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Recovery experience and burnout in cancer workers in Queensland

Michael G. Poulsen [a, c, *], Anne A. Poulsen [b, d], Asaduzzaman Khan [b, d], Emma E. Poulsen [b, e], Shanchita R. Khan [b, f]

[a] Division of Cancer Services, Princess Alexandra Hospital, Australia
[b] The University of Queensland, Brisbane, QLD, Australia
[c] University of Queensland, Radiation Oncology Mater Centre, Australia
[d] School of Health & Rehabilitation Science, The University of Queensland, Australia
[e] School of Psychology, The University of Queensland, Australia
[f] Institute of Health and Biomedical Innovation, Queensland University of Technology, Australia

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A B S T R A C T

Purpose: Two key recovery experiences mediating the relationship between work demands and well-being are psychological detachment and relaxation over leisure time. The process of recovery from work-related stress plays an important role in maintaining well-being, but is poorly understood in cancer workers. The aim of this exploratory study was to examine the relationships of burnout, psychological well-being and work engagement with the recovery experiences of psychological detachment and relaxation in oncology staff.

Methods: A cross sectional survey of 573 cancer workers in Queensland was conducted (response rate 56%). Oncology nurses ($n = 211$) represented the largest professional group. Staff completed surveys containing demographics and psychosocial questionnaires measuring burnout, psychological distress, work engagement and recovery experience. Multiple regression analyses were performed to identify explanatory variables which were independently associated with Recovery Experience Score (RES).

Results: There was a negative association between the RES and burnout ($p = 0.002$) as well as psychological distress ($p < 0.0001$), but not work engagement. Age >25 years was negatively correlated with RES as was having a post graduate qualification, being married or divorced, having carer commitments. Participating in strenuous exercise was associated with high recovery ($p = 0.015$).

Conclusions: The two recovery experiences of psychological detachment and relaxation had a strong negative association to burnout and psychological well-being, but not work engagement. Further research needs to be undertaken to better understand if improving recovery experience reduces burnout and improves the well-being of cancer workers.

Introduction

Cancer workers are exposed to a variety of work-related stressors including dealing with a clinical caseload that is emotionally taxing. It is well recognised that this may contribute to burnout and the literature suggests that approximately one third of cancer workers exhibit symptoms of burnout, core features of which are emotional exhaustion and disengagement (Girgis et al., 2009; Poulsen et al., 2011; Shanafelt et al., 2006). Burnout and work stress are negatively correlated with employees' health and well being and are positively associated with high desire to leave the organisation (Coffeng et al., 2012).

According to the *Conservation of Resources Theory* (Hobfoll et al., 2003), recovery is seen as a process to restore resources such as self-esteem or vigour that may be depleted in unfavourable work environments. Theoretically, workers with high daily recovery feel less fatigue and greater readiness to face new demands than those workers with poor recovery.

The concept of recovery evolved from the effort-recuperation model (Meijiman and Mulder, 1998) and is considered to be the need to recuperate and wind down after the effort invested in work-related activity. Recovery refers to the process during which the individual's functioning returns to the pre-stressor level (Sonnentag and Natter, 2004). When fatigue builds up, there is a sense of urgency to take a break and this is described as the *need for recovery* (Sonnentag and Zijlstra, 2006). This is an emotional state

* Corresponding author. Radiation Oncology Mater Centre, 31 Raymond Tce, South Brisbane, QLD 4101, Australia. Tel.: +61 7 38403255; fax: +61 7 38403298.
E-mail addresses: michael.poulsen@health.qld.gov.au (M.G. Poulsen), a.poulsen@uq.edu.au (A.A. Poulsen), a.khan2@uq.edu.au (A. Khan), emma_pouslen@health.qld.gov.au (E.E. Poulsen), shanchita.khan@qut.edu.au (S.R. Khan).

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characterized by reluctance to continue the present demands. High needs for recovery are associated with burnout and are considered to be an important precursor for developing health problems (Sluiter et al., 1999).

The *Job Demands-Resources* (JD-R) model (Bakker and Demerouti, 2007) explains how low resource availability within a demanding work environment contributes to high recovery needs (Sonnentag and Zijlstra, 2006) Recovery experience is an important mediator between demand-resource imbalance and wellbeing. It has been postulated that insufficient recovery contributes to poor well-being and health problems (Geurts and Sonnentag, 2006).

Physical activity after work has been shown to be an important factor in recovery (Rook and Zijlstra, 2006) as well as improving levels of subjective well being (Poulsen et al., 2012). Relaxation is another factor which contributes to the recovery process by diverting attention away from work and reversing the negative consequences of work-related stress (Hahn et al., 2011b). Having insufficient time for relaxation increases the need for recovery which in turn leads to emotional exhaustion and sleep disturbance (Sonnentag and Fritz, 2007).

Daily recovery has been viewed as internal (i.e. happening at work) or external (i.e. occurring after work). *Internal recovery* may occur as a short break during work hours e.g. a coffee break with colleagues. *External recovery* before or after work, during weekends and holidays refers to engaging in replenishing activities that help rebalance suboptimal systems and return stress-related reactions to pre-stressor levels before the next working period commences e.g. a visit to the gym (Geurts and Sonnentag, 2006). When the demands of the job increase, there is an increase in the need for recovery.

Recovery experiences have been classified as psychological detachment, relaxation, mastery experiences and control over leisure time (Sonnentag and Fritz, 2007). Psychological detachment is defined as the sense of being away from work both physically and mentally. People who disconnect from work in the evening and do not engage in perseverative ruminating about past stressors or anticipation of future stressors, are more likely to experience positive mood and less fatigue on the following day (Sonnentag and Bayer, 2005). Psychological distancing is an important buffer that protects workers' well-being and promotes work engagement (Sonnentag et al., 2010). Relaxation may involve activities such as listening to music or going for a jog. Mastery experiences involve taking on a new challenge outside of work such as learning a new language or learning a new skill. Mastery and control over leisure time have been shown to be negatively associated with emotional exhaustion and positively associated with life satisfaction (Sonnentag and Fritz, 2007).

The purpose of this paper was to explore the relationship between perceived recovery experience, burnout, psychological well-being and work engagement. It was postulated that cancer workers who were burnt out were less likely to engage in activities that would lead to recovery while engaged workers were more likely to participate in recovery experiences. Possible explanatory factors associated with recovery experiences were analysed.

Methods

Sample selection and processes

Ethical clearance was obtained from the Queensland Health State Ethics Committee to allow the line managers at five Queensland hospitals to be approached to distribute a survey to all cancer care workers at their hospitals. This included nursing, medical, allied health, administration, radiation therapy, physics and research staff. Major metropolitan and regional services within Queensland from private and public hospitals were selected. Eligible centres were required to have both radiation and medical oncology services on site. Information about the study was provided to line managers and this was supplemented by start up meetings to provide information to prospective participants. At the time of the survey, 1016 oncology staff members were employed in the five participating hospitals. Each staff member received a sealed, unaddressed survey package containing a cover letter, a 10-min survey booklet, a participant information sheet and a pre-paid return envelope. Reminder emails were sent to the line managers two weeks later.

Survey forms were unidentifiable by individual or institution. As surveys were returned to researchers they were assigned a code number according to date of return.

Instruments

Demographic information included age, gender, marital status, financial information and self-reported health issues. Details of participants' work situations included: professional stream; years of experience; hours worked per week; hours spent in direct patient care; metropolitan or regional workplace; and public or private work sector.

Recovery experience was measured using the instrument developed by Sonnentag and Fritz (2007). This required respondents to indicate on a 5-point Likert scale how much they agreed with the statements, such as: “I forget about work”; “I get a break from the demands of work”; and “I use time to relax and I take time for leisure”, with higher scores indicating higher recovery.

Burnout was assessed using the Oldenberg Burnout Inventory (OLBI) (Demerouti et al., 2002). The OLBI measures burnout with two dimensions: emotional exhaustion and disengagement, has been shown to have high levels of reliability and validity. The 16-item self-report scale consists of 8 items evaluating Emotional Exhaustion, and 8 items for Disengagement. Respondents are invited to rate statements, such as, “After my work I usually feel worn out and weary” on a 5-point Likert rating scale from 0 (strongly agree) to 4 (strongly disagree).

Work engagement was measured with the abbreviated version of the Utrecht Work and Wellbeing Survey (UWES-9) (Schaufeli et al., 2002). The UWES-9 is a recognised tool with moderate to high reliability and validity for the measurement of work engagement. This scale measures 17 items and has three elements of work engagement: vigour (six items, $\alpha = 0.78$ and 0.79 in different samples); dedication (five items, $\alpha = 0.84$ and 0.89 in two samples); and absorption (six items, $\alpha = 0.73$ and 0.72 in independent samples).

Psychological distress was measured using the Kessler 6-item distress scale (Kessler et al., 2002). It has demonstrated high internal consistency and reliability (Cronbach's alpha = 0.89). The short K6 demonstrates adequate clinical diagnostic precision (17). Respondents rate the frequency with which they experience six symptoms on a five-point scale (0 = “None of the time” to 4 = “All of the time”). The possible range of total scores is 0–24 with higher scores indicating greater psychological distress. Burnout, work engagement scores and psychological distress were dichotomized into lower two thirds and upper one third for their respective scores.

Self-reported physical health was classified into musculoskeletal, cardiovascular, cancer, respiratory and other diseases and then categorised into: nil; ‘yes’, but not requiring treatment, ‘yes’, having treatment with low impact on daily life; and ‘yes’, receiving treatment with high impact on daily life.

Physical activity was defined as being: strenuous (heart beats rapidly and you ‘huff and puff’); moderate (heart rate rises but not exhausting); and light (e.g. easy walking).