The work-to-home crossover of leadership role occupancy: Examining how leadership role occupancy influences spouses' sleep loss and obesity

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Abstract

Drawing on resource-based theories of self-regulation and the spillover–crossover model, we investigated not only how leadership role occupancy may affect job occupants' obesity but also how its influences may cross over to shape their spouses' obesity. Adopting a programmatic approach with three panel datasets from the US, the UK, and Australia, we found that leadership role occupancy was positively related to job demands, which in turn was positively related to job occupants' loss of sleep and obesity. Moreover, the spillover–crossover influences of job demands were also revealed: incumbents' job demands were also positively associated with spouses' loss of sleep and obesity. Our research enriches the leadership research by offering a new spillover–crossover perspective to the consequences of leadership role occupancy, and contributes to work–family research by highlighting the importance of holding a leadership position as an antecedent of the crossover effect of job demands on health outcomes.

Keywords: leadership role occupancy, self-regulation, job demands, sleep hours, job occupants' and spouses' obesity

The Work-to-Home Crossover of Leadership Role Occupancy: Examining How Leadership Role Occupancy Influences Spouses' Sleep Loss and Obesity

Obesity affects many leaders worldwide and is a significant cause of serious diseases, increased healthcare costs (Allison et al., 1999; (Henderson et al., 2021; Tomiyama, 2019), and reduced productivity (Goettler et al., 2017). Evidence shows that more than 56% of leaders were overweight (BMI ≥25 kg/m^2) and 24% were obese (BMI ≥30 kg/m^2) in the United States (US) from 2013 to 2014, and more than 55.5% of leaders were overweight and 23% were obese in Australia in 2019, according to nationally representative data such as from Midlife in the US (MIDUS) and Household, Income and Labour Dynamics in Australia (HILDA).

Being a leader can be challenging as it entails more demands (Li et al., 2018), requiring more motivation and influencing others who may not be directly under one's control. Often, new leaders take on additional responsibilities, such as working longer hours and more intensely, which can result in reduced resources and poor sleep quality. These demands can lead to unhealthy eating habits, less exercise, and difficulty disconnecting from work. As a result, tired and stressed leaders may turn to unhealthy coping mechanisms, such as unhealthy eating and reduced exercise, which can contribute to obesity and further deplete their capacity for self-regulation.

In turn, leader obesity has been found to be detrimental to leader effectiveness (Decker, 1987; King et al., 2016; Re et al., 2012; Re & Perrett, 2014; Roehling et al., 2014; Roehling et al., 2009) and associated with perceived leader incompetence (Henderson et al., 2021). Despite leadership roles making people prone to obesity and compounding negative effects of obesity on perceptions of leadership effectiveness, how and why leadership role occupancy leads to leader obesity is understudied (e.g., Henderson et al., 2021). Understanding this issue will equip leaders to improve their health and enhance their

perceived leadership competence. Therefore, this paper aims to understand when, how, and why leadership role occupancy leads to leader obesity.

We first use resource-based theories of self-regulation as an overarching framework to explain our model. Self-regulation is one's ability to regulate and control self by systematically directing one's thoughts and behaviors toward achieving a goal (Zimmerman, 2000). However, achieving goals has trade-off and requires resources. Resource-based theories of self-regulation emphasize that human beings have a limited number of cognitive resources for regulating their behaviors. This means when people run out of the resources, they may not be able to control themselves properly, which may contribute to self-regulatory failures (e.g., Baumeister, 1998; R. E. Johnson et al., 2018; Kanfer & Ackerman, 1989). That is, the resource-based theories of self-regulation indicate that self-regulation, in all forms, relies on one limited energy source (Baumeister, 1998). Moreover, engaging in self-regulation may consume one's resources, which in turn may further impair subsequent attempts at self-control.

In the current study, we acknowledge leadership role occupancy is a ferocious consumer of resources as it may frequently involve cognitively and conceptually challenging tasks, such as strategic thinking, the stress of managing budgets, and interfacing with challenging stakeholders/clients, all of which consume and deplete limited resources. Applying resource-based theories of self-regulation to our research, leaders take on tasks and functions, such as improving followers' performance, by exerting different behaviors. Thus, across different situations, leaders self-regulate themselves in order to manage employees. Such management and leadership behaviors require and consume psychological resources.

Therefore, building on resource-based theories of self-regulation (Baumeister, 1998; Muraven et al., 1998), we first theorize that leadership role occupancy entails more demands (Li et al., 2018), and thus may deplete resources to regulate sleep. We focus on the

mechanism of leaders' loss of sleep because it affects many people and is a frequent lament of leaders (Barnes et al., 2015; Barnes et al., 2020; Miller et al., 2011). For example, empirical evidence demonstrated that 40.5% of managers experience short sleep durations of less than 6 hours a day (Luckhaupt et al., 2010). Moreover, leaders' loss of sleep could lead to undesirable self-regulatory outcomes (e.g., low self-control; Barnes, 2012; Barnes et al., 2015). Loss of sleep may reduce one's ability to regulate healthy eating and exercising behavior, which in turn can lead to obesity. Taken together, we theorize that leadership role occupancy may increase work demands and so promote obesity via the mechanism of decreased sleep hours.

In addition, the spillover–crossover model (SCM) (Bakker & Demerouti, 2013) specifies that there are two key processes through which one experience can influence another. The first is "spillover," a within-person process in which experiences in one domain (e.g., work) spill over to another domain (e.g., family; Bolger et al., 1989). The second is "crossover," which refers to interindividual transmission of a person's experience in one domain to influence another person (Wang et al., 2019; Westman, 2001).

Building on resource-based theories of self-regulation and the SCM, we argue that leaders' job demands at work will decrease their self-regulation capacity to sleep well, and such loss of sleep will cross over to decrease their spouses' sleep hours, which in turn decreases their spouses' self-regulatory resources to help them to avoid obesity (see Figure 1). We test our model across three panel datasets from the US, the UK, and Australia.

We make a number of important theoretical contributions. First, our paper contributes to broad leadership research. Obesity is common for leaders (Burgard & Sonnega, 2018). Yet, to date leadership research has mainly focused on how organizations can benefit from leadership, with very little knowledge on the costs incurred in being a leader, especially the association with obesity (e.g., Bresnahan et al, 2016; Henderson et al., 2021). By

understanding how leadership role occupancy could lead to obesity, we inform leaders of this potential cause of obesity, which in turn may ultimately help them to maintain not only well-being but also enhance perceived leadership competence. Second, by investigating the interpersonal effects of leadership role occupancy at work on spouses' outcomes at home, the study adds to the ongoing investigations on the spillover–crossover effects of the leadership experience (e.g., Lin et al., 2021). Third, by using resource-based theories of self-regulation (Baumeister, 1998; Muraven et al., 1998; Muraven & Baumeister, 2000) and the SCM (Bakker & Demerouti, 2013) to understand the effects of leadership role occupancy on leaders' and spouses' obesity, we elucidate a novel physiological mechanism—leaders' decreased sleep hours—through which leadership role occupancy influences not only leaders' but also spouses' outcomes. Finally, regarding the research method, our study demonstrates unique methodological strengths. By using a programmatic research approach, we test our theory with multiple large datasets from several nations, including the US, the UK, and Australia, to foster generalizability. In sum, our programmatic approach with multisource data provides a solid foundation for understanding how leadership role occupancy leads to heavier job demands, which may increase the obesity of both job incumbents and their spouses via the mechanism of sleep deprivation.

Theory and Hypotheses

Leadership Role Occupancy, Job Demands, Sleep Loss, and Obesity

Leadership role occupancy refers to the situation when "individuals attain a leadership role in work settings formally and informally" (Arvey et al., 2007, p. 696). It could be conceptualized and measured by whether one holds a supervisory position or has supervisory responsibilities operationally (Arvey et al., 2007; Li et al., 2020; Sherman et al., 2012). Leaders (as compared to employees) may need to make decisions under greater uncertainty (Carmeli et al., 2011), regulate followers' emotions, and generate strategies to improve

followers' performance (Wei et al., 2018). Leadership role occupancy results in increased job demands that surpass the challenges posed by employees, for example, the demands of peer leaders, superiors, or more cognitively and conceptually challenging tasks such as strategic thinking, the stress of managing budgets, or interfacing with challenging stakeholders/clients. Thus, leadership role occupancy increases job demands:

Hypothesis 1. Leadership role occupancy is positively associated with job demands.

We use resource-based theories of self-regulation to inform the development of our model. Originated and extended from self-regulation theory, which explains how people control their behavior, thoughts, and emotions, resource-based theories of self-regulation specifically emphasize resources as the key fuel for one to regulate behavior. In other words, resource-based theories of self-regulation assume that self-regulation is dependent upon a pool of psychological resources (Baumeister, 1998; Muraven et al., 1998; Muraven & Baumeister, 2000). A key insight is that the resources involved in self-regulating behavior are limited (Baumeister, 1998; Muraven et al., 1998; Muraven & Baumeister, 2000), and different activities require and drain resources. Once an individual's resources are drained, he or she may not be able to exert self-control to regulate their behavior effectively (Baumeister & Heatherton, 1996).

Sleep is one of the most important human functions to maintain the self-regulatory system (Barnes & Hollenbeck, 2009; Jennings et al., 2003). It is one of the most pivotal physiological recovery mechanisms, helping people heal from stress and recover from deprivation.

Self-regulation theory (Baumeister, 1998; Muraven & Baumeister, 2000) argues that one's self-control resources are limited (Christian & Ellis, 2011). Increased job demands positively related to poor sleep quality (Hülsheger et al., 2018) and low relaxation (Molino et al., 2015). According to the resource-based theories of self-regulation, we argue that repeated

or prolonged exposure to stressful work conditions with leadership role occupancy may disrupt the homeostatic balance between sympathetic and parasympathetic activity (i.e., allostatic load). Thus, leaders' resources and capacity to regulate their internal physiological and associated behavioral controls are impaired. In this case, leaders who experience high job demands may report frequent sleeping problems and poor recovery experiences (e.g., high emotional exhaustion and presenteeism). Therefore, leadership role occupancy increases job demands and drains peoples' resources, leaving them mentally fatigued or depleted. Such depletion disrupts sleep function and decreases sleep hours:

Hypothesis 2. Job demands is negatively associated with sleep hours.

Sleep is central to integrative conceptual frameworks of self-regulation (Hagger, 2010). According to neurophysiological research, a lack of sleep impairs function of the brain regions (i.e., prefrontal cortex and amygdala) that are used to maintain and choose healthy life patterns purposely (Banks et al., 2007; Beauregard et al., 2001). Healthy behaviors (e.g., eating healthily) require self-regulatory resources. Mentally, in the absence of a good night's sleep, one's brain is less capable of self-regulating, being weaker in the control and initiation of healthy behaviors. Moreover, physiologically, decreased sleep will decrease glucose metabolism (i.e., fuel for the brain and self-regulation; Hagger, 2010), which in turn further impedes the prefrontal cortex's function (Dahl & Lewin, 2002; Pilcher & Huffcutt, 1996). Thus, when the prefrontal cortex weakens (i.e., self-regulatory resource depletion), self-regulatory behavioral control is impeded. Sleep deprivation impedes brain execution and depletes self-regulatory resources to maintain health (Cappuccio et al., 2008). In line with such neuropsychological reasoning, a meta-analysis (Cappuccio & Miller, 2010) has demonstrated that a lack of sleep (i.e., 5 hours of sleep or less) can cause a higher risk of being obese. Moreover, for every additional sleep hour at night, the BMI is expected to

decrease 0.35 kg/m^2. This means that decreased sleep hours increase the likelihood of obesity:

Hypothesis 3. Sleep hours is negatively related to obesity.

Job Incumbents' Sleep and Spouses' Obesity (Crossover)

Going to sleep and waking up together has been identified as a phenomenon that occurs with intimate partners (Gunn et al., 2015; Gunn et al., 2017; Gunn et al., 2021; Richter et al., 2016). According to the SCM, crossover can be direct or indirect (Booth-LeDoux et al., 2020). Direct crossover is a psychological response in which one individual's psychological status (e.g., stress) directly influences the spouse's psychological status (e.g., spouse stress) (Booth-LeDoux et al., 2020). Leaders, working longer hours, are more alert and spend less time in bed, which may be compounded by the need to complete home chores and stresses carried over from the workplace to the bedroom. Not only stressed leaders themselves but also their spouses may be restless in bed, meaning that their spouses are more likely to wake up (as opposed to non-leaders' spouses). Indirect crossover of individual experiences happens as a function of social interaction between family members, and might be caused by family members' common stress (Booth-LeDoux et al., 2020). From an *indirect* perspective, the stress and demands of a leadership role can sometimes lead to a lack of patience and more stressful interactions, creating a higher conflict environment at home. This can disrupt the quality of home experiences and negatively affect the sleep quality of the leader's partner. Loss of sleep, in turn, may lead to obesity, which has been well established. Taken together, we argue:

Hypothesis 4. Leaders' sleep loss will increase spouses' sleep loss, which in turn increase spouses' obesity.

Job Incumbents' Job Demands, Sleep, and Spouses' Obesity (Crossover)

Taking resource-based theories of self-regulation and the SCM together, we further argue that increased job demands of leaders at the work domain will *spill over* to influence their outcomes (i.e., sleep) at another domain (e.g., home domain). Moreover, such decreased sleep in the home domain will *cross over* to influence partners' sleep in the home domain.

A person who takes a leadership role may feel increased job demands. The increased job demands of leaders will lead to less sleep hours (*spillover*), which in turn will influence spouses' sleep hours (*crossover*), which in turn will decrease spouses' self-regulatory resources to help them to avoid obesity (Muraven & Baumeister, 2000):

> *Hypothesis 5.* Leaders' sleep hours and spouses' sleep hours sequentially mediate the positive effect of leaders' job demands on spouses' obesity.

In sum, there are three specific aims of this paper. The first aim is to test the *spillover* pathway (i.e., how leadership role occupancy influences leaders' obesity; H1, H2, and H3). The second aim is to test the *crossover* pathway (i.e., how leaders' sleep loss may cross over to influence spouses' obesity; H4). The third aim is to test the *spillover–crossover* pathway (i.e., how leaders' increased job demands may cross over to influence spouses' obesity; H5). To achieve these aims and test our theoretical framework, we drew on multi-wave data from three large national samples in different locations across the US, the UK and Australia. Study 1 used the MIDUS dataset to test the first aim (H1, H2, and H3). Study 2 used the British Household Panel Survey (BHPS) dataset based on 3,049 UK leaders to test the second aim (H4). Study 3 used the HILDA dataset based on 2,327 Australian leaders to test the third aim (H4 and H5).

Methodology

Study 1

Sample and Procedures

Study 1 aims to test H1, H2, and H3. We obtained the data sample for Study 1 from MIDUS. MIDUS is a longitudinal interdisciplinary national dataset with three waves collected by the US from 1995. We used variables in wave 2, in which all the study variables were measured.

Measures

Leadership Role Occupancy. Following precedents (Day et al., 2004; Li et al., 2011), we used the item "Are you in a supervisory position?" (1 = *yes*, 0 = *no*) to measure leadership role occupancy.

Job Role Demands were assessed by one item, "Too many demands at job." Responses were scored on a 5-point Likert scale (1 = *never* to 5 = *all of the time*).

Sleep was measured by one item, "Hours of sleep on workdays."

Obesity. BMI, which is calculated as Weight (kg) / Height $(m)^2$, is a negative health indictor. The higher the BMI, the more obese the individual.

Control Variables. Consistent with prior literature in occupational health psychology (Johnson & Allen, 2013), we controlled for age, gender, education, and household income. We controlled for age because it is associated with health (Lakatta, 2002). We controlled for gender because it is associated with sleep (Tsai & Li, 2004). We controlled for gender also because gender could be related to leadership role occupancy. Researchers speculated on the possibility that individuals of different genders may exhibit varying preferences when it comes to taking on leadership opportunities (Aycan & Shelia, 2019). For example, women could leadership roles primarily because of their worries about failing in the leadership roles (Aycan & Shelia, 2019). Moreover, gender has been found to be an important factor on

socioeconomic inequality in obesity (Zhang & Wang, 2004) and wellbeing (Carmel, 2019). In addition, research has found that education is related to individuals' health-related outcomes (Eide & Showalter, 2011); therefore, we controlled for the highest level of education leaders have achieved. We also controlled for household income. Household income refers to the sum of nonlabor and labor incomes from household members, including both husbands and wives, which is expected to be correlated with health (Murasko, 2008).

Study 2

Sample and Procedures

Study 2 aimed to test H4, and used data from the BHPS. The BHPS is a nationally representative annual survey collected from 1991 in the UK. The BHPS measured all variables at every wave, except for weight and height, which were only measured in 2004 and 2006. We used all the variables in 2004 because the sample size was bigger than in 2006.

To test H4, we filtered out non-leaders and kept leaders. Each respondent was matched to his or her spouse's data. We excluded data with no sleep or BMI details.

Measures

Leaders' Loss of Sleep was measured by one item, "Whether you lost much sleep over worry" (1 = *not at all* to 4 = *much more than usual*), from the self-reported General Health Questionnaire (GHQ) for each individual and spouse.

Spouses' Loss of Sleep was measured by one item, "Whether you lost much sleep over worry" (1 = *not at all* to 4 = *much more than usual*), from the self-reported GHQ for each participant. We used spouse ID to match the individual and spouse in BHPS.

Spouse Obesity was measured objectively by computing BMI.

Control Variables. Consistent with Study 1, we controlled for age, gender, education, and household income.

Study 3

Sample and Procedures

Study 3 aimed to test H4 and H5 by using the data matching leader–spouse dyads spanning 2 years from HILDA, which is a unique household survey that collects multiple years of information on family, financial, demographic, and public obesity information for a general population in Australia. A nationally representative sample over the age of 15 was recruited over time to be interviewed across 17 years in HILDA. The HILDA survey has been studied in domains such as applied psychology, management, and public obesity (DeVoe & Pfeffer, 2011; Norman et al., 2013; Wu et al., 2020).

To test H4 and H5, we filtered out non-leaders, retaining leaders only. Each respondent was matched to his or her spouse's data. We excluded participants with no sleep or BMI data. Out of 23,182 respondents, 2,332 met our inclusion criteria and were included. We excluded 5 respondents who were older than 69, which resulted in 2,327 respondents. In our sample, individuals ranged in age from 18 to 69 (M = 39.58, SD = 10.71), and 49.7% were male.

In HILDA, leadership role occupancy, job demands, and obesity were assessed at each wave, but hours of sleep on workdays was only measured in 2013 and 2017. To address causality and to rule out confounding between variables, job demands at time 1 (i.e., 2012), and hours of sleep on workdays and obesity at time 2 (i.e., 2013) were used. It is appropriate to adopt a 1-year time lag to capture the relationship between job demands and sleep. Past studies have adopted a medium time frame (months to a few years) to examine the long-term impact of workplace experiences (Morrison et al., 2005; Parker et al., 2021).

Measures

Leaders' Job Demands. Following Li et al. (2020), we measured job demands at time 1 (i.e., 2012) by using three items, "I have to work fast in my job," "I have to work very

intensely in my job," and "I don't have enough time to do everything in my job" (Cronbach's α = .72), originating from the Job Content Questionnaire (Karasek, 1979) on a 7-point scale ranging from 1 (*strongly disagree*) to 7 (*strongly* agree; Ganster & Rosen, 2013; Lovelace et al., 2007; Sonnentag & Frese, 2012).

Leaders' Hours of Sleep on Workdays was measured at time 2 (i.e., 2013) by the question, "How many hours of actual sleep do you usually get on a workday night (currently employed)?"

Spouses' Hours of Sleep on Workdays was measured at time 2 (i.e., 2013) by the question, "How many hours of actual sleep do you usually get on a workday night (currently employed)?" We matched leaders' and spouses' loss of sleep by matching the ID.

Spouses' Obesity was measured objectively by computing the BMI for each individual and spouse at time 2 (i.e., 2013).

Control Variables. Consistent with Studies 1 and 2, we controlled for age, gender, education, and household income. In addition, we controlled for BMI at time 1. We did not control for sleep at time 1 because it was not measured at time 1.

Results

Study 1

The means, standard deviations, and correlations among study variables are reported in Table1.

[Insert Table 1 about here]

We used model 6 in the PROCESS macro (bootstrapping with 5,000 sub-samples at 95% confidence interval) in SPSS (Hayes, 2017) to test our serial mediation model. H1 proposed that leadership role occupancy is positively associated with job demands. H1 was supported as we found that leadership role occupancy was positively related to job demands (β = .33, *SE* = .04, $p < .01$). H2 proposed that job demands is negatively associated with sleep

hours. H2 was supported as we found that job demands was negatively related to job occupants' sleep hours (β = .11, *SE* = .02, *p* < .01). H3 proposed that sleep hours are negatively related to obesity. H3 was supported as we found that sleep hours was negatively related to obesity (β = −.22, *SE* = .11, *p* < .05). The indirect effect of leadership role occupancy on job occupants' obesity via job demands and sleep was significant (β = .0091, *SE* = .0046, 95% CI [−.0194, −.0017]). In sum, Hypotheses 1, 2, and 3 were supported in Study 1.

However, Study 1 was cross-sectional, and did not examine how leadership role occupancy influenced spouses. Therefore, we aimed to test how leadership role occupancy influenced spouses in Studies 2 and 3.

Study 2

Means, standard deviations, and correlations of study variables are shown in Table 2.

[Insert Table 2 about here]

H4 proposed that leaders' sleep loss will increase spouses' sleep loss, which in turn increases spouses' obesity. We used model 4 in the PROCESS macro (bootstrapping with 5,000 sub-samples at 95% confidence interval) to test our serial mediation model. H4 was supported as leaders' sleep loss was positively related to spouses' sleep loss (β = .12, *SE* = .06, *p* < .05), spouses' sleep loss was positively related to spouses' obesity (β = 1.03, *SE* = .47, *p* < .05), and the indirect effect of leaders' sleep loss on spouses' obesity via spouses' sleep loss was significant (β = .13, *SE* =.08, 95% CI [.0015, .3215]). In sum, supporting H4, Study 2 showed that leaders' sleep loss was positively related to spouses' sleep loss, which in turn led to spouses' obesity.

Study 3

Means, standard deviations, and correlations of study variables are shown in Table 3.

[Insert Table 3 about here]

We used the PROCESS macro (model 6) (bootstrapping with 5,000 sub-samples at 95% confidence interval) (Hayes, 2017) in SPSS to test our serial mediation model. H4 proposed that leaders' sleep loss will increase spouses' sleep loss, which in turn increases spouses' obesity. H4 was supported as leaders' sleep hours was positively related to spouses' sleep hours ($\beta = .19$, $SE = .02$, $p < .01$) and spouses' sleep hours was negatively related to obesity ($\beta = -.37$, $SE = .12$, $p < .01$); in addition, the mediated indirect effect of the three-step mediation chain (i.e., leaders' sleep hours → spouses' sleep hours → spouses' obesity) was supported ($\beta = .0889$, $SE = .0184$, 95% CI [−.1275, −.0558]).

H5 proposed that leaders' sleep hours and spouses' sleep hours sequentially mediate the positive effect of leaders' job demands on spouses' obesity. H5 was supported as leaders' job demands was negatively related to leaders' sleep hours ($\beta = -.07$, $SE = .02$, $p < .05$), leaders' sleep hours was positively related to spouses' sleep hours ($\beta = .19$, $SE = .02$, $p < .01$), and spouses' sleep hours was negatively related to obesity ($\beta = -.37$, $SE = .12$, $p < .01$). Moreover, the mediated indirect effect of the four-step mediation chain (i.e., leaders' job demand → leaders' sleep hours → spouses' sleep hours → spouses' obesity) was supported ($\beta = .0005$, $SE = .0026$, 95% CI [.0010, .0111]).

Discussion

In this paper, we theorized and tested how leadership role occupancy influences job occupants and spouses via the sequential mechanisms of increased job demands and loss of sleep. The results from three multinational, multisource studies across the US, the UK, and Australia demonstrated that leadership role occupancy was associated with increased job demands, which in turn was associated with increased job occupants' and spouses' loss of sleep and obesity.

Theoretical Implications

The current research extends the very limited but growing body of research on leadership role occupancy. We make a number of important theoretical contributions. First, this paper contributes to the literature on the well-being consequences of leadership role occupancy and the scholarship on leadership role occupancy and health (Li et al., 2018; Li et al., 2020). Drawing upon resource-based theories of self-regulation (Baumeister, 1998), this paper furnishes the first causal estimate of the physical consequences of leadership role occupancy. In particular, we found that leadership role occupancy results in more demands, and thus decreased sleep and increased obesity.

Moreover, we contribute to leadership role occupancy literature by offering a new spillover–crossover perspective. Most leadership literature focuses on leaders and followers (Siangchokyoo et al., 2020), with relatively little attention on other people around them. Moreover, to date most leadership role occupancy literature centers around leaders (Li et al., 2020). This is one of the first studies to shift the focus of leadership role occupancy research beyond leader outcomes (Li et al., 2018) and examine spouse consequences. We argue that taking a leadership role will not only increase leaders'—but also spouses'—obesity. The present study is the first to directly investigate how leadership role occupancy influences spouses' well-being. Although spouses' well-being undoubtedly has many influencing factors, our findings suggest that partners' leadership role occupancy is an important predictor. In doing so, we also contribute to the crossover research (e.g., Bakker & Xanthopoulou, 2009; Carlson et al., 2019; Li et al., 2021; Thompson et al., 2021; Yang et al., 2018).

Furthermore, extending prior research (Li et al., 2020), we contribute to the literature by explaining how spillover effects of leadership role occupancy cross over to spouses. Drawing on the theoretical mechanisms of resource depletion (Muraven & Baumeister,

2000), our study demonstrates one possible mechanism; specifically, leaders' sleep loss leads to self-regulatory resources depletion, which in turn results in failures to control weight. Moreover, our study demonstrates that leaders' sleep loss can cross over to influence spouses' sleep loss, which in turn increases spouses' obesity. In other words, we highlight the mechanisms underlying how leadership role occupancy can disruptively cross over to influence spouses. Moreover, we enrich the leader sleep literature (Barling & Cloutier, 2017; Guarana & Barnes, 2017) by showing that a lack of sleep of leaders may not only influence follower performance at work but also cross over to influence nonwork interpersonal outcomes, such as spouses' sleep and obesity.

Empirically, we were able to test our model by using three sets of multisource data (MIDUS, BHPS, and HILDA), with both objective and subjective job demands and objective obesity indictors. Both Study 2 and Study 3 employed multisource (i.e., leader–spouse dyad) designs. Specifically, Study 3 supported our full model with multi-wave and multisource data matching leaders and their spouses from HILDA. Collectively, we use multisource and multi-wave data to address causality and offer a strong theoretical building.

Practical Implications

Our research has clear implications for practice. We suggest that to remain competitive, organizations should support their leaders' well-being. Obese leaders are often perceived as less competitive. To avoid being perceived as less capable by their employees, leaders should not only reduce their own sleep deprivation but also maintain fitness. Such efforts will benefit not only their own leadership functioning but also their organizational effectiveness. To help leaders to maintain sleep quality, it is important for organizations to remind leaders to restrict smartphone use and caffeine consumption at night (Barnes & Spreitzer, 2015; Lanaj et al., 2014; Welsh et al., 2014). In addition, organizations can facilitate email etiquette, encouraging employees to send emails during working hours in the

daytime and avoid late-night emails, to minimize leaders' blue light exposure in the evening. Organizations could also promote an exercise climate for leaders, encouraging them to partake in exercise, which may aid sleep.

Although most literature highlights the need for leaders to help employees (e.g., Antonakis et al., 2017; Liu et al., 2020), our research found that individuals taking a leadership role may influence their spouses' health. In addition to paying attention to employees, leaders should also consider their spouses. Moreover, leaders should be aware that how they behave as a leader might have an impact on spousal health. Specifically, we found that leaders' loss of sleep may influence spouses' obesity by decreasing spouses' sleeping hours. Working couples must recognize that the quality of sleep could be intertwined with their partners' work experiences. Thus, if individuals have a better or worse experience in their leadership role, they may sleep longer or shorter at night, respectively, and correspondingly influence their spouses' sleep in a more positive or negative way. We suggest that leaders should be mindful that their sleep may influence their spouses' sleep and health. Leaders could invite their spouses to take part in healthy activities such as exercise together so that the couple can sleep better together. Moreover, leaders should live in the moment. When lying in bed with their spouse at night, a leader should endeavor to enjoy the moment, appreciating the rest, sleeping, and intimate time (Leavitt et al., 2019), instead of bringing work to bed (e.g., talking and complaining about work to their spouse).

In addition, leaders should be aware of their own weight and BMI. Being a leader can be stressful, which might result in unhealthy behaviors such as emotional eating and drinking. Leaders should be mindful about their energy intake, engage in regular physical exercise, and consume a healthy diet. Moreover, we suggest that leaders should be conscious of their physical appearance (i.e., BMI) and weigh themselves regularly.

Limitations and Future Directions

Our paper represents one of the first efforts to explore how leadership role occupancy leads to not only leaders' but also spouses' obesity via the physiological mechanism of loss of sleep. Our results offer several future directions. However, as with any study, our paper is not without limitations. The primary limitation is basing our measurements on archival data, which offers less precision. For example, for sleeping hours, we only know how many hours individuals slept; we do not know their sleep disruption patterns or how frequently they may wake up at night. Moreover, sleep was not measured in every wave in Study 3. Seeking to address this, we recommend that scholars adopt an experience sampling method in the future. Experience sampling data at multiple time points within one day can offer insight into how work affects health. In addition, future research could measure sleep using more high-tech and electronic measures, such as a smart bracelet.

Conclusion

Leadership is critical to organizational effectiveness, yet serving as leader comes at a cost to not only job occupants but also their spouses. Building on resource-based theories of self-regulation and the SCM, our results from three different panel datasets show that leadership role occupancy increases job demands. Leaders' increased job demands may decrease sleep hours and their likelihood of obesity. In turn, employing and testing a novel boundary work–family crossover perspective, in a multinational set of studies, we show how leadership role occupancy affects not only leaders' but also their spouses' sleep and propensity toward obesity.

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Table 1

Study 1: Descriptive Statistics and Correlations

Variable	*M*	*SD*	1	2	3	4	5	6	7
1. Gender	1.53	.50							
2. Age	51.38	13.00	.00						
3. Education	6.77	2.49	−.11**	−.10**					
4. Household income	73,379.62	64,880.62	−.12**	−.08**	.32**				
5. Leadership role occupancy	1.56	.50	.14**	.10**	−.15**	−.12**			
6. Job demands	3.28	.92	.03	.23**	−.06**	−.01	.21**		
7. Sleep hours	6.86	1.22	.02	.10**	.04**	.03*	.01	.08**	
8. BMI	27.91	5.78	−.06**	−.03	−.12**	−.06**	−.01	−.03	−.08**

Note. Gender was coded as 1 = male, 2 = female. Leadership role occupancy was coded as 1 = taking the leadership position, 0 = not taking the leadership position (i.e., taking the employee position). Job demands was coded as 1 = never have too many job demands to 5 = have too many job demands all the time.

*$p < .05$. **$p < .01$.

Table 2

Study 2: Descriptive Statistics and Correlations

Variable	*M*	*SD*	1	2	3	4	5	6
1. Gender	1.59	.49						
2. Age	45.81	9.72	−.07*					
3. Education	5.10	2.93	.01	.19**				
4. Household income	4,296.37	2,250.19	.01	−.05	−.26**			
5. Leader loss of sleep	1.90	.73	−.11**	−.02	−.02	.01		
6. Spouse loss of sleep	1.90	.74	.12**	.01	.03	−.01	.12**	
7. Spouse BMI	32.22	6.24	−.13**	.03	.08**	−.04	.06	.07*

Note. Gender was coded as 1 = male, 2 = female. Education was coded as 1 = higher degree, 2 = first degree, 3 = teaching qualification, 4 = other higher qualification, 5 = nursing qualification, 6 = GCE A level, 7 = GCE O level or equiv, 8 = commercial qualification, no O level, 9 = CSE grade 2–5, Scot grade, 10 = apprenticeship, 11 = other qualification, 12 = no qualification. Loss of sleep was coded as 1 = not at all to 4 = much more than usual.

*$p < .05$. **$p < .01$.

Table 3

Study 3: Descriptive Statistics and Correlations

Variable	*M*	*SD*	1	2	3	4	5	6	7	8
1. Gender	1.51	.50								
2. Age	36.60	22.82	.03**							
3. Education level	5.93	2.68	.03**	−.02**						
4. Household income	8.55	2.97	−.05**	−.22**	−.30**					
5. Spouse BMI at time 1	26.62	5.53	−.04**	.16**	.04**	−.06**				
6. Leader job demands at time 1	4.65	1.31	.02	−.04**	−.18**	.13**	.00			
7. Leader sleep hours at time 2	6.95	1.20	.06**	−.13**	.00	.03**	−.14**	−.08**		
8. Spouse sleep hours at time 2	6.95	1.20	−.07**	−.05**	−.07**	.01	−.05**	−.01	.16**	
9. Spouse BMI at time 2	26.56	5.69	−.06**	.21**	.02*	−.07**	.92**	.01	−.13**	−.06**

Note. Gender was coded as 1 = male, 2 = female. Highest education level was coded as 1 = postgrad—masters or doctorate, 2 = grad diploma, grad certificate, 3 = bachelor or honors, 4 = adv diploma, diploma, 5 = cert III or IV, 8 = year 12, 9 = year 11 and below. Household income was coded as 1 = negative or zero income, 2 = $1–$189 per week, 3 = $190–$379 per week, 4 = $380–$579 per week, 5 = $580–$769 per week, 6 = $770–$959 per week, 7 = $960–$1,149 per week, 8 = $1,150–$1,529 per week, 9 = $1,530–$1,919 per week, 10 = $1,920–$2,399 per week, 11 = $2,400–$2,879 per week, 12 = $2,880–$3,839 per week, 13 = $3,840 or more per week.

*$p < .05$. **$p < .01$.

Figure 1

Theoretical Model