlights a lack of evaluative evidence on the consequences of dual practice for Kenyan healthcare organizations.

The following job resources and demand factors are *independent variables*: Infrastructural resources [34], income [35], Career Development [36], Working Environment [36], and promotion [37], [38].

We used knowledge spillover as a possible positive job resources-related factor, [39], [40]. Knowledge spillover, a crucial aspect of dual practice, is explored in the context of Medicare in various studies. [41], investigates unintended private insurance spillovers from Medicare, and [42] explores the spillover effects of the Medicare Advantage program. However, no studies specifically address the impact of dual practice on knowledge spillover in the Kenyan public healthcare system.

In line with JD-R theory, *the mediating variable* was modeled as physician's reactions [43], [44] and measured as Burnout using Oldenburg burnout inventory, [45].

The primary variable of interest in this research serves as a *Moderating variable* - the nature of the dual practice, which is operationalized as the number of working hours in the private sector as a proportion of the contractual hours in the public sector, [46]. Consequently, the more the respondent works in the public sector, the higher the nature of the dual practice.

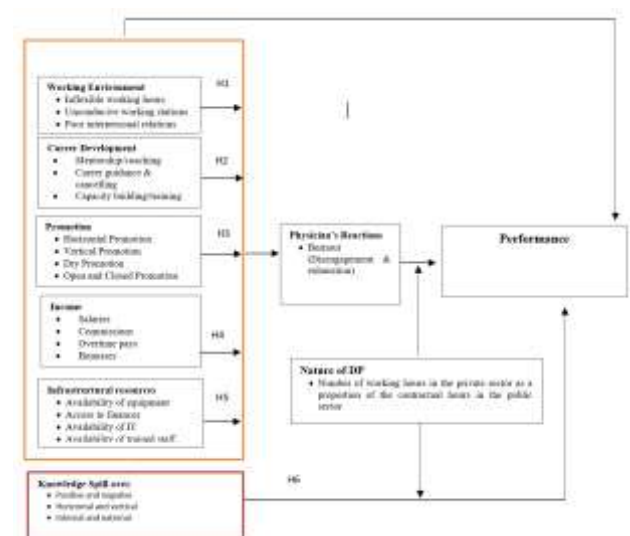


Fig. 1: Research model

The following relationships between variables were hypothesized:

H1: *The nature of dual practice moderates medical practitioners' reactions to the relationship between infrastructure resources and their performance.*

H2: *The nature of dual practice moderates medical practitioners' reactions to the relationship between the working environment and their performance.*

H3: *The nature of dual practice moderates medical practitioners' reactions to the relationship between promotion and performance.*

H4: *There is a moderating impact of the nature of dual practice on medical practitioners' reactions to the relationship between income and medical practitioners' performance.*

H5: *The nature of dual practice moderates medical practitioners' reactions to the relationship between career development and performance.*

H6: *The nature of dual practice moderates medical practitioners' reactions to knowledge spillover and their performance in public healthcare.*

3 Research Design and Methodology

The study employed a descriptive survey design under a positivist philosophy, focusing on quantitative methods to explore dual practice among medical practitioners in Kenyan public hospitals. The research used a structured questionnaire to collect primary data, incorporating a 5-point Likert scale to measure opinions. Ethical considerations included confidentiality and informed consent, with RISEBA University, NACOSTI, and NMS approvals. A pilot study validated the research instrument. The final survey consisted of fifty-seven items measuring research variables plus three items measuring demographic variables – gender, education, and job tenure in a medical profession.

To understand the relationships between variables in the model and to draw conclusions about hypothesized relationships and the moderating role of dual practice, the structural equation modeling (PLS-SEM) technique was applied. The technique was chosen because it implies the features of multiple regression analysis and does not assume the normality of data distribution. Indeed, the results of Shphiro-Wilk tests have revealed that the spread is curtoic and does not correspond to the normal distribution. Moreover, the PLS-SEM method allows the including of a larger number of indicators and analyses relationships simultaneously, [47]. The model, therefore, was analyzed using SmartPLS4 software, and diagnostics were conducted to identify the possibility of bias that may occur in research. These tests include the linearity test, normality test, multicollinearity test, and the test for heteroscedasticity.

From 400 survey questionnaires issued to medical practitioners, 347 valid responses were received, indicating an 84.7% response rate and considered adequate, [48]. The sample results indicated male domination at 61.7% (214) compared to females at 38.3% (133). Thus, it is worth noting that the representation of the two genders adheres to the two-thirds gender rule of the Kenyan constitution. The study findings indicated that the majority of the respondents, 54.2% (188) of them, had worked for more than one to five years, 20.7% (72) of them for 5-10 years, 17.6% (61) of them for less than one year while only 7.5% (26) of them had worked for more than ten years. All respondents were engaged in dual practice, as indicated by the weekly hours worked in the public and private sectors.

The study concludes that current public-sector medical practitioners contribute up to 68.3% of their engagement to public-sector jobs compared to their 31.7% commitment to private-sector jobs. Moreover, some report significant overwork—total hours worked per week ranged from 40 to 91.

4 Results and Discussion

Before drawing the conclusions about relationships, the model itself was tested. To evaluate reflectively measured models, the following should be examined: outer loadings (size and significance); composite reliability; average variance extracted (AVE) or convergent validity; discriminant validity. Further, the results of the testing are introduced, [47].

The outer model shows how correctly each construct is measured or how each set of indicators are related to their latent variable. After carefully analyzing the outer model, some items were excluded from the model after examining the statements and their wording since their loadings were below the minimum threshold of 0.708. The retained manifest variables exhibited satisfactory outer loadings and are a good measure of their latent variables. The bootstrapping procedure was used to determine statistical significance. All loadings were statistically significant ($p < 0.05$).

Composite Reliability is an estimate of constructs' internal consistency. Composite reliability scores (ρ_a and ρ_c) were well above the minimum threshold 0.7, thus indicating on a sufficient level of reliability. *Convergent Validity* of the reflective constructs is examined with average communality or AVE (average variance extracted) and the scores should be at least higher than 0.5, [49]. Ave results ranged between 0.7 and 0.45, and

since the well-known tool (Obdenburg Burnout Inventory) is used to measure it, it is retained. *Discriminant Validity* represents the extent to which measures of a given construct differ from measure of other constructs in the same model. Heterotrait-Monotrait (HTMT) ratio of correlations is used to measure discriminant validity, [47]. HTMT is a ratio of the within construct correlations to the between construct correlations and should be lower than 0.9 for conceptually similar constructs. The analysis showed that HTMT values range from 0.46 to 1.15. Most of the values are lower than 0.9 except between performance and career development and infrastructure as well as between promotion and career development and income. *Collinearity statistics* revealed that all values are less than 5, thus indicating that collinearity is not a problem for the model, [49]. Since one of the measures for discriminant validity is collinearity statistics, it shows acceptable results, and discriminant validity is assumed to be acceptable.

Thus, the initial calculations suggested that the model was valid for further analysis.

Figure 2 illustrates the inner model results graphically—paths coefficients and their statistical significance are in parenthesis (indicators are hidden for clarity). Assuming that knowledge spillover can be an essential resource for promotion, which can impact performance, an additional link is added from career development to proportion.

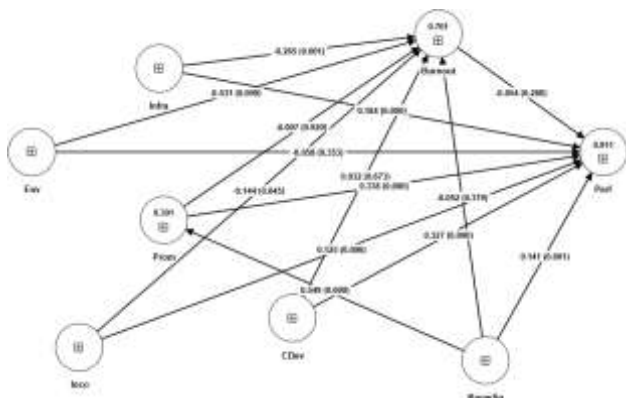


Fig. 2: R Square Results, Path Coefficients, and p-values in parentheses

The figure shows R square results and path coefficients. The primary evaluation criteria for SEM models are R² results. R² values 0.75, 0.50, and 0.25 for endogenous latent variables indicate substantial, moderate or weak predicting capacity, [47]. As seen from the Figure, R² (Performance) = 0.91, which means that the model has a strong predicting capacity for performance. Thus, the model can explain 91% of the variability in the

performance of dual practitioners. R² (Burnout) = 0.70, meaning the model’s explanatory power for burnout is moderate. Thus, the model can explain 70% of dual practitioners’ burnout variability. Moreover, R² (promotion) = 0.30, indicating that knowledge spillover alone can explain 30% of the variability in the promotion of dual practitioners. Table 1 summarises path coefficients on performance and doctors’ reactions (burnout), where statistically significant paths are indicated in bold.

Table 1. Summary of Path Coefficients on Performance and Burnout

Paths	Original sample	T statistics
Env -> Perf	-0.06	0.93
Infra -> Perf	0.18	4.15***
Inco -> Perf	0.13	2.77**
CDev -> Perf	0.33	6.39***
Prom -> Perf	0.34	7.75*
Burnout -> Perf	-0.05	1.08
KnowSp -> Perf	0.14	3.37**
Env -> Burnout	-0.53	7.54***
Infra -> Burnout	-0.27	3.27**
Inco -> Burnout	-0.14	2.00*
CDev -> Burnout	0.03	0.42
Prom -> Burnout	-0.01	0.10
KnowSp -> Burnout	-0.05	0.88
KnowSp -> Prom	0.55	13.50***

The results show that performance is positively directly impacted by firstly, dual practitioners’ satisfaction with promotion possibilities (paths = 0.34***), followed by career development (paths = 0.33***), infrastructure resource (paths = 0.18***), knowledge spillover (paths = 0.14***), and finally income (paths = 0.13**). Interestingly, environment and burnout have no significant direct impact on performance. Dual practitioners’ burnout is negatively impacted (decreased) by environment (paths = -0.53***), infrastructure (paths = -0.27**), and income (paths = -0.14*). However, for dual practitioners in Kenya, burnout does not appear to be a factor that decreases performance. Career development, promotion, and knowledge spillover have no impact on burnout.

Still, knowledge spillover shows a statistically significant impact on promotion (paths = 0.55***).

The results show that knowledge spillover is in place to a moderate to large extent (mean=3.65). Looking at the indicators, DP practitioners mainly get three types of positive effects from knowledge spillover: updated on new infection trends and reporting on disease surveillance in private hospitals and sharing with the public research center registry (item 6; Mean=3.82 – large extent); acquire the latest knowledge about electronic medical record

system in private hospitals which I can use to improve service delivery in public hospitals (item 62; Mean=3.78 – close to a large extent); and use e-mail or internal network in private hospitals to share the latest knowledge with colleagues in public hospitals network (item 3; Mean=3.78 – close to a large extent). This leads to the conclusion that whatever the intensity or nature of DP, it has a positive effect since it creates knowledge spillover, and this positively impacts the performance of medical practitioners engaged in dual practice.

Further moderation effects of Dual practice (DP) are added to test the hypotheses. Figure 2 shows DP moderating effects and their statistical significance.

Table 2 summarises all total effects on dual practitioners' performance of all constructs (variables) of the model, including moderation effects. Statistically significant effects are indicated in bold.

As seen from the table, the most robust performance motivating variable of dual practitioners is promotion (path = 0.34***), and the nature of dual practice does not moderate it.

The second strongest motivator is career development (path = 0.33***). Moreover, the nature of dual practice positively moderates it.

Figure 3 and Table 2 show that knowledge spillover is another significant motivator (path = 0.32***). However, it is not moderated by the nature of the dual practice. Infrastructure resources of public sector hospitals (path = 0.22***) and income (path = 0.14**) also serve as positive motivators for dual practitioners' performance.

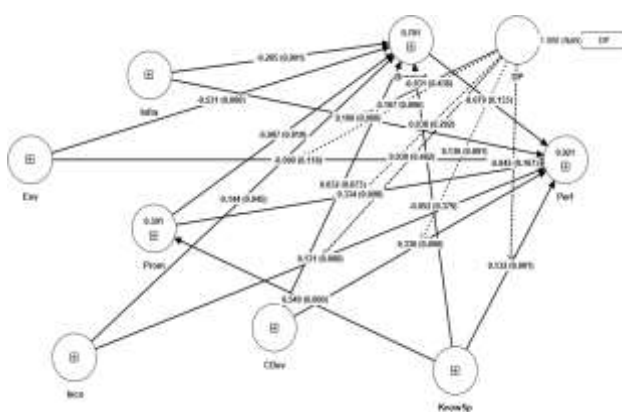


Fig. 3: DP moderating effects and their statistical significance

The results of the moderation effects of DP on relationships between perceived resources of public hospitals are controversial; only 2 out of 6 hypotheses are fully confirmed (H2 and H5). The nature of DP decreases the negative impact on the

public sector's hospital environment on performance. Dual practitioners compare environments in public hospitals with private ones and make conclusions in favor of private hospitals. They better see the shortcomings in public hospital environments.

Table 2. Total effects on dual practitioners' performance of all constructs

Variables	Original sample (O)	T statistics (O/STDEV)
CDev -> Perf	0.328	6.814***
DP -> Perf	-0.013	0.699
Env -> Perf	-0.048	0.941
Inco -> Perf	0.143	3.385**
Infra -> Perf	0.216	4.453***
KnowSp -> Perf	0.320	7.419***
Prom -> Perf	0.335	8.181***
DP x Infra -> Perf (H1 rejected)	-0.031	0.779
DP x Env -> Perf (H2 accepted)	-0.107	2.764**
DP x Prom -> Perf (H3 rejected)	0.038	1.054
DP x Inco -> Perf (H4 rejected)	0.030	0.703
DP x CDev -> Perf (H5 accepted)	0.136	3.299**
DP x KnowSp -> Perf (H6 rejected)	-0.045	1.381

According to [50], the work environment has a vital role in the performance of a health worker. Other studies reported the impact of the physical environment on better coverage of health services or the effectiveness and efficiency of health workers, [51]. This study showed that work environments become even more critical in dual practice.

This study also revealed that DP shows a positive moderating effect as it creates the possibility for career development and thus promotes performance. Möllenkamp also indicated positive spillover effects among hospitals in Germany and Italy, [52]. Researchers underlined the importance of spillover effects among peers for the diffusion of medical devices, even with a positive guideline recommendation. Other studies have shown that spillover effects play an essential role in the diffusion of medical technologies, [53]. All these spillover effects could be attributed to the positive outcomes of dual practice of medical practitioners.

Previous studies have identified several negative aspects of medical practitioners' dual practice (DP). Based on the nature of DP, prior studies have stated

that DP can negatively affect public health service access, quality, efficiency, and equity, as doctors often pursue a balance of public and private work that maximizes their income and other benefits, [54].

However, this research allows us to conclude that DP can also have positive effects. Dual practice could lead to the transfer of expert knowledge from the private sector since they have enough financial resources to acquire sophisticated technology, [2].

This study's findings align with [55], who indicated that while there is evidence that dual practice negatively impacts the quality of care, banning it is unlikely to change it. Other past studies concluded that low public pay does create an incentive for private practice [56], and medical practitioners also appreciate the greater freedom and efficiency in the private sector, [57].

5 Conclusion

This research aimed to understand the outcomes of medical practitioners' dual practice by analyzing motivation factors, medical practitioners' reactions, and impact on doctors' performance. The study reveals the nuanced impact of dual practice on healthcare practitioners' performance. Dual practice is a moderating factor, influencing the relationship between various factors and performance outcomes. It moderates the effect of the working environment, indicating that practitioners extensively involved in dual practice perceive private hospital environments more favorably than public ones. Additionally, dual practice amplifies the positive effects of career development and knowledge spill-over, emphasizing practitioners' motivation for professional growth and knowledge exchange. However, the study also highlights gaps in understanding the relationship between dual practice and performance, underscoring the need for further research to grasp these dynamics comprehensively.

The findings emphasize the pivotal role of infrastructural resources in public sector hospitals and financial incentives, including income and promotion opportunities, in motivating practitioners and enhancing their performance. Moreover, the study underscores the positive influence of career development and knowledge spillover on practitioners' high performance, emphasizing the importance of continuous learning and collaboration.

The findings of this study have several *practical implications* for managers of public and private hospitals and policymakers. By understanding the performance-impacting factors of dual practitioners,

hospital managers can shape their internal policies. For example, they can introduce practices that encourage and facilitate the diffusion of the knowledge spillover effect.

The optimal model of medical practitioners' dual practice in Kenya necessitates a supportive working environment, sufficient infrastructural resources, and well-structured financial incentives. Additionally, fostering opportunities for career development and encouraging knowledge exchange between different practice settings are essential components of this optimal model. Addressing these multifaceted aspects can create a conducive environment, ensure the well-being of practitioners, enhance healthcare delivery, and ultimately improve the overall health system in Kenya.

Findings from this study may be used to shape policy in managing contracts for medical practitioners in dual practice. Currently, the existing policy is weak, not standard, and not uniform since the application is left to the individual hospitals. The study underscores the need for precise and practical policies regarding dual practice. Specifically, the Medical Practitioners and Dentists Board of Kenya (MPDB) and relevant authorities should consider:

- 1) developing guidelines ensuring a conducive working environment in public and private healthcare facilities;

- 2) implementing policies that guarantee healthcare facilities, especially in the public sector, have adequate and up-to-date infrastructural resources;

- 3) establishing transparent and standardized financial incentive structures for dual practitioners.

The study recognizes the current variations in dual practice policies among individual hospitals and recommends a standardized approach. Policymakers should consider formulating legally binding contractual agreements that guide medical practitioners in dual practice. This aims to create consistency, fairness, and transparency in contractual arrangements across healthcare institutions.

Given the study's revelation that healthcare providers prioritize the working environment over income, the Ministry of Health is urged to improve working conditions in public healthcare facilities. Ensuring these facilities are well-maintained, adequately staffed, and equipped will contribute significantly to healthcare practitioners' overall satisfaction and performance.

The *theoretical implication* of this research relates to extending the JD-R model by adding a dual practice-specific resource that comes from outside the company: knowledge spillover.

This research builds on the Job-Demands-Resources (JD-R) model by adding new variables, enriching the current JDR model. Variables specific to the healthcare field and, specifically, dual practice (DP) have been added to the JD-R model, and its direct or moderating relationship on healthcare practitioners' performance has been assessed. By extending the JD-R model to incorporate these additional variables, the revised conceptual framework accommodates the intricacies of healthcare practice. This adaptation strengthens the theoretical novelty of the thesis by providing a more comprehensive and tailored model that future scholars can utilize.

Knowledge spillover is a resource that originates outside the organization. This leads to the conclusion that in the JDR model, only organizational and psychological resources are considered. However, this research identifies workplace-related resources from another source, such as knowledge spillover. Knowledge spillover is a resource gained from outside, another organization that is not a partner. Future research should focus on identifying more such resources and labeling them.

This study has certain limitations that lead to *future research avenues*. Firstly, it has geographical limitations. This is a maiden study in Kenya that other authors from Sub-Saharan Africa can use to base future studies on. Specifically, this study's revised conceptual framework/model may be helpful to future scholars. Secondly, this study was quantitative and cross-sectional. Qualitative data could provide deeper insights into doctors' motivations to engage in dual practice and outcomes. Further longitudinal studies could bring additional insights by focusing on the impact of DP over time. Finally, this study targeted only medical practitioners engaged in dual practice.

Dual practice is an under-researched phenomenon that exists not only in healthcare but also in several other industries, such as construction and higher education. Future research could also assess the impact of dual practice on employees' performance in these industries.

Declaration of Generative AI and AI-assisted Technologies in the Writing Process

During the preparation of this work the authors used Grammarly for language editing. After using this service, the authors reviewed and edited the content as needed and take full responsibility for the content of the publication.

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Contribution of Individual Authors to the Creation of a Scientific Article (Ghostwriting Policy)

The authors equally contributed to the present research, from formulating the problem to the final findings and solution.

Sources of Funding for Research Presented in a Scientific Article or Scientific Article Itself

No funding was received to conduct this study.

Conflict of Interest

The authors have no conflicts of interest to declare.

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