EDITORIAL

Sickness absence in healthcare workers during the COVID-19 pandemic

The demand on front-line healthcare workers in hospital and long-term care facilities has become more intense due to the COVID-19 pandemic. Prior to the pandemic, there were already challenges due to sickness absence (SA) in healthcare and this is likely to increase. However, the increase may not be entirely related to the virus. It may also be due to underlying issues, particularly with staff shortages, which existed before COVID-19. This paper highlights these underlying issues. We also present a conceptual framework addressing SA in healthcare, which is based on extensive meta-analysis and qualitative research (B. Gohar *et al.* under review in *Occup Med (Lond)*; B. Gohar *et al.* under review in *Work*).

We define SA as a leave of absence approved by an employer as a result of a worker's physical or mental health problems. SA is complex and best explained by considering both individual and organizational factors. SA can occur directly or indirectly and may not be immediately sought by an employee. Direct causes of SA are factors that are significant enough to warrant sick leave. They are often sudden and may require an immediate response. These factors include health conditions such as flu or more significant illnesses that may require long-term leave. These variables are difficult to predict or manage. Unlike direct factors, indirect factors are more complex and may evolve at a slower rate depending on individual and environmental factors. These become more significant with difficult and prolonged work demands, which in turn is often the result of staff shortages (B. Gohar et al. under review in Occup Med (Lond).

Both direct and indirect factors contribute to staff shortage. Whether sick, injured or choosing not to return to work, the number of vacancies increase and thus, increase the demand on front-line workers. Even after the recruitment of new employees, there are new challenges due to increased inefficiencies and increased role ambiguity, which may strain the relationships between front-line workers as well as with management [1].

Being exposed to contamination is a significant risk factor [2]. One of the emerging themes of work is that contamination is often due to failure of patients/visitors adhering to safety protocols rather than employee negligence (B. Gohar *et al.* under review in *Work*). As this paper was written in the midst of the COVID-19 pandemic, 'physical distancing' has, to some degree, been

embedded in many countries. However, before this pandemic, fear of contracting airborne viruses did not appear to be of great concern to the general public. Exposure to patient violence is also an outcome of direct causes of SA. Employees in long-term care settings, emergency departments and/or psychiatric units are at greater risk of patient violence (B. Gohar *et al.* under review in *Occup Med (Lond)*. Paediatric settings were also found to increases the likelihood of SA due to trauma, especially due to experiencing guilt following the death of children (B. Gohar *et al.* under review in *Occup Med (Lond)*; B. Gohar *et al.* under review in *Work*).

It is important to consider how indirect factors may manifest. As an example, the occurrence of musculoskeletal disorders is unlikely to occur spontaneously but rather due to an accumulation of personal and occupational factors. We theorize that indirect factors related to SA are composed of three levels with increased work demand serving as a moderator.

Staff shortages in healthcare appear to be the initial antecedent of SA among front-line staff. On the second level, which is moderated by the increase in work demand in light of staff shortage, one or multiple personal and occupational factors increase the risk of future SA. Personal factors include demographic variables such as age and work experience, job role/duties, perceived health, history of sick leaves, mild aches and personality traits (B. Gohar *et al.* under review in *Occup Med (Lond)*; B. Gohar *et al.* under review in *Work*) [2]. Occupational factors include workplace setting (e.g. hospital unit or long-term care), shift work and unplanned shifts, the organization's safety culture and job support among employees and management.

Notably, many of the highlighted factors, which we classify as 'second level factors', have been found to increase the odds of SA (B. Gohar *et al.* under review in *Occup Med (Lond)*. However, these variables are not often viewed as the 'cause' of SA. Thus, personal and occupational factors are characterized as 'traceable' variables, as their influence could be traced to the eventual cause of SA, which is the third level of our model. The third level serves as the 'detectable' identifier. Physical causes include musculoskeletal pain and physical fatigue [2]. Psychological and/or mental health variables include anxiety, depression, ongoing exposure to traumatic

incidents, burnout and emotional exhaustion (B. Gohar *et al.* under review in *Work*) [2].

SA need not to occur from one level to the next; however, staff shortages were a recurring theme of how SA manifested in our research (B. Gohar *et al.* under review in *Work*). Staff shortage in healthcare is a global issue with potentially harmful impacts on the health system [3]. Researchers cautioned that the consequence of this shortage creates an undesirable and stressful environment within the profession and its corresponding organization [4]. While increased work demand may occur without staff shortages, it will exacerbate the issue (B. Gohar *et al.* under review in *Work*).

We discovered a link between guilt and staff shortages, which is important in light of the COVID-19 pandemic (B. Gohar et al. under review in Work). Exposure to contaminants like airway infections is common in healthcare settings, which directly affects front-line employees. When a worker feels ill and seeks time off, it may add pressure to the remaining staff by either working short-staffed or having to work unplanned shifts. Thus, some employees may minimize their symptoms and work while sick which is a construct known as presenteeism. Research on presenteeism confirms that staff shortages is one of its key indicators and is associated with increased work demand and job burnout, and ultimately increased SA [5]. Perhaps with fear around contracting COVID-19, the likelihood of working while ill is lower. However, this pandemic highlights the dangers of previous practices of working when sick.

Reports of the effect of shift work on recovery suggest this could be influenced by limited staffing where nursing staff face longer hours or unplanned shifts. It is believed that fatigue and musculoskeletal pain are associated with staffing shortages. Failure to operate at full capacity translates to working harder and longer, which may compromise some safety techniques in tasks such as lifting and carrying (B. Gohar et al. under review in Work). Therefore, it is unsurprising to find shift work and musculoskeletal pain to be strong predictors of SA. The assumption that limited staffing has implications on work demand and fatigue is in accordance with research on staff shortages among healthcare staff [6]. After working overtime and shift work, excessive work demand was a primary cause of why healthcare staff leave the workplace, which in turn reduces the staff load because of physical and psychological factors [6].

Staff shortages are also associated with perceived lack of support from the organization, whether from management or colleagues. Low job support in itself was associated with burnout (B. Gohar *et al.* under review in *Occup Med (Lond)*. Interestingly, a supportive work environment was found to be related to SA. The insufficiency of staffing could decrease the availability of collegial and managerial support (e.g. time for debriefing), especially in settings that are susceptible to risky patient behaviours such as violence, or critical incidents such as the death of a child. We suggest that shortage of nurses increases the risk of burnout due to high work demand, low job satisfaction and limited job support including missed opportunities for debriefing. Improved leadership and work support was shown to decrease the risk of SA, irrespective of workload. In fact, managerial support through empowerment reduced turnover and increased job satisfaction and organizational commitment [7,8].

Although mitigating the risks of SA and staff shortages is challenging, it is necessary during these unprecedented times. A daily check of workers' health (e.g. temperature, etc.) may need to be the 'new normal'. This could help reduce the risk of transmission to other workers and vulnerable patients. Considering indirect factors associated with SA is also important. We predict that through a more supportive environment led by management, enhanced team cohesion could allow for more open communication among employees and thus, detect potential work factors that may eventually lead to SA. This could be done through scheduled supervision to ensure that employees feel supported, which has been shown to improve the well-being of healthcare workers [9].

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