The Journal of Behavioral Science
2021, Vol. 16, Issue 1, 1-13

ISSN: 1906-4675 (Print), 2651-2246 (Online)

The Journal of Behavioral Science (TJBS)

Original Article

COVID-19 Sources of Primary Care Nurses' Work Disengagement in Malawi

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Article Information

Received: *14.8.20*
Revised: *23.9.20*
Accepted: *14.10.20*

Keywords

COVID-19, primary care nurses, low-income country, Malawi, work disengagement

Abstract

Drawing on the conservation of resources theory, the study documents sources of primary care nurses' work disengagement in a low-income country (Malawi) during the COVID-19 pandemic. The study utilized a qualitative approach that recruited 46 primary care nurses between the age of 21 to 53 years. Data were collected using in-depth telephone interviews from April 1st to May 17th, 2020. The interviews generated a total of 276 statements which were analyzed using the open and axial coding technique. Analysis of the interview statements established that sources of primary care nurses' work disengagement in Malawi during the COVID-19 pandemic fall under three broad categories namely: threat of losing central resources; actual loss of central resources; and failure to gain central resources. The threat of losing central resources was manifested through respondents' anticipated family-member COVID-19 contagion and conviction about the presence of asymptomatic workmates. Actual loss of central resources manifested as work-overload, workmates COVID-19 diagnosis, and public stigmatization. Last, failure to gain central resources was evident through inadequate personal protective equipment, low professional risk allowances, and minimal government funding allocation. Findings from this study have practical significance as they reveal to hospital management which causal sources are more prevalent in underlying the work disengagement of primary care nurses. In this way, the findings can guide hospital management to focus on mitigating the most prevalent sources of work disengagement to yield a far-reaching impact in heightening primary care nurses' work vigor, dedication, and absorption.

In December 2019, scientists identified a novel coronavirus in Wuhan, China, that was associated with an outbreak of pneumonia and that was suspected of being zoonotic in origin (Zhu et al., 2019). By January 2020, the World Health Organization (WHO) declared the outbreak of this new coronavirus disease, COVID-19, to be a public health emergency of international concern (WHO, 2020a). The WHO stated that there was a high risk of COVID-19 spreading to other countries around the world. In March 2020, the WHO assessed that COVID-19 can be characterized as a pandemic (Fang et al., 2020). Ever since, the situation has driven urgent public health actions, as well as international engagement where countries throughout the world have enhanced public health responses for the containment and mitigation of the pandemic (Paterlini, 2020).

At the forefront of the fight against the COVID-19 pandemic are primary care nurses. Primary care nurses are nurse practitioners who work with a specific patient or more over an extended period (Keleher et al., 2009). The role of primary care nurses on a typical day before versus during the COVID-19 pandemic remains the same, nevertheless, differences can be expected to exist concerning resources at their disposal, familiarity with the infection at hand, and the nature of personal and workplace challenges. Primary care nurses account for the largest professional group within the healthcare workforce and are a vital component of

systematized responses to infectious disease outbreaks (Jordan et al., 2020). For decades, primary care nurses have always played remarkable roles in infection prevention and control, as well as in caring for infected people during pandemics (Corless et al., 2018). As such, in times of infectious disease outbreaks, it is unsurprising that the public substantially relies on primary care nurses for disease management (Closser & Jooma, 2013). Health systems can only function efficiently when primary care nurses are available. That is why improving health service coverage and realizing the right to the enjoyment of the highest attainable standard of health is predominantly dependent on their accessibility and quality (Raven et al, 2018). Primary care nurses form the intelligence for disease outbreak management and are cost-effective providers of interventions for disease prevention to communities in need (Mfinanga et al., 2017). In their localities, they serve, and are knowledgeable individuals by their community standards, and are well trusted. Through public trust, primary care nurses direct the public to comply with pandemic prevention efforts (Blair et al., 2017). By being at the core of the fight against a pandemic, primary care nurses also provide important insights and trends to the hospital management as well as the government which forms a basis for robust health policy interventions (Strathdee et al., 2012).

Literature Review

Previous research suggests that during pandemics, healthcare workers such as primary care nurses, often find themselves working under undesirable situations. Undesirable situations impair workers' physical, cognitive, and emotional processes to which they react by reducing their work investments, activities, and motivation (i.e., they disengage from their work) (Van den Elzen & MacLeod, 2006). In a 2006 study in the USA, it was found that nearly half of the local primary healthcare workers did not desire to report for duty during an influenza outbreak due to perceived inadequate preparedness by the responsible authorities (Balicer et al., 2006). During the Ebola outbreak in 2013, case management services were intentionally drastically declined by primary healthcare workers in Guinea, Liberia, and Sierra Leone as the outbreak picked since they felt not well taken care of (Miller et al., 2018). Similarly, during the Severe Acute Respiratory Syndrome (SARS) outbreak in 2003, some primary healthcare workers in Taiwan exhibited some unwillingness to work because they perceived that there would be an opportunity loss in the quality of their social lives if they were required to be quarantined after caring for patients with SARS (Tzeng, 2004).

The fight against a pandemic could be significantly disadvantaged with the presence of disengaged primary care nurses. Such being the case because disengaged workers are not just unhappy at work, but rather also resentful to the extent that they potentially undermine what their engaged coworkers seek to accomplish (Gallup Organization, 2017). Loerbroks et al., (2017) assert that the work disengagement of primary healthcare workers leads to poor quality of patient care. Also, the magnitude of medical errors has been found to largely depend on the primary healthcare workers' level of work disengagement (Prins et al., 2009). Higher levels of work disengagement are also associated with lower levels of patient satisfaction (Bacon & Mark, 2009), work effectiveness (Spence Laschinger et al., 2009), and primary healthcare workers' performance of discretionary extra-role behaviors (Salanova et al., 2011). That is why primary care nurses' work disengagement could prove costly in the fight against a wide-spread pandemic like COVID-19.

Conservation of Resources Theory

A popular conceptual framework that is widely utilized to study employees' work disengagement is the Conservation of Resources Theory. This theory was developed by Hobfoll (1989). COR theory has historically guided tremendous research on employees' stress but is now being also applied to studies on employees' work disengagement with the popular examples of Cheng & McCarthy (2013) and Rubino et al. (2012). The COR theory proposes that individuals strive to obtain, retain, foster, and protect those things they centrally value (resources) and that employees' work disengagement emanates when (a) such central resources are threatened with loss, (b) such central resources are lost, or (c) there is a failure to gain such central resources following significant effort (Rastogi et al., 2018). In this context, resources are broadly defined as referring to anything perceived by the employee to help attain his or her personal or/and organization goals (Halbesleben et al., 2014). This broad definition of resources implies that resources transcend the workplace environment. COR theory is thus a

motivation-based theory that can be widely applied to study a variety of employees' behaviors including work disengagement. The COVID-19 pandemic promises to elevate primary care nurses' personal and workplace challenges (such as undesirable situations) across the world (Greenberg et al., 2020). Out of this backdrop, the current study uses COR theory to conceptualize the sources of work disengagement among primary care nurses during the COVID-19 pandemic. Specifically, it is proposed in the current study that primary care nurses' work disengagement during the COVID-19 pandemic will originate from either: a) threats of losing their central resources; or b) actual loss of their central resources; or c) inability to gain central resources.

Research Context

The context for the current research is a low-income country with Malawi serving as an example. Malawi fits the criteria of a low-income country as it is among the poorest countries in the world (World Bank, 2019). At the time of completion of the current study on 17th May, there were about 72 confirmed COVID-19 cases in Malawi (John Hopkins University, 2020). The healthcare system of Malawi has been best described as being already fragile and sub-optimal in the face of a large-scale infectious disease outbreak like COVID-19 (Gadabu, 2020). Malawi's healthcare system already has limited primary care nurses due to the existing low primary healthcare worker density per 1000 population (Munthali & Xuelian, 2020). Furthermore, the healthcare system in Malawi, like most low-income countries, is grossly underfunded and ill-equipped (Mfinanga et al., 2017), and as such, it is already expected to struggle in effectively handling the weight of a large-scale infectious disease outbreak like the COVID-19 pandemic. The situational characteristics discussed above mean that the healthcare system of a low-income country like Malawi has to wrestle COVID-19 under a high resource-constrained environment. As such, the work disengagement of primary care nurses in such a context, during the COVID-19 pandemic, only magnifies the already daunting task facing the healthcare system. Hence, to ensure that Malawi's (and possibly other low-income countries) primary care nurses remain energized, dedicated, and motivated to persevere and complete their COVID-19-related duties, causal factors of their work disengagement must be precisely documented to inform the design of re-energizing intervention measures by hospital management.

Research Question

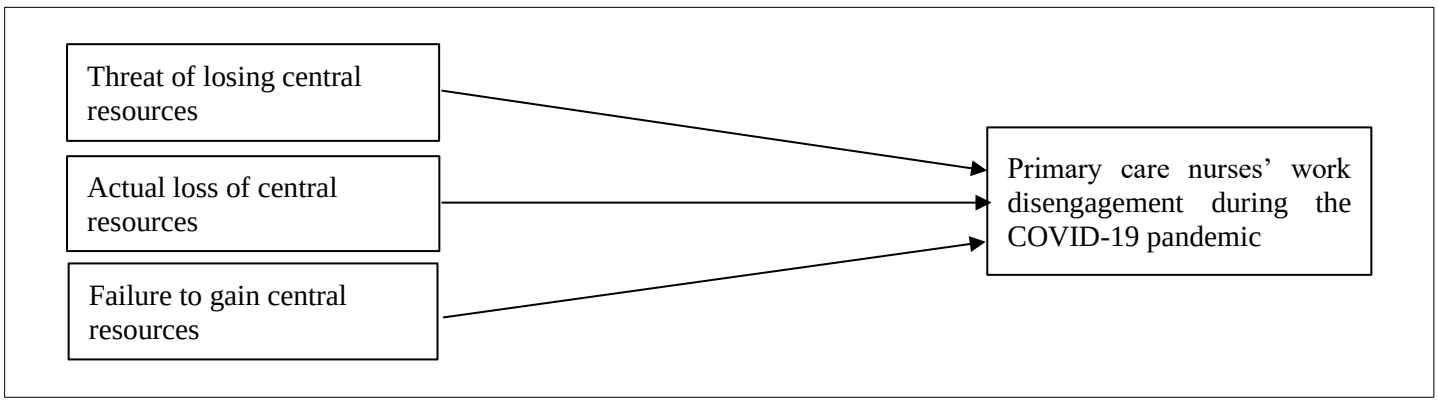
This study seeks to address the following main research question: *What are the sources of primary care nurses' work disengagement in a low-income country (Malawi) during the COVID-19 pandemic?*

Theoretical Framework

The theoretical framework of this study is guided by the conservation of resources theory COR). Figure 1 details the proposed theoretical framework which segments the sources of primary care nurses' work disengagement during the COVID-19 pandemic into three parts. This theoretical framework guides data collection, analysis, and interpretation.

Figure 1

The Study's Theoretical Framework



Method

Research Design

The current study uses an adaptation of Colaizzi's (1978) phenomenological qualitative approach. A phenomenological qualitative approach seeks to understand the lived experience of human beings in the context of their world and is ideal for exploring unique-occurring events (Kirkpatrick, 2016). The exploration of the research topic "What are the sources of primary care nurses' work disengagement in a low-income country (Malawi) during the COVID-19 pandemic" was facilitated by in-depth telephone interviews. In-depth telephone interviews were ideal for collecting data in the current study for two reasons. First, they allowed the researchers and the respondents to interact without drawing COVID-19 contagion fears amongst themselves, an arrangement that permitted the discussion to be done with ease and comfort. Second, most primary care nurses were significantly already occupied with their COVID-19-related tasks, therefore, it was difficult to reach them physically and as such, the use of the in-depth telephone interview provided a more feasible and faster option to collect the data. Incidentally, adoption of the above communication medium led to a quicker and smoother collection of data than would have been the case with face-to-face interviews.

Participants

The data for this study were collected from primary care nurses working at the largest 2 central hospitals in Malawi that were designated as referrals for the COVID-19 patients. A purposive sampling technique was utilized to reach primary care nurses who were at the forefront of handling COVID-19 infections. The inclusion criteria for participants were those in the direct-care designation. The study excluded those primary care nurses' who were in the indirect-care designation (e.g., administrative work). Potential participants were first provided with information about the study through email to which they were required to reply with details of their current work designation(s), telephone contact(s) as well as a suggested date and time for the in-depth telephone interview. Data were collected from April 1st to May 17th, 2020. A total of 46 primary care nurses between the age of 21 and 53 years participated in this study. The demographic characteristics (gender, age, and tenure) of the 46 study respondents are summarized in Table 1. All in-depth telephone interviews were conducted in the study context's local language Chichewa as a way of smoothening the discussion. All discussions of the in-depth telephone interview were digitally recorded.

Table 1

Demographic Characteristics of the Study Respondents

Characteristic	Category	n=46	%
Gender	Male	19	41.30%
	Female	27	58.70%
Age	< 25	8	17.39%
	> 25-35	11	23.91%
	> 35-45	18	39.13%
	> 45	9	19.57%
Tenure	< 5 years	13	28.26%
	> 5-10 years	26	56.52%
	> 10 years	7	15.21%

Ethical Considerations

Ethics certification was provided by National Dong Hwa University to conduct the current study. To mitigate the ethical issue of further burdening primary care nurses already tasked with caring for COVID-19 patients, the current study took on board four ethics-based measures. First, the respondents' consent to participate in the study and be digitally recorded was sought before conducting in-depth telephone interviews. Here it was emphasized that participation was voluntary and that participants could terminate their participation at any time. Second, no dateline was imposed regarding when the participants had to schedule a date for the in-depth telephone interview. It was however strongly suggested to the participants that the interview should be conducted on an off-duty day to avoid any work-related inconveniences. Third, the interview time per respondent was kept under 60 minutes. Last, the respondents were assured of their confidentiality which served the advantage of helping them to freely express their opinions.

Data Analysis

An inductive process was used to analyze qualitative data. Open coding and axial coding were followed throughout the study (Aras, 2015). Audio from the in-depth telephone interviews was translated from the local language Chichewa to English during transcription by the first and third authors together with a bilingual local healthcare researcher. As a way of controlling for author bias in coding, a process of consensual coding was employed to ensure the reliability of the translation where all 3 authors coded the English translations independent from each other. The three versions of the codes were then compared by all authors in a face-to-face meeting, and in the case of any variation(s), discussions were conducted until an agreement was reached. A two-step procedure was then followed to create themes. In the first step, borrowing insights from Thompson et. al. (2020), a code was assigned in the form of a Microsoft Word comment to any mentioned source of work disengagement. This procedure led to the creation of codes that adhered closely to the participants' vocabulary and terminology. At the end of this step, there were 9 identified codes as sources of primary care nurses' work disengagement. In the second step, with guidance from COR theory as laid out in the current study's theoretical framework (see Figure 1), the identified 9 codes for sources of primary care nurses' work disengagement were grouped into three categories: a) threat to losing central resources, b) actual loss of central resources, and c) failure to gain central resources. In line with Colaizzi's (1978) recommendation for conducting a phenomenological study, after concluding data analysis four respondents who had provided the most information during the in-depth telephone interviews were consulted to review the emergent themes for coherence with their experiences.

Results

Table 2 presents sources of primary care nurses' work disengagement and their corresponding practical manifestations.

A total of 276 statements were generated from the in-depth telephone interviews that were conducted in the current study. To answer the main research question, nine sub-themes are identified from the 276 statements that were generated in this study. These 9 sub-themes are further grouped into three main themes.

Theme 1: Threat of Losing Central Resources

Anticipated Family-Member COVID-19 Contagion

Family is an important resource for primary care nurses as it provides both social and emotional support. The COVID-19 outbreak put everyone at risk of infection. Some of the respondents articulated that while at work they could not get off their mind worrying thoughts about the health and well-being of their loved ones. One of the respondents said, "it is very hard to stay focused here when I think about the safety of my husband. I am afraid that with the nature of my job I may end up infecting him with COVID-19". With their family welfare threatened, it meant that primary care nurses experienced incompatible demands between work roles and family welfare concerns, inevitably lowering their focused attention on work roles. Their worry for the family meant that even though physically present at work still, their thoughts wandered far away.

Conviction About the Presence of Asymptomatic Workmates

Personal health is another important resource that primary care nurses value. Due to the enormous exposure which all primary care nurses were having to COVID-19 in the line of their duties, some respondents feared that some of their workmates could be already infected even though they were not showing any associated symptoms. One of the

Table 2

Source of Primary Care Nurses' Work Disengagement During COVID-19 in Malawi

Source	Practical Manifestation	Respondents
(a) Threat of losing central resources	(i) Anticipated family-member COVID-19 contagion	21
	(ii) Conviction about the presence of asymptomatic workmates	27
(b) Actual loss of resources	(i) Work-overload	14
	(ii) Workmates COVID-19 diagnosis	32
	(iii) Public stigmatization	11
(c) Failure to gain central resources	(i) Inadequate PPE	36
	(ii) Low professional risk allowances	24
	(iii) Minimal government funding allocation	9

respondents worried, "some of my workmates may already be infected with COVID-19 even though no symptoms might be showing. A similar sentiment was raised by another respondent who said, "It is now difficult to fully trust my workmates now, I just can't comfortably work with them anymore". Another respondent said, "Honestly, I must also protect myself from my workmates who may be asymptomatic". With personal health threatened, as they feared that asymptomatic workmates could end up infecting them, there was a development of some sort of resentment towards work among some primary care nurses. This in turn lowered their level of work commitment as well as their drive to be present and work with colleagues.

Theme 2: Actual Loss of Central Resources

Work-Overload

Primary care nurses also value personal energy knowing that aside from work-related duties they still have personal commitments outside the workplace that also await to be attended to. Some of the primary care nurses emphasized that the addition of COVID-19-related tasks to their traditional job duties led to work-overload. One of the respondents narrated, "there was a need for the hospital management together with the government to employee new primary care nurses to attain a reasonable work-load balance for us". Another respondent said, "With this COVID-19 there is now just way too much work to do. I won't do all the required work by myself because I would be very exhausted". Primary care nurses, in trying to avoid burn out, ended up exerting minimal effort towards their work.

Workmates COVID-19 Diagnosis

Workmates form an important peer group that primary care nurses value. Some respondents highlighted that some of their workmates got infected with COVID-19 while on duty and were in critical condition. The illness of such work colleagues distracted primary care nurses from channeling all their attention (cognition) and energy to the COVID-19-related duties. One of the respondents said, "it is very hard for me to stay focused while my work colleagues are now infected with COVID-19". Another respondent said, "whenever I see my work colleagues struggling like that with this infection all I can imagine about is that probably I am next". Some primary care nurses also reported developing some level of dislike for their work amid the COVID-19 pandemic. One respondent said, "I have always loved my job but seeing my workmates get this critically ill makes me not like it anymore". Seeing their work colleagues succumb to COVID-19, therefore, lowered primary care nurses' level of focus and passion towards the enormous task of safeguarding COVID-19 patients.

Public Stigmatization

Social relationships with the general public is another key resource that is central to primary care nurses. Part of the general public perceived all primary care nurses to be seemingly at a greater risk of contracting COVID-19. Such being the case because local media reports had made the general

public aware that personal protective equipment (PPE) was lacking at hospitals and that, already, some health workers had fallen ill after contracting COVID-19 in the line of duty. As a result, some of the primary care nurses disclosed being stigmatized by some members of the public. One respondent narrated that "the private minibus and taxi drivers are denying us from boarding, saying that it is for the sake of the other passengers' safety". This treatment by the general public made some of the primary care nurses worried as the stigmatizing experiences still lingered in their thoughts while at work. The also felt underappreciated by the very communities which they were putting their lives at risk for as one respondent voiced, "It is very unfortunate that the general public is treating us like this while we are here giving our very best just for them to survive COVID-19". There were instances of bullying by the general public. Some of the respondents highlighted that part of the general public was deliberately seeking to emotionally harm and intimidate them (i.e. the primary care nurses) as they were being perceived as more vulnerable to COVID-19 infection. Sometimes when in their work uniform, they were easily identifiable as nursing practitioners and were, thus, sometimes inviting negative bullying comments from some members of the general public. One respondent said, "when wearing my work uniform, I am being called Corona Virus by some members of the public, I still think about it even when at work". Another respondent said, "some people are writing very negative comments on my social media platform saying it's just a matter of time before I too get infected by COVID-19". As a consequence, these incidents ended up negatively affecting some primary care nurses' level of dedication to their COVID-19-related duties.

Theme 3: Failure to Gain Central Resources

Inadequate Personal Protective Equipment (PPE)

A PPE was a critical resource to the fight of COVID-19. Lack of adequate PPE at the hospital to be used when handling COVID-19 patients was one main reason why primary care nurses disengaged from their work. The primary care nurses were afraid of contracting the disease themselves which they feared could negatively affect their life. One of the respondents said, "With limited stock for N95 masks I am trying to avoid working as much as possible". Another respondent said, "The protective suits are in limited stock at the hospitals which means that the few available ones have to be shared amongst a larger group. It's not safe at work anymore". Despite daily efforts to lobby with hospital management, the situation persisted. The primary care nurses thus felt that their work had become hazardous and as a result, they exhibited deliberate tardiness for work to safeguard their health.

Low Professional Risk Allowances

Remuneration is the reason why primary care nurses work and hence an important resource. At the time of the COVID-19 outbreak, the maximum professional risk allowance was $81.5 per month for the majority of the healthcare workers in Malawi. Even though, in general, the risk allowances in Malawi have always been on the lower end, some of the primary care nurses felt that such an amount was only acceptable before the COVID-19 pandemic. Efforts to lobby for increased professional risk allowances had at the time yielded no further positive results. They opined that their professional risk allowances were way too low to pocket per month considering that the COVID-19 pandemic had now added more threats to their health and well-being. One respondent said, "the government literary does not care about us at all despite that we have always served in good faith". Another respondent questioned, "how can I give it my all when I am not well compensated?" Low professional risk allowances made the primary care nurses feel underappreciated which consequently reduced their work motivation and effort.

Minimal Government Funding Allocation

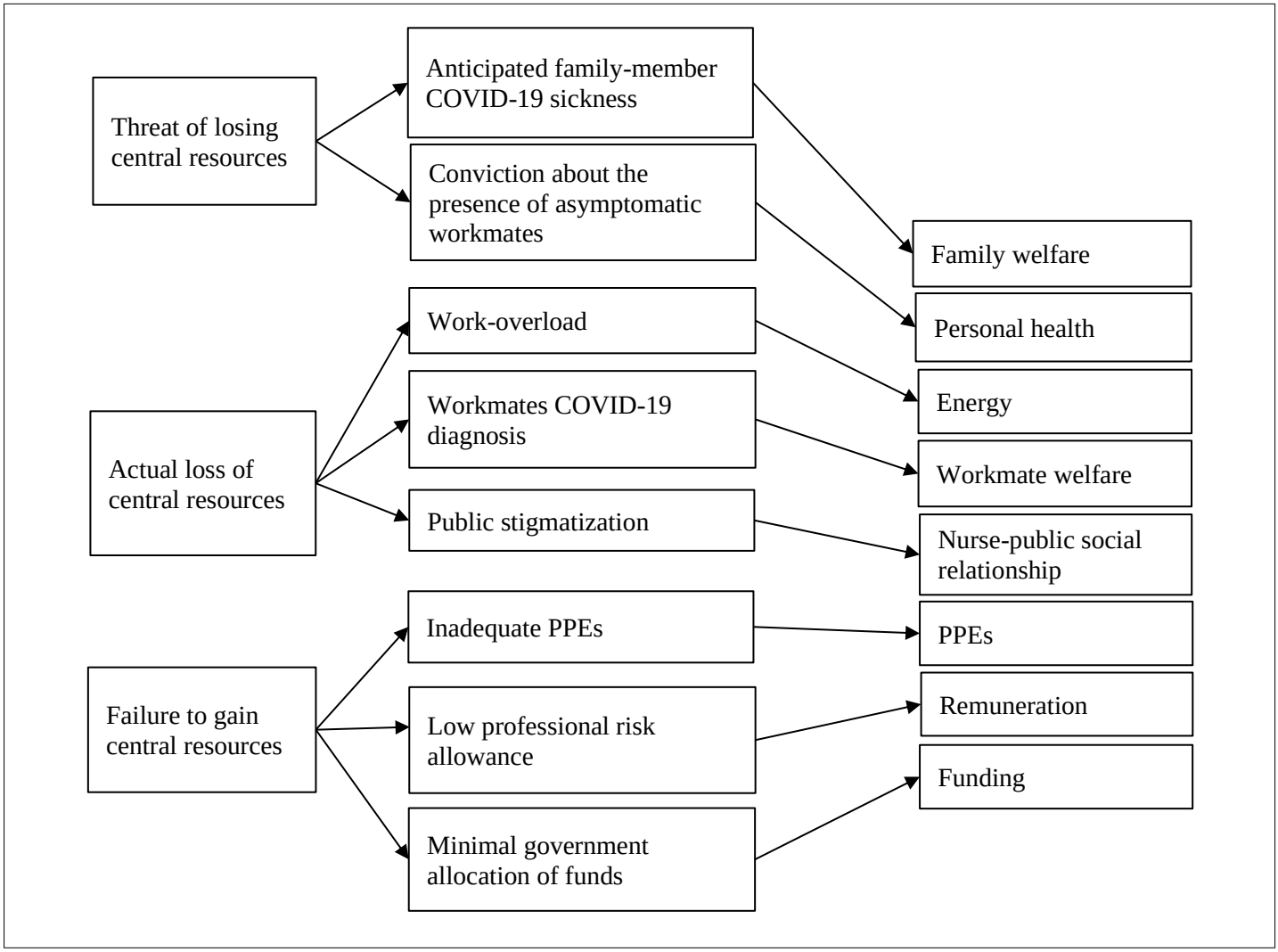
Amid COVID-19, primary care nurses together with fellow frontline healthcare workers longed for additional funding allocation from the Malawian government. Hence, expectations were high when the government of Malawi got the approval of $37 million from the World Bank to support the country's public health response to the outbreak. The government thus started its first phase of financial resources allocation to key ministries that were deemed important in the fight against the COVID-19 pandemic. In the first phase, the government allocated the most financial resources to the Army (approximately $353,800) and the Police (approximately $310,627) than it did to the Ministry of Health (approximately $54,496). Such an allocation had drawn wide attention and criticism towards the government. One of the respondents said, "the government seems to care less about us and the country's public health response to COVID-19

but rather it cares more about politics as we all know that the presidential elections are scheduled just 1 month away". Another respondent questioned, "why should I care about the whole COVID-19 pandemic if our government officials openly show to us that it is not a priority for them?" Such unlimited allocation of financial resources by the government shocked some of the primary care nurses such that it had a bearing on how they viewed the worthiness of fully committing to the COVID-19 fight.

Based on the findings of the current qualitative study, in Figure 2 a synthesis of a model is proposed to capture the formation process of primary care nurses' work disengagement in Malawi during the COVID-19 pandemic. The synthesis of a model has three parts: a) source categories of work disengagement, b) practical manifestation, and c) central resources being impacted.

Figure 2

Synthesis of a Model for COVID-19 Sources of Primary Care Nurses' Work Disengagement



Discussion

The work disengagement of primary care nurses during the COVID-19 pandemic, though potentially beneficial to their comfort and health, is detrimental to the quality of care for patients (Dasgupta, 2016). Disengaged primary care nurses will show a reduction in, (1) vigor-self-willingness to work, resistance to difficulties, energy, and mental endurance; (2) dedication-feelings of importance, inspiration, honor, and stimulation concerning one's work, and (3) absorption-work engrossment despite difficulties that may force someone to move away from his work (Kartal, 2018). This in turn has been found to reduce patient satisfaction (Bacon & Mark,

2009) and increase the likelihood of medical errors (Prins et al., 2009). Also, it is important to take note that there are societal expectations towards the professional obligations of primary care nurses towards patients which act as the foundation of a social contract (Coleman, 2008; Cruess & Cruess, 2008). Hence, the issue of their work disengagement amid the COVID-19 pandemic invokes an issue to do with professional integrity (Chima, 2013; Orentlicher, 2018). These professional integrity issues, resulting from the work disengagement of primary care nurses at such a sensitive time, once comprehended by the general public may jeopardize its trust towards the medical profession. Lost public trust in the medical profession may have fatal consequences on the containment of an infectious disease outbreak like COVID-19 because the public may no longer fully trust health workers for assistance and guidance (Blair et al., 2017). Hence the primary objective of the current study was to document sources of primary care nurses' work disengagement in a low-income country (Malawi). The findings have significant practical and theoretical implications which are discussed next.

First, to practically mitigate the problem of primary care nurses' work disengagement on a large scale, hospital management must know which casual factors of work disengagement are currently more prevalent. An in-depth look at the root sources of Malawian primary care nurses' work disengagement (see Table 2) shows that inadequate PPE, workmates COVID-19 diagnosis, conviction about the presence of asymptomatic workmates, low professional risk allowance, and anticipated family-member COVID-19 sickness were the most reported. Contrarily, minimal government funding allocation, work-overload, and stigmatization were the least reported (see Table 2). This revelation is practically important to hospital management as it illuminates which root sources are prospectively more prevalent in influencing the work disengagement of primary care nurses during the COVID-19 pandemic. This in turn makes it possible for hospital management to indirectly manage primary care nurses' work disengagement during COVID-19 by directly managing its causal factors. In this way, (1) the quality of care for COVID-19 patients will be safeguarded, and (2) the professional integrity issues, arising from primary care nurses' work disengagement amid COVID-19, which has the potential to distort public trust towards the profession can be avoided.

Second, to avoid faulty interventions when striving to mitigate primary care nurses' work disengagement during COVID-19, which may arise from a "one size fits all approach", hospital management must access contextualized evidence that will act as a guide. The situational characteristics of low-income countries, like Malawi, are significantly different from those in developed countries (Acharya & Pathak, 2019). The contextualized synthesis of a model (see figure 2) would help hospital management to understand primary care nurses' work disengagement in a low-income country context. From the proposed model in figure 2, hospital management can comprehend sources of primary care nurses' work disengagement and also corresponding central resources of the primary care nurses being impacted. This holistic picture should give hospital management a clearer detail of the overall mechanism underlying primary care nurses' work disengagement in a low-income country during the COVID-19 pandemic. Hospital management can isolate from figure 2 feasible direct causal pathways that are within their reach to influence. The findings from the current study provide evidence-based insights that are possibly anticipatable in other low-income countries sharing the same context-specific situational characteristics. The nature of the COVID-19 pandemic requires rapid and substantive management decisions that should be based on sufficiently rigorous evidence. While operating under resource constraints during COVID-19, hospital management needs to direct resources/attention at feasible employee interventions (WHO, 2020b). There is already far-reaching scholarly recommendation on the need to conduct contextualized applied research that will generate accurate context-specific empirical results, accordingly, mitigating the likelihood of faulty interventions (Michailova, 2011; Molleda & Moreno, 2008).

In terms of theoretical implications, the current study applied the COR theory to explore sources of primary care nurses' work disengagement. The findings of the study fit with the prediction of the COR theory that employees' work disengagement emanates when (a) central resources are threatened with loss, or (b) central resources are lost, or (c) there is a failure to gain central resources following significant effort (Hobfoll et al., 2018). This fit of the current study findings with COR theory offers credence to the applicability of the COR theory in explaining primary care nurses' work disengagement

in a low-income country (Malawi) during COVID-19. The theoretical approach to documenting the sources of work-disengagement employed in the current study should, therefore, help future researchers when exploring the phenomenon during other future catastrophic events besides COVID-19. More specifically, the current study sets an important reference that communicates the need for interested behavioral science researchers to understand work disengagement or other close-related phenomena under the lens of the COR theory.

Limitations

The current study even though offering important insights on current experiences in a low-income country (Malawi) relating to sources of primary care nurses' work disengagement during the COVID-19 pandemic, still has some limitations. First, the scheduling of in-depth telephone interview appointments was a key challenge. Most potential respondents were more focused on their work as well as other personal arrangements for surviving the COVID-19 lockdown. Possibly because of this, some of the respondents may have provided hasty responses to quickly get over the interview appointment and concentrate on those important personal matters deemed more worthy of their attention. However, it is worth emphasizing that throughout data collection it was left to the interviewees to select the dates and times that were more convenient for them. Second, at the start of data collection for the current study, the COVID-19 pandemic had only been existent for less than 3 months. As such it is possible that other crucial dynamics, relating to the sources of primary care nurses' work disengagement, may not have emerged then. As such a follow-up study will be conducted at the later stages of the pandemic to unpack new emerging experiences of the primary care nursing workforce.

Conclusion

In recent years, the world has experienced numerous infectious disease outbreaks such as Ebola (Lehmann et al., 2015; O'Leary et al., 2018), Severe Acute Respiratory Syndrome (SARs) (Maunder, 2004), novel influenza A / H1N1 (swine flu) (Fitzgerald, 2009), and Middle East Respiratory Syndrome (Zumla et al., 2015). Still, not any compares to the scale with which the COVID-19 pandemic has affected the world (Huang et al., 2020). The study leveraged the COVID-19 pandemic to apply the COR theory in exploring the sources of primary care nurses' work disengagement in a low-income country with Malawi serving as an example. The findings of the current qualitative study, which fit with the prediction of the COR theory, establish that the sources of primary care nurses' work disengagement in a low-income country (Malawi) during the COVID-19 pandemic fall under three broad categories namely: threat of losing central resources; actual loss of central resources; and failure to gain central resources. The threat of losing central resources was manifested through respondents' anticipation of family-member COVID-19 sickness and conviction about the presence of asymptomatic workmates. Actual loss of central resources manifested as work-overload, workmates COVID-19 diagnosis, and public stigmatization. Last, failure to gain central resources was evident through inadequate PPEs, low professional risk allowances, and minimal government funding allocation. Overall, the findings contribute to knowledge on sources of primary care nurses' work disengagement under the lens of the COR theory as well as within the contextual boundaries of both a pandemic (with COVID-19 serving as an example) and a low-income country (with Malawi serving as an example).

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