

Diet, Physical Activity, and Emotional Health: What Works, What Doesn't, and Why We Need Integrated Solutions for Total Worker Health

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Research article

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Abstract

Objectives: Current research advocates lifestyle factors to manage workers' health issues, such as obesity, metabolic syndrome, and type II diabetes mellitus, among other things (World Health Organization (WHO), 2000; WHO, 2016), though little is known about employees' lifestyle factors in high-stress, high turnover environments, such as in the long term care ("LTC") sector. **Methods:** Drawing on qualitative single-case study in Ontario, Canada, this paper investigates an under-researched area consisting of the health practices of health care workers from high-stress, high turnover environments. In particular, it identifies LTC worker's mechanisms for maintaining physical, emotional, and social wellbeing. **Results:** The findings suggest that while particular mechanisms were prevalent, such as through diet and exercise, they were often conducted in group settings or tied to emotional health, suggesting important social and mental health contexts to these behaviors. Furthermore, there were financial barriers that prevented workers from participating in these activities and achieving health benefits. **Conclusion:** Accordingly, this study advocates integrated, total worker health (TWH) initiatives that consider social determinants of health approaches, recognizing the wider socio-economic impacts of workers' health and wellbeing.

What Is Already Known About This Subject?

Current research advocates lifestyle factors to manage health issues of workers, such as managing obesity, metabolic syndrome, and type II diabetes mellitus, among other things (World Health Organization (WHO), 2000; WHO, 2016), though little is known about employees' lifestyle factors in high-stress, high turnover environments, such as in the long term care ("LTC") sector.

What Are The New Findings?

The findings suggest that LTC workers typically maintained health and wellbeing through self-care measures conducted in group settings or tied to proxies of relaxation and emotional health, however, a few indicated that finances were barriers to practicing healthy behaviors.

How Might This Study Impact Policy Or Practice In The Foreseeable Future?

This study impacts policy such that it advocates integrated, total worker health (TWH) initiatives that consider social determinants of health approaches, recognizing the wider socio-economic impacts of workers' physical, mental, and social wellbeing.

Background

A broad set of public health interventions have been advocated in the occupational health literature. These are generally accepted principles and practices that often include: smoking cessation, adequate

physical activity, eating five servings of fruits and vegetables each day, consuming limited or no amount of alcohol, medical surveillance and screening of high risk and vulnerable groups; reducing chemical, physical, ergonomic and emotional exposures; increasing research and development of appropriate drugs and therapeutic products; and advocating interventions that include urban environmental interventions like building safe walkways, bicycle paths, and improving building design to encourage stairwell use (Gill 1997; Pronk et al., 2011, Pronk, 2012).

Objectives

Given that there is an increasing body of evidence which supports that employment and working conditions contribute to health problems previously considered unrelated to work, such as obesity (Luckhaupt et al., 2014; Nobrega et al., 2015), cardiovascular disease (Luckhaupt and Calvert, 2014), sleep disorders (Caruso, 2013), and depression (Rayens and Reed, 2013), this study aimed to explore a new and under-researched area of health behaviors in high-stress, high-turnover work environments, such as in the long term care (“LTC”) sector. For this study, the research questions asked: To what extent do LTC workers report diet and physical activity as mechanisms to maintain their health and wellbeing? How do LTC workers maintain emotional health?

Methods

This study used a single-case design, and relied on an ethnography, in which the sources of evidence were from direct observations and in-depth, key informant interviews. Observations and interviews were carried out at a LTC site in Toronto, Canada between the hours of 6:30am to midnight, which were opportunistic times to observe the workers’ scheduled shift changes that occurred at 7am, 3pm, and 11pm. Observations were conducted in secure, locked and unlocked units/ wings at the site; in public spaces within the facility, and at the reception area. These spaces included: hallways and dining areas on the individual units, the recreation space of the atrium located on the ground floor, the employee break room located at the mezzanine level, and outside the meeting rooms in the basement-level. 42 face-to-face, in-depth, semi-structured interviews were conducted with participants, and digitally recorded using Sony ICDPX440 recorders. Fieldnotes were generated during observations, which documented preliminary thoughts, assumptions, and the physical setting. Multiple units of analysis were organized by worker characteristics such as sex, job titles or roles, visible minority (VM) status, full time (F/T) status, and part-time (P/T) work status, among other things. Fieldnotes and interview transcripts were analyzed with thematic analysis for the study using a coding system with the aid of NVivo computer software program to organize and sort data.

Results

The findings indicate that typically, LTC workers maintained health and wellbeing through self-care measures such as healthy eating and exercise, including walking, yoga, swimming, and going to the gym. These measures were often conducted in group settings or tied to emotional health, suggesting important

social and mental health contexts to these behaviors. Some participants also reported that they had the time and resources to grow their own food, and used consumption as a proxy for relaxation and emotional health. However, there were other workers who said that finances were barriers to practicing healthy behaviors.

Self-Care—Healthy Eating

A racialized, female ancillary worker reported that she had hypertension and pre-diabetes. This worker attributed her medical conditions to family history. In addition to this, her physician suggested they were likely from stressful working conditions. Accordingly, in order to cope with work-related stress, she reported that she stopped taking her “work home”. She practiced healthy eating by making her own food from scratch:

A: “High blood pressure and I think that was my doctor said it’s probably from the nerve from your job. That’s why I decided to separate my—no longer take my work home with me because I think that’s how I must have gotten it. But yeah, I have a high blood pressure. And I’m borderline diabetic but that runs in the family. Hopefully, I won’t get the disease but I probably will because most of the people in my family have gotten it.”

I: “Do you try to eat healthy?”

A: “Oh yeah, I grow my own. I make everything from scratch. I don’t buy any processed food at all because processed food has sugar and it has salt in it. They’re both real bad for you. They have apple ingredients and half of those, they just have funny names for them. But it’s still the same thing. It’s salt and sugar. They just have fancy names for them that’s all. Just call a spade a spade. You don’t have to have 60 trillion names for it. So there’s people who don’t understand what the hell you’re talking about unless you happen to be a professor or a scientist that know all about the stuff. And I’m skinny.” (Participant 9, Ancillary Worker, Female, Non-VM, P/T)

The above participant went on to state that she would go home after work and have a cup of tea, possibly alluding to a relaxation strategy. As another health-conscious practice, she also grew her own food:

A: “I usually just go home and just have a cup of tea and just sit down and think about nice things. The work that I have to do at home. I like to cook and I like to garden.”

I: “So you do that to keep yourself happy.”

A: “Oh yeah, every day I do my cooking. [name of family member] says, ‘Where are you going?’ ‘I’m going to go enjoy myself.’ ‘Oh, you’re going to cook.’

I: “Oh, what about in the winter? If you’re not able to garden, what do you do if you’re not able to?”

A:“Oh, I grow all my fruits—all my vegetables all year long. And what I try to do is take the mint at the end of the year and sometimes they keep growing. Like I have my green peppers, my green pepper tree I brought in from outside. It’s still growing. I have a green thumb. I don’t know how I got this but the plants like to grow for me. I enjoy it.” (Participant 9, Ancillary Worker, Female, Non-VM, P/T)

A trainee indicated that she engaged in regular physical activity and healthy eating habits, which she prioritized to the point where she shifted her life around these things:

“I’ve always been conditioned—I guess to like—for exercise and stuff like that. Eating well, sleeping well. That to me is really important. So I make time for that. I sort of shifted my life with it though because now I go to bed super early and I wake up earlier so I get some school work done before I start here because I find it’s just easier for me to do rather than come home to do it because I’m tired.” (Participant 11, Trainee, Female, VM, F/T).

Another participant stated that she tried to eat healthy, but she admitted that she also ate junk food sometimes:

“I am trying [to eat healthy] technically. I’m trying, because I can see, even me, I’ve never had any problem until 45, I ate anything I wanted, I did anything. But now, I need to watch, even me, so of course, but sometimes we’re just eating some junk as well.” (Participant 37, Support Staff Worker, Female, Non-VM, F/T)

Although the above participants indicated they ate somewhat health-consciously, one participant indicated she was unable to eat healthy exclusively because of the costs:

“I’ve tried to like eat like salad and like going to like the store to buy salad in a box. It’s like so expensive. So sometimes, it’s like, oh, I don’t have the money for that right now. So yeah, it’s expensive.” (Participant 15, Allied Health, Female, VM, P/T).

Self-Care—Physical Activity

Participants routinely reported engaging in physical activity as a form of self-care. For instance, one worker stated in the interview that she engaged in regular exercise as a social activity with her friends:

A:“So I work out with my friends like every three days.”

I:“In the gym?”

A:“Yeah, in the gym. We do like different [activities on different] days. So like Mondays, we would work on our stomach or something, and then Wednesday, our legs, and then—and then, like, Friday, we just jog.” (Participant 15, Allied Health, Female, VM, P/T)

Another worker said she used walking, listening to music, and swimming as coping strategies to relax and destress herself, despite environmental barriers such as extremely cold weather conditions (which were the conditions in which the interview took place with this worker):

A: "I'm really into music. [...] I love music. I'm always listening to music—when I walk to work, walk home. I swim, too. [...] It's really relaxing." [...] And I go for really long walks. Sometimes I'll go for a walk for three hours if I need to just clear my mind. [...] I just find walking and listening to music is just a good way to clear your mind."

I: "Okay. Even in the weather like—?"

A: "Yeah. Yeah. [...] I don't mind. As long as I'm warm, I'm good." (Participant 14, Allied Health, Female, Non-VM, P/T).

A Personal Support Worker ("PSW") reported using exercise after waking up in the morning and before coming in to work:

I: "And you're on your feet all day. Are you able to—you're—I'm guessing you're very tired. Are you able to do any [...] walking moderately or physical activity?"

A: "Well, what I do in the morning, I get up and I do exercise. I exercise for 45 minutes. [...] I do cardio. I have my exercise tapes, so—and I do it three to four times a week. [...] When I go on my break, I try to walk the stairs. But that's—sometimes the feet tired, so I forget that." (Participant 16, PSW, Female, VM, F/T).

One worker described regular exercise as his recreational activity which he pursued during the weekdays, and called it his form of entertainment:

A: "I mean, Monday to Friday I go to the gym. So, like, that's [...] That's entertainment to me, I guess. That makes it seem like I don't do anything during the week but it's, like, my own choosing, right? [...] Yeah, I weight train, Monday to Friday." (Participant 26, Support Staff Worker, Male, Non-VM, F/T).

Another worker indicated that she engaged in regular, vigorous exercise to clear her mind:

A: "I'm just going. I like classes. You don't need to think and you don't have time to think because it's the music loud. Everyone jumping and someone, you don't even... That is why I love classes because you are in, that is, what, 45 minutes, one hour, you are not thinking about anything. If there's no classes, then treadmills is the other one. Whenever you're running or you, or just sometimes I'm just listening a book. On my phone, I have books and then I listen and then I'm not thinking about something else [sic]." (Participant 37, Support Staff Worker, Female, Non-VM, F/T)

While the above participants engaged in physical activity, there were others who stated that they did not pursue it at all:

I: "Do you exercise?"

A:No, my metabolism is different like my sister, she's twice the size of me. Her metabolism is different than me and she puts on the pounds. She'll look at a cake and she'll go like this [participant expands her arms around her waist and puffs up her face by holding her breath]. She always gets mad at me for that too. 'Oh, you're nothing.' (Participant 9, Ancillary Worker, Female, Non-VM, P/T)

Discussion

The data suggests that the LTC workers in the urban region of study typically reported consumption of healthy diet and participation in physical activity in order to influence their health and wellbeing. This study also supports evidence that physical activity participation also occurred in group or social settings, suggesting they are important factors for behavior modification, particularly in the case of participant 15, who reported engaging in regular physical activity through social ties.

The findings reveal that the majority of front line health care workers, many of whom were racialized persons, immigrants, and/or women, relied on particular mechanisms for self-care such as healthy eating and exercise, including walking, yoga, swimming, and going to the gym. While the data suggests that participants routinely engaged in these activities, a few participants reported they did not do so, which was explained by cost-related barriers.

The evidence from this study demonstrates several important points. Firstly, the findings shed light on under-researched areas of how workers engage with health-conscious behaviors in order to access their preferred health and wellness practices and maintain emotional health. This study also provides interesting perspectives as to what care workers perceived as healthy or unhealthy. For instance, processed foods, sugar, and salt were considered unhealthy by some participants while salad was considered healthy by others.

Thirdly, the findings demonstrate that many of the workers must rely upon their own resources to achieve their optimal health and wellbeing, including costs. This is an important point because behavioral interventions are modulated by social and material circumstances which could otherwise impact morbidity and mortality (Doyal and Pennell, 1979). Occupational health and safety issues among vulnerable groups, such as racialized and immigrant workers in Canada for example, are often associated with particular working conditions, work exposures, or ergonomics issues (Author, 2014); however, there might be additional factors that influence patterns of sickness in workers, such as income and social status (Doyal and Pennell, 1979).

Indeed, research suggests that (im)migrants, racialized populations, and women are vulnerable to poverty, illness, and diseases related to low income, psycho-social/ chronic stress, and socioeconomic status disparities (Ernsberger, 2009; Meintel, Labelle, Turcotte, and Kempineers, 1987; Ornstein, 1996; Ornstein, 2006; Galabuzi, 2006; Reid, 2007; Mikkonen and Raphael, 2010; Crooks, Hynie, Killian, Giesbrecht, and Castleden, 2011; Author, 2015; Author, 2016). The literature also shows that racialized and immigrant workers are vulnerable to both acute and chronic health problems because of structural issues in the labour market (Das Gupta, 2002; Das Gupta, 2008; Author, 2016) that lead to major health risks such as

work-related accidents or illness, mental stress, as well as income inequalities and health inequities (Boyd, 1992; Gannage, 1999; Galabuzi, 2006; Smith and Mustard, 2009; Crooks, Hynie, Killian, Giesbrecht, and Castleden, 2011; Vissandjee, Thurston, Apale, and Nahar, 2007; Zaman, 2012; Author, 2014; Author, 2015).

How might this research impact on policy or clinical practice in the foreseeable future?

Given the above literature, the findings from this study contribute new information to interdisciplinary occupational health scholarship and contextualize health-conscious behavioral practices from one of the most highly intensive work environments and sectors of employment. The findings are important because the knowledge of personal health practices among workers could reflect resistance and resilience strategies, demonstrate how agency is expressed, as well as illuminating any barriers or limitations. It is increasingly recognized that work influences health and disease in a number of ways, including job-related factors such as income and wages, hours of work, work-load and stress levels, interactions with coworkers, access to paid or unpaid sick leave, and work environments, among other things, all of which impact not only the health and well-being of workers but also their families and communities (Lee et al., 2016; Author et al., 2016). Consequently, policies may be introduced to minimize barriers and improve access to these interventions.

While this study contributes new knowledge, more work can be done. Research suggests that work-related stress and workloads in the LTC sector can be overwhelming (Author et al., 2016); however, strategies to address these issues are often limited and require a holistic approach which considers income, employment, education, (i.e. socioeconomic status) and other social determinants of health (“SDoH”). For example, diet and physical activity are just a few interventions that can modulate worker health and wellbeing. There are more integrated interventions which seek to collectively address worker safety, health, and well-being, known as total worker health (“TWH”) initiatives (Lee et al., 2016). TWH involve work-related environmental, organizational, and psychosocial factors (Chari et al., 2017), and include the control of physical, biological, and psychosocial hazards and exposures; organization of work; compensation and benefits; built environment supports; and work-life integration (Lee et al., 2016). The TWH initiatives have been advocated through the National Institute for Occupational Safety and Health (NIOSH), the Centers for Disease Control and Prevention (CDC), and various researchers, including those at the Harvard School of Public Health and elsewhere (McLellan, 2016; McLellan, 2017; Pronk et al., 2011; Pronk, 2012; Sorensen et al., 2016). TWH explores opportunities to protect workers and advance their health and well-being, and that of their families by improving working conditions through workplace programs, practices, and policies (Lee et al., 2016). The rationale for the above measures is to reduce the burden on the workforce, and control health care costs and economic costs to society (Ogilvie and Eggleton, 2016).

In order to improve management of care work, such as in the case of the LTC sector selected for this study, there needs to be commitment to total worker health and wellbeing, which involves the home, family, and community of the workers. Furthermore, given the diversity of care workers in the region of study, such approaches need to be culturally appropriate, and adequate supports must be provided to the workers. This means that not only do services and provisions need to exist, but they also need to be available, affordable, and accessible to the workers who require them. When such services and support systems are made available to workers, they can perform the work better, safely, with less of a personal toll on their health and wellbeing, and with better outcomes for the recipients of care. Additional approaches that would be beneficial if they were to be applied to this and other sectors of employment include: allocating limited resources for provisions of good, stable jobs; decent income; poverty-reduction strategies; decent housing; and advocating the SDoH (Raphael, 2011a; Raphael, 2011b; Cheng 2012; Patterson and Johnston, 2012).

Conclusions

Behaviour modification such as diet and physical activity are embedded in social, political, and economic realities. More research needs to be done to explore health behaviors in highly stressful occupations, while also advocating for holistic approaches that also improve social and material circumstances for workers. While biomedical interventions often reinforce medicalized, positivist solutions, such as diet, physical activity, and screening/surveillance of vulnerable workers, these interventions are limited unless they include integrated approaches. An alternative framework that considers emotional health, TWH, and SDoH is needed because there are various structural, organizational, community, social, cultural, and policy factors that play a role in the development of illness and health in workers. Indeed, as Sorensen and Barbeau (2012) recognize, commitment to worker safety and health throughout all levels of an organization is critical, and organizational leaders should acknowledge, prioritize, and communicate widely the worker safety and health on the same level as quality of services and products that are delivered by that organization.

Abbreviations

world health organization (WHO)

long term care ("LTC")

total worker health (TWH)

visible minority (VM)

full time (F/T)

part-time (P/T)

personal support worker (PSW)

social determinants of health (SDoH)

Office of Research Ethics (ORE)

Occupational Safety and Health (NIOSH)

Centers for Disease Control and Prevention (CDC)

Declarations

Ethics approval and consent to participate:

This research was approved by the Office of Research Ethics (ORE) at York University, and participants' consent to participate in the study was received in writing and signed by the participants.

Consent to publish: Participants' consent to participate in the study and for research publication/dissemination was received in writing and signed by the participants.

Availability of Data and Materials: The datasets generated and/or analyzed during the current study are not publicly available due to copyrights, large and multiple file sizes, and because they are being used for further analysis for separate, distinct studies, but are available from the corresponding author on reasonable request.

Competing Interest: The author declares that they have no competing interests.

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Author's Contributions: IS analyzed and interpreted the data, and is the main author and contributor in writing the manuscript who has read and approved the final manuscript.

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