

# 'I have no love for such people, because they leave us to suffer': a qualitative study of health workers' responses and institutional adaptations to absenteeism in rural Uganda

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## ABSTRACT

**Background** Achieving positive treatment outcomes and patient safety are critical goals of the healthcare system. However, this is greatly undermined by near universal health workforce absenteeism, especially in public health facilities of rural Uganda. We investigated the coping adaptations and related consequences of health workforce absenteeism in public and private not-for-profit (PNFP) health facilities of rural Uganda.

**Methods** An empirical qualitative study involving case study methodology for sampling and principles of grounded theory for data collection and analysis. Focus groups and in-depth interviews were used to interview a total of 95 healthcare workers (11 supervisors and 84 frontline workers). The NVivo V.10 QSR software package was used for data management.

**Results** There was tolerance of absenteeism in both the public and PNFP sectors, more so for clinicians and managers. Coping strategies varied according to the type of health facility. A majority of the PNFP participants reported emotion-focused reactions. These included unplanned work overload, stress, resulting anger directed towards coworkers and patients, shortening of consultation times and retaliatory absence. On the other hand, various cadres of public health facility participants reported ineffective problem-solving adaptations. These included altering weekly schedules, differing patient appointments, impeding absence monitoring registers, offering unnecessary patient referrals and rampant unsupervised informal task shifting from clinicians to nurses.

**Conclusion** High levels of absenteeism attributed to clinicians and health service managers result in work overload and stress for frontline health workers, and unsupervised informal task shifting of clinical workload to nurses, who are the less clinically skilled. In resource-limited settings, the underlying causes of absenteeism and low staff morale require attention, because when left unattended, the coping responses to absenteeism can be seen to compromise the well-being of the workforce, the quality of healthcare and patients' access to care.

## Key questions

What is already known?

- Health workforce absenteeism can lead to disruptions in patient care, raised mortality and wastage of health resources.
- There is limited knowledge about how the health workforce and health institutions respond to absenteeism in low-income countries and in the private not-for-profit sector.

What are the new findings?

- There are varied consequences of health workforce absenteeism for public and private not-for-profit health facilities and employees, which appear dependent on the effectiveness of health workforce governance. Where workforce governance is effective, coping adaptations are restricted to individual emotional regulation and stress coping. However, where governance is weak, health workforce absenteeism results in adaptations with potentially detrimental effects to institutional goals such as care quality, patient safety and workforce well-being.
- Informal task shifting from clinicians to nurses is a coping strategy against a background of high absenteeism by clinicians. But this strategy is inefficient for maintaining high quality of care and ensuring patient safety.

What do the new findings imply?

- Policies on task shifting and team care, which are popular in resource-limited settings, need to address issues of health workforce governance, supportive supervision of lower-cadre staff and underlying impediments to workers' morale and work attendance.

## INTRODUCTION

Globally, the mean rate of absenteeism per healthcare worker is estimated at about 7.2% or 15 days lost annually in some countries of the Organisation for Economic Co-operation and Development, such as Canada,<sup>1</sup> Norway<sup>2</sup> and Germany.<sup>3</sup> See [table 1](#) for the complete

**Table 1** Definition of abbreviations

Abbreviations	Definition
CO	Clinical officer—same as NPC
FG	Focus group—an interview group of five to eight participants
HC	Health centre—a primary health care facility, lower than a hospital within the hierarchy of the health system.
IDI	In depth interview—an individual interview participant
IMCI	Integrated Management of Childhood Illnesses—a WHO standardised approach for child health whose focus is wholistic, including diagnostic criteria, disease classification and treatment guidelines
MO	Medical officer—physician with a Bachelor of Medicine and Bachelor of Surgery
NPC	Non-physician clinicians—clinical officers who are a homogeneous group of mid-level health care providers trained in a 3-year diploma of clinical medicine and community medicine
OECD	Organisation for Economic Co-operation and Development—a market forum of 34 member countries mostly from high-income countries
PETS	Public Expenditure Tracking Survey—a health resource accountability tracking survey designed by the World Bank
PNFP	PNFP—a third-sector owned health facility
UCG	Uganda Clinical Guidelines—standard clinical guidelines classifying disease and specifying treatment for common conditions

PNFP, private not-for-profit.

definition of abbreviations. This absenteeism rate costs governments financial losses, sufficient to employ about 5% of the health workforce on full-time basis in a year.<sup>1</sup> Considering the existing global trends in austerity policies within healthcare systems,<sup>45</sup> there is elevated concern for efficient use of the health workforce.

Several low-income countries often measure health workforce absenteeism as the proportion of workers not on duty using the Public Expenditure Tracking Surveys (PETSs).<sup>6 7</sup> However, PETSs are limited in measuring availability and productivity dimensions of absenteeism,<sup>8</sup> rendering estimates of economic losses impractical. Nonetheless, the corresponding economic losses are anticipated to amount to 10-fold higher than those of high-income countries, assuming stability of the prevailing rates of health workforce absenteeism which range between 17% and 48%.<sup>9–11</sup> This scenario creates a strong rationale for effective retention and efficient use of the health workforce in these settings, which is more often in shortage.<sup>4 12 13</sup>

Health workforce retention-focused research in low-income and middle-income countries is concerned mostly with coping outcomes of workers' low motivation such as migration,<sup>14–16</sup> pilferage of medical equipment, sundries and levying informal user fees,<sup>17–19</sup> dual practice,<sup>20 21</sup> informal task shifting<sup>22–24</sup> and absenteeism.<sup>8 25</sup> These concerns can be categorised as process outcomes of a malfunctioning health workforce. Less attention though has been placed on investigating the consequences of these processes on the health workforce and the health system as a whole.

Some examples of the consequences of health workforce absenteeism which have been investigated mainly in high-income countries include direct costs such as salaries paid to absentee workers and contractual payments

to substitute workers.<sup>26</sup> Also, indirect costs associated with consequences such as difficulties in arranging and training replacement workers,<sup>27–29</sup> disruption of and discontinuity of patient care,<sup>30 31</sup> stress and burnout of coworkers,<sup>32 33</sup> and social security contributions for sickness benefits.<sup>34</sup> Even then, fewer studies on health workforce absenteeism have explored direct patient impacts such as patient safety and mortality.<sup>25 31</sup>

Patient safety and quality of care are critical outcomes of healthcare which are influenced by workforce attributes, including adequate staffing, appropriate skill and competence, high motivation and effective governance.<sup>35</sup> But these essential attributes are in scarcity within the health workforce in sub-Saharan Africa, particularly in the rural health systems.<sup>36–38</sup> However, within the private not-for-profit (PNFP) sector which has a relatively efficient health workforce and is arguably focused on client satisfaction,<sup>39 40</sup> there is lessened workforce absenteeism.<sup>8</sup> This study aimed to investigate how healthcare workers in rural Uganda cope with absenteeism of their colleagues and how the healthcare facilities adapt.

The Lazarus and Folkman<sup>41</sup> stress-coping framework was used. This framework has been widely validated with concordance of findings in studies on job performance of tertiary hospital nurses,<sup>42</sup> responses to health reforms by primary healthcare providers<sup>43</sup> and conceptual adaptations in bereavement research,<sup>44</sup> but not without mixed results.<sup>45</sup> Lazarus' framework presupposes that coping responses are triggered when an individual experiences a stressor which exceeds their abilities, skills and resources to control its effects.<sup>41</sup> Short-term responses to stressors which are cognitively evaluated as overwhelming take the form of emotional regulation such as fear, anger and anger projections. Longer-term coping responses on the other hand take

on adaptive measures in a manner of accommodating the stressor.<sup>41</sup>

## METHODS

### Study setting and participants

This study was conducted in three rural districts of central Uganda, which had a total population of about 638 300 people in 2012. To minimise the potential of identifying participants from this study, the actual districts, health facilities and gender of staff involved are disguised. A total of 95 participants were involved in this study, which incorporated 47 in-depth interviews and 8 focus groups, described elsewhere.<sup>8</sup> We previously reported the decentralised structure of the health system in Uganda,<sup>8</sup> where primary level health facilities, HC levels II and III offer outpatient care, while HCs of level IV and hospitals receive referred patients for physician care and admissions. The referral system is generally weak, and all levels of health facilities provide primary care by various cadres of staff.<sup>46</sup> Further details on the staffing levels in Uganda's health system in relation to the study setting and the roles and relationships between key health workforce cadres are provided in online supplementary file 1.

### Methods

The theoretical underpinning and methods including the sampling and recruitment strategies, data collection methods and analysis have been described elsewhere.<sup>8</sup>

Briefly, a case-study research sampling strategy was employed. A case study was defined as a rural referral-level health facility (health centre (HC) IV or hospital). We selected three neighbouring districts within a single rural geographical region of central Uganda that had comparable health infrastructure. We purposively selected a total of five-health facilities (three public including one hospital and two PNFP including a hospital). Participants were recruited purposively using maximum variation sampling, commencing with the public health facilities. Thereafter, theoretical sampling was done in the PNFP facilities to enrich the emerging themes. Frontline health-care workers directly involved in offering patient care and their immediate supervisors were our population of interest. The sample included physicians, non-physician clinicians, nurses, midwives, laboratory scientists and others such as dispensers.<sup>8</sup> Data collection was done by the primary researcher, RT, supported by one native research assistant, Erimiah Kyanjo. All interviews were audiorecorded after obtaining written informed consent from participants—and transcribed verbatim concurrent with fieldwork. Data collection was completed when theoretical saturation of themes was realised.<sup>47</sup>

Further to the grounded theory approach using the constant comparative analysis,<sup>47</sup> the emerging themes on responses to absenteeism were further explored as to whether they were explained by Lazarus' (1984)<sup>41</sup> transactional coping model. Specifically, we assessed which themes best fit emotional coping and which ones fit

problem-solving, or none, as well as synthesised the relation between the themes.

### Patient and public involvement

Neither patients nor the public were involved in the design, conduct or recruitment of participants in this study. Results of the study will be disseminated at opportune district and national meetings.

## FINDINGS

### Characteristics of health facilities and study participants

The cases (referral-level rural health facilities accessed) in this study can be divided into two categories. The two hospitals, one public and the other private-not-for-profit (PNFP), were comparable, for example, each had a 100-bed capacity, staffing of (50–80 qualified health workers), and similar quantity of services delivery such as conducting between 90 and 120 childbirths per month in 2015.<sup>48</sup> Similarly, the HC IVs had a 10–15 bed capacity,<sup>49</sup> had between 20 and 25 qualified staff, and each conducted between 25 and 50 childbirths monthly.<sup>48</sup> The PNFP facilities operate a non-profit system, are financed from donations, user-fees and some government subsidies,<sup>39 50 51</sup> while the public health facilities are financed mainly from public health expenditure,<sup>52</sup> and rarely from donations, apart from vertical programmes such as HIV care.<sup>51</sup> Before this study, the normative absenteeism rate within both the public and private health facilities in Uganda was unknown, but rather was estimated from public health expenditure surveys.<sup>7 53</sup>

For the subset of participants who were involved in the in-depth interviews (n=47), nurses/midwives comprised the majority 22 (46.8%), followed by doctors or non-physician clinicians 14 (30%), while the least were laboratory scientists or other cadre comprising 09 (19%).<sup>8</sup> The cadre and demographic divide was similar for the entire sample of 95 participants, including those in focus groups. The majority of participants were aged 30 years or younger, mostly female nurses who were still childbearing. In the PNFP sector, most participants had worked for 3 or fewer years, while the average duration of employment was 7 years in the public sector. We found no organisational data on staff absenteeism rates at the health facilities,<sup>48</sup> rather a national aggregated population level estimate was available.<sup>53</sup>

### Summary of key findings

There were two contrasting responses, which were somewhat aligned to the type of health facility, public or PNFP. A majority of the PNFP participants reported emotion-focused reactions, including unplanned high work overload, stress, resulting anger directed towards co-workers and patients, shortening consultation visits and retaliating absence. On the contrary, most public health facility participants reported ineffective problem-solving adaptations. These included alterations to weekly schedules, frequent postponement of patient appointments, non-use of attendance registers, offering unnecessary

patient referrals and rampant unsupervised informal task shifting from clinicians to nurses.

Below, findings are presented in four themes (coping strategies) which differentially contributed to compromising clinical care: tolerance of absenteeism, recognising co-worker absence as a stressor, emotion-focused reactions and problem-solving adaptations.

### Tolerance of absenteeism

As expected from the literature, all the participants in this study reported tolerating the absence of colleagues (accepting colleague's absence even if they disliked it), especially in the public sector. 'We used to have a book, where somebody writes their arrival and departure time.... We found that the big people [supervisors] themselves could not maintain that book, so it failed' (P14: public centre nurse supervisor). Absenteeism over the previous 2 weeks preceding the interview was near universal for public sector participants:

We registered much absenteeism, most especially at the beginning of service [employment], for everyone, because there is delay in payment. They [government] keeps telling us that joining the payroll takes a lot of time, it could take even up to one year. And the arrears, sometimes they do not even pay them (P7: public centre clinical officer (CO)).

Like that time when staff had not yet been paid salary, it was difficult [to attend duty]. Every staff was using that as a complaint, and it was general, should I say countrywide, because even in other districts, that was the main complaint (P16: public centre laboratory worker).

In contrast, absenteeism in the PNFP sector was only reportedly common for a few repeat absentee participants: 'One of my colleagues is at school, and I always have to cover for him, but it is between me and him' (P20: private centre CO). Some PNFP participants attributed their low levels of absenteeism to layered supervision, and real sanctions for absence: 'First, the schedule is very tight; second, staff are very few in the departments, so workers cannot be away.... Most of the times [if you are to be absent] you are supposed to write down on paper [absent note] for backup in case the administrator asks about it [the absence]. So, the level of supervision is very high' (P37: private hospital laboratory worker). Tolerance appeared to be related in part to supervisor's empathy with prevailing working conditions: 'There are some factors pressuring these people to be absent, but it is not in their will be absent' (P24: private centre medical officer (MO) supervisor), feeling incapable of managing co-worker's absence: 'You find no reason as to why you should complain with someone who is chronically leaving on Wednesday; you get used to them' (P40: private hospital CO), but also, to the perceived raised incidence of absenteeism in the public sector, yet with weak sanctions. For example, the subsequent quote depicts weak public sector supervisory mechanisms: 'We are supposed to have internal and external support supervision. So, internal is from the district, and the hospital itself. But

for them [hospital management], they come in to supervise only when there is a rumoured problem, like when a health worker has not been around for 2two weeks' (P4: public hospital CO). To further exemplify the case of weak supervision and tolerance of absence, one public health facility manager directly indicated that he condoned absence, provided the health unit was open and seemed to be functioning:

They know officially, they are not supposed to be away. If one is leaving, they communicate within themselves that you are going to be around for this week. I actually don't mind who is there, as long as there is someone (P18: public centre MO in charge).

Additionally, several participants reported either offering cover for absent colleagues, or failing to cope, thus leaving matters as is:

importantly we work as a team and you do more than one role because if you don't do it then people raise their voices, so we try to see that we cover up [for absent colleagues] (P27: public hospital lab worker).

It is too much work, and you get so tired [when a colleague is absent], but at the hospital level it means some patients will come and not get services. It makes our services also a little poorer but since you have no alternative, you let it go (P19: private HC IV CO, outpatient supervisor).

The above quotes imply that in some instances, health managers rarely supervised their staff and were mostly concerned with the effective cover of work schedules, regardless of individual's attendance. In response, frontline healthcare workers covered for their absent colleagues. However, in other instances when cover was not possible, for example, due to low staffing, some scheduled tasks got abandoned thus affecting patient care.

### Recognition of absenteeism as a stressor

#### Unplanned work overload and stress

Despite tolerating absence, nearly all participants concurrently recognised co-worker absenteeism as a stressor. It was reported that unplanned absence, particularly when colleagues did not communicate, tended to disrupt duty schedules. Coworkers on duty had to endure increased unplanned workload, because they expressed that both the health facility authorities and patients expected them to complete their workload, even when some of their colleagues were absent.

over working mainly happens when there are some workers who are absent, and you work a marathon. ...There are some who are always dodging (P23: private centre midwife).

Also, it was expressed that work overload from colleagues' absence was stressing, because it sometimes evoked anger necessitating either seeking rest periods, or even retaliating the absence.

Frontline workers mostly in the PNFP health facilities also reported that colleague's absence tended to portray

negatively to patients through overcrowding, long waiting times and rude providers.

It is a bad habit that creates a loophole in service delivery. Patients get delayed for example if the one supposed to enter patients' data is absent then the same person dispensing [medicines] to patients will be the one to enter data which leads to delays (P36: private hospital pharmacy worker).

Therefore, in both the public and the PNFP sectors, the non-communication of absence to colleagues was central to workers' reported experiences of absenteeism as a stressor, because of the resulting unforeseen work overload and perceived unfairness from the absentee colleagues.

Work overload was accentuated by some supervisors who tasked the staff on duty to cover for absentees, rather than seeking to find substitute workers. This practice was reported by about one-quarter of the PNFP sector participants. A few participants suggested that task redistribution was done to improve client satisfaction, by limiting patients' experience of lowered services quality from understaffing due to staff absenteeism.

In our scenario, we are supposed to have two people in the dispensary and the injection rooms. In the other department they are supposed to be four people, the midwife and nurses. It is these same people that we use to assist in other departments. So, we use other staff and relocate them in those departments where someone may be absent (P21: private centre outpatient nurse supervisor).

### Evoking anger towards co-workers

Despite task redistribution efforts from managers, a majority of the frontline workers (especially nursing cadres in both sectors) expressed resentment of colleague's absences, which pointed to a breakdown of team work. In the public hospital, there was heightened documentation of absence of clinicians by the nursing workforce to protect themselves from any blame, in the event of unforeseen consequences.

for me I have no love for such people because they leave us to suffer, unless if they communicated to someone, but if not, then no smiles from me (P30: public centre nurse).

...they [nurse managers] told us to write down the time we called them [doctors] and in case of anything then they are answerable (FG5, P6: public hospital, midwife).

The above extracts portray the heightened tension between frontline healthcare workers (mostly nurses) and their senior clinicians, where the clinicians were perceived to be more absent when required for addressing critical clinical dilemmas.

### Emotion-focused responses

#### Retaliating to absence

Beyond impacting on the well-being of co-workers, for some absenteeism and its concealment resulted in resentment in the form of retaliatory absence. In both the public and PNFP sectors, some senior staff cadres reportedly took absence leaving the lower cadres to cover

their duties. This created frustration because the juniors needed to step up and perform job roles for which they were not well qualified, while they too felt powerless to counter the absence of their seniors.

There are in-charges in departments who use their positions to absent themselves from duty, because most of the times, they are not questioned (P36: Private hospital, pharmacy worker).

### Frustration projected to patients

The resentment and frustration felt towards co-workers who absented themselves was sometimes misdirected towards patients, manifesting as broken communication, abusiveness and task omission. A few participants specifically reported remorse for being unduly insensitive or even offensive to patients, although this was depicted as uncontrollable because of overwhelming workload.

When you are tired, you lose your morale, and become moody. Your temper is high, you hear while you are not hearing [passively listening to patients], and you therefore offer insufficient services (FG2, P2: public centre midwife).

### Problem-solving adaptations

In the public sector, several health facility level adaptations were recognisable in participants' accounts. Some depicted alterations to work processes, while others were system-level adaptations to the organisation of work. These adaptations appeared to accommodate anticipated or normative absenteeism and were seen to result in a lowering of quality standards as well as compromising patient safety.

### Work process alterations

There were a few accounts of work process alterations by some participants. For example, a few frontline public sector participants reported direct omissions to medical recording, while others reported negatively modifying their task complexity to accomplish their work.

we forget [passively omit] to register patients at the Out Patients' Department, to record the treatment given to patients in the dispensing log and forget to write a 24 hours report while on the ward because of too much work (P30: public centre nurse).

Some patients don't get enough services. You might decide to leave the talk, or even counselling after testing. You just give the [test] results and send them away, because you are alone. You want to test the blood [of one patient], but you are even hungry, and then you must help another patient to deliver [have childbirth], that is not fair (FG2, P2: public centre midwife).

In response to the absenteeism of colleagues, several participants at the public healthcare facilities in addition to work process changes, also reported facility-wide adaptations. However, these facility-wide adaptations appeared ineffective for managing absenteeism.

## Health facility (system-related) adaptations

### *Impeding absence monitoring*

All the public health facilities had invalidated their absence monitoring registers. The registers in two health facilities had been invalidated for longer than 1 year.

if we had an attendance register, it would clearly show that you were absent on such and such a day. [that] you were sick, or [that] you went for burial. But we don't have it. It was once introduced ...we didn't agree on it because, it was reporting direct [tracking absenteeism] (FG2, P2: public centre midwife).

### *Altering work schedules*

Relatedly, an issue that was mentioned by some participants in two public health facilities was the alterations to their weekly routines and staff schedules, to accommodate absenteeism. Surprisingly, these adjusted schedules were either directly or indirectly communicated to patients, so that routine workload was skewed to days of service availability. The majority of the participants at these health facilities reported that the new schedules were collectively negotiated, agreed on and appeared responsive to their workforce needs.

...even the scheduling of patients to come on one clinic like a Tuesday in our case is done to see that patients get used to one day [a week]. They mainly come on that day except for maternity cases who come daily (P33: public HC IV, midwife).

To maintain the arrangement of rationed days of service delivery, these public health facilities routinely offered referral to emergency patients, for procedures they were capable and mandated to conduct. Further, elective procedures were often deferred nearly indefinitely.

It is a shame. Patients come, and we tell them, now you see, there is no power. Come back next month and check, they come back, no fuel yet, come and check next month, they come, no fuel yet (P13: public HC IV, nurse).

The changes to weekly schedules and work routines were not possible in the PNFP sector, possibly because the frontline workers had less autonomy over their work structure and workload.

### *Prioritising work and related omission of duty*

Priority for healthcare was given to emergencies in both the public and PNFP sectors. Doctors in the public sector hospital negotiated duty cover which was nearly exclusively a 24-hour duty call each week. Consequently, routine ward duties such as attendance to admissions and postoperative patients were poorly managed. Other cadres of staff expressed role ambiguity regarding any formal or informal delegation of these clinical roles.

Of course, the priority goes to the emergencies. You know very well that the obstetric emergencies shout more than anything, so, the important part is you care for the dying mother and the dying baby. You save those ones, work done [laughter] (P24: private HC IV, MO in charge).

So, the absenteeism that happens. You find that, when a doctor has done his call, he never comes back to check on the patients on the ward. Even after operation, those patients who are operated, their follow up is poor (P9: public hospital, MO).

The situation of clinical roles being delegated informally to nurses tended to create additional workload, which the nurses were incapable of managing, as exemplified in the quote below:

But still we also do what we can and leave others because sometimes the numbers tend to be more than what we can handle (P33: public HC IV, midwife).

### *Nurse-led patient care*

Unsupervised nurse-led patient care was most apparent at the public hospital, but was also reported at the public HC IVs. Some participant clinicians and nearly all participant nurses reported the informal task delegation of clinical roles, which nurses felt ill-equipped to perform. Regardless, nurses were routinely tasked to perform such clinical roles, owing to higher negotiated absence from clinicians who occupied the decision-making roles within the health facility work teams.

Some situations you cannot help! You go to the ward, you find that there is a patient who needs a lumbar puncture, but it cannot be done. Because a nurse cannot do it (P9: public hospital, MO).

Patients on the wards are handled by nurses. But, every ward, is allocated to a medical officer, but, they are difficult to get. So, you find that that work, is mainly done by nurses (P9: public hospital MO).

when they get overwhelmed, they will say: 'please doctor, come and assist here, things have gone beyond', then we come in (P24: private HC IV, MO in charge).

The above quotes depict the continued formal or informal delegation of clinical roles from senior clinicians to the nurses—in part because of understaffing, but also due to absenteeism that was reportedly higher among senior clinicians.

## DISCUSSION

This study aimed to evaluate the coping responses of the health workforce and health facilities to the absenteeism of colleagues in rural Uganda. Findings suggest two distinct coping strategies: emotion-focused coping and problem-focused coping,<sup>41</sup> as have been validated in other studies.<sup>42 54–56</sup> In the PNFP sector, emotion-focused coping strategies reportedly predominate encompassing work overload, stress, burnout and anger projections to colleagues and patients. On the other hand, the public sector health workforce reported more ineffective problem-solving adaptations, such as work rescheduling, unnecessary patient referrals and informal task shifting.

Emotion-focused stress-coping responses suggest that the PNFP health workforce has limited resources to adjust to co-worker's normative absenteeism.<sup>41</sup> Previously,

we described the existence at the PNFP health facilities of more layers of supervisors, enforceable sanctions for absenteeism including dismissal, and a less staffed workforce across cadres relative to public sector staffing structures.<sup>8</sup> The supervisory structures and strict workforce management practices in the PNFP health facilities explain the low tolerance of the absenteeism of co-workers reported in this study. Consequently, it is expected that the PNFP health workforce has a strong sense of responsibility to its patients—targeted to client satisfaction. The absenteeism of co-workers at PNFP health facilities therefore tends to create apparent chaos for health workforce planning and health services delivery. This appears related to increased workload, for example, a supervisor allocating additional assignments, the limited flexibility of work schedules with less potential for arranging substitute workers and power asymmetry when the absentee is a manager or clinician (more often in a managerial role).

Other studies have reported high levels of occupational stress among hospital nurses in Kampala, Uganda and East Africa as a whole, higher among the public sector nurses compared with those in the private sector.<sup>57 58</sup> This stress arises from understaffing, increased workload, low decision-making autonomy and uncooperative relationships among co-workers, which are worse for public hospital nurses compared with private hospital based ones in East Africa.<sup>57 58</sup> The present study finds further evidence for worker burnout and anger projected to co-workers and patients as consequences of absenteeism in the PNFP sector. A stressed workforce has implications for worker's well-being—with potential escalation from work strain and emotional exhaustion, to burnout and depression,<sup>35 59</sup> sickness absence<sup>60–62</sup>—and for quality of care and patient safety.<sup>35 42</sup>

Most of the problem-solving responses described at public health facilities depicted institutionalised adaptations to work processes such as offering shorter consultation times, omissions in recording and abridging health education content. Also, systemic changes were reported such as reorientation of health services delivery, informal task shifting to nurses rendering prominence to nurse-led patient care.

On the face of it, it appears as though healthcare workers in the public sector have no stress, compared with those in the PNFP sector. However, these ineffective problem-solving adaptations are reflective of several issues; we highlight three critical ones. First, there appears long-standing work-stressors—whereby, although public sector participant narratives offered less prominence to emotion-focused responses to co-worker absenteeism, and more to the actions they took. In-part, this reflects on the normalisation of work stressors such as absenteeism in the public health sector in Uganda, even when public sector healthcare workers report work overload, and evidence shows higher stress compared with the private sector.<sup>57 58</sup> Second, this also reflects higher decision-making autonomy for addressing perceived organisational injustice regarding salary

delays, poor infrastructure maintenance, low financial allocation to healthcare services and the frequent stock out of medicines and sundries, reasons used to legitimate absenteeism.<sup>8 48</sup> Weak health workforce supervision and decentralised health system leadership have been reported before in sub-Saharan Africa.<sup>63–65</sup>

Third, there was more tolerance of absenteeism by frontline healthcare workers in the public sector more-so for clinician cadres and health managers. The high level of tolerance of worker's absenteeism coupled with existence of institutionalised coping adaptations suggests weak health workforce governance.<sup>8 66 67</sup> We previously described 'negotiated absenteeism' in the public health sector in Uganda<sup>8</sup> where co-workers negotiate unofficial time-off work, with or without the explicit consent of their health managers, often-times with management inaction—because of a shared understanding of organisational injustice, perceived entitlement to absenteeism and dual practice.<sup>8 21</sup> Even though many reasons for worker's absenteeism in resource-constrained settings might be legitimate, especially when arising from health system's inefficiencies.<sup>8 68 69</sup> To avoid unwanted consequences, there is need for urgency in addressing the underlying reasons for absenteeism, because it has critically devastating implications for health workforce planning, organisation and delivery of care,<sup>27</sup> patient's safety,<sup>31 48</sup> the quality of and continuity of care.<sup>25</sup>

From a policy and practice perspective, there are currently ongoing debates<sup>22 24</sup> and some examples of transitioning-to-scale<sup>70–72</sup> of formal task-shifting endeavours within health systems in sub-Saharan Africa. While there are good reasons such as for addressing the critical shortage of the highly skilled health workforce,<sup>13 73</sup> there are risks of legitimating informal task-shifting, a public sector coping mechanism for facilitating absenteeism. Similarly, we found that task-sharing which is equally debated in policy<sup>74–76</sup> to be a prevalent coping strategy in the PNFP sector for disguising co-worker absenteeism. In this study, both informal task-shifting and task-sharing led to the adoption of agreed lower quality standards of healthcare provision. It is imperative therefore that policy guidelines on issues of skill-mix in sub-Saharan Africa, such as for task-shifting, task-sharing and team-care ensure the appropriate health workforce governance structures for functional supervisory and management systems.

Concerning work-related stress, there is need for mixed-methods research to evaluate the true extent of health workforce stress, and the range of primary workplace stressors in both the public and private sectors to inform appropriate interventions, and to develop a health workforce well-being strategy—which is critical for the effectiveness of the health sector.<sup>77</sup> The known underlying reasons for health workforce absenteeism in Uganda such as health system inefficiencies such as salary delays, erratic stock outs of medicines and supplies, low financial allocations to decentralised health services and inadequate technical supervision,<sup>8 78</sup> serve as

impediments to worker's morale and work attendance. These need adequate attention to avert catastrophic coping responses such as institutional adaptations—which lower quality standards of care, endanger patient safety and risk discontinuity of care.

### Study limitations

This study did not use any measurements such as quantitative validated scales to assess the type and extent of work-related stress. Rather, the study design was explorative in nature, evaluating participants' narratives using principles of grounded theory<sup>47</sup> to uncover the hidden meanings of coping strategies. Thus, the accounts of work-related stress are a nuanced synthesis of participants' narratives and should not be interpreted as definitive measurements of work stress constructs.

Although we present findings from the public and PNF sectors, strictly speaking, this was not a comparative qualitative study. Rather, a report of breadth, of concordant findings and deviant cases on several emerging themes was pursued, as is standard practice in exploratory qualitative research.<sup>79–81</sup>

We acknowledge that because of the cross-sectional nature of this study, the evaluation of participants' absenteeism, the resulting coping mechanisms and related consequences might generate several interpretations as to the pathway to causality.<sup>82</sup> However, this study being qualitative in design, we argue that a nuanced exploration of participant narratives from theoretically saturated data leads us to generate theory as to the possible relations studied,<sup>47</sup> hence the conclusions generated. However, an exploration from participant observational methods, especially in longitudinal designs, would generate further insights.

Finally, this was not an exhaustive evaluation of all coping pathways,<sup>44 45</sup> but rather one which relied on a stress-coping model<sup>41</sup> that has been widely validated in the health sector.<sup>17 42 43 55</sup>

### CONCLUSION

Coping responses to co-workers absenteeism in the health sector in Uganda have devastating impacts on the health workforce well-being,<sup>62 83</sup> work processes and institutional outcomes on quality of care, patient safety and continuity of care.<sup>25 31 84</sup> PNF health sector coping mechanisms were short-term, following the emotional regulation pathway<sup>41</sup> and appeared co-worker focused. They included work overload, stress, anger and anger radiation to both absentee workers and to patients. Clearly, worker absenteeism in this regard tended to be a primary stressor to co-workers, generating emotional stress reactions.

Contrary, public health sector coping mechanisms signified long-term ineffective problem-solving adaptations,<sup>41</sup> were targeted to altering the work environment and directly impacted on the patients. These included altering weekly schedules, impeding absence monitoring

registers, deferring patient appointments, unnecessary referrals and lowering quality of care standards. Likely such long-term adaptations in the public health sector were possible, because of poor health workforce governance, permitting chronic negotiated absenteeism.

To address patient safety and quality of healthcare concerns, effective workforce governance is required to improve the effectiveness of the health workforce and their often-neglected working environment.

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### REFERENCES

1. CIHI. Canada's health care providers, 2007, 2007. Available: [https://secure.cihi.ca/free\\_products/HCPProviders\\_07\\_EN\\_final.pdf](https://secure.cihi.ca/free_products/HCPProviders_07_EN_final.pdf) [Accessed 4th Jun 2013].
2. Krane L, Johnsen R, Fleten N, et al. Sickness absence patterns and trends in the health care sector: 5-year monitoring of female municipal employees in the health and care sectors in Norway and Denmark. *Hum Resour Health* 2014;12.
3. OECD Stat. Absence from work due to sickness in the general OECD population. in: department of statistics O, ED, 2016. Available: [stats.oecd.org](https://stats.oecd.org)
4. Campbell J, Dussault G, Buchan J, et al. *A universal truth: no health without a workforce. forum report. Third global Forum on human resources for health, Recife, Brazil*. Geneva: Global Health Workforce Alliance and World Health Organization, 2013.



5. Pavolini E, Kuhlmann E. Health workforce development in the European Union: a matrix for comparing trajectories of change in the professions. *Health Policy* 2016;120:654–64.
6. Di Tella R, Schargrodsky E. The role of wages and auditing during a Crackdown on corruption in the city of Buenos Aires. *The Journal of Law and Economics* 2003;46:269–92.
7. Savedoff WD. *Governance in the health sector: a strategy for measuring determinants and performance. policy research Working paper 5655*. The World Bank, 2011.
8. Tweheyo R, Daker-White G, Reed C, et al. 'Nobody is after you; it is your initiative to start work': a qualitative study of health workforce absenteeism in rural Uganda. *BMJ Global Health* 2017;2:e000455.
9. Chaudhury N, Hammer J, Kremer M, et al. Missing in action: teacher and health worker absence in developing countries. *J Econ Perspect* 2006;20:91–116.
10. Manzi F, Schellenberg JA, Hutton G, et al. Human resources for health care delivery in Tanzania: a multifaceted problem. *Hum Resour Health* 2012;10.
11. Yamada H, Sawada Y, Luo X. Why is absenteeism low among public health workers in Lao PDR? *J Dev Stud* 2013;49:125–33.
12. Dalton SC. The current crisis in human resources for health in Africa: the time to adjust our focus is now. *Transactions of The Royal Society of Tropical Medicine and Hygiene* 2014;108:526–7.
13. Sidibé M, Campbell J. Reversing a global health workforce crisis. *Bull World Health Organ* 2015;93.
14. George G, Atujuna M, Gow J. Migration of South African health workers: the extent to which financial considerations influence internal flows and external movements. *BMC Health Serv Res* 2013;13.
15. Labonté R, Sanders D, Mathole T, et al. Health worker migration from South Africa: causes, consequences and policy responses. *Hum Resour Health* 2015;13.
16. Poppe A, Jirovsky E, Blacklock C, et al. Why sub-Saharan African health workers migrate to European countries that do not actively recruit: a qualitative study post-migration. *Glob Health Action* 2014;7.
17. Akwataghobe N, Samaranyake D, Lemiere C, et al. Assessing health workers' revenues and coping strategies in Nigeria—a mixed-methods study. *BMC Health Serv Res* 2013;13.
18. Ferrinho P, Omar MC, Fernandes MdeJ, et al. Pilfering for survival: how health workers use access to drugs as a coping strategy. *Hum Resour Health* 2004;2.
19. McPake B, Asiimwe D, Mwesigye F, et al. Informal economic activities of public health workers in Uganda: implications for quality and accessibility of care. *Soc Sci Med* 1999;49:849–65.
20. Ferrinho P, Van Lerberghe W, Fronteira I, et al. Dual practice in the health sector: review of the evidence. *Hum Resour Health* 2004;2.
21. Paina L, Bennett S, Ssenooba F, et al. Advancing the application of systems thinking in health: exploring dual practice and its management in Kampala, Uganda. *Health Res Policy Syst* 2014;12.
22. Baine SO, Kasangaki A. A scoping study on task shifting; the case of Uganda. *BMC Health Serv Res* 2014;14.
23. Dambisya YM, Matinhure S. Policy and programmatic implications of task shifting in Uganda: a case study. *BMC Health Serv Res* 2012;12.
24. Ferrinho P, Sidat M, Goma F, et al. Task-shifting: experiences and opinions of health workers in Mozambique and Zambia. *Hum Resour Health* 2012;10.
25. Ackers L, Ioannou E, Ackers-Johnson J. The impact of delays on maternal and neonatal outcomes in Ugandan public health facilities: the role of absenteeism. *Health Policy Plan*. 2016;31:1152–61.
26. Edwards P, Greasley K. *Absence from work*. Dublin, Ireland: European Foundation for the Improvement of Living and Working Conditions, 2010.
27. Damart S, Kletz F. When the management of nurse absenteeism becomes a cause of absenteeism: a study based on a comparison of two health care facilities. *J Nurs Manag* 2016;24:4–11.
28. Gorman E, Yu S, Alamgir H. When healthcare workers get sick: exploring sickness absenteeism in British Columbia, Canada. *Work* 2010;35:117–23.
29. McKinsey&Co. Nurse excellence program improves staff retention and quality, and reduces costs: McKinsey&Company, 2016. Available: <http://www.mckinsey.com/industries/healthcare-systems-and-services/how-we-help-clients/nursing-excellence-program-improves-staff-retention-and-quality> [Accessed 4th Oct 2016].
30. Green LV, Savin S, Savva N. "Nurse/vendor problem": personnel staffing in the presence of endogenous absenteeism. *Manage Sci* 2013;59:2237–56.
31. Unruh L, Joseph L, Strickland M. Nurse absenteeism and workload: negative effect on restraint use, incident reports and mortality. *J Adv Nurs* 2007;60:673–81.
32. Kivimäki Met al. Sickness absence in hospital physicians: 2 year follow up study on determinants. *Occupational and Environmental Medicine* 2001;58:361–6.
33. Roelen CAM, Bültmann U, Groothoff J, et al. Physical and mental fatigue as predictors of sickness absence among Norwegian nurses. *Res Nurs Health* 2013;16:453–65.
34. Eurofound. *Preventing absenteeism in the workplace Grundemann R*, 2012.
35. Karadzinska-Bislimovska J, Basarovska V, Mijakoski D, et al. Linkages between workplace stressors and quality of care from health professionals' perspective - Macedonian experience. *British Journal of Health Psychology* 2014;19:425–41.
36. Fulton BD, Scheffler RM, Sparkes SP, et al. Health workforce skill mix and task shifting in low income countries: a review of recent evidence. *Hum Resour Health* 2011;9.
37. Schneider H, Okello D, Lehmann U. The global pendulum swing towards community health workers in low- and middle-income countries: a scoping review of trends, geographical distribution and programmatic orientations, 2005 to 2014. *Hum Resour Health* 2016;14.
38. Sheikh M. Commitment and action to boost health workforce. *The Lancet* 2012;379:e2–4.
39. Barugahara PM, Mugisha E, Francis J. The challenges of managing government-seconded health workers in private not-for-profit health facilities of Kibaale district. *Uganda Health Policy & Dev* 2008;6:142–52.
40. Basu S, Andrews J, Kishore S, et al. Comparative performance of private and public healthcare systems in low- and middle-income countries: a systematic review. *PLoS Med* 2012;9:e1001244.
41. Lazarus RS, Folkman S. *Stress, appraisal, and coping*. New York: Springer, 1984.
42. Li L, Ai H, Gao L, et al. Moderating effects of coping on work stress and job performance for nurses in tertiary hospitals: a cross-sectional survey in China. *BMC Health Services Research* 2017;17.
43. Zhang M, Wang W, Millar R, et al. Coping and compromise: a qualitative study of how primary health care providers respond to health reform in China. *Human Resources for Health* 2017;15.
44. Stroebe M, Schut H. The dual process model of coping with bereavement: a decade on. *Omega* 2010;61:273–89.
45. Skinner EA, Edge K, Altman J, et al. Searching for the structure of coping: a review and critique of category systems for classifying ways of coping. *Psychol Bull* 2003;129:216–69.
46. Nalwadda CK, Waiswa P, Kiguli J, et al. High compliance with newborn community-to-facility referral in eastern Uganda: an opportunity to improve newborn survival. *PLoS One* 2013;8:e81610.
47. Holton JA, Bryant A, Charmaz K. *The coding process and its challenges. The SAGE handbook of grounded theory*, 2007: 265–89.
48. Tweheyo R. *Understanding Absenteeism among Frontline Healthcare Workers and their Supervisors in Rural Uganda. A Qualitative study [PhD Thesis]*. University of Manchester, 2017.
49. MoH. *Uganda hospital and health centre IV census survey*. Kampala: Republic of Uganda, Ministry of Health, 2014.
50. Giusti DLP, Odaga J, Maniple E. Pro-poor health services: The Catholic health network in Uganda. In: Puri SMM, Lawton A, eds. *Development outreach: making services work for the poor*. Washington, DC: World Bank Institute, 2004: 18–21.
51. Zakumumpa H, Bennett S, Ssenooba F. Alternative financing mechanisms for art programs in health facilities in Uganda: A mixed-methods approach. *BMC Health Services Research* 2017;17.
52. WHO. *World Health report 2010: health systems financing: the path to universal coverage*. Geneva, Switzerland: World Health Organisation, 2010.
53. Ministry of Health. *Strategy for improving health service delivery 2016-2021*. Kampala: Republic of Uganda, Ministry of Health, 2016: 24.
54. Penley JA, Tomaka J, Wiebe JS. The association of coping to physical and psychological health outcomes: a meta-analytic review. *J Behav Med* 2002;25:551–603.
55. Schreuder JAH, Plat N, Magerøy N, et al. Self-rated coping styles and registered sickness absence among nurses working in hospital care: a prospective 1-year cohort study. *Int J Nurs Stud* 2011;48:838–46.
56. van Rhenen W, Schaufeli WB, van Dijk FJH, et al. Coping and Sickness absence. *Int Arch Occup Environ Health* 2008;81:461–72.
57. Nabirye RC, Brown KC, Pryor ER, et al. Occupational stress, job satisfaction and job performance among hospital nurses in Kampala, Uganda. *J Nurs Manag* 2011;19:760–8.
58. van der Doef M, Mbazzi FB, Verhoeven C. Job conditions, job satisfaction, somatic complaints and burnout among East African nurses. *J Clin Nurs* 2012;21:1763–75.

59. Schaufeli WB, Bakker AB, Van Rhenen W. How changes in job demands and resources predict burnout, work engagement, and sickness absenteeism. *J Organ Behav* 2009;30:893–917.
60. Trybou J, Germonpre S, Janssens H, *et al*. Job-Related stress and Sickness absence among Belgian nurses: a prospective study. *Journal of Nursing Scholarship* 2014;46:292–301.
61. Baydoun M, Dumit N, Daouk-Öyry L. What do nurse managers say about nurses' sickness absenteeism? A new perspective. *J Nurs Manag* 2016;24:97–104.
62. Roelen C, van Rhenen W, Schaufeli W, *et al*. Mental and physical health-related functioning mediates between psychological job demands and Sickness absence among nurses. *J Adv Nurs* 2014;70:1780–92.
63. Dieleman M, Toonen J, Touré H, *et al*. The match between motivation and performance management of health sector workers in Mali. *Hum Resour Health* 2006;4.
64. Lutwama GW, Roos JH, Dolamo BL. A descriptive study on health workforce performance after decentralisation of health services in Uganda. *Hum Resour Health* 2012;10.
65. Olafsdottir AE, Reidpath DD, Pokhrel S, *et al*. Health systems performance in sub-Saharan Africa: governance, outcome and equity. *BMC Public Health* 2011;11.
66. Barbazza E, Langins M, Kluge H, *et al*. Health workforce governance: processes, tools and actors towards a competent workforce for integrated health services delivery. *Health Policy* 2015;119:1645–54.
67. Kyaddondo D, Whyte SR. Working in a decentralized system: a threat to health workers' respect and survival in Uganda. *Int J Health Plann Manage* 2003;18:329–42.
68. Hotchkiss DR, Banteyerga H, Tharaney M. Job satisfaction and motivation among public sector health workers: evidence from Ethiopia. *Human Resources for Health* 2015;13.
69. Songstad NG, Rekdal OB, Massay DA, *et al*. Perceived unfairness in working conditions: the case of public health services in Tanzania. *BMC Health Serv Res* 2011;11.
70. Bergström S. Training non-physician mid-level providers of care (associate clinicians) to perform Caesarean sections in low-income countries. *Best Pract Res Clin Obstet Gynaecol* 2015;29:1092–101.
71. Fonn S, Ray S, Blaauw D. Innovation to improve health care provision and health systems in sub-Saharan Africa - promoting agency in mid-level workers and district managers. *Glob Public Health* 2011;6:657–68.
72. Callaghan M, Ford N, Schneider H. A systematic review of task-shifting for HIV treatment and care in Africa. *Hum Resour Health* 2010;8.
73. Dolvo D. Using mid-level cadres as substitutes for internationally mobile health professionals in Africa. A desk review. *Human Resources for Health* 2004;2:1–12.
74. O'Hare B, Phiri A, Lang H-J, *et al*. Task sharing within a managed clinical network to improve child health in Malawi. *Hum Resour Health* 2015;13.
75. Dawson AJ, Buchan J, Duffield C, *et al*. Task shifting and sharing in maternal and reproductive health in low-income countries: a narrative synthesis of current evidence. *Health Policy Plan* 2014;29:396–408.
76. McGuire M, Ben Farhat J, Pedrono G, *et al*. Task-sharing of HIV care and art initiation: evaluation of a mixed-care non-physician provider model for art delivery in rural Malawi. *PLoS One* 2013;8:e74090.
77. OECD. *Health workforce policies in OECD countries: right jobs, right skills, right places*. Paris: OECD health policy studies, 2016.
78. Lutwama GW, Roos JH, Dolamo BL. Assessing the implementation of performance management of health care workers in Uganda. *BMC Health Serv Res* 2013;13.
79. Barbour R. *Introducing qualitative research: a student's guide*. Sage, 2013.
80. Carroll C, Booth A, Lloyd-Jones M. Should we exclude inadequately reported studies from qualitative systematic reviews? An evaluation of sensitivity analyses in two case study reviews. *Qual Health Res* 2012;22:1425–34.
81. Maxwell JA. *Qualitative research design: an interactive approach*. Sage, 2012.
82. Greenhalgh T. *How to read a paper: the basics of evidence-based medicine*. John Wiley & Sons, 2010.
83. Peterson U, Demerouti E, Bergström G, *et al*. Work characteristics and Sickness absence in burnout and nonburnout groups: a study of Swedish health care workers. *Int J Stress Manag* 2008;15:153–72.
84. Enns V, Currie S, Wang J. Professional autonomy and work setting as contributing factors to depression and absenteeism in Canadian nurses. *Nursing Outlook* 2015;63:269–77.