مجلة بحوث الإدارة والاقتصاد

Management & Economics Research Journal
ISSN 2710-8856 (Online)
ISSN 2676-184X (Print)

Vol. 5 No. 1 (2023): March, pp. 45-65

https://doi.org/10.48100/merj.2023.277

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Managerial Competency of Primary Healthcare Facility Managers in the Selected District Councils in Tanzania

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Received: 05-09-2022 *Accepted: 07-10-2022* *Published online: 09-10-2022*

How to Cite:
Kingu, U. A., Ismail, I. J., & Kibusi, S. M. (2023). Managerial Competency of Primary Healthcare Facility Managers in the Selected District Councils in Tanzania. *Management & Economics Research Journal*, *5*(1), 45-65. https://doi.org/10.48100/merj.2023.277

Abstract:

Understanding the managerial competency of healthcare managers is very important. However, more evidence is needed on the managerial competency of primary healthcare facility managers in low- and middle-income countries. This research examined the managerial competency of primary healthcare facility managers in the selected District Councils in Tanzania. This research is grounded on positivism philosophy, a cross-

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sectional survey descriptive research design, a complete enumeration sampling strategy, and a survey used to collect primary data from 102 public primary healthcare facility managers located in Kondoa, Iramba, and Sumbawanga District Councils in Tanzania. The study used version 25 of SPSS to analyze the data and adopted the MCAP framework to examine the managerial competency of primary healthcare facility managers. For the communication and relationship management domain, 74.5% were competent, while 25.5% were less than fully competent. Likewise, 65.68% of them were competent, while 34.32% needed to be more competent in the knowledge of the healthcare environment domain. 62.74% and 37.26% of the primary healthcare facility managers were competent and less than competent in operations, administration, and resources management. Correspondingly, 67.65% and 32.35% of primary healthcare facility managers needed to be more competent in evidence-informed decision-making. Similarly, 74.55% and 25.45% were competent and less competent in enabling and managing change. The study used primary data and contributed recently well-worth and highly demanded knowledge on the managerial competency of healthcare managers in the LMICs.

Keywords: Managerial Competency, Primary Healthcare Facility Managers, Tanzania.
JEL Codes: H1, M19.

1. Introduction

Measuring the managerial competency of primary healthcare facility managers in low- and middle-income countries (LMICs) is crucial for improving healthcare quality, identifying best management practices, and designing management education (Santrić Milicevic, Bjegovic-Mikanovic, Terzic-Supić, & Vasic, 2010). Similarly, to enable primary care managers to provide excellent services to the public, they need extensive knowledge of their managerial competency (Mohd-Shamsudin & Chuttipattana, 2012). Thus, understanding the managerial competency of healthcare professionals is considered a priority for research to improve the provision of health services in primary healthcare (Dikic et al., 2020).

Different scholars established evidence-based management indicators for self-management, planning, organizing, directing, and managing the delivery of healthcare in light of the significance connected with evaluating the managerial competency of health managers (Pillay, 2008; Khadka, Gurung and Chaulagain, 2014; Umbetzhanova et al. (2014)). Most prior scholarly works evaluating health managers' management competencies used hospitals as the secondary level of healthcare delivery (Pillay, 2008;

Kakemam, Janati, Mohaghegh, Gholizadeh, & Liang, 2021). These studies were disproportionately conducted in industrialized nations (Liang et al., 2018). Also, Mills et al. (2020) assessed the managerial competency of healthcare facility managers using superiors and subordinates as a source of information.

Previous scholarly works contributed limited evidence on the managerial competency of primary healthcare facility managers in LMICs (Kakemam & Dargahi, 2019; Dikic et al., 2020; Kakemam, Janati, Mohaghegh, Gholizadeh, & Liang, 2021). Similarly, other scholars reported that health facility management is among the under-researched area in many LMICs (Mabuchi et al., 2018; Mabuchi, Alonge, Tsugawa, & Bennett, 2020). This reveals the limited empirical research on managerial competency-related issues at the primary healthcare level in developing countries (Mabuchi, Sesan, & Bennett, 2018; Macarayan et al., 2019). As a result, the managerial competency of primary healthcare facility managers is less well-known, questionable, and open to discussion among researchers, policymakers, and practitioners in the LMICs (MOH, 2018; Macarayan et al., 2019; Mabuchi et al., 2020). This has led to substantial knowledge gaps on the managerial competency of health managers in the LMICs that need to be investigated (Bitton et al., 2019; Macarayan et al., 2019; Mabuchi et al., 2020). Thus, reliable information is required to unveil the evidence of managerial competency among primary healthcare facility managers in the LMICs, including Tanzania (MOH, 2018; Mabuchi et al., 2020).

The study intended to answer the questions on the managerial competency of primary healthcare facility managers and contribute to knowledge on the managerial competency of primary healthcare facility managers in the LMICs.

This paper is organized as follows: first, a literature review on measuring managerial competency is presented, followed by a description of the study methods. Next, the findings are presented and discussed, leading to the conclusions. Finally, the paper presents the study's implications, limitations, and potential areas for future research.

2. Literature review

2.1. Managerial competency

Competence is an individual's measurable behavioural feature linked to effective performance in a given job or organization. According to Boyatzis (1982), competency is a person's cognitive (skills and knowledge), affective (values and attitude), behavioural and motivational features and dispositions

that enable an individual to perform successfully in a given situation. Different scholars define managerial competency based on multidimensional ideas. Boyatzis (1982) defines managerial competency as skills necessary for workers to accomplish specific tasks at the desired degree of success. Also, managerial competency is the person's requisite knowledge, skills, and abilities to accomplish their job (Quinn, Faerman, Thompson, & Mcgrath, 1990).

Similarly, Whiddett and Hollyforde (2003) define managerial competency as individuals' behaviours that enable them to exhibit good organizational task performance. Elsewhere, Krontorad and Trčka (2005) define managerial competency as employees who combine knowledge, skills, talents, and behaviours in their work, which is crucial in generating consistent results with the organization's strategic goals. Moreover, Veliu and Manxhari (2017) define managerial competency as prerequisite knowledge, skills, abilities, and behaviours for successful job performance in managerial occupations. These divergent views lead to difficulties in establishing the generally accepted definition of managerial competency (Russo, 2016; Kubeš, Spillerová, & Kurnický, 2004).

2.2. Measuring managerial competency

The concept of measuring managerial competency was initially introduced by David McClelland (McClelland, 1973). This is because every manager must possess several abilities that will enable them to work properly and successfully at various managerial levels in the organization's daily activities (Veliu & Manxhari, 2017). Measuring managerial competency in health care attracts the attention of different stakeholders since it is understood to be essential in improving the delivery of quality healthcare services and ascertaining the best management practices (Santrić Milicevic et al., 2010). The attention is based on the truth that managers in the field of healthcare management face particular difficulties since they must combine knowledge of clinical and healthcare procedures with contemporary commercial management techniques (Pillay, 2008).

Different scholars measured managerial competency in diverse ways in response to the emphasis given by various stakeholders to measure and understand the managerial competency of health managers. A study conducted in 2008 used a self-rating technique to measure the managerial competency of hospital managers (private and public) in South Africa (Pillay, 2008). The respondents were asked to score their ability to plan, organize, lead and control legal, ethical, and self-management issues (Pillay, 2008). The ratings were given on a five-point Likert scale, with the lowest rating being

very low and the highest being very high. According to the study, health managers perceived themselves as capable of planning, managing, and leading but least competent in specific healthcare skills. Also, the general lack of managerial competency identified in the public sector, project, and knowledge management is the least advanced competencies (Pillay, 2008).

Furthermore, in a study by Santrić Milicevic et al. (2010), the self-rating technique assessed the managerial competency of fourteen management teams from Belgrade primary healthcare centres. The study revealed the greatest competency gap among local health managers when evaluating staff performance. A study by Khadka, Gurung, and Chaulagain (2014), conducted in Nepal using a self-rating technique, revealed that health managers were more competent in communication and knowledge and had honesty and integrity in service delivery. On the other hand, project and knowledge management was the least developed ability.

Moreover, Umbetzhanova et al. (2014) used a questionnaire developed by the EPOS health management group to assess the managing abilities of various levels of healthcare managers. About 61 managers from various levels of management were interviewed. According to comments, the lowest score was 57.2% among mid-level managers in the (information and financial management) sector (Umbetzhanova et al., 2014).

The current study acknowledges the contributions of seminal works in measuring the managerial competency of health managers (Khadka et al., 2014; Pillay, 2008; Santrić Milicevic et al., 2010). However, the previous studies measured the managerial competency of health managers under the different educational systems, cultures, qualifications, and the needed promotion procedures to the managerial position. They measured at the secondary level of healthcare delivery. Thus, little evidence exists; thus, more is needed to measure the managerial competency of health managers in LMICs. This is because there is no conclusive proof that primary care managers are effective and have the required skills to perform their managerial duties and responsibilities (Kak, Burkhalter, & Cooper, 2001; Mohd-Shamsudin & Chuttipattana, 2012). This goes with the need to establish an appropriate package of interventions to strengthen management capacity in the decentralized health context (Ng'ang'a et al., 2016). That substantiated the highly needed and demanded knowledge and information on health managers, especially within the health systems in LMICs (Dikic et al., 2020). Similarly, there is a knowledge gap in understanding the managerial competency of the health managers in the LMICs and Tanzania in particular (Mabuchi et al., 2018; Ngowi, 2017; URT, 2018; Samky, 2019). In light of this limited empirical evidence on the managerial competency of

primary health managers, there is a need to examine the managerial competency of primary healthcare facility managers in the public primary health facility in the Tanzanian context.

3. Methods

3.1. Study settings

The study was conducted in Kondoa, Iramba, and Sumbawanga District Councils. These District Councils were purposively selected based on being in the high, middle, and low star rating performance categories of health facilities in Tanzania (MOHCDGEC, 2018).

3.2. Research design

The study adopted a cross-sectional descriptive research design. In the cross-sectional part, the measurable data on the managerial competency of primary healthcare facility managers of public primary health facilities were collected simultaneously. In the descriptive part, the statistical evidence describing the current status as being perceived in a wholly usual and the unchanged natural environment of the variables of interest in the current study were analyzed (Aggarwal & Ranganathan, 2019). The descriptive research design was selected to accurately reveal a particular group's characteristics (Akhtar, 2016).

3.3. Framework for measuring managerial competency

In the current study, the Management Competency Assessment Project (MCAP) framework was adopted to measure the managerial competency of primary health facility managers. In the MCAP framework, managerial competency variables, namely; interpersonal, communication qualities, and relationship management based on relationship management and teamwork, communication management, and personal quality management constructs. Also, knowledge of the healthcare environment is based on knowledge of the healthcare environment, the organization, and the application of knowledge in legal and quality practice constructs. Additionally, evidence-informed decision-making built on evidence appraisal, evidence application, decision-making, and evaluation of decision constructs were also measured. Moreover, enabling and managing change established on change preparation, implementation, and evaluation, and

leader quality in change constructs was used to measure managerial competency.

The MCAP framework had close-ended questions with a seven-point. Likert scale, representing levels of managerial competency ranging from (1) being not competent, interpreted as the facility managers do not understand the requirement and are incapable of applying it in their role. Also, (2) being at the level of primary or novice implies that facility managers may be capable of demonstrating minor aspects of their role. Furthermore, (3) is an advanced beginner, which facility managers can demonstrate in their role, but only in some required aspects. Additionally, (4) is competent with occasional guidance, which facility managers can generally demonstrate, but guidance is needed occasionally. Likewise, (5) falls into competent with no guidance. Thus, facility managers can demonstrate their roles independently but have yet to gain extensive experience.

Similarly, (6) is proficient. That is to say, facility managers can always apply appropriately in their roles and have extensive experience. Similarly, the last is (7), which is for superior expertise, meaning that facility managers can always apply appropriately in their role with extensive experience gained from diverse management roles at the executive level and can transfer this competency to others.

The scale was further categorized into two levels, and scores below five were considered less than fully competent. The scores from 5 to 7 (five or higher) are considered fully competent (Liang et al., 2018). The current study selected the scale because its wide range of options provides facility managers more chances to assess themselves in a wide range of competency levels. Also, the scale was successfully applied to assess health managers' managerial competency levels in Iran, China, and Australia (Kakemam & Dargahi, 2019; Liang et al., 2018).

3.4. Pilot study

Before the inception of the actual data collection process, the pilot study was conducted using a questionnaire. The pilot study allowed us to pre-test the questionnaire on style and approach (Majid, Othman, Mohamad, & Lim, 2017; van Teijlingen & Hundley, 2001). The pre-testing also gives room to assess if the research tools can collect viable and reliable data that conform to the study's objective. The questionnaire was pre-tested in ten primary health facilities. In pre-testing the questionnaire, it is adequate to use between (1% to 10%) of the sample size (Mugenda & Mugenda, 2012). Similarly, a range of (5% to 10%) of the sample size was also recommended (Paul & Saha, 2016).

3.5. Sampling and data collection

The complete enumeration sampling strategy was employed to select 102 public primary health facilities in Kondoa, Iramba, and Sumbawanga District Councils. PHFMs of public primary health facilities were contacted to participate in the study. In this study, data were collected between September and December 2020. The survey employed a questionnaire to collect primary quantitative data for the current study in achieving pre-stated objectives and answering the research question. In this study, the questionnaire was administered to the primary healthcare facility managers of the public primary health facilities. The survey allowed us to collect information related to the managerial competency of primary healthcare facility managers. The survey research was a valuable and legitimate approach to research that has clear benefits in helping to describe and explore variables and constructs of interest (Ponto, 2015).

3.6. Data analysis

The quantitative data were descriptively analyzed using Statistical Package for Socio Sciences (SPSS) version 25. Descriptive statistics, including means and standard deviations, were used to present the findings on the managerial competency of the primary health facility managers.

3.7. Ethical consideration

The University of Dodoma granted ethical permission and is mandated by the Government of Tanzania and the Tanzania Commission for Science and Technology to issue research clearance to its staff and students. The clearance was presented to the Kongwa, Kondoa, Iramba, and Sumbawanga District Councils, who approved the study in their administrative areas. Verbal consent was sought from the primary healthcare facility managers. Respondents were informed that participation is voluntary, and they have the right to withdraw from the study at any time they wish to do so without any consequences. Participants in the study were assured of confidentiality regarding any necessary information and maintained anonymity (Fouka & Mantzorou, 2011).

4. Results and discussion

Generally, the findings revealed that primary healthcare facility managers exhibited different levels of managerial competency ranging from

not being competent to being competent across all investigated domains. The results for managerial competency of PHFMs based on Interpersonal Communication Qualities and Relationship Management (ICQRM), Knowledge of Healthcare Environment (KHE), Operations and Administration Resources Management (OARM), Evidence-Informed Decision Making (EIDM), Leading People and Organization (LPO) as well as Enabling and Managing Change (EMC) were presented in (Table 1).

Table 1. Managerial competency of primary healthcare facility managers

Statement	Not competent	Basic/ novice	Adv. beginner	Comp. guidance	Comp. no guidance	Proficient	Super expert	M (SD)
ICQRM	0	0	6	20	32	38	6	5.17
	(0.00)	(0.00)	(5.88)	(19.61)	(31.37)	(37.25)	(5.88)	(1.01)
KHE	0	0	8	24	35	28	7	5.02
	(0.00)	(0.00)	(7.84)	(23.53)	(34.31)	(27.45)	(6.86)	(1.05)
OARM	0	1	3	34	32	28	4	4.93
	(0.00)	(0.98)	(2.94)	(33.33)	(31.37)	(27.45)	(3.92)	(0.99)
EIDM	0	1	9	23	39	26	4	4.90
	(0.00)	(0.98)	(8.82)	(22.55)	(38.24)	(25.49)	(3.92)	(1.04)
LPO	0	0	9	16	32	33	12	5.23
	(0.00)	(0.00)	(8.82)	(15.69)	(31.37)	(32.35)	(11.76)	(1.12)
EMC	0	1	4	23	31	24	19	5.27
	(0.00)	(0.98)	(3.92)	(22.55)	(30.39)	(23.53)	(18.63)	(1.18)
Overall M C	0	0	3	23	35	36	5	5.17
	(0.00)	(0.00)	(2.94)	(22.55)	(34.31)	(35.29)	(4.90)	(0.93)

Source: Prepared by the authors based on SPSS V 25 output

4.1. Interpersonal communication qualities and relationship management

Based on the interpersonal communication qualities and relationship management domain, 74.5% were competent, while 25.5% were less than fully competent (Table 1). These findings demonstrate a high competency level of (interpersonal, communication qualities, and relationship management) which can be attributed to its long-term identification as an essential competency for health managers (Liang & Howard, 2010). Comparable results are reported by Lopes, Narattharaksa, Siripornpibul, & Briggs (2019), who revealed that primary healthcare managers were competent in communicating effectively. Similarly, 91% of the participating primary managers were fully competent in interpersonal communication qualities and relationship management (Liang et al., 2018). Similarly, the primary healthcare managers in Timor-Leste were observed as competent in communicating effectively (Lopes et al., 2019). Analogous results are reported among the head nurses working with specialized and primary

healthcare organizations and the social care sector in Finland (Kantanen et al., 2017).

4.2. Knowledge of the healthcare environment

Likewise, 65.68% of the PHFMs were competent, while 34.32% needed to be more competent in the knowledge of the healthcare environment domain (Table 1). Comparable results are reported by Lopes et al. (2019), who revealed that primary healthcare managers needed to be more competent in professionalism in the workplace, entailing knowledge of the healthcare environment. Likewise, health managers in Iran needed to be more capable of accomplishing their managerial duties and responsibilities (Kaushik & Walsh, 2019; Kuhlmann & von Knorring, 2014). These findings are similar to those reported by Kakemam and Dargahi (2019) that Iranian hospital managers have the highest level of competency in ethical issues, planning, and service provider management. Likewise, 18% of the participating primary managers positioned themselves as less than fully competent in knowledge of the healthcare environment (Liang et al., 2018). Similar information was presented by Lopes et al. (2019), that primary healthcare managers were found to need to be more competent in knowing the organization in Timor-Leste, which was consistent with the findings of a study by of Al-Momani, (2018). Regarding the findings above, similar results are reported in a study by Hamidi and Eivazi (2010) that the level of professional skills (technical) was moderate (56%) among managers of health centres in Iran.

4.3. Operations administration and resources management

Similarly, 62.74% and 37.26% of the PHFMs were competent and less than competent in operations, administration, and resources management domains (Table 1). Comparable results are reported by Lopes et al. (2019), who revealed that primary healthcare managers needed to be more competent in financial management and knowing the organization, which are parts of operations management. Likewise, health managers in Iran were also observed to be incapable of accomplishing their managerial duties and responsibilities (Kaushik & Walsh, 2019; Kuhlmann & von Knorring, 2014). Similarly, the evidence revealed that 18% and 24% of the participating primary managers were less than fully competent in operations, administration, and resources management (Liang et al., 2018). In the same regard, it was concluded that participants were less competent in managing

people and finances (thus, operations) and in change management (Harris, 2016).

A similar observation was made about nurse managers working with the selected public hospitals in KwaZulu-Natal province, South Africa. These were reported as not having the necessary financial management skills and competencies to manage the current healthcare financial situation, thus requiring additional training to gain more knowledge and skills (Naranjee et al., 2019). Similarly, findings reported that the mean score of the management competency in human resource management among managers at different levels in the general hospitals in Iran was found to be 3.44 (Kakemam et al., 2017).

Again, in Finland, among both head nurses and directors of nursing, the mean competency score of human resource management was quite good at 1.95 and 1.81, respectively (Kantanen et al., 2017). Furthermore, the overall clinic nursing managers rated themselves as high on staff management in South Africa, with a mean competency score of 8.75 (Munyewende et al., 2016). Likewise, a study by Al-Momani, (2018) revealed that health managers scored the highest ratings on (delegating some critical decisions to staff) (mean = 4.24). Furthermore, Lopes et al. (2019) indicated that the primary healthcare managers in Timor-Leste were competent in managing human resources. Similar findings reported that the overall operational management competence among directors of nursing was estimated as better (Kantanen et al., 2017).

On the other hand, other studies reported conflicting findings among hospital managers in Tehran, Iran, who considered themselves least proficient in managing people, with a mean competency score of 2.99 (Kakemam & Dargahi, 2019). This difference could be that the managerial skills between the two groups vary according to the characteristics of the respondents (Al-Momani, 2018). Similar findings were reported in a study by Hamidi and Eivazi (2010), indicating that the level of professional skills (human) was moderate at (56%) among managers of health centres in Iran.

4.4. Evidence-informed decision making

Equally, 67.65% and 32.35% of primary healthcare facility managers were competent and less than competent in evidence-informed decision-making (Table 1). Similarly, it has been reported that more than 12% of health service managers cannot demonstrate proficiency in (evidence-informed decision-making) (Liang et al., 2018). The findings reflected those that Kakemam and Dargahi (2019) reported that Iranian hospital managers lacked management knowledge and skills in problem analysis/solving. A high

proportion of primary healthcare facility managers needing assistance in evidence-informed decision-making is likely attributed to the limited use of available evidence pertinent to the management and organizational practices among health managers (Kovner & Rundall, 2006; Liang et al., 2012). Also, it could be related to the recent inclusion of evidence-informed decision-making managerial competency, which is believed to be an essential competency for health service managers (Isouard, Martins, & Friedman, 2015; Liang & Howard, 2010). This shows that almost one-third of primary healthcare facility managers could not demonstrate competency in the indicators of evidence application and decision-making constructs. This might be caused by the actual limited use of the available evidence for organizational practices and management (Kovner & Rundall, 2006; Liang, Howard, Leggat, & Murphy, 2012)

Likewise, the newness of evidence-informed decision-making in the list of managerial competencies was thought to be essential to health managers (Isouard et al., 2015; Liang & Howard, 2010). The other evidence reported that respondents felt they were least proficient in the category of problem-solving and analysis in Iran (having a mean competency score of 3.09 (Kakemam & Dargahi, 2019). Similarly, the incompetence of some primary health care managers in Timor-Leste in solving problems related to financial management in their jobs was revealed. (Lopes et al., 2019). The low score in critically appraising the validity and relevance of evidence competency could be attributed to the low use of evidence in decision-making in healthcare (Liang, Howard, & Wollersheim, 2017). This could be caused by the limited use of the available evidence to make a pertinent decision relevant to organizational practices and management (Kovner & Rundall, 2006; Liang et al., 2018). Furthermore, the newness of evidence-informed decision-making in the list of MC, although it is essential to health managers (Isouard et al., 2015; Liang & Howard, 2010).

On the other hand, contradictory findings were reported in a study by Liang et al. (2018) that only around (12%) of middle-level health service managers working with public hospitals in Victoria, Australia needed to demonstrate competency in (evidence-informed decision-making). The possible explanation for this could be that the managerial skills of the two groups differed according to the characteristics of the respondents (Al-Momani, 2018).

4.5. Leading people and organization

Regarding the leading people and organization domain, 24.52% are less than competent, while 75.48% are competent (Table 1). Similar findings

are reported by Lopes et al. (2019) that primary healthcare managers were found to be incompetent in problem-solving as part of leadership management competency. These findings are consistent with those reported in a study by Pillay (2008) that the maximum average competency was related to strategic planning. Related findings were observed among the head nurses and directors working in Finland with specialized primary healthcare organizations and the social care sector of nursing, whose mean competency score of leadership and management competencies was quite good at 2.11 and 1.93, respectively (Kantanen et al., 2017). Conflicting findings show, on the other hand, that those primarily educated as clinical experts and healthcare managers frequently lack the core competencies of leaders. (Al-Maqbali, 2019). In Iran, the mean score of management competency in leadership in general hospitals was good at 3.49 (E. Kakemam et al., 2017). Likewise, in South Africa, the clinic nursing managers working in Gauteng (an urban province) and Free State (a mixed urban-rural province) overall rated themselves high on leadership and management with a mean score competency of 8.67 (Munyewende et al., 2016). Equally, clinic nursing managers rated themselves high in planning and priority settings (8.6) (Munyewende et al., 2016).

4.6. Enabling and managing change

Concerning enabling and managing change, 74.55% and 25.45% of the primary healthcare facility managers were observed to be competent and less than competent, respectively (Table 1). A similar finding indicates that health service managers demonstrate competency in enabling and managing change (Liang et al., 2018). Similar findings were revealed in a study by Kakemam and Dargahi (2019) that hospital managers from Tehran, Iran, were most competent in change management. Likewise, Liang et al. (2018) affirmed that only around 4% of the health service managers in Victoria, Australia, could not demonstrate competency in (enabling and managing change). This result correlates with what Kakemam et al. (2017) reported in Iran, that the mean score of management competency in change management at different levels in general hospitals was 3.26. However, contrastive findings were reported by Harris (2016) that participants had fewer competencies in change management.

Furthermore, Liang et al. (2018) reported that only 4% of health service managers could not demonstrate competency in enabling and managing change. This resulted in many managers' disengagement and struggles when leading their organizations through changes (Al-Maqbali, 2019). The reason could explain that managerial skills between the two

groups differed according to the respondents' characteristics. (Al-Momani, 2018). Moreover, the low score in change management competency may be attributed to the reality that most mid-level healthcare managers need to be better prepared to drive results.

5. Conclusion, implication, limitation, and recommendation

5.1. Conclusion

On the one hand, primary healthcare facility managers demonstrated competence, meaning they did not need assistance performing their managerial duties and responsibilities in leading people and organizations 84.54% and interpersonal communication qualities and relationship management 76.37%. This is followed by enabling and managing change 76.01%, operations, administration, and resources management 73.64%, knowledge of the healthcare environment 69.99%, and the least evidence-informed decision making 69.09%. On the other hand, primary health facility managers must be more competent, meaning they need occasional guidance in performing their managerial duties related to evidence-informed decision making 30.91%, followed by knowledge of the healthcare environment 30.01%. Others included operations, administration, and resources management 26.36% enabling and managing change 23.64% followed by interpersonal communication qualities and relationship management 23.63% and the least was leading people and organizations, constituted 15.46%.

5.2. Implications of the study

5.2.1. Practical implications

Primary healthcare facility managers need on-the-job training related to hospitals and healthcare management to have appropriate knowledge, skills, and abilities for effectiveness and efficiency in performing their managerial duties and responsibilities. The results of this study highlight the important practical implications by initiating the apparent need for improvement to strengthen the managerial competency of primary healthcare facility managers in all investigated domains, as confirmed by the findings from this study. This is confirmed by having primary healthcare facility managers who are less than competent and need occasional guidance in performing their managerial duties and responsibilities.

5.2.2. Policy implications

Human resource development leaders must advocate investments in managerial competency and prioritize management development (WHO, 2005; United Nations Children's Fund, 2018). Also, globally, the current study's findings have a policy implication as part of growing evidence that demands the need to conduct more research to measure facility management. This is to inform the needed critical improvement and deliver quality primary healthcare necessary for effective universal health coverage (World Health Organization, 1978).

5.2.3. Theoretical implications

The findings of this study confirm that the MCAP framework can be applied in healthcare settings in LMICs. The implication is based on how the study was designed by adapting variables stipulated in the MCAP framework to examine the managerial competency of primary healthcare facility managers. This implies that adapting the variables from the MCAP framework shows that the research has taken care of the essential contributor to the managerial competency of the primary healthcare facilities management literature.

5.2.4. Managerial implications

From the managerial perspective, the findings imply that primary healthcare facility managers must pay considerable attention to developing and improving their managerial competency.

5.2.5. Implication to academicians and researchers

Academicians, especially those in business and management schools, have the potential to contemplate the role they might play in improving the managerial competency of primary healthcare facility managers. Given their position, the gap, and the need to fill it, this could be a straightforward task for the academicians at these business schools. The other area that might have an opportunity is disseminating and applying new findings in management practices.

5.3. Limitations of the study

In the data collection process, specifically on access to health facilities, the study was limited by the onset of the rainy season, which was addressed by opting for the researcher to have on-and-off exercise in visiting the health facilities during the convenient weather. Also, several non-operating health facilities created a gap and lowered the total number of the proposed sample, thus lowering the statistical power of the results. This was addressed by reaching operating health facilities despite the geographical challenges. Additionally, due to the limited time of the proposed assignment, six months for data collection, it was impossible to undertake a longitudinal study. Thus, the cross-sectional design was employed instead, limiting the advantages that could have been gained using longitudinal research design.

Furthermore, the study was limited to only public-owned primary health facilities due to their availability, thus limiting the generalisability of the findings to private, faith-based, private-public owned hath facilities, thus limiting the diversity of the contributed knowledge. In addition, the availability of limited empirical evidence on the managerial competency of primary healthcare facility managers in the LMICs prevents direct comparison (Mabuchi et al., 2020). Thus, the study findings were mainly compared with those in a similar setting.

Despite the limitations above and beyond any reasonable doubt, the study contributed to the needed empirical knowledge geared to inspire future investigation that would necessitate understanding the managerial competency of the primary healthcare facility managers in the LMICs.

5.4. Recommendations

Based on the findings, a proportion of primary healthcare facility managers were evidenced to perform their managerial duties and responsibilities at the level of being less than competent. This study recommends that primary healthcare facility managers in the LMICs should be given training related to management. This is very crucial based on the truth that, on the one hand, primary healthcare facility managers in the studied areas have been performing managerial duties and responsibilities related to hospitals and healthcare management. Also, they are expected to be managerially competent and perform their managerial duties and responsibilities efficiently and effectively. On the other hand, these primary healthcare facility managers are less competent in performing their managerial duties and responsibilities, which can negatively affect their performance.

The empirical knowledge contributed by the current study is limited to cross-sectional data. Thus, the current study proposes that longitudinal studies be conducted to have additional benefits (Bradley et al., 2015; Macarayan et al., 2019). The longitudinal investigation is expected to have the advantage of effectively tracking and determining variable patterns over time.

Future research should include health managers and facilities from various organizations, such as specialized hospitals, national and regional hospitals, district-designated hospitals, teaching hospitals, privately owned health facilities, and faith-based organizations. This will increase the study's heterogeneous population and account for the diversity in managerial competency. Different types of health facilities offer several advantages. Including diverse types of health facilities ought to have the advantages of understanding more and generalizing descriptive characteristics to managerial competency, thus informing different decisions in policy and programs (Burchett et al., 2012). Furthermore, due to the reality that the current study is limited to the primary level of healthcare delivery, thus the proposed secondary and tertiary levels of care do warrant such studies in the future.

Declaration of conflicting interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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