Towards fighting COVID-19: can servant leadership behaviour enhance commitment of medical knowledge-workers

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Received 19 May 2020
Revised 26 October 2020
Accepted 9 November 2020

Abstract

Purpose – This article examines the potential of increasing commitment of medical knowledge-workers (medical-KWs) in hospitals, particularly in handling deadly pandemics like COVID-19, through servant leadership behaviour. The authors hold that medical-KWs like doctors and nurses form the core team of knowledge-workers (KWs) at the forefront of fighting COVID-19 through seeking possible vaccines, treating patients and promoting behaviours that curtail its spread. Thus research directed towards enhancing their continued commitment is both timely and valuable.

Design/methodology/approach – The study uses an explanatory cross-sectional survey design.

Findings – Results reveal that servant leadership behaviour significantly explains changes in commitment of medical-KWs. Results further establish that perceived fairness – a key psychological factor – significantly explains how servant leadership enhances the commitment of medical-KWs.

Research limitations/implications – Data used were sourced from medical-KWs in selected public hospitals only. Thus results may differ among medical-KWs in private hospitals, yet they have also championed the fight against COVID-19. Never the less these results provide a direction of thought to guide practice and other related studies on a wider-scale.

Practical implications – In their quest to eradicate COVID-19 and its negative effects on social-economic development, nations have to actively promote servant leadership behaviour in the hospitals (by establishing quality relationships, credibility and efficient processes for delivering the shared goal) as mechanisms for sustaining the continued commitment of medical-KWs towards fighting the pandemic.

Originality/value – Results portray events from an economy that has registered successes in combating pandemics like Ebola and currently COVID-19 and thus offer a plausible benchmark for practice.

Keywords COVID-19 pandemic, Commitment of medical knowledge-workers, Servant leadership, Perceived fairness

Paper type Research paper

1. Background

The COVID-19 pandemic, which was first discovered in Wuhan-china in December 2019, has continued to account for a series of hostile social-economic consequences worldwide (WHO, 2020a; World Bank, 2020). Nations like China, USA, Britain, Spain and Italy, for example, have suffered unprecedented fatalities, and, as a result, instituted longstanding lock-down measures have adversely affected their social-economic development (Chen *et al.*, 2020; Gopinath, 2020). The pandemic's effect on the USA economy alone accounted for its most distressing decline in economic development since the 2008 financial meltdown. The situation is not any better in less developed economies, especially those on the African continent were

Continuity & Resilience Review

2516-7502
DOI 10.1108/CRR-05-2020-0018

COVID-19 has also caused the loss of lives, loss of jobs and loss of businesses among other immeasurable turmoil (Gondwe, 2020). Thus, there is need to quicken the search for plausible solutions that contribute to the fight against COVID-19 and its adverse ripple effects on social-economic development. Since medical knowledge workers (medical-KWs) – doctors and nurses offering specialised services by virtual of their expertise – are at the forefront of fighting COVID-19, research aimed at sustaining their continued commitment is ubiquitously valuable (WHO, 2020a; Jost, 2016). This is because these medical-KWs have continued to endure life-threatening risks associated with the pandemic and courageously utilised their evolving knowledge to detect the virus, search for vaccines, isolate cases and treat the infected cases (Razzaq *et al.*, 2019). Generally, improving the commitment of knowledge-workers (KWs) can be pursued using monetary and non-monetary rewards (Nangoli, 2019). However, due to the adverse effects that COVID-19 has had on economic activities (Gondwe, 2020), many nations are finding it more challenging to largely depend on monetary rewards as a mechanism for increasing commitment of medical-KWs. It is therefore more realistic to explore other mechanisms of increasing their commitment through non-monetary techniques. Along this line of debate, existent works suggest that pro-social leadership behaviour can account for a positive effect on commitment (Eva *et al.*, 2019; Brownell, 2010). This kind of behaviour is widely referred to as servant leadership behaviour and comprises acts of establishing quality relationships, credibility and efficient processes for delivering the shared goals (Greenleaf, 1977; Nordbye and Irving, 2017).

Although servant leadership behaviour is increasingly gaining support as mechanism for improving commitment (Eva *et al.*, 2019; Wong *et al.*, 2019), no study that has specifically investigated the extent to which it impacts on the commitment of medical-KWs at the forefront of fighting COVID-19. Given the uniqueness of the context within which these medical-KWs operate, it is necessary to investigate the specific effect of servant leadership behaviour on their commitment. This is necessary because an attempt to merely adopt a generalist mechanism as an "off-the-shelf" strategy for fighting the pandemic exposes us to risks of wasting valuable resources like time, energy and money. Indeed, there are some dissenting opinions that have questioned the value of pros-social leadership behaviour in addressing the COVID-19 challenge. A case in point is that when the Prime Minister of United Kingdom (UK) took time to publicly appreciate and recognise the commitment of the National Health System (NHS) workers for saving his life, divergent feedback ensued from his efforts! There were contrasting opinions with others arguing that his actions were a mere waste of time which could have been spent thinking of how to enlarge the supply of protective equipment for the NHS among other valuable things (Booth *et al.*, 2020; Davies, 2020). These divergences in opinion and perceptions constrains applicability of servant leadership behaviour and could be rooted in the inability to discern underlying psychological processes through which servant leadership behaviour is likely to generate commitment (Tremblay, 2010). In an attempt to resolve this gap, we propose a model that caters for both social and psychological factors aimed at boosting the predictive potential of servant leadership behaviour on commitment while at the same time taking care of the perceptions of workers (Liu *et al.*, 2015; Susanj and Jakopec, 2012). Our resulting model thus investigates the effect of servant leadership behaviour on commitment medical-KWs, whereas providing for the intervening influence of perceived fairness as a key psychological factor.

Contextually, we use a testing ground that has registered a chain of successes in managing a series of pandemics. One of Britain's former colonies called Uganda has largely relied upon its public health system to continually and efficaciously manage pandemics like Ebola and COVID-19 (Okware *et al.*, 2002; Mwanje, 2019). In May 2020 for example, while Africa was still being tagged as the next epicentre of the pandemic, Uganda continued to perform relatively well as regards combating COVID-19. A snapshot comparison, then,

revealed that while the world deaths from COVID-19 were more than 230,000 with the recovery statistics hovering at 30% of the 3.26 million infections, Uganda had zero deaths and a recovery rate of over 65% from 83 infections Nation-wide (MoH, 2020; WHO, 2020b). This relatively lower number of infections in Uganda, at a time when the neighbouring economies like Kenya were experiencing souring COVID-19 cases, suggests that Uganda had embraced more robust strategies of combating the pandemic. Reports from the Ministry of Health in Uganda (MoH, 2020), for instance, indicated that the healthcare workers had been organised efficiently and were dedicatedly leading the fight against COVID-19. Commendable work by the medical-KWs was specifically being registered in the aspects of tracking, quarantining and treating of persons that tested positive. Amidst the search for possible vaccines to the pandemic, people who had tested positive and needed critical attention were being taken to designated hospitals for dedicated attention by medical-KWs. Comparably way, Uganda's healthcare workforce had much earlier managed to overcome the Ebola pandemic (Byaruhanga, 2014; Mwanje, 2019; Bashir *et al.*, 2018a; MoH, 2020). These scenarios suggest that the management practices from Uganda could inform the practice in fighting pandemics in other economies (Bashir *et al.*, 2018a). The remaining sections of this article provide the literature review, study methodology, analysis of results and the discussions.

2. Literature review

2.1 Theoretical basis

This study is premised on the four-frame model by Bolman and Deal (1991). The model holds that based upon the existing organizational challenges, leadership behaviour or action must be based on one or more of four frames which include the structural, human resource, political and symbolic frames. The structural frame emphasises tasks whereas the human resource frame emphasises people needs through promoting servant leadership behaviour as a way of addressing organisational challenges. Comparatively, the symbolic frame is concerned with people's needs for sense of purpose and meaning in their work, while the political frame addresses the problem of individuals and interest groups. Each of the distinct frames above thus addresses specific organizational challenges. The advocates of the model advise that no frameworks well in every circumstance and that the use of one habitual frame of reference risks making the leader ineffective. The choice of one or more frames in the model as guided by the prevailing situational conditions, enable one to ask and respond to the right questions at hand. Along this line of thought, contemporary proponents of the model (e.g. Scouller and Chapman, 2018) suggest that in situations where the prevailing concern is seeking ways of improving commitment of workers, the applicable frames are the human resource frame and the symbolic frame. The integration of these two frames simultaneously helps to address relational (social) aspects advocated for by the human resource frame meanwhile taking care of the psychological concerns of workers as per the tenets of the symbolic frame. Research by Liu *et al.* (2015) relatedly indicates that perceived fairness which manifests in form of inspirational visions under the symbolic frame may explain the psychological link between servant leadership behaviour and commitment. The model is thus applied to our study by way of lending support to the integration of the relational properties of servant leadership behaviour as expounded under the human resource frame with the psychological properties inherent in the symbolic frame, to derive a superior social-psychological model that improves the ability servant leadership behaviour to predict changes in the commitment of workers.

2.2 Commitment of Medical-KWs

As advocated for by management guru Drucker (1999a) and lately popularised by scholars like Razzaq *et al.*, (2019), the knowledge-worker (KW) concept is growing in popularity as a

vital driver of organisational competitiveness in the 21st century (see also, Mathieu *et al.*, 2015; Kianto *et al.*, 2019). KWs are high-level workers who apply theoretical and analytical knowledge, acquired through formal education, to develop new products or services (Drucker, 1994). Relatedly, Scott (2005) defines KWs as persons who apply theoretical and analytical knowledge acquired through formal education to develop new products or services and facilitate continuous learning. A contrast by some other scholars who advanced that "education" of KWs may not be formal, but from other sources besides the formal stream, defined them as people with a high degree of education or expertise whose work primarily involves the creation, distribution or application of knowledge (Horvath, 2001; Davenport *et al.*, 2002). Following the above descriptions, this study uses the phrase medical-KWs to refer to doctors and nurses who are offering specialised services by virtual of their expertise in offering services like identifying patients, treating them and conducting all health-related services that require their unique skill. As noted by Drucker (1999b), the most valuable asset of this century, whether in business or non-business, are the KWs. Bobby and Merlyn (2016) indicate that medical-KWs deliver care and services to the sick and ailing either directly or indirectly (see also Jost, 2016). The commitment of medical-KWs is thus vital in the fight against COVID-19 because their efforts are central to the timely realisation of possible solutions for combating the pandemic. While many variances of commitment exist (e.g. Porter *et al.*, 1974; McGee and Ford, 1987; Meyer *et al.*, 2002), it is necessary to focus its meaning on what actually matters to a given context (Suliman and Iles, 2000). Within the health system in Uganda, particularly in public hospitals where this study is premised, the ambition has been to mitigate the attrition rate of health workers, whilst recognising their high personal sacrifice in solving health challenges (Hagopian *et al.*, 2009). Thus the key focus of the authorities has been designing measures to curb attrition rates of healthcare workers and ensure that those who stay are committed to the executing required tasks at any given time. In line with the views of Meyer and Allen (1997) regarding continuance commitment, we refer to the commitment of medical-KWs as a feeling of obligation by these workers, to stay serving in their specialised roles for the foreseeable future (see also Hakim and Pristika, 2020).

2.3 Servant leadership behaviour, perceived fairness and commitment of medical-KWs

The growing reliance on KWs to seek solutions to organisational problems has necessitated the building of leadership models that eliminate the top-down mentality of leadership (Kianto *et al.*, 2019; Acsente, 2010). The works of De-Souse and Dierendonck (2010) and Wong *et al.* (2019), indicate that the most appropriate set of leadership behaviours that increase commitment of KWs is the servant leadership behaviour (see also; Greenleaf, 1970; Jayasingam *et al.*, 2016). We adopt the phrase "Servant leadership behaviour" to mean the orientation to serving others, upholding authenticity, performing tasks effectively and enhancing the efficiency of operational processes (Coetzer *et al.*, 2017; Page and Wong, 2000; Greenleaf, 1970). Scholars have clarified that leadership behaviour in general is the conduct of the leader in the process of influencing others to achieve set targets (Northouse, 2018). Through cultivating quality relationships between the leadership – as the power group – and the knowledge workers – as the knowledge group, servant leadership behaviour enables others to meaningfully determine what to do and how to do it as a way of contributing to set goals (Acsente, 2010; Foucault, 1980; Page and Wong, 2000). Servant leadership behaviour also supports continuous learning, innovation and quality of work by way of promoting a genuinely caring attitude for the KW (Kool and Dierendonck, 2012; Graham, 1991). From the perspective of the KWs in the health sector, based on much earlier classical arguments by Foucault (1980), the need for a marriage between the power groups and the knowledge group as a way building effectiveness towards achieving set goals is significantly emphasised. In

light of the above standpoint, an integrated reflection upon the research by Antrobus (1997), Wong *et al.* (2019), demonstrates that the commitment of medical-KWs can be boosted whenever the organisation's leadership is particularly concerned about cultivating servant leadership behaviour. This is because servant leadership behaviour is more likely to cause KWs to develop the urge to do more than they are even expected to do in their normal line of work in terms of quantity and quality (McCann *et al.* 2014; Sendjaya, 2015). What is lacking in the above literature, however, is empirical evidence from a context that entails the handling of threatening pandemics like COVID-19. Another independent study by Erin *et al.* (2012) suggests that in establishing the effect of servant leadership behaviour on commitment, it is also necessary to pay attention to possible processes that may underlie this linkage because they may alter the effects and implications (see also Wong *et al.* 2019; Yoshida *et al.*, 2014). In this regard, Tremblay (2010), Zehir *et al.* (2012) have suggested perceived fairness as a possible process factor that may influence the effect of servant leadership on commitment, although their research was conducted outside the health sector and thus may not represent commitment of medical-KWs. Perceived fairness describes a workers' opinion of the justice or fairness portrayed by the actions of their leaders (Colquitt, 2001; Erin *et al.*, 2012). Although not conducted within the health sector setting, research by Kool and vanDierendonck (2012) also indicated that perceived fairness significantly explains the relationship between servant leadership behaviour and commitment. Other scholars like Stjernen (2009) and Nangoli (2019) suggest that failure to explicitly observe psychological factors like perceived fairness could explain the low confidence that tends to exist about the ability of servant leadership behaviour to improve commitment (see also, Liu *et al.* 2015; Booth *et al.*, 2020). The above findings are not representative of the contextual events in a hospital setting within a developing economy like Uganda. Thus there is need to validate the contextual influence of the proposed factors on the commitment of medical-KWs, as this will support the making of objective decisions. Therefore, based on the above literature review, we hypothesis that servant leadership behaviour has a positive direct effect on the commitment of medical-KWs. We also hypothesise that perceived fairness significantly explains the relationship between servant leadership behaviour and commitment of medical-KWs.

3. Methodology

3.1 Research design and sample

The study used an explanatory causal research design as supported by Neuman (2011). It adopted a cross-sectional design based on the grounds that in conducting explanatory studies, this kind of design is sufficient to understand what has happened or is happening and thus reliable for shaping future trends (Kothari and Garg, 2014; Jayasingam *et al.* 2016). Structured questionnaires were used to solicit data from medical-KWs (i.e. doctors and nurses) in selected public hospitals in Uganda based on the grounds that personnel from these hospitals have accumulated special experience and knowledge on handling unique health challenges like pandemics. The medical-KWs in these hospitals have always acted as the first point of call through which Uganda has successfully handled pandemics. It is on record that Uganda's public hospital system has successfully handled patients suffering from deadly pandemics and this makes it a suitable testing ground (Okware *et al.*, 2002; Byaruhanga, 2014; Bashir *et al.*, 2018b). Based on a total target sampling frame of 10,561 doctors and nurses (AHSP Report, 2015), a representative sample of 450 respondents was derived after taking into considerations the assertions of Comfrey and Lee (1992) regarding sample size determination. The unit of enquiry was the medical-KWs (i.e. doctors and nurses) in the selected public hospitals in Uganda. Research by Bashir *et al.* (2018b) promotes the view that responses from actual implementers to a given goal improve the usability of results (see also, Ling *et al.* 2016). After the data collection and data cleaning processes as guided by

Tabachnick and Fidell (2013), 345 responses – representing 76.67% of the targeted responses – were found to be useful for drawing inferences.

3.2 Measurements, validity and reliability

Servant leadership behaviour was measured using an abridged version of the tool designed by Page and Wong (2000) because it pays comprehensive attention to the various dimensions of servant leaders by addressing their efforts on building personality, caring relationships, undertaking tasks and instituting supportive processes for the benefit of all institutional players (Nangoli, 2019). Measurement of perceived fairness was adopted along with the classical views of Colquitt (2001) and Van der Bank *et al.* (2010). The tool comprehensively accommodated the various aspects of perceived fairness including distributive fairness, procedural fairness, informational fairness and interpersonal fairness. Lastly, along the perspective of McGee and Ford (1987), Suliman and Iles (2000), the measures for commitment were adapted from Allen and Meyer (1990). As regards the aspect of validity and reliability, only items that scored an I-CVI of 0.8, 0.9 or 1.0, where retained and used while those that scored I-CVI below 0.8 were deleted (Lynn 1986; Polit and Beck, 2008). Also, based on a scale of 10, items that were found to have an alpha coefficient of 0.7 reliability and above were accepted (Fraenkel and Wallen, 2000).

3.3 Data analysis processes

Data analysis was performed by the help of SPSS software Version 21. The actual analysis comprised testing direct and indirect effects of servant leadership behaviour on the commitment of medical-KWs in the public hospitals. The steps used in deriving the above effects, followed the assumptions set by Hayes (2018) and Preacher and Hayes (2004). These steps are an improved version of earlier processes used by Baron and Kenny (1986). The cleaned data were first subjected to the prerequisite tests for performing parametric analysis including tests for linearity (our obtained values had $p < 0.01$), normality (our obtained values had p-value > 0.05), homoscedasticity (condition passed with $p > 0.05$) and multicollinearity (VIF Values < 10) (Tabachnick and Fidell, 2013; Kothari and Garg, 2014). In specifically deducing the indirect effects, the following model equations were used; model 1 ($Y = \beta 1 + C1X + \varepsilon 1$), model 2 ($M = \beta 2 + a1X + \varepsilon 2$) and model 3 ($Y = \beta 3 + C1X + b1M + \varepsilon 3$). Where, Y refers to commitment of medical-KWs, X denotes the independent variable "servant leadership behaviour", while "M" stands for the Mediator variable "Perceived fairness". "$C1$, $a1$ "represents the effect of slope coefficients denoting the influence of the associated independent variables over the dependent variable, "$\varepsilon 1$", "$\varepsilon 2$" and "$\varepsilon 3$", represent the respective error terms of model 1, 2 and 3 above. Based on the results from the SPSS, rejection or failure to reject the interpretation of the beta value was based on significance or non-significance of the p-value.

4. Results

4.1 Demographics

The sample demographics showed that 37.4% of the respondents were male, while 62.6% were female, indicating that the views of both the male and female gender were represented in the sample. The findings further revealed that 43.5% of the respondents had ever served in a leadership role during their tenure of service, while 56.5% were yet to serve in formal leadership roles. It was also revealed that about half of the respondents (48.2%) were either 30 years of age or below, while 30.4% were between the age of 31 and 40 years, and the remaining (21.4%) were above 40 years of age. This depicts that most of the medical-KWs are energetic and can actively take on challenging duties that often call for learning. The findings further showed that 100% of respondents had acquired the basic mandatory certificate of

practice as skilled workers in their respective capacities in the hospital. The findings also showed that 70.7% of the respondents had experience of over 3years in the health care services, while only 29.3% of the respondents had experience of less than three years, which indicates that majority of the respondents had accumulated considerable experience in health care services. As regards salary received, 95.4% of the respondents indicated that they are not satisfied with the amount of salary they earn, and only 4.6% indicated that they are satisfied with the pay they receive. This statistic reflects the situation in most developing economies that often do not have capacity to pay decent salaries and often this has contributed to demotivation coupled with high attrition rates. Given the worldwide decline in the economic activities of many nations due to the COVID-19 pandemic, it is unlikely that many nations (Gondwe 2020), more so the underdeveloped ones, can sustainably utilise increases in salary as a way of enhancing commitment of workforce.

4.2 Correlation analysis results

Correlation analysis was conducted with the intention of measuring the linear relationship between the variables (Hair *et al.*, 2013) as can be seen in Table 1 below. The obtained findings show that servant leadership behaviour has a positive and significant relationship with perceived fairness (0.71, p-value < 0.01), implying that there is a 71% chance that commitment may correspondingly change with change in a medical-KW's perceived fairness. Results further show that servant leadership behaviour has a positive and significant relationship with commitment (0.37, p-value < 0.01), and that perceived fairness has a positive and significant relationship with commitment (0.37, p-value < 0.01). The results suggest that an increase in servant leadership behaviour by one unit may be associated with a 37% change in commitment. Also, that an increase in perceived fairness by one unit may be associated with a 37% change in commitment.

4.3 Multicollinearity analysis results

Tests were also conducted for multicollinearity as part of the preliminary test before performing regression analysis. Based on the output of the results, it was interpreted that multicollinearity was not prevalent in the results. Multicollinearity occurs when the independent variables are too highly correlated with each other (Tabachnick and Fidell, 2013). The results in Table 2 below showed that servant leadership behaviour and perceived

Variable	Servant leadership behaviour	Perceived fairness	Commitment
Servant leadership behaviour	1		
	0.01		
Perceived fairness	0.71**	1	
	0.01	0.01	
Commitment	0.37**	0.37**	1
	0.01	0.01	0.01

Note(s):** Correlation is significant at the 0.01 level (2-tailed)

Table 1. Correlation table

	Tolerance	VIF
Servant leadership behaviour	0.65	1.54
Perceived fairness	0.65	1.54

Table 2. Multicollinearity analysis

fairness had a tolerance of 0.65 and value inflation factor (VIF) of 1.54, respectively. VIF values higher than 10 indicate that multicollinearity is prevalent. On the other hand, tolerance values of less than 0.1 indicate the presence of multicollinearity. This means that for all the independent variables in this study, there was no presence of multicollinearity.

4.4 Regression analysis results

Table 3 below presents the results of the direct and indirect effect of servant leadership behaviour on commitment of medical-KWs in the targeted public hospitals in Uganda. Based on the results in Table 3, regarding the direct effect of servant leadership behaviour on commitment of Medical-KWs, the results reveal that a unit change in servant leadership behaviour explains 0.42 unit change in commitment. This is depicted by "Path C" and in this interaction, the effect of the intervening variable was not accounted for. This model explains 14% of the variations in commitment of medical-KWs ($F = 54.09$, $p < 0.01$).

Regarding the process of deducing the indirect effect of servant leadership behaviour on commitment via perceived fairness, a series of tests were executed; "Path a" presents the effect of servant leadership behaviour on perceived fairness and the findings show that servant leadership behaviour has a positive and significant effect on perceived fairness, 0.76 [0.68, 0.84], $p < 0.01$. This reveals that with each unit change in servant leadership behaviour, perceived fairness correspondingly changes by 0.76 units. Furthermore, the coefficient of determination, *R*-square shows that servant leadership behaviour accounts for 50% of the variation in perceived fairness and that this amount of variation is significant ($F = 346.72$, $p < 0.01$). On the other hand, regarding the effect of perceived fairness on commitment of medical-KWs, as depicted by "Path b", the findings show that perceived fairness has a positive and significant effect on commitment, 0.23 [0.08, 0.38], $p < 0.01$ indicating that with

		Coeff	se	*t*	*p*	LLCI	ULCI
Model I (Path C)	Constant	1.88	0.20	9.19	0.01	1.48	2.28
	X	0.42	0.06	7.35	0.00	0.31	0.53
	R	0.37					
	R-sq	0.14					
	F	54.09					
	p	0.01					
Model II (Path a)	Constant	0.72	0.15	4.96	0.01	0.44	1.01
	X	0.76	0.04	18.62	0.01	0.68	0.84
	R	0.71					
	R-sq	0.50					
	F	346.72					
	p	0.01					
	Constant	1.79	0.19	9.31	0.01	1.41	2.17
Model III (Path b)	*M*	0.23	0.07	3.07	0.01	0.08	0.38
(Path C')	*X*	0.25	0.08	3.07	0.01	0.09	0.40
	R	0.40					
	R-sq	0.16					
	F	32.44					
	p	0.01					

Indirect effect of X on Y

	Effect	BootSE	BootLLCI	BootULCI
M	0.17	0.06	0.06	0.30

Table 3. Regression analysis results

Note(s): Key to Codes: *X* represents Servant leadership behaviour; *M* represents perceived fairness; *Y* represents commitment of Medical-KWs

each unit change in perceived fairness, commitment of medical-KWs correspondingly changes by 0.23 units. Also, "Path C'" assesses the effect of servant leadership behaviour on commitment of medical-KWs in the presence of the perceived fairness. The results reveal that in the presence of perceived fairness as a mediator, servant leadership behaviour has a positive and significant effect on commitment, 0.25 [0.09, 0.40], $p < 0.01$ indicating that with each unit change in servant leadership behaviour, commitment of medical-KWs changes by 0.25 units. This model accounts for 16% of the variation in commitment and it is significant ($F = 38.04$, $p < 0.01$). The model further shows that the indirect effect of servant leadership behaviour on commitment of medical-KWs as explained by perceived fairness, is 17%, and that the total effect of servant leadership behaviour on commitment of medical-KWs is 42%. Therefore the above series of results mean that the relationship between servant leadership behaviour and commitment of medical-KWs is significantly and positively mediated by perceived fairness. And, as further inferred from the results above, the predictive potential of servant leadership behaviour on commitment of medical-KWs improves from 12% to 15% when perceived fairness was accounted for as a mediator.

5. Discussions, conclusion, implication and recommendation

5.1 Discussions

The results established that servant leadership behaviour has a direct positive effect on the commitment of medical-KWs in public hospitals in Uganda. Earlier studies by Bashir *et al.* (2018b), regarding the successful management of the Ebola pandemic in Uganda, indicate that upholding pro-social behaviours was evident among the medical-KWs. This indicates that servant leadership behaviours are pivotal in the quick eradication of a prevailing pandemic, through enhancing commitment of medical-KWs. Although some dissenting observations about the effectiveness of using servant leadership behaviours to enhance commitment of medical-KWs (see, e.g. Davies, 2020; Booth *et al.*, 2020), such observations can be interpreted as indicators of the fact that servant leadership behaviour is not the sole predictor of commitment. This follows that other factors need to be incorporated in the model so as to increase the predicative potential of servant leadership on commitment. From a theoretical perspective, these results support the human resource assumptions of Bolman and Deal (1991) that indicate that organisations can address human challenges like employee commitment through embracing the pro-social behaviours manifested under servant leadership style. Also as regards indirect effects, the results showed that the effect of servant leadership behaviour on commitment of medical-KWs is partially explained by changes in perceived fairness. This extends the findings of Rubel and Kee (2015), who established that perceived fairness is growing in prominence as a key factor in explaining changes in people behaviour within the health sector although their studies only concentrated on nurses. The results obtained in this study extend the existing studies by taking into account the combined views of doctors and nurses, and this offers an enriched perspective of how operations in a hospital can be derailed as a result of changes in perceived fairness of medical-KWs. Based on Bolman and Deal (1991), the new dimension extends the thinking that leadership can be more effective through integrating the human resource framework (sociological perspective) and symbolic framework (psychological perspective) of leadership to generate a social-psychological model that drives a higher predictive effect of servant leadership behaviour on commitment of medical-KWs.

5.2 Conclusion

Sustaining continued commitment of medical-KWs in hospitals as a way of quickening the search for solutions to COVID-19 can be realized thorough the practice of servant leadership

behaviour. This requires that servant leadership behaviour is embraced by focussing on building positive relationships with medical-KWs, upholding credibility, instituting open management systems and also active engagement in task execution. It has been also established further that perceived fairness provides a reliable mechanism by which servant leadership behaviour promotes commitment of medical-KWs.

5.3 Implication

Given that medical-KWs are masterminding the search for solutions to COVID-19, our results imply that economies hit by this pandemic, can quickly get back on the road to economic recovery by nurturing servant leadership behaviour. This is because nurturing servant leadership behaviour will increase the continued commitment of medical-KWs hence brings about faster realization of solutions to the pandemic sooner than later. Once the pandemic is eradicated, existing impediments to economic growth like the lockdown measures will get lifted and business activities will start to flourish thereby bringing about faster social-economic growth. Another implication of this study is that medical-KWs in hospitals become more committed when treated respectfully, given the opportunity to express themselves freely, and when information and rewards are fairly shared with them. It is thus necessary that such management practices are embraced as a way of increasing the commitment of Medical-KWs to seek for the urgently needed solutions aimed at curbing COVID-19. As a result, countries that had been hit hard by the pandemic, will lift all lock-down measures their by bringing about faster economic revival.

5.4 Recommendation

We recommend that public hospitals actively promote servant leadership behaviour (quality relationships, credibility and efficient processes for delivering) as a key strategy for augmenting the commitment of medical-KWs. This is necessary since under-developed nations have less hope of encouraging the commitment of health workers satisfactorily through economic rewards, as they are operating under scarcity especially with the onset of COVID-19.

We also recommend that further studies are conducted to establish other mechanism by which servant leadership behaviour can positively influence the commitment of medical-KWs. This is premised on the fact that a partial mediation was established showing that there are some factors that could be tested for inclusion in the model so as to enhance its predictive potential even further.

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