Cross domain consequences of workplace bullying: A multi-source daily diary study

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Abstract

In this multi-source daily diary study we examine the effect of exposure to workplace bullying behaviors on family domain outcomes (conflicts at home, relationship satisfaction), and the mediating role that psychological detachment and affective distress play in this relationship. A sample of 68 employees and their spouses filled in a quantitative diary for 5 consecutive working days twice a day (N occasions = 680). Multilevel analyses showed that daily workplace bullying positively predicted both self-report and spouse-report conflicts at home, and daily psychological detachment mediated this relationship. In addition, daily affective distress was the mediator only for self-report conflicts at home. Further, it was found an indirect effect of both affective distress and detachment on the relationship between bullying and self-reported relationship satisfaction. Detachment also showed an indirect role in the association between bullying and spouse-reported relationship satisfaction. To our knowledge, this is one of the first studies in showing that negative effects of workplace bullying go beyond the work setting and beyond the employee. Moreover, this study adds to an emerging line of research exploring how daily negative work experiences are transferred to and interferes with the non-work domain. The theoretical and practical implications of these findings are discussed.

Keywords: Within-person effects, Workplace bullying, Affective distress, Psychological detachment, Spillover.

Bullying at work refers to exposure to a range of repeated and enduring negative acts, directed towards one or more targets who typically end up unable to defend themselves (Einarsen, Hoel, Zapf, & Cooper, 2011). These acts may be personal (e.g. insulting criticism) or work-related in nature (e.g. withholding information), or may include social isolation. Over the years, several research studies have documented the negative effects of being exposed to bullying behaviors (for a review see, Nielsen & Einarsen, 2012). A large body of cross-sectional and longitudinal evidence links bullying to a wide range of strain indicators (e.g., Høgh, Mikkelsen, & Hansen, 2011), but scant attention has been paid to its short-term effects, and how the daily experience of exposure to bullying behaviors translates into the home domain. This is currently a general gap in the workplace bullying field.

In this multi-source daily diary study we examine the effect of daily exposure to workplace bullying behaviors on family domain outcomes. Specifically, we analyze two family-related outcomes that cover negative and positive aspects of the relationship with the partner, namely conflicts and relationship satisfaction. Whereas the former mainly refer to arguments and rudeness interactions with the partner, the latter satisfaction refers to the level of satisfaction with the partner.

The contributions of the current study to the literature are threefold. First, in an effort to disentangle the bullying dynamics, we focus on the within-person level. Although extant research on bullying has offered valuable insights about its long term outcomes, immediate or short-term reactions remain unclear. In such between-individual approaches, it is very difficult to explore the day-to-day processes through which exposure to bullying influences employees' outcomes. To the best of our knowledge, only one study has examined bullying from a within-person approach (Tuckey, & Neall, 2014), which showed that 34% of the variance in workplace bullying

occurs at the within-person level. In this vein, we respond to the call to study within-person relationship in harassment research (Neall, & Tuckey, 2014).

Second, this study explicitly examines consequences of bullying on the home domain. Although previous authors have suggested that bullying can affect employee's non-work activities (Vega, & Comer, 2005), to date, existing research has failed to explore outcomes beyond the workplace. This omission has meaningful implications for research, given that existing studies have not achieved a comprehensive view of the effects of bullying. However, research has begun to show that certain aggressive/harassment behaviors received by employees at work may spill over to the home domain, impacting their family life (e.g., Ferguson 2012; Restubog, Scott, & Zagenczyk, 2011). Most of this research is based on similar concepts, like incivility or interpersonal conflict, but these constructs differ from workplace bullying, for example, in intensity and intent.

Last, one of the most salient criticisms within the field has been the reliance of the majority of research on one source of data, and the overuse of self-report information (Neall, & Tuckey, 2014). Our study contributes by using two sources of data (employee and spouse report), which reduces some of the methodological shortcomings in bullying literature (e.g., common method threats). The current study draws on Conservation of Resources theory (COR; Hobfoll, 1989, 2001) to propose that daily exposure to bullying behaviors will lead to increased daily conflicts with partner and reduced daily relationship satisfaction at home, both self-reported and spouse-reported. Furthermore, this within-person relationship will be mediated by daily psychological detachment and daily affective distress.

Theoretical Background and Hypotheses

Workplace bullying consequences

Research on the consequences of workplace bullying indicates that exposure to such bullying behaviors is inherently damaging. For instance, in a weekly diary study, Tuckey and Neall (2014) demonstrated that bullying negatively impacted on both optimism and self-efficacy, and that this relationship was partially mediated by emotional exhaustion. Prior research also found that workplace bullying leads to health problems and reduced well-being (e.g., Høgh et al., 2011). Among organizational outcomes, several researchers have provided support for negative effects of workplace bullying on effective functioning, including sickness absence, staff conflict, and increased turnover (Leymann, 1996).

Empirical evidence has also shown the negative effect on bullying behaviors on target's psychological detachment, which is the ability to disconnect from work-related issues, and is crucial to recover from the effort expended at work and thus to maintain well-being (Sonnentag & Fritz, 2007). Moreno-Jiménez et al., (2009) found a negative cross-lagged relationship between psychological detachment and workplace bullying. High exposure to bullying can increase indicators of affective distress, such as anxiety, anger or fear. Indeed, there is meta-analytical evidence indicating that bullying is strongly related to anxiety and depression (Nielsen & Einarsen, 2012). This pattern is supported by another recent meta-analysis (Verkuil, Atasayi, & Molendijk, 2015). Taken together, between-individual research has shown that workplace bullying is associated with several negative outcomes. In this within-person study, we hypothesize that:

Hypothesis 1: Daily workplace bullying will be negatively related to (a) end-of workday psychological detachment and (b) positively to end-of workday affective distress within individuals.

What happens at work not always stays there. It is likely that bullying targets do not leave the consequences of such stressful experience at work, but instead bring them home to the family domain. Research is just beginning to investigate the process through which an aggressive or abusive experience at work is transferred to and interfere with the non-work domain. According to Edwards and Rothbard (2000), moods, values, skills, and behaviors can be directly transferred from the work domain to the home domain, which is known as a spillover effect. *Spillover* is a within-person, across-domains transmission of strain from one area of life to another (Westman, 2001).

Previous studies have found evidence for a spillover effect of work harassment in several forms. For instance, it has been shown that employees who suffer from abusive supervision are likely to display their aggression to their family members (Hoobler, & Brass, 2006). Similarly, Restubog et al. (2011) found that when subordinates experienced psychological distress resulting as a consequence of abuse from supervisor, they displaced their frustration away from the source of abuse and undermined their spouses. These authors argue that this kind of aggression towards family members can be conceptualized as an outlet for venting their distress or "*blowing off steam*". Indeed, studies have now found evidence for such spillover effects in conflicts at work (Sanz-Vergel, Rodríguez-Muñoz, & Nielsen, 2015), or incivility (Ferguson, 2012). However, there are no studies exploring this dynamic in bullying literature.

The relationship between bullying and outcomes can be explained through Conservation of Resources Theory (Hobfoll, 1989, 2001). The basic tenet of COR

theory is that people strive to obtain, retain, and protect their resources. Resources are those entities that are either centrally valued in their own right (e.g., self-esteem, energy, health) or act as a means to obtain centrally valued ends (e.g., money, social support). According to COR, psychological stress occurs when individuals are (i) threatened with resource loss, (ii) lose resources, or (iii) fail to gain resources following resource investment. Loss spirals are theorized to occur when individuals do not have sufficient resources to stop further resource loss, or to protect remaining resources (Hobfoll, 1989). Further, loss cycles are more momentous and move more quickly than gain cycles. Resource loss is typically accompanied by negative emotions, impaired psychological well-being, and impaired mental and physical health (Halbesleben, Neveu, Paustian-Underdahl, & Westman, 2014). Empirical research supports the notion that workplace bullying experience decreases employees' resources such as optimism and self-efficacy (Tuckey, & Neall, 2014) or self-esteem (Vartia, 2001). Thus, bullying can suppose a drain of resources. In addition, employees who are confronted to bullying behaviors require investing more of their resources (e.g., energy) into dealing with such stressful situation (Rodríguez-Muñoz, Moreno-Jiménez, & Sanz-Vergel, 2015), and may adopt a defensive posture to protect one's limited resources and minimize further resource loss (Hobfoll, 1989). Since resources are finite, this leaves fewer resources available to fulfill demands in the family (e.g., Edwards & Rothbard, 2000). As a result, employees may experience high levels of tension at home domain. In other words, bullying can spill over to the home domain and interfere with family life.

As indicators of family domain outcomes we decided to focus on two relational variables; relationship satisfaction and conflicts at home with the partner. Relationship satisfaction is defined as an interpersonal evaluation of the positivity of feelings for one's partner and attraction to the relationship (Rusbult & Buunk, 1993), whereas

conflicts at home is conceptualized as any disputes, disagreements, stressful and hostile interactions between spouses, disrespect, and verbal abuse (Buehler et al., 1998). There are several reasons to focus on these variables. First, relationship satisfaction is one of the dependent variable that has been most often studied in dyadic stress research (Falconier, Jackson, Hilpert, & Bodenmann, 2015). Second, conflicts and relationship satisfaction are strongly linked to life satisfaction and well-being (e.g., Karney & Bradbury, 1995). Therefore, exposure to bullying at work may spill over into one's intimate relationship by increasing conflicts between partners and affecting negatively to relationship satisfaction. Thus, our second hypothesis is:

> *Hypothesis 2:* Daily workplace bullying will be positively related to (a) daily conflicts at home (self- and spouse-reported), and (b) negatively to daily relationship satisfaction (self- and spouse-reported) within individuals.

The role of daily psychological detachment and affective distress

As argued above, and following work-family conflict literature, investing resources at work leaves people with fewer resources at home (e.g., Edwards & Rothbard, 2000). Kahn, Wolfe, Quinn, Snoek, and Rosenthal (1964) used role theory to describe such tensions as interrole conflict, which occurs when individuals find it increasingly difficult to successfully execute each of their roles because of constrained resources (e.g., time, energy) or the incompatibility among different roles (e.g., employee roles vs. spousal or parental roles). In our study, it may be plausible that after being exposed to bullying behaviors at work, people have already drained their resources and are then unavailable for investment in the non-work domain. Demsky, Ellis, and Fritz (2014) suggested that rationale behind this idea is that successful functioning in different roles requires the availability of resources (i.e., time, energy, affect). Therefore, to explain why negative spillover may occur, we followed resource-

based theoretical explanations (COR and Role Theory). Latest developments of COR theory, have defined resources as "*anything perceived by the individual to help attain his or her goals*" (Halbesleben et al., 2014, pag 5). In our case, we focus on two specific resources; psychological detachment and affective distress. Following Halbesleben et al. (2014) classification, the former is included within the category of energetic resources, whereas the latter is considered a key resource (Halbesleben et al., 2014, pag 5). Affect is categorized as a key personal resource because facilitates the mobilization of other resources, and makes the use of other resources more effective (ten Brummelhuis & Bakker, 2012).

According to COR theory, one important mechanism for understanding spillover of stress to home domain is psychological detachment (Park, Fritz, & Jex, 2016), mainly due to its importance in resource loss process (Halbesleben et al., 2014). Psychological detachment from work has been defined as one's "*sense of being away from the work environment*" (Etzion, Eden, & Lapidot, 1998, p. 579). Detachment is often described as "*switching off mentally*" by refraining from work-related thoughts and activities during non-work time (Sonnentag & Bayer, 2005). Research suggests that detachment is necessary for employees to replenish resources depleted at work, thereby increasing well-being and decreasing negative activation (see Sonnentag, & Fritz, 2015, for a review). Therefore, detachment can alleviate distress and prevent further resource loss from prolonged negative activation during non-work time. For example, if the employee can detach from work during free time, then he/she may have a higher threshold to start arguing with his/her spouse (more energy, better mood). Recent research indicates that employee's psychological detachment can impede aggressive work behaviors to impact on the home domain (Demsky et al., 2014).

While detachment can have a negative effect regarding resource loss, affective distress can show the opposite role. In more specific terms, affective distress can drain resources from an individual, which in turn, will further affect family functioning. Hobfoll and Lilly (1993) found that resource loss was strongly related to emotional distress, and argued that emotional resources are especially important. Decrease of emotional resources, might make individuals increasingly more vulnerable for further resource loss, as with each loss they are less capable of stress resistance aimed at offsetting the loss process. According to Ilies, Huth, Ryan, and Dimotakis (2015), affective distress is conceptualized as an emotional employee's response to work stressors and indicated by a negative emotional state (e.g., feeling distressed, uneasy, tense, and worried). Within-person evidence shows that stressful work events in general - and interpersonal conflict in particular - are highly associated with affective distress (Ilies, Johnson, Judge, & Keeney, 2011), and it has a strong effect on negative mood relative to other daily stressors (Bolger, DeLongis, Kessler, & Schilling, 1989). A balanced affect is crucial for optimal functioning. For example, those people low in emotional or affective distress seem to be better at managing resources in a way that has less negative impact on their work and home life (Halbesleben et al., 2014). Based on above reasoning, we hypothesize the following:

Hypothesis 3: Daily psychological detachment will be negatively related to (a) daily conflicts at home (self- and spouse-reported), and (b) positively to daily relationship satisfaction (self- and spouse-reported) within individuals.

Hypothesis 4: Daily affective distress will be positively related to (a) daily conflicts at home (self- and spouse-reported), and (b) negatively to daily relationship satisfaction (self- and spouse-reported) within individuals.

Finally, taken together, all arguments lead us to hypothesize a mediating role of daily psychological detachment and daily affective distress on spillover effect. Specifically, in the context of the current study, experiencing workplace bullying over a working day may make it more difficult to engage in psychological detachment and increase affective distress after work, which may lead to a lack of resource replenishment. In turn, this may contribute to increased difficulties in non-work domain, in the form of decreased relationship satisfaction and increase conflicts at home. Therefore, our final hypothesis is:

> *Hypothesis 5:* The within-individual relationship between workplace bullying and home outcomes (i.e., self- and spouse-reported conflicts at home and relationship satisfaction) will be mediated by (a) psychological detachment and (b) affective distress during non-work time.

Method

Procedure and sample

Participants were Spanish employees from a variety of occupations working for different organizations. To recruit participants, students from an introductory course in Organizational Psychology were asked to contact at least one employee and his/her partner who would be willing to participate in our study. In this way, heterogeneity of the sample and their jobs was secured (Wheeler, Shanine, Leon, & Whitman, 2014). Students received thorough training on how to select the sample and how to administer the questionnaires. Two members of the research team ran the seminars and followed-up the data collection process. We distributed survey packages, including (a) a letter describing the purpose of the study and assuring anonymity of all responses, (b) instructions about the completion of the surveys, (c) a general questionnaire, and (d) a diary booklet. In the general questionnaire, we included socio-demographic variables.

Participation was voluntary and this was emphasized before giving the participants the questionnaires, as well as that questionnaires should be answered individually. The diary booklet had to be filled in over five consecutive workdays, twice a day (before leaving the workplace, and before going to bed). Specifically, workplace bullying was measured at the end of the workday (afternoon), whereas psychological detachment, affective distress, conflicts at home and relationship satisfaction was reported before going to bed (evening). Spouse reported information about conflicts at home and relationship satisfaction. The diaries were returned to the researchers via the students who were collaborating with the research team in closed envelopes. For participating in the study both members of the couple had to live together and spend at least one hour together during the evening. Each dyad was given the same code so that we could match their responses. The research design was approved by the institutional ethical committee of the first author's university. Student recruiters received course extra credit for recruiting participants.

We used a multi-source daily diary research design. Of the 115 participants who were solicited for participation, 75 surveys with self-and spouse information (65.2% response rate) were completed and returned. Seven of these were left out of the analyses due to missing data or missing spouse reports. This left a final sample of 68 participants and their partners (N=136; 64 male, 72 female). Employee's mean age was 40.7 years (SD = 10.9), whereas spouses mean age was 43.0 years (SD = 11.7). The majority of the sample had a full-time job (69.7%) in the private sector (70.1%). Participants came from a broad range of occupational backgrounds, with most of them working in the following sectors; hotel and catering (23.2%), trade (10.2%), industry (9.6%), and education (4.1%).

Measures

We chose short items measures to limit the burden for our participants, and to motivate regular participation. In this sense, in diary designs the use of short measures as well as single items has been strongly recommended in order to minimize the impact of data nonresponses. In cases of shortened versions of larger scales, following Ohly, Sonnentag, Niessen, and Zapf (2010), we selected items with the highest factor loading or item total correlation.

Daily workplace bullying was measured with the nine items of Short-Negative Acts Questionnaire ('S-NAQ'; Notelaers & Einarsen, 2008), slightly modified to capture day-level experience ("Today at work, have you being exposed to each of these acts?). Items were rated on a 6-point scale, ranging from 1 = *not true at all* to 6 = *totally true*. The nine items describe negative acts in terms of personal bullying (e.g. 'gossiping') and work-related bullying (e.g. 'being withheld information'). The mean of Cronbach's alpha across the five occasions was .95. In addition, we also controlled for the self-labelling perception of bullying, by asking respondents to indicate whether they considered themselves to have been victimized by bullying at work during the last 12 months. All employees included in the study considered they were subjected to bullying behaviors during last year.

Daily affective distress was measured with three items from the Job-related Affective Well-being Scale (JAWS; Van Katwyk, Fox, Spector, & Kelloway, 2000). As the JAWS has items that reflect both pleasant and unpleasant emotions, we decided to include in the study only the negative emotions with high arousal (frightened, anxious, and angry). Participants were requested to indicate if they experienced each negative positive distinct emotions during the evening. Items were rated on a 6-point scale,

ranging from 1 = *not true at all* to 6 = *totally true*. The mean of Cronbach's alpha across the five occasions was .78.

Daily psychological detachment from work was measured with three items of the daily version (Bakker, Sanz-Vergel, Rodríguez-Muñoz, & Oerlemans, 2015) of the detachment dimension included in the Recovery Experience Questionnaire (Sonnentag, & Fritz, 2007). Participants had to indicate how often they had experienced each situation (e.g., "*Today, during my off-job time, I didn't think about work at all*"). Items were rated on a 6-point scale, ranging from 1 = *not true at all* to 6 = *totally true*. The mean of Cronbach's alpha across the five occasions was .92.

Self- and Spouse-report of daily conflicts at home was measured with three items of the Interpersonal Conflict at Work Scale (ICAWS; Spector & Jex, 1998). The scale measures how often the employee had experienced arguments and rudeness in interactions with co-workers. We slightly modified the items to measure conflicts with the partner ("Today at home, *I got into arguments with my partner*"). This approach has been used in previous studies with a similar research design (e.g., Sanz-Vergel et al., 2015). Items were rated on a 6-point scale, ranging from 1 = *not true at all* to 6 = *totally true*. We obtained information of employees and their spouses. The mean of Cronbach's alpha across the five occasions was .90 and .91 for self-reported and spouse-reported conflicts at home, respectively.

Self- and Spouse-report of daily relationship satisfaction was measured with a scale based on Kunin (1955). It was measured using a single item at the end of the day (evening questionnaire): *"Today, how satisfied are you with your partner/personal relationship?"* We used faces as response options. The scale consists of five faces, ranging from ''*very unsatisfied*'' to ''*very satisfied*''. A one-item measure of affective

states is commonly used in diary designs (e.g., Dockray et al., 2010; Fisher, Matthews & Gibbons, 2016).

Control variables. We controlled for respondent's gender, age, and type of contract to reduce spurious results because of the possible effects of demographic characteristics as these variables were associated with both spouse report of conflicts at home and relationship satisfaction (see results section). We also assessed other potential demographic information, but we only controlled for those which showed significant relations. Following Becker (2005) variables that have little or no relationship with the DV (e.g., $|r|<.10$), were not included in the final analysis.

Data analyses

Given the hierarchical structure of the data, with days (Level 1; N = 680 observations) nested within individuals (Level 2; N= 136 participants), we used multilevel modeling using the MLwiN software (Rasbash, Browne, Healy, Cameron, & Charlton, 2002). In all of the models, Level 1 predictors (e.g., workplace bullying) were centered around each individual's mean score to remove any possible between-individual effects as recommended by Ohly et al. (2010). Level 2 variables (i.e., gender, age, and type of control) were centered around the grand mean. As we were interested in intra-individual processes, hypothesized relationships were investigated at the lower or within-person level, while controlling for variation in the variables at the between-person level (i.e., we also estimated the variances at the between-level).

We followed recommendations by Bauer, Preacher, and Gil (2006) for testing mediation in multilevel models. Our model corresponds to a 1–1-1 design where predictor, mediator, and outcome variables are all assessed at Level 1, the day level. For each hypothesized effect we conducted a Monte Carlo simulation with 20,000 replications. The Monte Carlo approach involves constructing a sampling distribution of

the indirect effect using point estimates of mediation paths and the asymptotic covariance matrix of those estimates (Preacher, & Selig, 2012). If the 95% confidence intervals obtained does not include zero then this provides support for a statistically significant mediation effect.

Results

Preliminary analyses

Before hypotheses testing, to test whether the daily variables in this study are distinct from each other, we conducted a series of multilevel confirmatory factor analyses with Mplus 6.12 (Muthén & Muthén, 2010). Specifically, we compared a five-factor measurement model discriminating between the variables included in the study (workplace bullying, affective distress, psychological detachment, conflicts at home, and relationship satisfaction) with a one-factor model with all the items loading on one single factor. Additionally, we also tested a four-factor measurement model in which both dependent variables loaded on the same factor (four-factor model). Results showed that five-factor model fitted the data well (χ^2 (258) = 563.26, CFI = .95, TLI = .94, RMSEA = .05, SRMR (within) = .05 vs. SRMR (between) = .09). The chi-square difference test showed that the five-factor model fit much better to the data than the four-factor model ($\Delta\chi2$ (4) = 143.5, $p < .001$), and the one-factor model with all the items loading on one common factor ($\Delta\chi2$ (48) = 2742, $p < .001$). This indicates that the variables included in the study can be empirically discriminated from each other.

In addition, we calculated the intraclass correlation (i.e., intercept-only models) to examine whether variables in the study varied within individuals. Intercept only model, also known as null model or baseline model, contains only intercept and corresponding error terms. The percentage of total variance that resides between persons was significant for all day-level variables: day-level workplace bullying (39% of the

total variance is explained by within-person fluctuations), day-level affective distress (59% of the total variance is explained by within-person fluctuations), day-level psychological detachment (46% of the total variance is explained by within-person fluctuations), day-level self-report of conflicts at home (70% of the total variance is explained by within-person fluctuations), day-level spouse-report of conflicts at home (62% of the total variance is explained by within-person fluctuations), day-level self-report of relationship satisfaction (52% of the total variance is explained by within-person fluctuations), day-level spouse-report of relationship satisfaction (48% of the total variance is explained by within-person fluctuations). According to Byrne (2011), when ICC values are larger than .10 and smaller than .90 there is a substantive amount of variance both at the between-person and within-person level. Furthermore, the -2*log likelihood difference showed that a three-level model fit much better to the data than a two-level model for self-report of daily conflicts at home ($\Delta\chi^2$ (1) = 146.7, $p < .01$), spouse-report of daily conflicts at home ($\Delta\chi^2$ (1) = 45.6, $p < .01$), self-report of daily relationship satisfaction ($\Delta\chi^2$ (1) = 104.2, $p < .01$), and spouse-report of daily relationship satisfaction ($\Delta\chi^2$ (1) = 78.9, $p < .01$). Therefore, it was appropriate to use a multilevel approach to test our hypotheses.

Tests of Hypotheses

Table 1 shows means, standard deviations, and correlations among the study variables. These correlations were calculated using the averaged scores over the five days for the day-level variables. The pattern of correlations was in the expected direction. Furthermore, gender ($r = -.21$, $p < .01$), and type of contract ($r = -.12$, $p < .05$) were associated with spouse report of conflicts at home, and age ($r = -.10$, $p < .05$) was related to spouse report of relationship satisfaction. Therefore, these variables were used as covariates in the following analyses.

-Insert Table 1 here-

To test our study hypotheses, we examined a series of nested models. In Model 1, we included the control variables (gender, age, and type of contract). In Model 2, we entered daily workplace bullying. In Model 3, we included both potential mediators; daily affective distress and daily psychological detachment. We compared the model fit of these models by calculating the difference between the likelihood ratio of one model and the likelihood ratio of the previous one. This difference follows a chi-square distribution (with degrees of freedom being the number of variables added in each model). Model 3 showed a better fit to the data than the rest of the models in four equations. Table 2 presents unstandardized estimates, standard errors, and t values for all predictors.

-Insert Table 2 here-

Hypothesis 1 stated that daily workplace bullying would be negatively related to daily psychological detachment during evening and positively to daily affective distress during evening. Results from multilevel analysis supported our hypothesis, because workplace bullying was negatively related to psychological detachment (γ = -0.131, SE = 0.046, t = -2.84, $p < .01$), and positively to affective distress (γ = 0.173, SE = 0.050, t = 3.46, $p < .01$).

Hypothesis 2 suggested that daily workplace bullying would be positively related to daily conflicts at home (self- and spouse-reported), and negatively to daily relationship satisfaction (self- and spouse-reported). Results show that workplace bullying was positively related to both self-report (γ = 0.120, SE = 0.048, t = 2.50, $p < .01$), and spouse-report of conflicts at home (γ = 0.104, SE = 0.046, t = 2.26, $p < .05$). However, daily bullying was related neither to actor's self-report (γ = -0.027, *ns*) nor to

spouse-report of relationship satisfaction (γ = -0.031, *ns*). Thus, Hypothesis 2a was supported, but we did not find support for Hypotheses 2b.

Hypothesis 3 stated that daily psychological detachment would be significantly related to daily home domain outcomes. In Table 2, results indicate that daily psychological detachment was negatively related to both self-report (γ = -0.200, SE = 0.059, t = -3.38, p < .01), and spouse-report of conflicts at home (γ = -0.191, SE = 0.058, t = -3.29, p < .01), and both self-report (γ = 0.265, SE = 0.044, t = 6.02, p < .001), and spouse-report of relationship satisfaction (γ = 0.207, SE = 0.048, t = 4.31, p < .01). In the case of Hypothesis 4, it can be seen that daily affective distress was related to self-report (γ = 0.128, SE = 0.053, t = 2.41, p < .05), but not to and spouse-report of conflicts at home (γ = 0.068, *ns*). Similarly, it was also related to self-report (γ = -0.151, SE = 0.040, t = -3.77, p < .05), but not to spouse-report relationship satisfaction (γ = -0.006, *ns*). Thus, Hypothesis 3 and 4 were partially supported.

Hypotheses 5a and 5b propose that day-level affective distress and day-level psychological detachment mediate the relationship between day-level workplace bullying and day-level self-and spouse report outcomes (conflicts at home and relationship satisfaction). The conditions that should be met in order to support mediation hypothesis are (a) daily workplace bullying should be positively related to daily affective distress and psychological detachment; (b) daily affective distress and psychological detachment should be positively related to daily conflicts at home and relationship satisfaction; (c) and after the inclusion of the mediators, the previously significant relationship between daily bullying and home domain outcomes either turns into non-significant (full mediation) or becomes significantly weaker (partial mediation; Mathieu & Taylor, 2006).

The test of Hypothesis 1 supports the first condition, whereas the third Hypothesis supports the second condition for psychological detachment in four equations, and for affective distress only for both self-report conflicts at home and self-report relationship satisfaction. Regarding specific mediation effects, the Monte Carlo test showed that daily workplace bullying was positively related to self-report conflicts at home through daily affective distress (95% CI = [LB 0.0059, UB 0.043]) and daily detachment (95% CI = [LB 0.0068, UB 0.052]). After the inclusion of the mediators, the initial effect of bullying on self-report conflicts at home is reduced to non-significant value. Therefore, full mediation exists. Monte Carlo test also showed that the daily detachment partially mediated (95% CI = [LB 0.0061, UB 0.050]) the relationship between bullying and spouse-report conflicts at home. As the relationship only becomes weaker, partial mediation exists.

Regarding relationship satisfaction, the requirements for mediation were not met. Mathieu and Taylor (2006) have suggested that in cases where mediation hypotheses are rejected, alternative hypothesis of indirect effects should be examined. Indirect effects are a special form of intervening effects whereby the predictor and the dependent variable are not related directly, but they are indirectly related through significant relationships with a linking mechanism. We tested this indirect effect with Montecarlo, and results showed that both daily affective distress (95% CI = [LB 0.011, UB 0.045]) and daily detachment (95% CI = [LB 0.010, UB 0.060]) showed an indirect effect between bullying and self-report relationship satisfaction. Similarly, daily detachment (95% CI = [LB 0.008, UB 0.048]) showed also an indirect effect on the above-mentioned relationship reported by spouse. Thus, hypotheses 5a and 5b were partially supported.

Discussion

The current multi-source daily diary study on exposure to workplace bullying behaviors sheds light on dynamics of bullying consequences. One major contribution is that we incorporated spillover literature to the study of bullying, responding also to the call to focus on within-person perspectives on harassment experiences (Neall, & Tuckey, 2014). Additionally, using other sources for assessing strain indicators contributes to more recent work in the aggression/harassment field, which has called for the inclusion of significant other-reports of strain and well-being (e.g., Neall, & Tuckey, 2014; Demsky et al., 2014). Most of our proposed hypotheses were supported. The findings of this study demonstrate that daily affective distress and psychological detachment play a role in the daily spillover of bullying to the home domain (i.e., conflicts at home and relationship satisfaction).

Theoretical implications and suggestions for future research

To our knowledge, our study is one of the first to show the impact of workplace bullying on the home domain. We were able to show that day to day fluctuations in workplace bullying have an impact on day-level of conflicts at home, both self and spouse report, but not on relationship satisfaction. Accordingly, these results provide new evidence in support of the notion that there are potential effects of bullying beyond the workplace.

Our main theoretical contribution is showing that both cognitive and emotional mechanisms are explaining the spillover of bullying into the home domain. First, when Etzion et al. (1998) defined psychological detachment from work, they referred to being away from the "*job situation*" or the "*work routine*", but they did not specify which aspects of this job situation or routine may impair detachment. Most literature on recovery focus on job demands and resources as antecedents of psychological

detachment (Sonnentag & Fritz, 2007). What we learn from the present study is that an interpersonal stressor like workplace bullying may also trigger lack of psychological detachment. More studies are needed to disentangle which interpersonal aspects of the "*job routine*" are causing difficulties to disconnect.

Second, the emotional path through affective distress is telling us that exposure to workplace bullying turns into conflicts and low relationship satisfaction not only through lack of detachment but also through the experience of negative mood. Westman (2001) suggested several possible mechanisms to explain the crossover process. One of them is the crossover between partners through empathic processes or mood transfer. That is, since spouses/partners spend considerable time together they become aware of and are affected by each other's affective states. According to our results, workplace bullying is likely to affect an individual's interaction with the spouse at home through affective distress that transfers from the workplace to the family domain. This is consistent with previous work that examined how stress resulting from aggressive behaviors from supervisors at work does cross over to create psychological distress in the target's partner (Hoobler & Brass, 2006; Restubog et al., 2011).

Overall, our results are in line with COR theory, as well as with Edwards and Rothbard's (2000) theoretical model of work-family spillover. Our findings suggest that bullying experience decreases employees' resources and thereby contributes to distress at home at the end of the workday. People possessing fewer resources are less likely to solve problems inherent in stressful situations. Moreover, when individuals lack resources to deal with stressful events, they are not only more vulnerable in that situation but also "*loss begets further loss*" of resources (Hobfoll, 2001, p. 354). Furthermore, the fewer resources an employee has to invest, the less he or she will be able to recoup the minimal resource investment, leading to a reinforcing cycle of

resource loss (Hobfoll, 1998). Accordingly, as resources are finite, this investment of resources for dealing with bullying during the day may leave them with fewer resources to invest in family relationships.

Finally, current research extends existing research suggesting that consequences of exposure to bullying behaviors can vary on a daily basis depending on daily levels of psychological detachment and affective distress. Evidence from dairy studies examining bullying support this dynamic view. For example, in a weekly diary study, Tuckey and Neall (2014) demonstrated that bullying negatively impacted on both optimism and self-efficacy. They also found that exposure to bullying significantly fluctuates within persons over a short period of time. In our study, it was found that 39% of bullying variance was due to day-to-day fluctuation (within-person). Taken as a whole, our findings broadened our conceptual view of the harmful effects of workplace bullying, by focusing on couple relationships.

Methodological strengths and limitations

As with all research, the current research has both strengths and limitations. A major merit of our study - from a methodological viewpoint, is related to the design (e.g., repeated-measures research from two separate sources). For example, according to Ohly et al. (2010), to ensure power we need a higher number of observations at both levels, with at least 50 at the highest level. We have 68 employees and their spouses over 5 consecutive working days twice a day, so we consider our study has an appropriate number of observations (N = 680 observations). Also, a common criticism in the bullying literature is the lack of information from significant others (Neall, & Tuckey, 2014). We address this issue by including both self- and spouse reports. Finally, the use of a daily diary design minimizes the risk of retrospective bias.

Despite its strengths, the present study has some weaknesses. First, we collected self-report data and this raises concerns about common method variance. To minimize such bias, we collected work and family constructs at two different points every day and from two sources. Furthermore, results were consistent across both self- and spouse reports, suggesting robustness in our findings. Therefore, we would not expect common method bias to pose a serious threat to our results.

Second, we assessed relationship satisfaction using a single-item measure. However, as scholars want to keep the burden on participants low, single items are common in diary studies (e.g., Ohly et al., 2010). In addition, Fisher, Matthews, and Gibbons (2016) indicate that single item measures are valid and reliable.

Third, we used a convenience sample, which limits the generalizability of our findings. Although we used a heterogeneous sample, from different job sectors, future studies should explore the spillover and crossover of workplace bullying using more representative samples.

Finally, regarding the method of data collection, we are aware that the use of paper booklets might constitute another limitation. Specifically, concerns have been raised about participants' compliance. However, we tried to maximize compliance and timely completion through several actions. First, participants volunteered to take part in the study so there were no "*benefits*" for them depending on the reported compliance, which significantly reduces the problem of faked responses and backdated entries (Green, Rafaeli, Bolger, Shrout, & Reis, 2006). In addition, we included a detailed explanation concerning the aims of the study and the utility of accurate responding, and students who collaborated with the research team sent daily reminders to participants. Studies comparing paper-delivered versus electronic-delivered diaries indicate that both methods yielded data that were equivalent psychometrically and in patterns of findings

(e.g., Green et al., 2006). Thus, we do consider that the use of paper booklets does not invalidate our findings. Finally, although concerns have been raised regarding samples recruited by students, a recent meta-analysis found no differences in demographics between student and non-student recruited samples (Wheeler et al., 2014).

Practical implications

Finally, our study has implications for practice. Of course, the first step that should be taken is creating the favorable conditions at work so that workplace bullying does not occur. Prevention is crucial and organizations should have clear policies about how to avoid aggressive and counterproductive behaviors and what might happen if employees display these behaviors towards others (e.g., Salin, 2008). However, intervention measures are also needed if employees face this damaging situation. Our findings demonstrate that there are useful strategies that employees may use on a daily basis to avoid the negative impact of workplace bullying.

Therefore, as part of both prevention and secondary intervention, employees should receive training on how to recover from work in the evenings, and more specifically, on how to psychologically detach from job-related problems. The benefits of recovery interventions have been demonstrated by Hahn, Binnewies, Sonnentag, and Mojza (2011). In addition to this, training on emotion regulation strategies and stress management could help employees reduce their daily level of affective distress, allowing them to gain resources to stand up for themselves and improve their well-being at home. This is important because it has been demonstrated that lack of energy and anxiety may increase the likelihood of being bullied as employees do not have enough resources to handle this difficult situation (Rodríguez-Muñoz et al., 2015). Finally, tertiary intervention is offered when the individual has already experienced the bullying and its consequences. Our study shows that workplace bullying leads to cognitive and

emotional problems that finally affect their families. So, partners have a strong influence over each other's experiences. Following this reasoning, it might be beneficial to promote dyadic coping. Certain types of dyadic coping have been shown to be effective in dealing with stress by increasing relationship satisfaction, improving communication between partners, improving marital quality, and increasing feelings of mutual trust and intimacy (Falconier et al., 2015). In this line, partners can also help victims of bullying to disconnect by encouraging them to engage in joint recovery activities. The study by Hahn, Binnewies and Haun (2012) shows that when couples engage together in recovery activities, their level of well-being increases (e.g., increased positive affective states). In sum, and based on our findings, we call for interventions aimed at providing employees and their families with resources that can be used in their daily life to face work stressors in general, and workplace bullying in particular.

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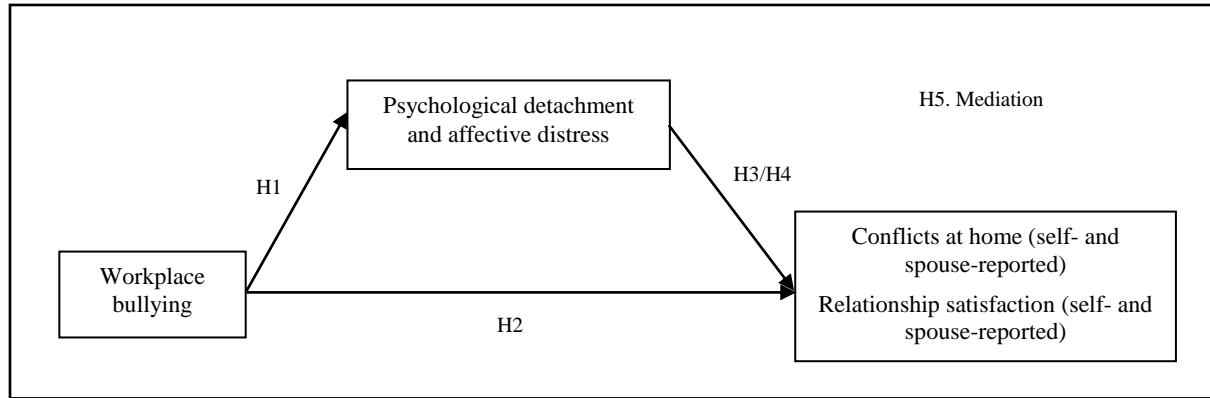
Figure 1. Hypothesized relationships among study variables

Table 1

Mean, standard deviations, and correlations

	M (SD)	1	2	3	4	5	6	7
1. Daily workplace bullying	1.63 (0.96)	---						
2. Daily affective distress	1.71 (0.92)	.18**	---					
3. Daily psychological detachment	4.33 (0.80)	-.15**	-.27**	---				
4. Daily conflicts at home (self-report)	1.33 (0.83)	.14*	.19**	-.24**	---			
5. Daily conflicts at home (spouse-report)	1.40 (0.82)	.12*	.01	-.20**	.51**	---		
6. Daily relationship satisfaction (self-report)	4.49 (0.73)	-.04	-.27**	.44**	-.52**	-.26**	---	
7. Daily relationship satisfaction (spouse-report)	4.52 (0.77)	-.02	-.08	.34**	-.27**	-.47**	.49**	---

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

Table 2
Multilevel estimates for models examining intra-individual effects on home domain outcomes

	Conflicts at home (self-report)			Conflicts at home (spouse-report)			Relationship satisfaction (self-report)			Relationship satisfaction (spouse-report)		
	Estimate	SE	t	Estimate	SE	t	Estimate	SE	t	Estimate	SE	t
Model 1												
Intercept	1.336	0.047	28.4***	1.408	0.046	30.6***	2.511	0.041	61.2***	2.509	0.041	61.1***
Gender	-0.090	0.107	-0.84	-0.336	0.103	-3.26**	0.063	0.093	0.67	0.413	0.094	4.39**
Age	0.002	0.004	0.50	0.003	0.004	0.75	0.003	0.004	0.75	0.006	0.004	1.50
Type of contract	0.018	0.107	0.16	-0.136	0.104	-1.30	0.134	0.092	1.45	0.083	0.093	0.89
-2 X Log (lh)			808.20			791.00			726.46			738.35
Model 2												
Intercept	1.336	0.046	29.0***	1.410	0.046	30.6***	2.509	0.041	61.1***	2.514	0.041	61.3***
Gender	-0.079	0.106	-0.74	-0.319	0.149	-2.14*	0.059	0.094	0.62	0.380	0.095	4.00**
Age	0.002	0.004	0.50	0.003	0.006	0.50	0.003	0.004	0.75	0.006	0.004	1.50
Type of contract	0.041	0.106	0.38	-0.119	0.150	-0.79	0.126	0.093	1.35	0.120	0.094	1.27
Workplace Bullying	0.120	0.048	2.50**	0.104	0.046	2.26*	-0.027	0.042	-0.64	-0.031	0.040	-0.77
-2 X Log (lh)			800.29			747.23			724.47			724.02
Model 3												
Intercept	1.336	0.045	29.6***	1.403	0.045	29.6***	2.511	0.039	64.3***	2.515	0.037	67.9***
Gender	-0.095	0.106	-0.89	-0.256	0.105	-2.43*	0.043	0.079	0.54	0.323	0.085	3.80**
Age	0.001	0.004	0.25	0.003	0.004	0.75	0.001	0.003	0.33	0.003	0.003	1.00
Type of contract	0.039	0.103	0.37	-0.113	0.102	-1.10	0.118	0.077	1.53	0.104	0.089	1.16
Workplace Bullying	0.071	0.049	1.44	0.102	0.047	2.17*	-0.051	0.037	-1.37	-0.072	0.040	-1.80
Psychological detachment	-0.200	0.059	-3.38**	-0.191	0.058	-3.29**	0.265	0.044	6.02***	0.207	0.048	4.31**
Affective distress	0.128	0.053	2.41*	0.068	0.054	1.25	-0.151	0.040	-3.77**	-0.006	0.043	-0.13
-2 X Log (lh)			773.22			759.05			589.76			635.60

* p< .05. ** p< .01. *** p< .001.
Note: Gender = 1 Male; 2 Female. Type of contract: 1 Full time; 2 Part time.