RESEARCH ARTICLE

Be Mindful of What You Impose on Your Colleagues: Implications of Social Burden for Burdenees' Well-being, Attitudes and Counterproductive Work Behaviour

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Abstract

This paper describes two studies of a new relational variable *social burden* and its implications for employees' well-being, job attitudes and counterproductive work behaviours. Social burden is defined as behaviours from colleagues that elicit the focal employees' social support. Across two separate samples (540 nurses and 172 university employees), we found that social burden differentiated from psychological aggression and incivility, respectively. A separate cross-sectional sample of 273 nurses from Study 1 revealed that social burden from colleagues was positively associated with focal employees' anxiety, irritation, depressive mood, physical symptoms, job dissatisfaction and turnover intentions. Study 2 used a time-lagged design with a separate sample of 383 university employees and 160 of their coworkers. In this study, social burden from supervisors and from coworkers were together predictive of employees' subsequent emotional strains and job attitudes, as measured 6 months later. With respect to sources of social burden, social burden from supervisors more strongly predicted job attitudes and counterproductive work behaviours directed at others, and social burden from coworkers more strongly predicted emotional strains.

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Keywords
social stressor; strains; job attitudes; social burden from supervisors; social burden from coworkers

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As social beings, employees need to be connected with others to stay engaged, happy and productive (Fiske, 2009; Kahn, 1990). Positive workplace social relationships may improve employees' well-being, attitudes and performance (e.g. Chiaburu & Harrison, 2008; Shanock & Eisenberger, 2006), whereas negative social relationships can be detrimental to their occupational health and performance (e.g. Hershcovis & Barling, 2010; Lim & Lee, 2011). Despite recognition of the importance of social relationships, one important aspect of workplace relational dynamics seems to be understudied. We propose a relational construct, *social burden*, which represents behaviours from colleagues that elicit focal employees' social support. Such behaviours include asking for focal employees' help and displaying negative emotions in the presence of, but not targeted at, focal employees. We contend these commonplace social exchanges with colleagues that may on the surface seem harmless could be stressful and detrimental to focal employees' well-being, job attitudes and even performance.

Being asked for help has been shown to yield both positive and negative consequences for targeted individuals. Based on research on daily events, being asked for help is often considered a positive event (e.g. Basch & Fisher, 2000; Bledow, Schmitt, & Kühnel, 2011), likely because it meets the focal individuals' needs for competence and belongingness (Fiske, 2009) or because it facilitates communication and cooperation between employees (Sonnentag, 2000). On the other hand, being asked for help by mentees can be perceived negatively by mentors. Mentors may experience strains due to the time requirements and felt responsibilities of supporting mentees (e.g. Allen, Poteet, & Burroughs, 1997). In addition, the literature on negative social exchange suggests that it is distressing for the focal individuals to interact with their close social ties if those ties need help repeatedly (e.g. Lakey, Tardiff, &

Drew, 1994; Ruehlman & Karoly, 1991). It seems important to reconcile the inconsistent findings regarding the consequences of being asked for help or being in situations where one is compelled to help.

The present paper introduces the construct of social burden as a potentially cumulative social stressor and has three purposes: (1) to differentiate social burden from psychological aggression and workplace incivility; (2) to examine the negative implications of social burden in relation to focal employees' well-being and job attitudes; and (3) to investigate the unique negative implications of social burden originating from a supervisor versus coworkers, for the focal employees' well-being, job attitudes and counterproductive work behaviours (CWB).

We believe that the present paper contributes to the literature on workplace relationships in multiple ways. Firstly, social burden extends the conceptualization of workplace relationships by capturing a commonly occurring yet understudied workplace dynamic that may be harmful to the focal employees. Secondly, it examines social support processes from the perspective of a potential support provider, thereby providing an understanding of social support dynamics that is beyond the commonly studied support recipient's perspective (e.g. Beehr, Bowling, & Bennett, 2010; Cohen, 1988). Finally, this study uses a multi-foci approach to study social burden, as it separates the measurement of social burden from different sources (coworker versus supervisor) and examines the potentially different mechanisms through which coworker and supervisor social burden account for focal employees' well-being, attitudes and behaviours.

Social burden differs from negative social exchange

Social burden—defined as the perceived presence of colleagues' behaviours that elicit the focal employees' social support—occurs regardless of the intentions of the colleagues who create the burdensome situation (burdeners), the decision of the focal employees (burdenees) about whether to provide support or the effectiveness of any support that is provided. Rather, it is the exposure to situations in which help is perceived by burdenees to be needed that defines social burden. Social burden can be from any type of colleague (e.g. coworker and supervisor) and is similar to various negative social exchange variables because it can be stressful to target employees after repeated exposure. However, social burden is different from other negative social exchanges at work in two ways. Firstly, the negative emotions accompanying social burden behaviours are not directed at burdenees (e.g. burdeners could act upset in front of but not towards burdenees), whereas other negative social exchanges (e.g. workplace aggression) are directed at the focal individuals. Secondly, social burden may take negative, neutral or positive forms (e.g. burdeners ask for burdenees help in a neutral or positive way; Basch & Fisher, 2000), whereas other negative social exchanges, such as incivility, always take a negative form.

We aim to differentiate social burden from other negative social exchange variables at work. Psychological aggression is prevalent across various occupations (Schat, Frone, & Kelloway, 2006) and has been shown to relate adversely to a range of employee outcomes, including job attitudes, well-being and performance (e.g. Hershcovis & Barling, 2010; Schat & Frone, 2011). Conceptually, psychological aggression represents a very intense and salient form of negative social exchange, which could be appraised as a significant threat and demand a lot of coping resources (Lazarus, 1991). In contrast, social burden represents a less salient form of social exchange bearing some negative aspects, and it does not impose an *explicit* threat to the focal employee (although, as we discuss later, it may have the unintended effect of serving as a stressor in that it demands resources of the focal employee). Therefore, we believe that experiences of social burden and psychological aggression are different from focal employees' perspectives.

Additionally, because social burden represents a type of low-intensity social exchange, it is important to differentiate it from other types of low-intensity social exchange variables such as workplace incivility that have been shown to be consequential for focal employees and organizations (e.g. Estes & Wang, 2008; Lim & Lee, 2011). Workplace incivility represents rude behaviours that violate social norms for respect (Andersson & Pearson, 1999), such as making negative remarks about one's coworkers or taking credit for someone else's work, which bears negativity towards focal employees. In contrast, social burden represents behaviours bearing no explicit negativity towards focal employees. With that said, under situations where burdeners elicit support, burdenees may perceive burdeners as rude (i.e. not being thoughtful) in addition to feeling the obligation to pay some attention to their requests or needs. As such, we ask,

Research Question 1: Will social burden be differentiable from psychological aggression and incivility?

Social burden originates in role expectations

How employees perceive or react to social burden behaviours could be explained by role theories. Consistent with the symbolic interactionist role theory (Stryker & Statham, 1985), employees hold various formal roles at work—such as those of coworker, subordinate or supervisor. Different roles come with different sets of expectations from their relationship partners. These *role expectations* guide and constrain employees' behaviours during their social interactions (Stryker & Serpe, 1982). For example, a *coworker role* comes with expectations that employees finish their

own work successfully and communicate with others in a timely manner.

Besides fulfilling their formal roles, employees will also adopt an informal role of 'being a good colleague' during social interactions at work (social structural symbolic interactionism; Stryker & Vryan, 2003). The expectations for being a good colleague may be relatively general, vague and not as strongly normative as the formal roles (e.g. subordinate or coworker), yet they provide general behavioural guidelines to employees' informal work interactions (Stryker & Vryan, 2003). Guided by this informal role, employees may be kind to those in their professional networks and feel obliged to give some attention to requests from other people at work. For example, burdenees may feel compelled to empathize with and make coping suggestions to a burdener who is experiencing negative emotions (i.e. provide emotional and instrumental support), they may feel compelled to oblige with help requests (i.e. offer instrumental support) or they may get involved with emotion-laden discussions with a burdener (i.e. offer emotional support). Indeed, instrumental and emotional support provision to coworkers commonly co-occurs (e.g. Tews, Michel, & Ellingson, 2013). Even in cases where they decide not to offer support, burdenees may experience negative emotions, such as guilt or regret about not being helpful. Therefore, we contend that social burden incidents that demand the provision of emotional or instrumental (or both) support can be potentially stressful to the burdenee.

Job demands–resources model and the social burden–strain relations

As suggested by the job demands–resources model (JD-R; Bakker & Demerouti, 2007), some aspects of employees' jobs can be demanding and stressful (e.g. work overload and workplace aggression), while others can serve as job resources that support employees' goal attainment (e.g. coworker or supervisor support). A key idea proposed by this model and supported by empirical evidence is that job demands deplete employees' personal resources (e.g. energy, time or attention), which then impair their health and abilities to carry out essential job tasks (Bakker & Demerouti, 2007; Balducci, Schaufeli, & Fraccaroli, 2011).

Social burden can function as a type of job demand because the process of handling it depletes burdenees' affective, cognitive and physical resources. As social burden incidents occur during day-to-day social interactions, burdenees may initially perceive them as harmless. Repetitious implicit or explicit 'help requests' from colleagues may, however, become burdensome because responding to them gradually drains burdenees' resources. Consequently, burdenees may feel frustrated and anxious about not getting their own tasks done on time, and further experience depressive mood if the situation persists. Additionally, drained burdenees may develop physical symptoms such as headaches or trouble sleeping; indeed, a large body of literature supports the link between demanding social stressors and employee physical symptoms (for a review, see Nixon, Mazzola, Bauer, Krueger, & Spector, 2011).

As burdenees' affective, physical and cognitive resources become depleted, they may grow dissatisfied with their jobs and have more thoughts of quitting (Alarcon, 2011) in order to escape the 'burdensome' social environment. In addition, these employees may be unable to regulate their subsequent work behaviours, particularly those social interactions with other colleagues in a manner consistent with workplace norms (Baumeister & Vohs, 2007). In the work context, norm-deviant behaviours are commonly conceptualized as counterproductive work behavior (CWB) that harm other individuals at work—CWBI (e.g. cursing)—or the organization—CWBO (e.g. coming in late to work without permission) (Fox, Spector, Goh, Bruursema, & Kessler, 2012). Empirical evidence has supported the links between personal resource depletion and CWBs (e.g. Christian & Ellis, 2011). As guided by the JD-R model, Balducci and colleagues' (2011) longitudinal study evidenced the influence of interpersonal demands on CWBIs, including hostility and abuse. Thus, following the bandwidth-fidelity theory (Cronbach & Gleser, 1957), we expect that the draining effect of social burden (an interpersonal demand) will contribute to burdenees' enactment of CWBI (an interpersonal outcome).

The effect of social burden in the workplace has not been studied. Prior evidence has, however, revealed negative implications of support processes that inform our proposition that social burden may be associated with negative health outcomes. For example, providing support to family or performing organizational citizenship behaviour (Organ, 1988) to help others at work burdens working adults and further contributes to their psychological strains (e.g. negative mood and emotional exhaustion), work-to-family conflict, cognitive failures or sickness-related absence (e.g. Bekker, Croon, & Bressers, 2005; for a review, see Bolino, Klotz, Turnley, & Harvey, 2013). Additionally, social support processes that draw recipients' attention to negative aspects of their job (e.g. stressful problems) may contribute to their strains (e.g. Beehr et al., 2010; Yang et al., 2011). With that said, the prior literature cited earlier examined the draining effects of social support-related interactions on support providers and recipients. To extend the prior literature, the present paper focuses on the perspectives of *potential* social support providers (burdenees). In accordance with informal role expectations, we contend that burdenees generally feel obliged to give attention to colleagues (burdeners) or justify their inability to help and, consequently, become strained by the process of handling repeated social burden incidents (Stryker & Vryan, 2003).

Hypothesis 1: Social burden from colleagues will predict burdenees' emotional strains (anxiety, irritation and depressive mood), physical symptoms, job attitudes (job satisfaction and turnover intentions) and CWBI.

Differential outcomes of social burden from supervisors versus coworkers

Past literature has evidenced different mechanisms underlying relationships of different foci, most consistently in terms of relationships with supervisors versus coworkers. Of particular interest, a relational model of interpersonal conflict (Frone, 2000) proposes differential consequences stemming from conflict with supervisors versus coworkers. The model is grounded on two principles of social relations (Fiske, 2009). Specifically, relationships with supervisors function mostly on the basis of *authority ranking*, in which individuals with higher job ranking control more job-related resources and have power over those with lower ranking (e.g. Rupp & Cropanzano, 2002). In contrast, relationships with coworkers function mostly on the basis of *communal sharing*, wherein individuals share a common identity with their peers and desire to be liked by and treated as socially equivalent to their peers (Baumeister & Leary, 1995). Frone (2000) suggested conflict with supervisors should have more influence over organizationally relevant outcomes, such as employee job satisfaction and turnover intentions, whereas conflict with coworkers should have more influence over personally relevant outcomes such as depression and self-esteem. Indeed, this model has been supported in the literatures of conflict and other workplace mistreatment (e.g. Frone, 2000; Lim & Lee, 2011).

Consistent with Frone's (2000) model, we use a multi-foci approach to study social burden by distinguishing between burdens from supervisors versus coworkers (SB-supervisor versus SB-coworker). We propose that SB-supervisor predicts burdenees' work-related outcomes (e.g. job satisfaction, turnover intentions and CWBI) more strongly than does SB-coworker. When burden comes from supervisors (authority figures), burdenees may feel obliged to meet the conflicting expectations of the informal role of 'being a good colleague' and the subordinate formal role. The expectation that burdenees respond to supervisors' informal requests competes for time and energy burdenees need to complete their essential job tasks that are evaluated formally by the same supervisors. Thus, these two sets of co-existing, demanding role expectations may account for SB-supervisor being particularly stressful and increasing burdenees' job dissatisfaction and CWBI. Further, given that they typically cannot avoid interactions with supervisors as required by the work structure (Stryker & Vryan, 2003), burdenees may contemplate quitting after repeated, unavoidable SB-supervisor experiences.

In contrast, we expect SB-coworker predicts burdenees' personal outcomes (e.g. anxiety and irritation) more strongly than SB-supervisor. When social burden comes from coworkers (peers), the expectation that burdenees attend to coworkers' informal requests aligns with the expectations tied to the coworker formal role. Consistent with the communal sharing social principle (Fiske, 2009), the quality of coworker relationships is tied to burdenees' self-identity more closely than that of supervisory relationships. In response to repeated SB-coworker occurrences, burdenees may feel more anxious when not offering help because this contradicts with both formal and informal roles. At the same time, it may be easier for burdenees to get irritated because they share similar work status with the burdener. For example, they may feel more concerned that not responding to SB-coworker properly can lead to peer rejections in the future. Indeed, prior literature has found that negative social interactions with coworkers or fellow group members account for focal employees' perceived rejection to a more significant extent than do negative interactions with supervisors (e.g. Penhaligon, Louis, & Restubog, 2013). Further, evidence also supports that relationship issues with coworkers such as incivility (Adams & Webster, 2013; Lim & Lee, 2011) predicted focal employees' emotional well-being (e.g. depression) and emotional regulation efforts (e.g. surface acting) to a more significant extent than did the same relationship issues with supervisors. Accordingly, we predict

Hypothesis 2: Social burden from supervisors will predict burdenees' job satisfaction, turnover intentions and CWBI, more strongly than will social burden from coworkers.

Hypothesis 3: Social burden from coworkers will predict burdenees' anxiety and irritation, more strongly than will social burden from supervisors.

To address the aforementioned research aims, we conducted two studies using employee samples from different occupations and applied different measures and research designs. Study 1 investigated whether social burden can be conceptually differentiated from psychological aggression and workplace incivility (Research Question 1) and whether social burden predicts burdenee well-being and various attitudinal outcomes (Hypothesis 1). Study 2 examined whether SB-supervisor and SB-coworker differentially predict burdenees' emotional well-being, job attitudes and CWBI (Hypotheses 2 and 3).

Study 1

Method

Participants and procedure

Eight-hundred and thirteen out of 1498 nurses from two non-profit healthcare organizations in the

Southeastern United States participated in a one-time survey. The response rate was similar in both organizations (54% versus 55%). The participants came from all 33 units of the two organizations (16 versus 17 units, respectively). These nurses had an average age of 43.9 years ($SD = 10.6$), average tenure of 17.1 years ($SD = 11.7$) and worked, on average, 37.0 h per week ($SD = 8.6$). To reduce the risk of identifying individual participants, we did not collect information about gender given that archival data from both organizations suggested that only around 5% of nurses were male. We randomly split the sample into three subsamples so that the first two subsamples ($n = 270$ each) could be used to confirm the factor structure of the social burden measure [i.e. exploratory and confirmatory factor analyses (EFA and CFA), respectively] and the last subsample used to test Hypothesis 1 ($n = 273$). For clarity, we labelled these three subsamples as Subsamples 1, 2 and 3, respectively. Analyses of variance suggested no significant differences across the three subsamples in terms of demographics (e.g. age and tenure) and focal variables (i.e. social burden, psychological aggression and presumed outcomes), with two exceptions in which the *F*-test was significant but the effect size of the between-sample difference was small[1] ($\omega^2 < .02$; Howell, 2010). Thus, we considered these three subsamples as sufficiently equivalent. Each participant received a $7 gift card in appreciation for their participation.

Measures

For data analytic purposes, we averaged responses to all items of each measure. Based on Subsample 3, all measures with three or more items had alphas ranging from .78 to .92 (Table I). Alpha values were comparable in Subsamples 1 and 2, as they ranged from .73 to .92.

Psychological aggression

Four items were adapted from prior literature on workplace aggression (Chang, Eatough, Spector, & Kessler, 2012). Participants reported the frequency of exposure over the prior 12 months to each of the four verbal aggression behaviours (e.g. being yelled or shouted at, or insulted), with response choices ranging from 1 (*Never*) to 6 (*Daily*).

Social burden

Following recommendations for measure development and validation (Edwards, 2003; Hinkin, 1998), we developed three new items and adapted four to the work context from the literature on general negative social exchange (i.e. Lakey et al., 1994; Reuhlman & Karoly, 1991), according to the theoretical definition of social burden. We recruited 16 Ph.D. candidates and three individuals with doctoral degrees in industrial and organizational psychology to serve as subject matter experts (SMEs). They evaluated the items based on the definition of social burden (i.e. colleagues' behaviours that elicit the focal employees' social support). The results showed that four out of the seven items were clear and consistent with the definition, as supported by the agreement of 88–100% of the 19 SMEs (Fleiss, 1981).

The four selected items were as follows: (1) Acted emotionally upset in my presence (not towards me); (2) Wanted me to take care of their work responsibilities; (3) Asked me to do something for them in the middle of my work; and (4) Lost their temper in my presence (not towards me). Item 2 was adapted from Lakey et al.'s (1994) Inventory of Negative Social Interactions, and the other three items were self-developed. The four items are consistent with our conceptualization of social burden because they represent either (a) the expression of negative affect that is not directed towards the burdenee but that might be perceived by the burdenee as necessary to address or (b) an implied or explicit request for instrumental support from the burdenee. Participants were instructed to reflect upon how often their colleagues (coworkers, supervisors or physicians) displayed each of the four behaviours in the prior month, using response choices ranging from 1 (*Not at all*) to 5 (*Several times per day*).

To confirm the factor structure of this four-item measure and differentiate it from psychological aggression items, we ran an exploratory factor analysis (EFA) using Subsample 1 and CFA of two nested measurement models using Subsample 2. Using principal axis factoring and varimax rotation for the EFA showed that the four aggression items clearly loaded on a factor different from the four social burden items. Factor loadings of all items ranged from .65 to .87. The two underlying factors (psychological aggression and social burden) accounted for 63% of the items' variance, with respective eigenvalues of 2.56 and 2.10.

For the CFA, we tested the fit of (1) a one-factor model in which all aforementioned eight items were specified to load on one general factor and (2) a two-factor model in which the aggression and burden items loaded separate factors. A χ^2 difference test suggested that the two-factor model fit our data significantly better than the one-factor model ($\chi^2 = 200.31$, $df = 1$, $p < .01$). The one-factor model did not demonstrate adequate fit (root mean square error of approximation (RMSEA) =.20; standardized root mean square residual (SRMR) =.13; comparative fit index (CFI) =.82; Tucker-Lewis Index (TLI) =.73; $\chi^2 = 227.89$; $df = 19$; $\chi^2/df = 11.99$), whereas the two-factor model did (RMSEA =.04; SRMR =.04; CFI =.99; TLI =.99; $\chi^2 = 27.58$; $df = 18$; $\chi^2/df = 1.53$), with item factor loadings between .62–.86 for social burden and above .57 for psychological aggression.

In addition, from a separate pilot sample, we found evidence for social burden's discriminant validity from

[1]Details about the between-sample differences can be obtained from the first author.

Table I. Means, standard deviations and zero-order correlations (Study 1)

Variables	Mean	*SD*	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Hospital ID	N/A	N/A	N/A													
2. Gender	0.93	0.25	.00	N/A												
3. Age	43.63	10.87	−.14*	−.05	N/A											
4. Tenure	16.73	11.90	−.18**	.12*	.79**	N/A										
5. Hours/week	36.63	9.08	−.06	−.02	.05	.08	N/A									
6. Interest	2.96	1.17	−.05	.06	.04	−.03	−.03	N/A								
7. Psych. aggression	2.32	1.09	.01	−.00	.08	−.02	.07	.09	(.87)							
8. Social burden	2.08	0.88	−.19**	−.06	−.01	−.03	.06	.24**	.45**	(.86)						
9. Anxiety	1.72	0.82	.00	−.07	−.06	−.10	−.13*	.12	.17**	.32**	(.81)					
10. Irritation	2.40	0.89	−.15*	.03	.03	.02	.12	.05	.27**	.44**	.39**	(.92)				
11. Depressive mood	1.57	0.61	.04	−.02	.06	.04	−.12	.05	.18**	.32**	.53**	.43**	(.78)			
12. Phys. symptoms	1.79	0.55	.03	.05	.05	−.00	−.04	.18**	.26**	.44**	.51**	.39**	.56**	(.83)		
13. Job satisfaction	4.89	1.18	−.15*	−.02	.02	.07	.03	.05	−.16**	−.21**	−.18**	−.19**	−.31**	−.28**	(.83)	
14. Turnover intent	3.05	1.64	.09	−.06	−.02	−.05	−.03	.00	.18**	.22**	.23**	.29**	.26**	.31**	−.57**	(.90)

Analyses are based on Subsample 3 ($n = 273$). Values on the diagonal are Cronbach's alpha coefficients. For gender, males were coded as 0 and females were coded as 1. Hours/week: weekly work hours; Interest: interest in the research topic; Psych. aggression: psychological aggression; Phys. symptoms: physical symptoms; Turnover intent: turnover intentions.
*$p < .05$; **$p < .01$.

incivility. Specifically, an independent sample[2] of 172 full-time university employees (faculty and administrative staff) from two US universities participated in a one-time survey about their experiences of social burden and incivility from colleagues at work. We measured incivility with the shortened eight-item version of Penney and Spector's (2005) incivility scale ($\alpha = .94$). Both EFA and CFA results suggest that the four social burden items clearly loaded on a separate factor from the eight incivility items. In EFA, the loadings of all 12 items on their respective factor ranged from .59 to .97; the two underlying factors (social burden and incivility) accounted for 64.7% of the items' total variance (eigenvalue = 5.02 and 2.74, respectively). In CFA, a two-factor model (social burden and incivility as two factors) fit our data significantly better than a one-factor model with all 12 items loaded on a general factor ($\chi^2 = 79.82$, $df = 1$, $p < .01$). Specifically, the one-factor model did not have adequate fit (RMSEA = .12; SRMR = .07; CFI = .92; TLI = .89; $\chi^2 = 177.03$; $df = 49$; $\chi^2/df = 3.61$), whereas the two-factor model did (RMSEA = .08; SRMR = .04; CFI = .97; TLI = .96; $\chi^2 = 97.21$; $df = 48$; $\chi^2/df = 2.03$), with item factor loadings between .60 and .87 for social burden and above .78 for incivility.

Anxiety and irritation

We assessed anxiety and irritation experienced over the prior month using two 3-item subscales from the Emotional Strain Scale (Caplan, Cobb, French, Van Harrison, & Pinneau, 1980). Response choices ranged from 1 (*Never or a little*) to 4 (*Most of the time*). Example items were 'I have felt nervous' (anxiety) and 'I have gotten angry' (irritation).

Depressive mood

We assessed depressive mood experienced over the prior week using the validated five-item short version of the Epidemiological Studies Depression Scale (Bohannon, Maljanian, & Goethe, 2003). Response choices ranged from 1 [*Rarely or none of the time (less than 1 day)*] to 4 [*Most or all of the time (5–7 days)*]. An example item was 'I feel lonely.'

Physical symptoms

A 13-item short version of the Physical Symptoms Inventory (Spector & Jex, 1998) was used to measure physical symptoms experienced during the prior month. For each symptom, response choices ranged from 1 (*Less than once per month or never*) to 5 (*Several times per day*). An example item was 'An upset stomach or nausea.'

Job satisfaction

We assessed this construct with the three-item subscale from the Michigan Organizational Assessment Questionnaire (Cammann, Fichman, Jenkins, & Klesh, 1979). Response choices ranged from 1 (*Strongly Disagree*) to 6 (*Strongly Agree*). An example item was 'All in all, I am satisfied with my job.'

Turnover intentions

We assessed this construct with a three-item scale that was adapted from the two-item subscale by Cammann and colleagues (1979) (Yang, Spector, & Che, 2008). Response choices ranged from 1 (*Strongly disagree*) to 6 (*Strongly agree*). An example item was 'Recently, I often think of changing the current job.'

[2]More details about this sample can be provided by the first author.

Interest in the research topic

We assessed this variable using a single item: 'How much are you interested in this research topic (occupational health and safety)?' Response choices ranged from 1 (*Not at all*) to 5 (*To a great extent*). We included it as a covariate because interest may serve as a mechanism underlying survey response bias (Rogelberg & Stanton, 2007).

Results and discussion

Research Question 1: Social burden as differentiable from aggression and incivility

Regarding Research Question 1, the EFA and CFA results described earlier indicate that social burden can be differentiated from psychological aggression (the nurse sample) and incivility (the university employee sample). Further, all social burden items clearly loaded on a common underlying factor. Thus, we use overall social burden scores when testing hypotheses.

Hypothesis 1: Social burden in relation to well-being and job attitudes

In Table I, we present descriptive statistics and zero-order correlations among all focal variables from Subsample 3. All hypotheses were tested for statistical significance using two-tailed tests ($\alpha = .05$). Social burden and psychological aggression were significantly related to all employee outcome variables in the expected directions. Among all demographic variables (e.g. age and job tenure), only organization ID for the two organizations, weekly work hours and interest in the research topic were significantly associated with some focal variables, which is consistent with prior literature, such as the relevance of weekly work hours with employee well-being and job attitudes (e.g. Ng & Feldman, 2008; Yang et al., 2012). Therefore, in the regression analyses testing Hypothesis 1, we controlled for only those three employee background variables.

We conducted hierarchical linear regression analyses to examine whether social burden predicted employees' emotional strains (anxiety, irritation and depressive mood), physical symptoms and job attitudes (job satisfaction and turnover intentions). As shown in Table II, social burden significantly predicted all six employee outcomes, over and above relevant control variables. The incremental R^2 in predicting those outcomes, as attributed to social burden, varied from .04 for job satisfaction and turnover intentions to .17 for irritation.[3]

[3]We also ran a supplementary regression analysis with psychological aggression controlled. Results show that social burden significantly predicted all presumed outcomes over and above psychological aggression. Specifically, the incremental R^2 in predicting those outcomes, as attributed to social burden, varied from .02 (for job satisfaction or turnover intentions) to .11 (for irritation).

It is important to note that the pattern of results from the regression analyses remained the same before and after controlling for background variables (Spector & Brannick, 2011). Further, we ran a series of hierarchical linear models (HLM; Raudenbush & Bryk, 2002) to address potential data nesting issues across different nursing units/specialties (e.g. medical-surgical versus emergency) and two different organizations.[4] In the HLM models, we found that social burden's relations with employee outcomes yielded a similar pattern of results (i.e. at a similar level of statistical significance). In summary, Study 1 results suggest that employees who experienced frequent incidents of social burden reported higher emotional strains (anxiety, irritation and depressive mood), more physical symptoms and worse job attitudes (lower job satisfaction and stronger turnover intentions). Thus, Hypothesis 1 received full support for these six outcomes.

Study 1, however, is not without limitations—notably, the cross-sectional design, single-source measurement and lack of behavioural outcomes. To address these limitations, Study 2 used a prospective design, multi-source measurement and added a behavioural outcome. Further, SB-supervisor was measured separately from SB-coworker in Study 2 and thus has the potential to extend the findings from Study 1.

Study 2

Method

Participants and procedure

Study 2 participants were faculty and administrative staff from two US universities in two states. To test Hypotheses 2 and 3, we administered two surveys to randomly selected employees, with an approximate 6-month interval. We chose this time interval because this length should be adequate for the manifestation of social burden effects (a chronic social stressor) yet not so long as to lead to significant participant attrition or to introduce too many confounding factors (Ployhart & Vandenberg, 2010). Indeed, past literature suggests that a 6-month interval is among the most commonly used intervals in organizational stress research (e.g. Zapf, Dormann, & Frese, 1996).

The employees received a self-report survey and a coworker survey at Time 1, and only a self-report survey at Time 2. To link the Time 1 self-report and coworker surveys, focal employees wrote a self-created, unique code on both surveys before handing the coworker survey to a coworker with whom they interacted regularly. To match Time 1 and 2 surveys, the focal employee also responded to a few factual questions unique to each individual (e.g. name of their high school). All participants used self-addressed

[4]Details about results from the HLM analyses can be obtained from the first author.

Table II. Regression models examining the effects of social burden on presumed outcomes (Study 1)[a]

	Hypothesis 1											
Predictors	Anxiety		Irritation		Depressive mood		Physical symptoms		Job satisfaction		Turnover intentions	
Step 1												
Hospital ID	.10	[−.09, .29]	−.15	[−.36, .05]	.10	[−.04, .24]	.12	[.00, .25]	−.45**	[−.74, −.17]	.47*	[.06, .88]
Hours/week	−.01*	[−.02, −.00]	.01	[−.00, .02]	−.00*	[−.02, .00]	−.00	[−.01, .00]	.01	[−.01, .02]	−.01	[−.03, .02]
Interest	.04	[−.04, .13]	−.04	[−.13, 05]	−.02	[−.08, .05]	.05	[−.00, .10]	.07	[−.06, .19]	−.04	[−.23, .14]
F	2.57		3.59*		1.40		3.38*		2.41		1.10	
R^2	.03		.04*		.02		.04*		.03		.01	
Step 2												
Social burden	.23**	[.11, .35]	.46**	[.33, .58]	.19**	[.10, .28]	.21**	[.13, .29]	−.30**	[−.48, −.12]	.42**	[.16, .67]
ΔF	14.73**		50.73**		17.21**		28.99**		10.81**		10.32*	
ΔR^2	.06**		.17**		.07**		.11**		.04*		.04*	

Analyses are based on Subsample 3 ($n = 242$), and all values in the table are unstandardized regression coefficients from the full regression models with all four predictors. Values in brackets indicate 95% confidence intervals. Hours/week: weekly work hours; Interest: interest in the research topic.
[a]The results of the regression models were very similar to those reported in this table when all participants ($N = 830$) were used for the analyses, in that the significance of social burden coefficients remained the same across all models.
*$p < .05$; **$p < .01$.

envelopes to return surveys via campus mail and received the same type of incentive (a decorative knot worth of $1).

Across surveys at the two time points, 1587 randomly selected employees across both study sites received our survey packages, whereas delivery failed for 163 additional survey packages because of invalid addresses. In total, 383 versus 175 out of 1587 contacted employees returned their self-report surveys at Time 1 versus Time 2, resulting in a response rate of 24% versus 11%, respectively. Such a drop in the response rate from Time 1 to Time 2 is not atypical in the literature (Ployhart & Vandenberg, 2010). We were able to match 105 Time 1–Time 2 self-report surveys, which we used to test Hypotheses 2 and 3 in predicting all dependent variables except CWBI. CWBI was assessed at Time 1 via a coworker-report survey. Among the 383 Time 1 participants, the coworkers of 160 participants returned a survey. Accordingly, analyses related to coworker-reported CWBI had a sample size of 160. Those who returned both self-report surveys were 79% female, had an average job tenure of 7.2 years ($SD = 6.8$) and worked an average of 43.1 h per week ($SD = 7.8$). The 160 Time 1 participants with matched coworker surveys were 61% female, had an average tenure of 9.9 years ($SD = 8.9$) and worked an average of 40.7 h per week ($SD = 11.9$).

Measures

Social burden, CWBI (coworker-reported), demographic and interest-in-the-research-topic variables were measured at Time 1. Emotional strains and job attitudes were measured at Time 2. All measures had alphas at .70 or higher (Table III).

SB-supervisor and SB-coworker

We measured these variables by adapting the four-item social burden measure from Study 1 to reference the supervisor versus coworker.

Anxiety

We measured anxiety with nine items from Spielberger and Reheiser's (2003) state anxiety scale. Participants indicated how they felt over the prior 30 days using response choices ranging from 1 (*Not at all*) to 4 (*Very much*). An example item was 'I have felt nervous.'

Turnover intentions

We assessed this construct with Spector, Dwyer, and Jex's (1988) single item: 'How often have you been seriously considering quitting?' Response choices ranged from 1 (*Never*) to 5 (*Extremely often*). As suggested in prior literature (Wanous & Hudy, 2001), a one-item measure can be adequate for psychological constructs of a non-complex nature.

Counterproductive work behaviour towards individuals

We measured CWBI with Bennett and Robinson's (2000) seven-item scale. Response choices ranged from 1 (*Never*) to 7 (*Daily*). An example item was 'Made fun of someone at work.'

Other variables

We assessed irritation, job satisfaction and interest in the research topic with the same scales used in Study 1.

Results and discussion

To address the potential concern that only a portion of our total respondents were used for the hypothesis testing (particularly, 105 out of 383 Time 1 self-reports),

Table III. Means, standard deviations and zero-order correlations (Study 2)

Variables	Mean	*SD*	1	2	3	4	5	6	7	8	9	10	11	12	13
1. University ID	N/A	N/A	N/A												
2. Job category (T1)	N/A	N/A	−.01	N/A											
3. Gender (T1)	0.79	0.41	.01	−.06	N/A										
4. Tenure (T1)	7.22	6.80	.14	.21*	−.07	N/A									
5. Hours/week (T1)	43.14	7.76	−.24*	.39**	−.16	.08	N/A								
6. Interest (T1)	2.89	0.99	.25**	−.08	−.04	−.15	−.14	N/A							
7. SB-supervisor (T1)	1.70	0.70	−.14	−.16	−.13	−.13	.03	.02	(.87)						
8. SB-coworker (T1)	1.89	0.80	−.05	−.33**	−.12	−.16	.03	.15	.65**	(.89)					
9. CWBI-coworker report (T1)	1.43	0.62	.02	−.14	−.02	.01	−.11	−.04	.19*	.13	(.71)				
10. Anxiety (T2)	2.04	0.54	−.06	−.09	−.06	−.28**	.21	.05	.19*	.24*	–	(.86)			
11. Irritation (T2)	1.86	0.53	.09	−.20	−.06	−.18	.05	.21*	.21*	.29**	–	.47**	(.84)		
12. Job satisfaction (T2)	5.01	1.19	.19	−.02	.08	.09	.02	−.17	−.27**	−.15	–	−.17	−.33**	(.93)	
13. Turnover intentions (T2)	2.33	1.16	−.34**	−.12	−.12	−.21*	.06	.19*	.29**	.21*	–	.26**	.16	−.64**	N/A

Values on the diagonal are Cronbach's alpha coefficients. T1: variables measured at Time 1; T2: variables measured at Time 2; Hours/week: weekly work hours; Interest: interest in the research topic; SB-supervisor: social burden from supervisor; SB-coworker: social burden from coworkers; CWBI: counterproductive work behaviour towards individuals. $N = 160$ for all correlations related to CWBI; $N = 105$ for the other correlations. For gender, male was coded as 0 and female was coded as 1; for job category, administrative staff was coded as 0 and faculty was coded as 1.
$^{*}p < .05$; $^{**}p < .01$.

we examined potential non-response biases through an approach identified by Rogelberg and Stanton (2007). We found little evidence for differences in all variables between the matched self-report sample ($N = 105$) and the unmatched self-report sample ($N = 278$).[5]

Based on the data of the participants who completed both Time 1 and Time 2 self-report surveys ($N = 105$) and the data from their coworkers at Time 1 ($N = 160$), descriptive statistics and zero-order correlation coefficients among all focal variables are presented in Table III. All hypotheses were tested for statistical significance using two-tailed tests with $\alpha = .05$. For SB-supervisor, zero-order correlations supported Hypothesis 1, as SB-supervisor at Time 1 was significantly related to all employee outcome variables in the expected direction at Time 2, as well as CWBI at Time 1. For SB-coworker, however, zero-order correlations provided only partial support for Hypothesis 1, as SB-coworker at Time 1 was significantly related to anxiety, irritation and turnover intentions at Time 2. These differential findings with respect to SB-supervisor and SB-coworker justified our subsequent tests of Hypotheses 2 and 3. Employees' gender and weekly work hours were not related to the study focal variables, including social burden and presumed outcomes. The other employee background variables (e.g. university ID, job category and age), however, were significantly related to some of the focal variables.

[5]Details about these analyses related to potential non-response biases can be obtained from the first author.

Hypotheses 2 and 3: Social burden in relation to well-being, job attitudes and counterproductive work behaviour towards individuals

We tested the implications of social burden for employee well-being and attitudinal outcomes with prospective regression models (i.e. Time 1 social burden and Time 2 outcomes), and we tested the implications of social burden for CWBIs using a cross-sectional model (i.e. Time 1 social burden and Time 1 CWBIs). For both types of models, we ran a two-step hierarchical regression analyses for each employee outcome variable. In each analysis, we first added control variables (organization ID for the two universities, job tenure and interest in the research topic) measured at Time 1. Secondly, we added Time 1 social burden scores.

As shown in Table IV, Time 1 SB-supervisor was not predictive of Time 1 coworker-reported CWBIs. Time 1 SB-supervisor significantly predicted Time 2 job satisfaction and turnover intentions, over and above the variance accounted for by SB-coworker. On the other hand, after accounting for variance explained by SB-supervisor scores, Time 1 SB-coworker significantly predicted irritation at Time 2 but did not significantly predict anxiety at Time 2. Over and above the three control variables, the incremental R^2s explained by both SB-supervisor and SB-coworker were significant for the two emotional strains and two job attitudes (ranging from .05 to .10), but were not significant for CWB (incremental $R^2 = .04$)

Further, re-running the hierarchical regression models with job category as an additional control produced similar results. That is, all incremental predictive validity (ΔR^2), as attributed to SB-supervisor

Table IV. Regression models examining the effects of social burden from supervisors and coworkers on presumed outcomes (Study 2)

	Hypotheses 2 and 3									
	Anxiety (T2)		Irritation (T2)		Job satisfaction (T2)		Turnover intentions (T2)		CWBI-coworker report (T1)	
Predictors	*B*	RW (%$_{RW}$)	*B*	RW (%$_{RW}$)	*B*	RW (%$_{RW}$)	*B*	RW (%$_{RW}$)	*B*	RW (%$_{RW}$)
Step 1										
University ID (T1)	−.02	.00 (2%)	.07	.00 (2%)	.50*	.04 (27%)	−.83**	.12 (47%)	.02	.00 (0%)
	[−.23, .19]		[−.12, .27]		[.03, .97]		[−1.26, −.40]		[−.19, .23]	
Job tenure (T1)	−.02*	.06 (45%)	−.01†	.04 (23%)	−.00	.00 (1%)	−.01	.02 (7%)	.00	.00 (1%)
	[−.03, −.00]		[−.03, .00]		[−.04, .03]		[−.05, .02]		[−.01, .02]	
Interest (T1)	−.04	.00 (2%)	.04	.02 (9%)	−.27*	.04 (24%)	.30**	.05 (19%)	−.04	.00 (8%)
	[−.15, .06]		[−.06, .14]		[−.52, −.03]		[.08, .52]		[−.15, .07]	
F	2.70**		2.51†		2.99*		8.16**		0.08	
R^2	.08**		.07†		.08*		.20**		.00	
Step 2										
SB-supervisor (T1)	.04	.02 (17%)	.07	.04 (22%)	−.48*	.06 (41%)	.38*	.05 (21%)	.16†	.03 (70%)
	[−.14, .23]		[−.11, .24]		[−.90, −.07]		[.00, .76]		[−.03, .35]	
SB-coworker (T1)	.13†	.05 (34%)	.16*	.08 (44%)	.11	.01 (7%)	−.02	.02 (6%)	.02	.01 (20%)
	[−.03, .30]		[.01, .31]		[−.26, .48]		[−.36, .32]		[−.16, .21]	
ΔF	3.35*		5.74**		3.23*		3.05*		2.52†	
ΔR^2	.06*		.10**		.06*		.05*		.04†	

All values in the table are from the full regression models with all five predictors ($N = 160$ for the model predicting CWBI, $N = 105$ for the other models). Values in brackets indicate 95% confidence intervals. Interest: interest in the research topic; SB-supervisor: social burden from supervisor; SB-coworker: social burden from coworkers; CWBI: counterproductive work behaviours towards individuals; RW: raw relative weight; %$_{RW}$: percentage of raw relative weight in relation to overall R^2. We used 10,000 bootstrap replications for each relative-weight analysis.
$^{\dagger}p \leq .10$; *$p < .05$; **$p < .01$.

or SB-coworker, remained at a similar level of significance in all models.

Although the relations between SB-coworker and SB-supervisor with anxiety and CWBI, respectively, were nonsignificant in our regression models, these relations did approach statistical significance ($p \leq .10$). Given the modest sample sizes for these regression models ($N = 105$ and $N = 160$, respectively) and Cohen's (1994) emphasis on interpreting effect sizes over traditional statistical significance represented by *p*-values, we further tested Hypotheses 2 and 3 using relative-weight analyses.

To determine the relative contribution of SB-supervisor and SB-coworker in relation to each of the focal outcomes, we ran univariate relative-weight analyses using Tonidandel and LeBreton's (2011) R program script. Relative-weight analyses address issues of collinearity between predictors in multiple regression models through orthogonal transformation of predictors (LeBreton, Ployhart, & Ladd, 2004). In Table IV, we report the raw relative weights of predictors for a given outcome (which sum to the overall model R^2), as well as the percentage of each relative weight in relation to the overall model R^2. In support of Hypothesis 2, SB-supervisor contributed 41%, 21% and 70% of the total model R^2 for job satisfaction, turnover intentions and CWBI (respectively), whereas SB-coworker contributed only 7%, 6% and 20%. In support of Hypothesis 3, SB-coworker contributed 34% and 44% of the total model R^2 for anxiety and irritation (respectively), whereas SB-supervisor contributed only 17% and 22%.

Based on the combined evidence from multiple regression and relative-weight analyses, we found full support for Hypotheses 2 and 3. The effect sizes for both types of analyses (regression coefficients and R^2 accounted for) indicate that SB-supervisor predicted job satisfaction, turnover intentions and CWBI more strongly than SB-coworker, and SB-coworker predicted anxiety and irritation more strongly than SB-supervisor.

General discussion

This paper examined a new relational construct, social burden, and its implications for employee well-being, job attitudes and CWB. Two studies based on employees from two types of industries offer the following contributions. Firstly, social burden is conceptually different from high-intensity, overt negative social relations (workplace aggression) and low-intensity negative social relations (workplace incivility). Secondly, social burden may be stressful for employees, as more frequent social burden experiences are linked to higher emotional strains (i.e. anxiety, irritation and depression), more physical symptoms, worse job attitudes (i.e. job dissatisfaction and turnover intentions)

and more frequent CWBIs. Thirdly, SB-supervisor predicts burdenees' subsequent work-related outcomes (i.e. job satisfaction, turnover intentions and CWBIs) more so than does SB-coworker, whereas SB-coworker predicts burdenees' subsequent irritation and anxiety more so than SB-supervisor.

Social burden as part of informal social interactions and social support processes

Consistent with the growing literature examining the nuanced processes of social support (e.g. Beehr et al., 2010; Mueller & Kamdar, 2011), social burden as a new relational construct captures workplace behaviours that elicit others' support from the perspective of the potential support provider (i.e. burdenee). We found evidence for social burden's distinction from workplace aggression and incivility. Our findings also indicate that there may be a draining effect of social burden in terms of compromising burdenees' well-being and job attitudes, and to some extent accounting for their more frequent CWBIs.

The social burden construct affords a more nuanced understanding of workplace relationships that could help to clarify inconsistencies in the social support literature pertaining to the impact of support on the stressor–strain relations—that is, social support does not always serve as a buffer (e.g. Beehr et al., 2010; Mueller & Kamdar, 2011; Viswesvaran, Sanchez, & Fisher, 1999). Specifically, it is possible that employees may perceive high social support (as support recipients) *and* social burden (as burdenees) from the same colleagues; the draining effects of co-occurring social burden experiences could weaken or even offset the buffering effect of received social support. Additionally, examining the social burden process could further our understanding of the social support dynamics from the potential support provider's perspective. For example, Marcelissen, Winnubst, Buunk, and de Wolff (1988) found that the provision of social support to coworkers decreased under conditions of employee stress. Our finding suggests that employees exposed to social burden may exhibit fewer supportive behaviours over time as a result of their own decreased well-being. Future research tracking social burden and support-provision behaviours would be useful to understand trajectories of behaviours contributing to workplace climate and the effects of social support processes.

It would also be fruitful for future research to investigate whether burdenees tend to receive support from burdeners. As reciprocity underlies social exchanges at work (Gouldner, 1960), it would be fruitful to examine if social burden incidents become less draining or stressful when burdenees also receive support from burdeners or have high-quality relationships with them. For example, dyadic-level study designs can be used to measure social burden incidents, as well as the quality of burdenee–burdener relationship (e.g. to be reported by both parties). By doing so, we can examine the potential buffering effect of dyadic relationship quality on the relations between social burden and burdenees' strains. Additionally, we can examine how repeated occurrences of social burden incidents could negatively influence both the burdenee and the burdener as they engage in excessive discussions of workplace problems during those incidents (e.g. co-rumination; Haggard, Robert, & Rose, 2011).

Social burden and well-being, job attitudes and counterproductive work behaviour towards individuals: The different effects of SB-supervisor and SB-coworker

As explained by the JD-R model, social burden from colleagues can be taxing to burdenees. In other words, social burden represents a type of interpersonal demand that may consume burdenees' emotional, physical and attentional resources. Study 1 supported the relations between social burden and employee physical and emotional strains, and job attitudes, whereas Study 2 supported the links of SB-supervisor and/or SB-coworker with subsequent employee emotional strains, and job attitudes, and with concurrent CWBI. Our findings on relations of social burden with strains and CWBI are consistent with prior literature on the effects of personal resource depletion on burnout and deviant behaviours (e.g. Bakker, Demerouti, & Euwema, 2005; Balducci et al., 2011; Christian & Ellis, 2011).

More importantly, Study 2 results supported the distinguishability of SB-supervisor from SB-coworker. Supporting Hypotheses 2 and 3, evidence from Study 2 suggested that SB-supervisor and SB-coworker show a different pattern of relations with burdenees' outcomes. Specifically, SB-supervisor predicted burdenees' CWBI and subsequent job satisfaction and turnover intentions, more strongly than did SB-coworker. It is likely that SB-supervisor elicited both informal and formal role expectations for burdenees. The informal role expectations (i.e. 'being a good colleague') directed burdenees' attention to helping the supervisor's needs beyond their formal job requirements. Meanwhile, the formal behavioural expectations as prescribed by the subordinate role (while the supervisor is present) may have also triggered burdenees' evaluation anxiety (Leitenberg, 1990) and increased perceived pressure for completion of essential tasks. These coexisting sets of role expectations may have functioned as a form of role ambiguity (Kahn, Wolfe, Quinn, Snoek, & Rosenthal, 1964), making SB-supervisor particularly stressful for burdenees. Burdenees' increased job dissatisfaction, thoughts of quitting and CWBIs may partially result from self-regulatory resources being diverted from behaviour monitoring towards coping with stress from SB-supervisor (e.g. Baumeister & Vohs, 2007).

Another reason SB-supervisor is more predictive of job attitudes and behaviours lies in the nature of organizational structure. Whereas employees tend to have

only one supervisor, they often have multiple coworkers. Those experiencing burden from a particular coworker may shift relational ties to others who are less burdensome instead of developing negative job attitudes or committing CWBIs. As such, SB-coworker can be a more escapable form of social burden. Therefore, as compared with SB-coworker, the more stable and inescapable nature of SB-supervisor plays a greater role in shaping job attitudes and eliciting counterproductive behaviours; CWBI can be one way of coping with SB-supervisor that burdenees have little control of (Spector, 1998).

Conversely, SB-coworker predicted burdenees' subsequent irritation and anxiety, more strongly than did SB-supervisor. That is, expectations tied to SB-coworker generally align with those derived from the formal coworker role, but continuous exposure to SB-coworker may leave burdenees feeling helpless and thus compromise their emotional well-being. Burdenees may feel emotionally drained by SB-coworker for two reasons: Firstly, they are concerned about the need to support peer burdeners in a helpful way while simultaneously accomplishing work-related tasks (which may or may not need the same peers' cooperation); secondly, they are concerned with hurting their relationships with and experiencing rejections from these peers if they do not pay them enough attention. More studies, however, are needed to uncover the potentially different mechanisms underlying the relations between different sources of social burden and a broader range of burdenee outcomes.

Potential limitations and future research directions

Firstly, neither of our studies included relevant personal variables about burdenees, such as neuroticism or relational identity as tied to different relational partners. For example, burdenee neuroticism might exacerbate the social burden–outcome relations because individuals higher on this personality trait might be more reactive to social burden. Conceivably, the salience of burdenees' relational identity, as tied to a certain partner, such as a supervisor or coworker (Johnson, Chang, & Yang, 2010), may account for how they appraise or react to social burden from that partner. Secondly, neither of our studies included relevant contextual variables, such as organizational or group norms about providing support for colleagues (e.g. Ehrhart & Naumann, 2004). Possibly, organizational or group norms encouraging support for colleagues could weaken the social burden–negative outcome relations, as social burden behaviours may be perceived as typical and easy to handle. Future research could extend our understandings of social burden and broader social support processes by including those potential personal or contextual moderators. Additionally, future research could also approach this phenomenon from a social network perspective in order to investigate the strength, size and quality of individuals' coworker ties in relation to their experiences of social burden. As a preliminary step, we suggest future research to treat the number of coworkers within individuals' immediate social network as a covariate.

Thirdly, Study 2 was based on a relatively small sample. Although our supplementary analyses did not detect consistent or substantial non-response biases, the size of the matched sample limited the statistical power of our focal analyses. Nonetheless, using both multiple regression and relative weight regression analyses, we found support for Hypotheses 2 and 3 in that SB-coworker predicted emotional strains more strongly than did SB-supervisor, while SB-supervisor predicted job attitudes and CWBIs more strongly than did SB-coworker. Future longitudinal studies on the consequences of social burden should incorporate larger samples to further refine the differential relations of SB-supervisor versus SB-coworker with emotional strains, job attitudes, counterproductive behaviours, and other employee or organizational outcomes.

Fourthly, although our samples comprised employees working in two different industries, our study findings may not generalize to other kinds of employees. For example, the positions of most—but not all—of the employees in our samples require college degrees, and the majority of our participants was female. Additional research is warranted to determine the degree to which our findings generalize to other employee groups, such as those with lower education levels.

Finally, in Study 2 we used only two time points with a 6-month interval, which limited our capability to test potential mediational mechanisms underlying the social burden–outcome relations, such as the resource depletion process. We recognize that the interval length may not be ideal for capturing the effects of the social burden phenomenon. Future research should identify the most appropriate time interval for this phenomenon by comparing different time-lag models, and also use three or more time points (Cole & Maxwell, 2003; Zapf et al., 1996). Future studies could also use qualitative methods to understand the dynamic processes of social burden incidents and the perspectives of both burdenees and burdeners; for example, a separate sample of full-time employees from various industries may serve as SMEs for an interview-question-based or open-ended-question-based qualitative study, which could cross-validate results from the qualitative study reported in our paper and further delineate the possible pathways via which social burden influences both burdenees and burdeners. Such qualitative approaches may incorporate longitudinal study designs (e.g. experience sampling; Beal & Weiss, 2003) that use more optimal time intervals between multiple measurement time points.

Conclusions

Our study findings suggest that social burden from colleagues is associated with several presumed outcomes, including decreased emotional and physical well-being and worsened job attitudes. When employees experience social burden from both supervisors and coworkers, the former source appears to be more responsible for employees' worsened job attitudes and more frequent CWBIs, whereas the latter source is more responsible for employees' increased emotional strains. We believe the construct of social burden, which captures the unique perspective of potential social support providers, helps to increase the understanding of social support dynamics and further enriches the literature on positive and negative social relationships.

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