How Can We Cope with Self-Control Demands and Enhance Proactive Vitality Management? The Role of Leisure Crafting and Supervisor Recreational Sports Support

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Abstract

Studies have reported negative effects of self-control demands on the service-oriented physical and mental well-being of employees. Based on the stressor-detachment model and conservation of resources theory, the present study examined how and when the interplay between leisure crafting and perceived supervisor recreational sports support can lead self-control demands employees to exhibit proactive vitality management. A total of 212 employees completed surveys at three time points over six months. The results indicated that leisure crafting mediated the relationship between employees' self-control demands and proactive vitality management. Perceived supervisor recreational sports support was shown to strengthen the relationship between leisure crafting and proactive vitality management. Furthermore, we demonstrated a moderated mediation model in which self-control demands, under employees’ perceived supervisor recreational sports support, did not motivate employees to engage in additional leisure crafting; rather, these demands enhanced employees’ leisure resources, which in turn promoted their proactive vitality management.

Keywords stressor-detachment model · conservation of resources theory · work stress · leisure resources · supervisory non-work support

1 Introduction

In the sports and leisure service industry, employees need to contact customers to meet their demands and fulfill managers’ expectations regarding their work tasks (Ni et al., 2021). According to Schmidt & Neubach (2007), service-oriented employees are increasingly exposed to self-control demands at work, and these demands cause them to consume their limited self-control resources. Previous studies have found that self-control demands exist at work and that they require employees to exert self-control to adapt to highly dynamic work environments, increasing the adverse consequences that employees face (Diestel &
Schmidt, 2011; Schmidt & Diestel, 2015; Schmidt et al., 2012; Schmidt & Neubach, 2007). For example, Schmidt & Diestel (2015) indicated that employees affected by many self-control demands manifest high levels of psychological strain, burnout, depressive symptoms, and absenteeism. In addition, recent research on occupational health psychology has demonstrated that self-control demands constitute a major stressor at work for employees (Rivkin et al., 2018). Coping with work stress is closely related to employees’ physical and mental well-being and their potential work performance. Given the increasing complexity and continuously changing work environment of the sports and leisure service industry, understanding how to enable employees to successfully cope with work stress and enhance their physical and mental energy to promote optimal functioning at work are important issues.

We build on research on a stressor-detachment model (Sonnentag & Fritz, 2015) to examine the coping mechanisms that can help employees with high self-control demands can detach from work stress and engage in proactive vitality management at work. According to the stressor-detachment model, a lack of detachment may eventually result in adverse effects and reduced levels of well-being (Schulz et al., 2019). That is, psychological detachment plays an important role in the stressor–strain process. Previous studies indicated the benefits of psychological detachment (Rivkin et al., 2015), but little is known about what approach can enable employees to detach from work and motivate them to function well at work. Leisure crafting is conceptualized as “the proactive pursuit of leisure activities targeted at goal setting, human connection, learning, and personal development” (Petrou & Bakker, 2015). It could enable employees to disengage themselves psychologically from work when away from the workplace. When employees are involved in a stressor-coping process that incorporates leisure crafting, they might experience mastery and a passion to engage in proactive vitality management at work, which involves “individual, goal-oriented behavior aimed at managing physical and mental energy to promote optimal functioning at work” (Op den Kamp et al., 2018). Previous studies revealed those employees whom proactively manage their own, volatile energetic, affective, and cognitive resources would improve their well-being and performance (Bakker et al., 2020; Op den Kamp et al., 2018). Adapting this perspective, we propose that employees who experience high self-control demands are likely to engage in high level of leisure crafting to detach from work stress and utilize their physical and mental energy to apply proactive vitality management to their work.

We further propose that the coping mechanism from self-control demands, via leisure crafting, to proactive vitality management at work can be strengthened when employees have supervisors’ support. Because supervisor play a key role in shaping employees’ work lives, supervisors’ support for employees can be a social resource for employees to regulate their work attitudes and behaviors (Farh & Cheng, 2000; Pellegrini & Scandura, 2008; Wu et al., 2014). Specifically, perceived supervisor recreational sports support has been identified as non-work social support provided by supervisors (Wu et al., 2014). This support can encourage employees to craft their leisure activities and give them resources to engage in recreational sports activities when they are under self-control demands. Additionally, supervisor recreational sports support helps employees enjoy their leisure activities without worrying about distracting their attention from work, which can increase their physical and mental energy and improve their optimal functioning at work. We thus propose that perceived supervisor recreational sports support can facilitate employees to use leisure crafting
as an approach to cope with self-control demands and intensify the positive function of leisure crafting in facilitating proactive vitality management.

This research contributes to the literature in three ways. First, we expand our understanding of how employees might cope with self-control demands to manage stress and enhance energy at work. Our study highlights that leisure crafting acts as a mechanism to help employees cope with self-control demands to transition from an adverse stressful state to proactive vitality to manage work. Second, by identifying the moderation effect of perceived supervisor recreational sports support, our study suggests that supervisory non-work support is an important social resource for employees to manage self-control demands. Third, our study advances the current understanding of leisure and organization literature by identifying the function of leisure crafting to provide organizations with practical suggestions to support employees in recovering from work.

1.1 Self-Control Demands at Work

Previous studies have indicated that the rise of the service sector has made self-control demands an integral part of employees’ work roles (Kim et al., 2019; Rivkin et al., 2015; Schmidt et al., 2016; Schmidt & Diestel, 2012). That is, to effectively anticipate and fulfill customers’ needs, service-oriented employees have to engage in self-control to change the ways that they spontaneously think, feel, or behave (Schmidt & Neubach, 2007). In this way, they are able to follow their companies’ rules, create specific impressions, or concentrate on complex tasks without experiencing distraction. Schmidt & Neubach (2007) conceptualized self-control demands as demands that jobs impose on individuals’ self-control abilities, which include three characteristics: impulse control, resisting distractions and overcoming task resistance. This means that employees in work settings might have to exercise self-control to inhibit spontaneous, impulsive response tendencies and the associated affective states, ignore or resist distractions stemming from task-irrelevant stimuli, or overcome motivational deficits that result from unappealing tasks.

Multiple studies have demonstrated the adverse effects of self-control demands not only on individuals’ well-being but also on productivity (Diestel & Schmidt, 2010, 2012; Gombert et al., 2020; Schmidt & Diestel, 2012, 2015). As employees who proactively manage their vitality are more engaged in their work and have greater performance goal orientation (Bakker et al., 2020), understanding how employees can cope with self-control demands to manage stress and exhibit proactive vitality management can provide organizations practical strategies for supporting their employees. However, relatively little research has been conducted on the protection mechanism that enables employees to address self-control demands and enhance their proactive vitality management at work. To fill this gap, the present study focuses on employees in the sports and leisure service industry to explore the strategies that they use to cope with self-control demands and increase their physical and mental energy to apply proactive vitality management to their work.

1.2 The Mediator of Leisure Crafting

A growing number of studies have indicated that employees have to exhibit self-control to follow work-related requirements, such as controlling impulses, resisting distractions, and overcoming task resistance, which deplete their limited regulatory resources (Dies-
Following the stressor-detachment model (Sonnentag & Fritz, 2015), psychological detachment, as a core recovery experience, can reveal the coping mechanisms underlying the stressor–strain process. We thus propose that employees who experience self-control demands tend to engage in leisure crafting to detach themselves from their work domain and fulfill needs that they cannot fulfill in that domain. This is because employees who do not have opportunities to shape their jobs to reflect their needs, passions, and values during work time might seek growth experiences during leisure time to compensate for their unattained personal goals at work (Berg et al., 2010; Petrou & Bakker, 2015; Petrou et al., 2016). Rivkin et al. (2015) demonstrated that psychological detachment can reduce employees’ psychological strain at work and that leisure crafting provides employees with an opportunity to detach from work. In this regard, employees who experience high self-control demands engage in leisure crafting to more flexibly and proactively arrange their leisure activities to fulfill their need for autonomy and obtain feelings of mastery and accomplishment, which relieve the stress that stems from addressing self-control demands. Accordingly, employees who experience high self-control demands engage in leisure crafting to cope with work stressors.

Furthermore, through leisure crafting, employees can engage in goal-setting, human connection, learning, and self-development during leisure time, which not only provides them with the opportunity to escape from the stressor of self-control demands but also enhances their recovery from work. Tsaur et al. (2020) demonstrated that leisure crafting involves proactive, planned pursuits, which may help individuals increase their energy and motivation. This is because individuals are free to choose leisure activities in accordance with their personal goals and pursuits of personal development, thereby enhancing their own motivational resources through the leisure crafting process. Once employees have acquired new energy and developed themselves through leisure crafting, they may be able to more proactively manage their physical and mental energy and thus improve their work. This process is consistent with the perspective of Vogel et al. (2016), namely, that non-work activities play a significant role in employees’ work experiences. Thus, we propose that employees who engage extensively in leisure crafting exhibit a high level of proactive vitality management in their work.

As we note above, employees with higher self-control demands engage in more leisure crafting, and leisure crafters engage in more proactive vitality management in their workplaces. Therefore, we argue that leisure crafting plays a mediating role in the protection mechanism of employees who experience self-control demands at work, enhancing their motivation to manage their physical and mental energy. The following hypothesis is proposed:

H1: Leisure crafting mediates the relationship between employees’ self-control demands and their proactive vitality management.

1.3 The Moderator of Supervisor Recreational Sports Support

Perceived supervisor support refers to employees’ views concerning the degree to which their managers value their contributions and care about their well-being (Eisenberger et al., 2002; Kottke & Sharafinski, 1988). The benefits of perceived supervisor support have been broadly elaborated upon in past studies; however, most of these studies have focused on employees’ perceived supervisor work support rather than perceived supervisor non-
work support (Wu et al., 2014). In this regard, we further examine perceived supervisor non-work support to determine how to assist employees in coping with work stress and enhance their motivation to improve their work. A recent study indicated that an increasing number of organizations are intentionally investing resources to develop their employees’ recreation activities and thereby improve their performance and well-being (Duerden et al., 2018). Because supervisors act as agents of their organizations, they have a responsibility to promote and support their organizations’ policies, and this support represents an additional resource for employees. Perceived supervisor recreational sports support plays an important role in providing employees with nonwork support; thus, we propose that this nonwork support resource would enable them to address self-control demands and engage in more leisure crafting to exhibit increased proactive vitality management at work, respectively.

First, following the conservation of resources perspective (Hobfoll, 1989, 2002; Hobfoll et al., 2018), individuals seek to obtain, retain, and protect their resources when these resources are lost or threatened with loss and when they fail to gain resources after substantive resource investments. A previous study demonstrated that self-control demands cause employees to use their limited psychological resources to respond to needs at work, which might deplete their regulatory resources (Rivkin et al., 2015). However, perceived supervisor recreational sports support might provide employees with additional social support resources to compensate for psychological resources that are depleted at work and satisfy their psychological needs via leisure crafting. Accordingly, such employees are more likely to cope with stress from self-control demands at work successfully. Moreover, perceived supervisor recreational sports support is a leisure resource that encourages employees to detach from the stressor of self-control demands by engaging in leisure crafting. If employees with high self-control demands have additional leisure resources that provide them with leisure opportunities, they might be motivated to respond to work stressors and engage in more leisure crafting. Following these arguments, we posit the following hypothesis:

**H2:** Perceived supervisor recreational sports support strengthens the relationship between employees’ self-control demands and leisure crafting.

Second, we suggest that perceived supervisor recreational sports support provides leisure resources that enable employees who are leisure crafters to engage in leisure and thereby exhibit more proactive vitality management at work. According to Tsaur et al., (2020), leisure crafters need leisure-related support, guidance, and performance feedback from others, as these factors build their social capital related to involvement in leisure activities. That is, perceived supervisor recreational sports support not only provides employees with additional social leisure resources to satisfy their personal needs in sports but also allows employees who may not be interested in sports to have the opportunity to craft their leisure through sports. Thus, such employees are more likely to engage in leisure crafting to pursue personal development and use their leisure experiences to manage their physical and mental energy to improve their optimal functioning at work. In addition, individuals strategically invest resources to protect their current resources and accumulate resources for the future (Hobfoll, 2002). In line with this, when employees perceive supervisor recreational sports support, they not only employ these additional social support resources to craft their leisure activities but also invest in leisure crafting to generate other personal resources such as energy or motivation to manage their work more proactively. That is, perceived supervisor recreational sports support enhances the mechanism from leisure crafting to proactive vitality management at work. Therefore, the following hypothesis is proposed:
H3: Perceived supervisor recreational sports support strengthens the relationship between employees’ leisure crafting and proactive vitality management.

1.4 Moderated Mediation Model

As mentioned above, perceived supervisor recreational sports support not only provides employees with additional social support resources to compensate for spent psychological resources, enabling them to engage in leisure crafting, but also supplies them with leisure resources to invest in leisure activities, allowing them to generate more individual resources and thus demonstrate increased proactive vitality management at work. Therefore, we propose a moderated mediation model in which self-control demands, under employees’ perceived supervisor recreational sports support, motivate employees to engage in additional leisure crafting and improve their leisure resources, which in turn promote their proactive vitality management. To formally examine this moderated mediation effect, we propose the following hypothesis:

H4: Perceived supervisor recreational sports support moderates the mediation effect of leisure crafting on the association between self-control demands and proactive vitality management such that the mediation effect is stronger when perceived supervisor recreational sports support is higher.

As noted above, we postulate that employees with high self-control demands at work cope with this stressor through leisure crafting and exhibit proactive vitality management. Moreover, when employees have high perceived supervisor recreational sports support, the relationship between self-control demands and leisure crafting is strengthened. Perceived supervisor recreational sports support also strengthens the relationship between leisure crafting and proactive vitality management. Finally, our study suggests that self-control demands may be associated with a higher level of leisure crafting and proactive vitality management when employees perceive a higher level of supervisor recreational sports support, which provides them with additional resources to engage in leisure activities. The research model is presented in Fig. 1.

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Fig. 1 The research model

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2 Method

2.1 Participants and Procedures

The data for this study were collected through a larger project supervised by the first author. Neither the analyses nor the findings reported in the present research have been reported in any previous studies. We selected the participants from the public fitness centers, the typical sports and leisure service industry in Taiwan. We focus on the full-time employees in public fitness centers because these employees provide sports and leisure service for customers and are required to make contact with customers and meet their demands. We first contacted the managers of the participants to obtain their approval of the time-lagged design. Our data were collected at three time points. Afterward, the participating employees were invited to voluntarily participate in this study. Each participant read and signed an informed consent form. The utilized questionnaires were enclosed in an envelope and distributed to the employees. After completing the survey, each participant returned the envelope that he or she had been given to the investigators and received an NT$100 gift voucher for each session. Every two months, the researchers informed the participants of the time of the next data collection, which ensured that the participants would receive the survey envelope and would have enough time to complete the follow-up survey.

Two hundred ninety-five sports and leisure service employees were initially recruited. Overall, 212 employees provided complete data for each of the three waves of this study. We conducted Heckman-type correction models with a two-step process (Heckman, 1979) to test whether sample dropout from wave two and wave three influences our results. In the first step, to predict the probability whether each employee in wave one could continuously participate in the wave two and wave three survey, we created a dummy variable (0 = dropout in wave two or three, 1 = completed all three-time surveys) as case selection dependent variable and used the turnover intention (α = 0.85, Wayne et al., 1997) in the selection model to predict dropout. We argue that employees with higher turnover intention have a lower possibility of staying in their current organization and completing the second- and third-wave surveys. In the second step, we incorporated this probability into the estimation model to correct for self-selection. An insignificant Inverse Mills Ratio (coefficient = −0.75, p = .538) was observed, suggesting that our data would not have likely biased the results. Moreover, the results revealed the same pattern as we obtain in our main data analysis, which means that there was no sample selection bias in the current study. The respondents consisted of 103 male employees and 109 female employees with a mean age of 32.86 years (SD = 9.66). In terms of education, fifty employees had a high school diploma or less, 148 employees had a college or university degree, and 14 employees had a graduate degree or higher. Their average tenure in their present sports and leisure service companies was 2.56 years (SD = 3.03), and they worked an average of 8.73 (SD = 1.03) hours per day.

2.2 Measurement

The time-lagged design enabled us to mitigate any common method variance (Brannick et al., 2010) that may have inflated the regression coefficients or explained the variance that we estimated. We collected the employees’ demographic information and self-control demands (independent variable) during Time 1. Data regarding leisure crafting (mediating variable)
and perceived supervisor recreational sports support (moderating variable) were collected during Time 2. The participants were asked to answer questions assessing proactive vitality management (dependent variable) during Time 3.

### 2.2.1 Self-Control Demands

A 15-item job-related self-control demands questionnaire (Schmidt & Diestel, 2015) was used to assess the self-control demands in the work environments of the participants. This questionnaire was composed of three subscales assessing impulse control (e.g., my job requires me never to lose my temper), overcoming resistance (e.g., dealing with unattractive tasks require of me a high amount of willpower), and resisting distractions (e.g., in order to achieve my goals at work, I am not allowed to let myself be distracted). The response scale ranged from 1 (not at all) to 5 (a great deal). Following Diestel & Schmidt (2011), all the item scores were averaged to create an overall measure of job-related self-control demands. In the current study, Cronbach’s α was 0.86.

### 2.2.2 Leisure Crafting

A nine-item leisure crafting scale (Petrou & Bakker, 2015) was used in the current study to assess the employees’ proactive pursuit of leisure activities related to goal setting, human connection, learning, and personal development. This measure contains a single factor, and the scale’s reliability and incremental validity are supported by prior research. A sample item is “I try to build relationships through leisure activities.” The response scale used for all the items ranged from 1 (not at all) to 5 (a great deal). The Cronbach’s alpha for this measure was 0.95.

### 2.2.3 Perceived Supervisor Recreational Sports Support

Perceived supervisor recreational sports support is a kind of perceived supervisory non-work support. Accordingly, we adopted the five-item perceived supervisory non-work support scale developed by Wu et al., (2014) and modified its wording to make it consistent with our study and to use it to assess the perceived supervisor recreational sports support of the examined employees. The validity and reliability of this supervisory non-work support scale are supported by prior research (Wu et al., 2014). A sample item is “Beyond work relations, my supervisor expresses concern about my recreational sports life.” The response scale used for all the items ranged from 1 (strongly disagree) to 6 (strongly agree). The Cronbach’s alpha for this measure in the examined sample was 0.96.

### 2.2.4 Proactive Vitality Management

An eight-item proactive vitality management scale (Op den Kamp et al., 2018) was used in the current study to assess the employees’ ability to proactively manage their physical and mental energy and thus promote their work outcomes in a relatively general and efficient way. This scale’s reliability and incremental validity are supported by prior research (Op den Kamp et al., 2018). A sample item is “I make sure that I feel energetic during my work.”
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The response scale used for all items ranged from 1 (Strongly disagree) to 7 (Strongly agree). The Cronbach’s alpha for this measure in the examined sample was 0.96.

2.2.5 Control Variables

According to Op den Kamp et al., (2018), previous studies have rarely incorporated individual factors that may influence the effectiveness of energy management and recovery. To address this gap and obtain more robust results, we included additional control variables in our data analysis. Gender (1=male and 2=female), education (2=junior high school, 3=senior high school, 4=college or university degree, and 5=graduate degree or higher), age (in years), average tenure in the present service company (in years), and job autonomy (3-item, Cronbach’s alpha=0.89) (Morgeson & Humphrey, 2006) were included as control variables, as these factors may influence employees’ proactive vitality management.

2.3 Data Analysis

In the present study, we employed SPSS 18.0 software to examine descriptive statistics, correlations, and our research hypotheses. A hierarchical regression was performed to test the moderating role of perceived supervisor recreational sports support. Moreover, we conducted a mediation analysis by employing Models 4 of Hayes’s (2013) PROCESS macro to test the mediating role of leisure crafting. Then, we conducted a moderated mediation analysis by employing Models 58 of Hayes’s (2013) PROCESS macro to determine whether the examined indirect path was moderated by perceived supervisor recreational sports support.

3 Results

3.1 Descriptive Statistics

Table 1 presents the means, standard deviations, and correlations of the variables. As shown in the table, self-control demands were positively related to Time 2 leisure crafting ($r = .23$, $p < .05$).
In addition, Time 2 leisure crafting was positively correlated with Time 3 proactive vitality management ($r = .33, p < .01$).

### 3.2 Testing for Mediation

The mediation hypothesis was tested using Hayes’s (2013) PROCESS macro and Model 4 was chosen. According to the recommended process, we estimated a regression equation while controlling for gender, education, age, average tenure and job autonomy. In the first, we regressed the mediator (Time 2 leisure crafting) on the independent variable (Time 1 self-control demands); in the second, we regressed the dependent variable (Time 3 proactive vitality management) on the independent variable (Time 1 self-control demands) and the mediator (Time 2 leisure crafting); and in the third, we calculated mediation effects and bootstrapping to calculate confidence intervals (CIs). Bias-corrected bootstrap CIs based on 5000 bootstrap samples with a 95% confidence level was adopted. The examined mediation effect was significant, because the CI did not include zero.

Table 2 presents the mediated regression results. First, we found that Time 1 self-control demands were positively related to Time 2 leisure crafting ($b = 0.26, p < .01$) when gender,
education, age, average tenure and job autonomy were controlled for. Second, when the
Time 2 leisure crafting was entered as a predictive variable, we found that Time 1 self-con-
trol demands was not significantly related to Time 3 proactive vitality management ($b = 0.09,
ns$) but Time 2 leisure crafting was positively related to Time 3 proactive vitality manage-
ment ($b = 0.42, p < .01$) when gender, education, age, average tenure, job autonomy were
controlled for in the Model. Finally, the results of the mediation effect analysis revealed
that when gender, education, age, average tenure, and job autonomy were controlled for,
the direct effect of Time 1 self-control demands on Time 3 proactive vitality management
was not significant (Direct effect $= 0.09, 95\% \text{ C.I.} = −0.1253 \text{ to } 3122$); however, the indirect
effect from Time 1 self-control demands to Time 3 proactive vitality management via Time
2 leisure crafting was significant (indirect effect $= 0.11, 95\% \text{ C.I.} = 0297 \text{ to } 2087$). These
results demonstrated that Time 2 leisure crafting fully mediated the relationship between
Time 1 self-control demands and Time 3 proactive vitality management. These findings
support Hypothesis 1.

### 3.3 Testing for Moderation

We conducted a series of multiple regression analyses to examine the moderating effect of
Time 2 perceived supervisor recreational sports support. Table 3 presents the results regard-
ing the moderating effect of Time 2 perceived supervisor recreational sports support on the
relationship between Time 1 self-control demands and Time 2 leisure crafting. In Model
1, gender, education, age, average tenure, and job autonomy were utilized as control vari-
ables; none of these variables were significantly related to Time 2 leisure crafting. Model
2 included the main effects of Time 1 self-control demands and Time 2 perceived supervi-
sor recreational sports support. Time 1 self-control demands significantly predicted Time
2 leisure crafting ($b = 0.25, p < .01$), but Time 2 perceived supervisor recreational sports
support did not ($b = −0.02, ns$). Furthermore, an interaction term between Time 1 self-con-
trol demands and Time 2 perceived supervisor recreational sports support was included in
Model 3. This interaction term was not significant ($b = −0.07, ns$), and it explained only an
additional 0.5% of the variance in Time 2 leisure crafting. These results did not support
Hypothesis 2.
In addition, we examined the moderating effect of Time 2 perceived supervisor recreational sports support on the relationship between Time 2 leisure crafting and Time 3 proactive vitality management (see Table 4). In Model 1, gender, education, age, average tenure, and job autonomy were utilized as control variables; only gender ($b = -0.34, p < .01$) and job autonomy ($b = 0.22, p < .01$) were significantly related to Time 3 proactive vitality management. Model 2 included the main effects of Time 2 leisure crafting and Time 2 perceived supervisor recreational sports support. Time 2 leisure crafting significantly predicted Time 3 proactive vitality management ($b = 0.47, p < .01$), but Time 2 perceived supervisor recreational sports support did not ($b = -0.04, \text{ns}$). Furthermore, an interaction term between Time 2 leisure crafting and Time 2 perceived supervisor recreational sports support was included in Model 3. This interaction term was significant ($b = 0.24, p < .01$) and explained an additional 5% of the variance in Time 3 proactive vitality management.

Following the suggestion of Aiken & West (1996), we created an interaction plot, which is shown in Fig. 2, that depicted a range stretching from one standard deviation above to one standard deviation below the mean of Time 3 proactive vitality management. A simple slope analysis was also adopted to further explore the examined interaction effect (Dawson & Richter, 2006). Figure 2 demonstrates that Time 2 leisure crafting had a stronger positive association with Time 3 proactive vitality management when Time 2 perceived supervisor recreational sports support was high ($b = 0.78, p < .01, t = 5.92$), but Time 2 leisure crafting was not significantly associated with Time 3 proactive vitality management when Time 2 perceived supervisor recreational sports support was low ($b = 0.17, \text{ns}, t = 1.47$). These results support Hypothesis 3.

### 3.4 Testing for Moderated Mediation

We conducted a moderated mediation analysis using the PROCESS macro of Hayes (2013), which uses ordinary least squares analysis to calculate moderated mediation effects and bootstrapping to calculate confidence intervals (CIs). We used bias-corrected bootstrap CIs based on 5000 bootstrap samples with a 95% confidence level. When a CI does not include zero, the examined effect is interpreted to be significant.
According to Hypothesis 4, the moderated mediation model showed that the examined indirect effect was significant for Time 2 leisure crafting and that the interaction term between Time 2 leisure crafting and Time 2 perceived supervisor recreational sports support was significant ($b=0.25$, $p<.01$); however, the interaction term between Time 1 self-control demands and Time 2 perceived supervisor recreational sports support was not significant ($b=-0.06$, ns). Therefore, we followed this model up with a simpler model (model 14), which we used to determine whether the relation between the mediating variable and the outcome variable was moderated by Time 2 perceived supervisor recreational sports support. These results are presented in Table 5, and they indicated that the indirect effect was positive and significant when Time 2 perceived supervisor recreational sports support was high (conditional indirect effect = 0.19, 95% C.I.=0.0409 to 0.3623); additionally, the indirect effect was not significant when Time 2 perceived supervisor recreational sports support was low (conditional indirect effect = 0.004, 95% C.I. = −0.0990 to 0.1151). In addition, the index of moderated mediation was significant (index = 0.07, 95% C.I. = 0.0027 to 0.1491). These findings partially support Hypothesis 4.

**4 Discussion**

How to help employees cope with work stress from self-control demands and enhance their physical and mental energy to help them function optimally at work are important issues in the sports and leisure service industry. By applying the stressor-detachment model (Son- nentag & Fritz, 2015), we found that leisure crafting enables employees to psychologically detach from work stressors and engage in proactive vitality management. Drawing on conservation of resources theory (Hobfoll, 2002), our study further indicated that perceived supervisor recreational sports support strengthens the relationship between leisure crafting and proactive vitality management. After obtaining these results, we demonstrated a moder-
ated mediation model in which self-control demands, under the perceived supervisor recreational sports support of employees, do not motivate them to engage in increased leisure crafting but enhance their leisure resources instead; this, in turn, promotes their proactive vitality management. Our findings have implications for the literature on employees’ self-control demands, as they identify ways that employees can cope with their work stress and renew their energy to more proactively manage their work.

While organizational psychologists have widely examined and demonstrated the adverse effects of self-control demands (Diestel & Schmidt, 2011; Schmidt & Diestel, 2015; Schmidt et al., 2012; Schmidt & Neubach, 2007), our findings provided a specific strategy (i.e., leisure crafting) that employees can use to address self-control demands and enhance their proactive vitality management, which fills the research gap in the literature. The present study is consistent with the work of Rivkin et al., (2015), which states that employees’ psychological detachment could interrupt factors that deplete their regulatory resources such as self-control demands and facilitate their recovery. Adopting this perspective, our research highlighted the mechanism of leisure crafting, which can help employees detach from their work and generate a positive influence within workplaces. In other words, encouraging

### Table 5 The moderated mediation effects of perceived supervisor recreational sports support on employee proactive vitality management (N=212)

| Coefficient | SE  | t   | LL 95% CI | UL 95% CI |
|-------------|-----|-----|-----------|-----------|
| Outcome: LC (T2), $R^2=0.27$, $F_{(6,205)}=2.78$, $p<.05$ |     |     |           |           |
| Constant    | -0.94 | 0.62 | -1.50    | -2.1685   | 0.2917    |
| Gender      | -0.09 | 0.10 | -0.95    | -0.2857   | 0.0994    |
| Education   | 0.002 | 0.10 | 0.02     | -0.2012   | 0.2049    |
| Age         | -0.003 | 0.01 | -0.51    | -0.0155   | 0.0091    |
| Average tenure | -0.01 | 0.02 | -0.80    | -0.0497   | 0.0209    |
| Job autonomy | 0.09  | 0.05 | 1.66     | -0.0163   | 0.1912    |
| SCD (T1)    | 0.27  | 0.08 | 3.31**   | 0.1086    | 0.4295    |

| Outcome: PVM (T3), $R^2=0.48$, $F_{(9,203)}=6.81$, $p<.001$ |     |     |           |           |
| Constant    | 4.43  | 0.82 | 5.41**   | 2.8133    | 6.0389    |
| Gender      | -0.35 | 0.13 | -2.73**  | -0.5999   | -0.0965   |
| Education   | -0.04  | 0.14 | -0.27    | -0.3019   | 0.2303    |
| Age         | 0.01  | 0.01 | 0.99     | -0.0080   | 0.0240    |
| Average tenure | 0.01 | 0.02 | 0.52     | -0.0342   | 0.0584    |
| Job autonomy | 0.19  | 0.07 | 2.75**   | 0.0549    | 0.3319    |
| SCD (T1)    | 0.14  | 0.11 | 1.25     | -0.0781   | 0.3505    |
| LC (T2)     | 0.45  | 0.09 | 4.93**   | 0.2696    | 0.6290    |
| PSS (T2)    | -0.04 | 0.05 | -0.72    | -0.1418   | 0.0663    |
| LC (T2)* PSS (T2) | 0.25 | 0.07 | 3.61**   | 0.1122    | 0.3827    |

### Conditional indirect effect

| Effect | Boot SE | LL 95% CI | UL 95% CI |
|--------|---------|-----------|-----------|
| M-1SD  | 0.004   | 0.05      | -0.0990   | 0.1151    |
| PSS (T2) M | 0.12 | 0.05 | 0.0292    | 0.2271    |
| M+1SD  | 0.19    | 0.08      | 0.0409    | 0.3623    |
| Index of moderated mediation | 0.07 | 0.04 | 0.0027    | 0.1491    |

*p<.05. **p<.01
employees to craft leisure activities is important and efficient. This is because it might not be easy to remove the stressor of self-control demands, but individuals’ needs could be fulfilled through leisure activities that relieve their stress. For example, employees working in sport fitness clubs should be allowed to craft leisure activities related to exercising in their workplaces. Accordingly, we suggest that managers in the sports and leisure service industry could provide employee assistance programs to support service-oriented employees in proactively pursuing leisure crafting.

Moreover, we demonstrated the benefit of perceived supervisory non-work support in that higher levels of perceived supervisor recreational sports support can enhance the effect of leisure crafting by boosting employees’ vitality management. However, we did not find that such support can motivate employees to engage in more leisure crafting when they experience high self-control demands at work. A reason for this could be that employees can engage in many activities to cope with self-control demands, and having supervisor non-work support is not a sufficiently strong motivation to induce employees who experience such demands to engage in leisure crafting. Nevertheless, employees who engage in leisure crafting are likely to appreciate having supervisors who provide recreational sports support; thus, such employees receive more benefit from this support. This is consistent with conservation of resources theory (Hobfoll, 2002), which indicates that social resources can provide additional resources that individuals can use to cope with stress and enhance their wellness benefits only when these resources can function in this way and fit well with individuals’ demands. Adopting this perspective, we remind supervisors that it is important to consider whether their non-work support matches their employees’ needs.

These results also extended those of previous studies (Eisenberger et al., 2002; Gordon et al., 2019) regarding perceived supervisory work support, as they provided a relatively detailed perspective on how perceived supervisory non-work support can assist employees in work and non-work areas of their lives. In addition, we demonstrated the benefits of social leisure resources in the workplace, which may explain why an increasing number of organizations are considering investing leisure resources to decrease their employees’ barriers to leisure and increase their engagement in leisure activities (Duerden et al., 2018; Ho & Chan, 2022; Kelly et al., 2020; Liang, 2020; Tsaur et al., 2020) so that they can experience increased work engagement, improved resilience, more sustainable careers, and so on. Based on these results, we emphasize that supervisors play a crucial role in providing recreational sports support for employees to recover from work.

As discussed, we developed the research model by integrating social leisure resources from the workplace into the stressor-detachment model, creating a more comprehensive understanding of how employees recover from self-control demands and proactively manage their work. That is, the present study does not focus on replicating the process of the stressor-detachment model (Sonnentag & Fritz, 2015) to examine how job stressors influence an employee’s level of strain and well-being through poor psychological detachment. However, we follow the perspective of the stressor-detachment model to demonstrate the coping mechanism that enables employees to cope with stress successfully and promote optimal functioning at work. Although the participants in the present study were from the sports and leisure service industry, they faced similar dynamic work environments as general service-oriented employees and exhibited self-control demands at work. Therefore, our results also provide implications for general service-oriented employees to cope with self-control demands and enhance their proactive vitality management.
Additionally, the findings of the present study provided leisure research with a more specific influence process that facilitates an understanding of how and when the interplay between leisure crafting and perceived supervisor recreational sports support can help employees who experience self-control demands exhibit proactive vitality management in work contexts. An increasing number of researchers are proposing that facilitating leisure activities for employees could improve their health and decrease work-related adverse impacts (Duerden et al., 2018; Gerber et al., 2014; McGillivray, 2005); accordingly, many organizations now offer a variety of leisure activities for their employees to participate in. However, Chen (2020) argued that leisure crafting is a purposeful behavior related to the intention to pursue leisure activities, but leisure participation refers to involvement in leisure activities. This might imply that leisure crafters are more proactive in their pursuit of leisure activities that are related to their goals than leisure participants who just passively participate in activities. Following this perspective, our study extended the leisure and organization literature by providing additional insights and a relatively detailed explanation of the positive impact of employees’ leisure crafting. Accordingly, we suggest that organizations should consider developing their employees’ ability to actively craft leisure activities through human resource development instead of just providing their employees with the opportunity to participate in leisure activities.

Once employees become leisure crafters, supervisor recreational sports support can effectively enhance their social leisure resources, which can help them engage in leisure activities to successfully detach from work stress and recover so that they can work better. Regarding how to create a context of supervisor support, we suggest that supervisors could express concern about their employees’ leisure lives and even could become involved in the leisure lives of their employees, sharing leisure experiences and resources (Liang, 2020). Furthermore, supervisors might assist their employees in handling aspects of their leisure and work lives that are difficult to balance or manage. In this way, employees will be able to perceive their supervisors’ non-work support, which will influence their job attitudes and job performance (Wu et al., 2014). In addition, organizations might have the advantage of being able to facilitate employee well-being through supervisors at the lowest possible cost.

4.1 Limitations and Future Research

There are several limitations of the present study that are important to note. First, we relied on self-reported measurements from employees, which might have introduced common method bias (Podsakoff et al., 2003). However, a time-lagged design was used to separate measurements and a Harman’s single-factor test indicated that no single general factor accounted for more than 25.01% of the covariance among the measures; thus, common method bias should not have affected our findings. We also encourage future studies to replicate our study by using objective measurements to assess employees’ proactive vitality management (e.g., supervisor ratings). Second, due to limitations of the collected variables in the larger project, the present study did not control proactive vitality management at Time 1 or Time 2 when testing the effect of leisure crafting at Time 3. In addition, we did not control the personal variable of proactive personality. We suggest that future studies adopt repeated measures of the dependent variable at different times. Because proactive personality may influence the effectiveness of energy management, future research can control this variable to replicate the present study. Third, we only assessed the moderator (perceived...
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supervisor recreational sports support) at Time 2 because supervisors’ social support is relatively stable at different times. However, it might violate the time sequence assumption of the directional relations when examining the first moderation path from self-control demands to leisure crafting. As such, we suggest that future studies also repeatedly measure the moderator at different times to replicate the findings. Fourth, we collected our research data in a Taiwanese context, which might have introduced issues regarding the generalizability of our research findings. People who exert self-control might be culture-dependent; in a collectivistic culture, individuals might display more control behaviors to achieve their goals (Savani & Job, 2017). Accordingly, we suggest that future studies cross-validate the current findings by recruiting participants from different cultures and replicating the current findings.

4.2 Conclusion

In conclusion, we have highlighted the importance of how and when the interplay between leisure crafting and perceived supervisor recreational sports support can lead employees who experience self-control demands to exhibit proactive vitality management. More specifically, employees who experience higher levels of self-control demand engage in more leisure crafting, and leisure crafters exhibit more proactive vitality management at their workplaces. In addition, employees’ perceived supervisor recreational sports support interacts with leisure crafting, which enhances the mediation process between employees’ self-control demands and proactive vitality management. Thus, sports and leisure service industry organizations could enhance their employees’ abilities to cope with work stress and enhance their recovery from work by improving their leisure crafting and providing nonwork support through supervisors.

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Declarations

Conflict of Interest  The authors have no competing interests to declare that are relevant to the content of this article.

Compliance of Ethical Standard Statement.

Ethical Approval  for this study was obtained from the Center for Human Research Ethics, Chung Cheng University, Taiwan (Letter Number: CCUREC107122402).

Informed Consent  According to the ethical approval for this study, the author explained the aims and process for the participants before the survey. Then they were instructed to read the information sheet and sign an informed consent. After signing an informed consent form, the participants were permitted to freely express their responses and confirmed their right to withdraw from the study at any time.

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