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Workplace Bullying and Post-Traumatic Stress Disorder Symptoms: a Double Mediation Model

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Abstract

The purpose of this study is to explore the interlinkage of emotion-focused coping and perceived stress in the relationship between workplace bullying and post-traumatic stress disorder (PTSD) symptoms. This study was a cross-sectional nation-wide survey with sampling in ten cities across Turkey. The sample (N=257) is composed of employees who reported high exposure to bullying. The scales used are workplace bullying, PTSD symptoms, perceived stress and emotion-focused coping. Through a double mediation model, results demonstrate that the relationship between workplace bullying and PTSD symptoms is affected by the interaction between emotion-focused coping and perceived stress. This study contributes to fill the gap in the workplace bullying literature by focusing on person-related factors. To our knowledge, the mediator role of perceived stress and emotion-focused coping has not been studied together yet in the workplace bullying and PTSD research. Workplace bullying has important organizational and economic consequences as well as individual serious health problems. HRM implications are discussed to prevent victims to get into a vicious cycle.

Keywords: Workplace bullying; PTSD symptoms; perceived stress; emotion-focused coping.

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1. Introduction

Researchers have identified bullying as an important psychosocial problem in the last decades. Although there are numerous definitions of workplace bullying, this study utilizes the definition from Einarsen, Hoel, Zapf, & Cooper (2011, p.22), which states that:

"Bullying at work means harassing, offending, socially excluding someone or negatively affecting someone's work tasks. For the label bullying (or mobbing) to be applied to a particular activity, interaction or process it has to occur repeatedly and regularly (e.g., weekly) and over a period of time (e.g., about six months)."

Being exposed to bullying has job-related and health-related negative outcomes (Nielsen & Einarsen, 2012). A recent cross-sectional study (Verkuil, Atasayi, & Molendijk, 2015) highlighted the relationship between workplace bullying and mental health by showing positive associations between workplace bullying and symptoms of depression, as well as stress-related psychological complaints and anxiety. Leymann and Gustafsson (1996) reported that as anxiety becomes chronic during bullying process, victims illustrate chronic anxiety symptoms, such as muscular tension, autonomic nervous system hyperactivity, hypersensitivity, and post-traumatic stress disorder. In a recent meta-analysis Nielsen, Tangen, Idsoe, Matthiesen, & Mageroy (2015) reported the frequency of post-traumatic stress disorder (PTSD) symptoms as an average of 57% among victims of bullying. Despite the growing knowledge on the antecedents of workplace bullying, studies focusing on person-related factors are comparatively few. Some researchers (Hauge, Skogstad, & Einarsen, 2007, 2009; Nielsen, Hetland, Matthiesen, & Einarsen, 2012) shed light on the mutual relationship between bullying and stress, indicating a vicious cycle. Chosen coping mechanisms have crucial importance on the impact and effectiveness of given responses to stressors in life (Billings & Moos, 1981). In exposure to trauma, ineffective and maladaptive coping behavior may increase the risk of PTSD reactions (Cohn, Crane, & Hodson, 2011; Skeffington, Rees, & Mazzucchelli, 2016). Some researchers (Nielsen & Einarsen, 2012; Van den Brande, Baillien, De Witte, Vander Elst, & Godderis, 2016) underlined the crucial role of individual appraisal and coping behaviors in workplace bullying. In their chapter, Nielsen, Mikkelsen, Persson, & Einarsen (2020) demonstrated with several studies, mainly of cross-sectional designs, how individual dispositions related to coping may affect the impact of bullying on health outcomes. However, workplace bullying leads not only individual consequences but also organizational (Hoel, Cooper, & Einarsen, 2020) and socio-economic (Kline & Lewis, 2019) negative effects.

The purpose of the paper is to analyze the role of perceived stress in the relationship between workplace bullying and PTSD symptoms, and to explore the role

of emotion-focused coping behavior in this interlinkage, and to demonstrate the vicious cycle bullying victims get into.

2. Workplace Bullying and PTSD Symptoms

PTSD is different than the other psychiatric diagnoses since it has two distinct processes: (1) The exposure to trauma; and (2) the development of a specific pattern of symptoms in temporal or contextual relation to the traumatic event. DSM-IV-TR contained a subjective component in the A1-criterion, stating: "personal response of intensive fear, helplessness or horror" (American Psychiatric Association, 2000, p. 463). While exposure to workplace bullying consists of a systematic exposure to a set of negative events or incidents over a prolonged time period, rather than a single traumatic event, the level of distress experienced by many of the victims reaches to a level of stress associated with traumatic experiences (Matthiesen & Einarsen, 2004; Tehrani, 2004). Although it is not exactly clear why the experience of bullying may lead to trauma (Mikkelsen & Einarsen, 2002), several researchers have shown the important role cognitions play in the development or preservation of PTSD (Clifton et al., 2019; Janoff-Bulman, 1992).

In their study, Mikkelsen and Einarsen (2002) found that while 76% of bullied employees displayed some PTSD symptoms, 29% of them carried out all the symptoms of PTSD when compared to the criteria of DSM-IV-TR. A recent meta-analysis revealed that on average 57% of bullied victims display PTSD symptoms above thresholds (Nielsen et al., 2015). Similarly, several studies found that targets of bullying show many symptoms of PTSD (Ahmad & Sheehan, 2017; Bjorkqvist, Osterman & Hjelt-back, 1994; Leymann & Gustafsson, 1996; Matthiesen & Einarsen, 2004; Tehrani, 2004). In their study comparing PTSD levels of bullied employees with other samples, such as war zone personnel, recently divorced people, parents of children in a fatal bus accident, and postal employees after an organizational downsizing, Matthiesen and Einarsen (2004) found that bullied employees especially demonstrate higher levels of stress and PTSD symptoms. Besides, a comprehensive longitudinal study on Norwegian workforces revealed that, even after five years following actual exposure, destructive mental health consequences of bullying persist (Einarsen & Nielsen, 2015). Moreover, individuals who were exposed to some specific behaviors, such as being mocked or ridiculed, being avoided or humiliated or shown as incapable due to age or gender, and being given extremely high or low levels of work, experienced PTSD symptoms at higher levels than the others (Matthiesen & Einarsen, 2004). Thus, in line with the literature, bullying at work is expected to be associated with PTSD symptoms:

H1: PTSD symptoms increase with exposure to bullying.

Workplace bullying, perceived stress and emotion-focused coping, and PTSD symptoms

As several authors (Leymann & Gustafsson, 1996; Vartia, 2001; Zapf & Gross, 2001) have suggested, bullying can be analyzed as an important type of social stressor. Leymann (1996) described the sources of stress in workplace bullying as biological reactions to poor psychosocial environments and stimulating feelings of frustration. Subsequently, these reactions turn into a social stressor through psychological processes. In other words, a stressful environment prepares grounds for bullying, while at the same time, bullying causes intensive stress in a vicious cycle (Hauge et al., 2007, 2009). Nielsen et al. (2012) also argues that exposure to workplace bullying activates psychological distress, which in turn leads to more workplace bullying exposure.

Cohen, Kamarck, and Mermelstein (1983) developed and defined the concept of perceived stress as the events which are considered as stressful by the individual. They define psychological stress as the extent to which persons appraise that their demands exceed their ability to cope. Coping with workplace bullying consists of a target's cognitive and behavioral efforts to encounter the demands created by stressful interactions (D'Cruz & Noronho, 2010). As opposed to other traumas, bullying is a personally motivated private event, and therefore bullied individuals generally do not share their psychological distress with the perpetrator or other colleagues. As a result, negative feelings and elevated stress eventually turn into serious health related problems such as PTSD (Tehrani, 2004). Therefore, the following hypothesis was formulated:

H2: Perceived stress mediates the relationship between exposure to bullying and PTSD symptoms.

Lazarus and Folkman's (1984) model covers the relationship between stress and coping styles. The authors suggest that individuals make two appraisals of events: (1) the assessment of whether events affect the individual's well-being; and (2) the evaluation of whether a threat surpasses the individual's coping capacity. Later, they (Folkman & Lazarus, 1985) defined two categories of coping strategies: problem-focused/active coping and emotion-focused/passive coping. While problem-focused coping is defined as efforts to directly address the source of the problem to decrease or eliminate the stressor, emotion-focused coping helps in reducing the individual's negative emotional response to a stressor. Whereas stressors perceived as uncontrollable elicit more avoidance strategies, Karasek and Theorell (1990) determined in the second appraisal that, if stressors are perceived as controllable, more proactive coping mechanisms are produced (Lazarus & Folkman, 1984).

Nielsen and Einarsen (2012) underlined the distinctiveness of the consequences of bullying, since each person's experiences can differ based on event characteristics, individual appraisal, and coping processes. Johannsdottir and Olafsson (2004) examined coping processes, especially in relation to bullying, and described four types: seeking help, assertiveness, avoidance and doing nothing. The authors underlined that exposure to workplace bullying is related to avoidance behaviors (e.g., taking sick-

leave or quitting the job) and doing nothing (e.g., ignoring the problem or hoping that the negative behavior stops). Workplace bullying is associated with increased mental and physical strain and with passive coping strategies, such as denial, and mental and behavioral disengagement from work tasks (Maidaniuc-Chirila, 2015; Reknes, Einarsen, Pallasen, Bjorvatn, Moen, & Mageroy 2016). Successful copers of bullying, on the other hand, applied psychosocial behaviors, such as searching for external support and other intrapersonal psychological strategies, in order to reach psychological equilibrium and distance themselves from the problem (Matthiesen, Aasen, Holst, Wie, & Einarsen 2003; Zapf & Gross, 2001).

Emotion-focused coping strategies may, therefore, impair employee well-being because they are maladaptive patterns of coping style (Nielsen & Knardahl, 2014). Nevertheless, emotion-focused coping is one of the most employed coping behaviors against bullying, used increasingly as victims are exposed to bullying for longer periods (Forte, Przygodzki-Lionet, & Masclet, 2006). Some researchers well documented the negative results of avoidance (Zapf & Gross, 2001; Djurkovic, McCormack, & Casimir, 2005). Emotion-focused coping strategies can amplify the association between work stressors and exposure to bullying (Van den Brande et al., 2016). Targets who denied the presence of bullying can experience more health problems by trying to defeat their anxiety (Dehue, Bolman, Vollink, & Pouwelse, 2012). Such denial and silence contributed to the psychological tension that damages the individual's self-esteem (Salin, Tenhiala, Roberge, & Berdahl., 2014). Research also demonstrates that avoidance moderated the relationship between bullying and psychological well-being in a counterintuitive manner, exacerbating the negative impact of bullying on psychological well-being (Bernstein & Trimm, 2016). Another study revealed that avoidance type emotion-focused coping strategies increase the intensity of thoughts about the trauma, and thus escalate distress and trigger more avoidance behaviors, this in turn, leads to higher levels of PTSD symptoms (Skeffington et al., 2016). Thus, the following hypotheses are formulated:

H3: Emotion-focused coping mediates the relationship between exposure to bullying and PTSD symptoms.

H4: Emotion-focused coping and perceived stress both mediate the relationship between exposure to bullying and PTSD symptoms.

3. Method
3.1 Sample and Data Collection

The sample was collected from a cross-sectional national study. Data collection was carried out in 10 cities - Istanbul, Ankara, Izmir and 7 other big cities in Turkey. Of 1500 surveys delivered, 1003 of them were returned. The size of the sample collected from each city is close to the proportion of the total population of the city. Participants who volunteered to contribute to this study by responding to the questionnaire were assured of the confidentiality of their responses. To test our

hypotheses, we selected the data of the employees (N=257) who had high bullying score (one SD above the mean), since our aim was to prove the vicious cycle the bullying victims get in through stress they experience and emotion-focused coping strategies they use.

In the sample (N=257), the ages varied between 21 and 50 (57% were 21-30, 31% were 31-40, 10% were 41-50), and 40% were female. In terms of education, 52% had high school diplomas, 48% had undergraduate degrees. The sample was composed of participants selected across the organizational hierarchy (57% clerical workers, 23% experts, and 20% supervisors,), from private (79%) and public (21%) sectors which were: health (9%), education (10%), banking/finance (9%), auditing (8%), IT (9%), tourism (9%), transportation (8%) and marketing/sales (15%), importation/exportation (10%), and state institutions (10%).

3.2 Measures

The instruments of the study were translated into Turkish and then translated back into its original language (English) by two bilingual academics, as was suggested by Brislin's instructions (1986). The scales showed satisfactory psychometric properties. All instruments were rated on a Likert scale ranging from 1 to 5.

Workplace bullying. The scale is inspired from the instruments developed by Leymann (1996) and Neuman and Keashly (2004). The scale aims to evaluate the nature and severity of workplace bullying and is composed of 30 items (Cronbach's = 0.85). The scale contains five subscales: victim's communication, victim's maintaining social contacts, victim's personal reputation, victim's occupational reputation, and victim's physical health. The five subscales are validated by factor analysis (factor load ≥ .30). Example items of each subscales respectively: "How often have you been prevented from expressing yourself (interrupting your speech, not being listened to)?", "How often have you been ostracized from your work environment (not being talked to, not being invited to meetings)?", "How often have you been not given any tasks, or have any tasks been withheld from you?", "How often have they talked behind your back or gossiped about you?", and "How often have you been threatened by physical harm (beating, injuring or killing)?"

Perceived stress. Developed by Cohen et al. (1983), the scale is based on Lazarus and Folkman's (1984) concept of cognitive stress. It contains 10 items (Cronbach's alpha = 0.78). Example items are: "How often have you felt nervous and stressed?", "How often have you been able to control irritations in your life?", and "How often have you been angry because of things that were outside of your control?"

Post-traumatic stress disorder symptoms. Eight items from Blake et al.'s (1990) scale for PTSD were adapted to work life by the authors (Cronbach's alpha = 0.82). The items are created to represent the essential b, c, d, and e criterion symptoms

of PTSD in DSM-V (APA, 2013). These symptoms are: (b) occurrence of intrusion symptoms associated with the traumatic events, (c) insistent avoidance of reminders associated with the traumatic events, (d) negative alterations in cognitions and mood associated with the traumatic events, and (e) significant changes in arousal and reactivity associated with the traumatic events. The scale aims to illustrate the effects of PTSD symptoms in work life. Example items include: "I keep feeling as if negative events were recurring, even when I am not at my workplace." and "During work hours I frequently want to run away from my workplace."

Emotion-focused coping behaviors. Inspired by Vitaliano, Russo, Carr, Maiuro, & Becker (1985) study, our scale measures ways of coping with bullying. Emotion-focused coping scale is composed of six items (avoidance, guilt, waiting for a miracle, blaming others, expecting help, and denial). Example items include: "I tried to avoid bullies." and "I waited for a miracle, to get out of what had happened." (Cronbach's alpha = 0.78)

4. Results

The analysis of means, standard deviations and correlation coefficients between the variables are illustrated in Table 1.

Table 1. Means, Standard Deviations and Correlation Coefficients

	M	SD	1	2	3
1. Bullying	72.70	18.16			
2. PTSD symptoms	25.62	6.64	.16*		
3. Emotion-focused coping	15.29	2.89	.12*	.45**	
4. Perceived stress	32.13	6.38	.23**	.31**	.22**

*Correlation is significant at the 0.05 level (2-tailed)

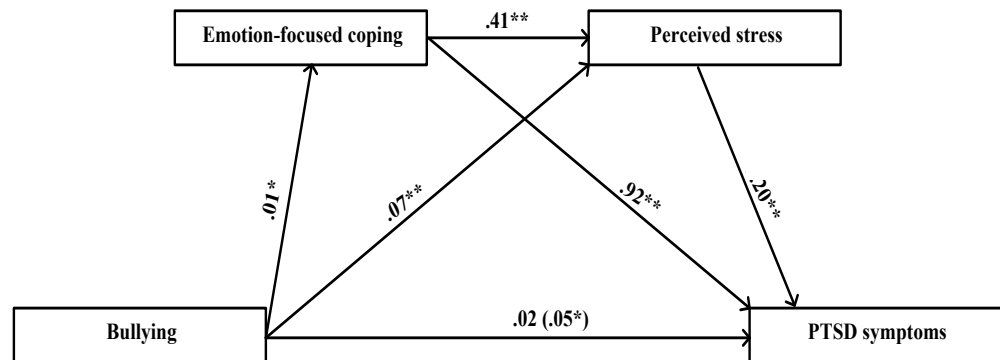** Correlation is significant at the 0.01 level (2-tailed)

As expected in H1, PTSD symptoms increase with exposure to bullying (*r* = .16, *p* ≤ .01).

To test the simple mediation hypotheses, first we computed a series of regression equations as prescribed by Baron and Kenny (1986). According to this approach, three relationships between the target variables must be demonstrated to establish a basis for testing mediation.

Bullying had a significant and positive effect on perceived stress ($R = .23$, $R^2 = .05$, $F = 14.89$, $p \leq .001$), and PTSD symptoms ($R = .16$, $R^2 = .02$, $F = 6.63$, $p \leq .01$). A third regression analysis established that perceived stress was a significant predictor of PTSD symptoms ($R = .31$, $R^2 = .09$, $F = 26.80$, $p \leq .001$). Finally, when PTSD symptoms were regressed onto both bullying and perceived stress ($R = .32$, $R^2 = .10$, $F = 14.57$, $p \leq .001$), the effect of bullying was reduced and did not remain a significant predictor of PTSD symptoms ($\beta = .09$, $t = 1.48$, $p = .13$), whereas perceived stress remained significant in the equation ($\beta = .28$, $t = 4.68$, $p \leq .001$). In conclusion, perceived stress mediated the relationship between exposure to bullying and PTSD symptoms (H2). This result was confirmed with a Sobel test ($z = 2.13$, $p \leq .05$).

Bullying also had a significant and positive effect on emotion-focused coping ($R = .12$, $R^2 = .01$, $F = 4.06$, $p \leq .05$), and PTSD symptoms ($R = .16$, $R^2 = .02$, $F = 6.63$, $p \leq .01$). A third regression analysis established that emotion-focused coping was a significant predictor of PTSD symptoms ($R = .45$, $R^2 = .20$, $F = 65.15$, $p \leq .001$). Finally, when PTSD symptoms were regressed onto both bullying and emotion-focused coping ($R = .46$, $R^2 = .21$, $F = 33.76$, $p \leq .001$), the effect of bullying was reduced and did not remain as a significant predictor of PTSD symptoms ($\beta = .09$, $t = 1.70$, $p = .09$), whereas emotion-focused coping remained as significant in the equation ($\beta = .44$, $t = 7.76$, $p \leq .001$). In conclusion, emotion-focused coping mediated the relationship between exposure to bullying and PTSD symptoms (H3). This result was confirmed with a Sobel test ($z = 1.94$, $p \leq .05$).

Secondly, a double mediation model is accomplished by using process macro (Preacher & Hayes, 2008). This model (see Figure 1) shows how the relationship between exposure to bullying and PTSD symptoms is affected by the relationship between emotion-focused coping and perceived stress ($R = .49$, $R^2 = .24$, $F = 27.49$, $p \leq .001$). Thus, our H4 was justified.

** Unstandardized coefficient is significant at the 0.01 level (2-tailed)

* Unstandardized coefficient at the 0.05 level (2-tailed)

Figure1. Mediating effect of emotion-focused coping and perceived stress on the relationship between workplace bullying and PTSD symptoms

4. Discussion

The aim of the present study was to investigate the effect of emotion-focused coping and perceived stress on the relationship between workplace bullying and PTSD symptoms using a double mediation model.

As hypothesized, we found that participants with high levels of workplace bullying reported higher levels of PTSD symptoms. In alignment with other studies (Andersen, Hogh, Biering, & Gadegaard 2018; Balducci, Alfano & Fraccaroli, 2009; Bond, Tuckey & Dollard, 2010; Islamoska, Grynderup, Nabe-Nielsen, Hogh, & Hansen, 2018; Laschinger, Nosko & Wong, 2013; Leymann & Gustafsson, 1996; Malinauksiene & Einarsen, 2014; Matthiesen & Einarsen, 2004; Nielsen et al., 2015; Mikkelsen and Einarsen 2002; Tehrani, 2004; Rodriguez-Munoz, Moreno- Jimenez, Vergel, & Hernandez, 2010, Tehrani, 2004), our findings confirm the link between exposure to bullying and PTSD symptoms.

Stress emerged as the main factor in the processes of bullying. Since stress lays the ground for bullying, bullying also causes stress in a circular movement. Previous research yielded that exposure to workplace bullying was related to psychological and physiological stress response (Hogh, Hansen, Mikkelsen, & Persson, 2012). On the other hand, the effects of bullying differ between individuals depending on the interrelationship between event characteristics, individual appraisal, and coping processes (Nielsen & Einarsen, 2012). A recent study highlighted the role of perceived stress in the relationship between bullying and negative health consequences

(Grynderup et al., 2016). Our analysis indicated a similar trend on the mediation of perceived stress between exposure to bullying and PTSD symptoms.

We examined the mediating role of emotion-focused coping in relation to perceived stress and exposure to workplace bullying. Research supports (Maidaniuc-Chirila & Constantin, 2015; Maidaniuc-Chirila & Treadway, 2016) our results, as emotion-focused coping strategies (e.g., denial, mental, and/or behavioral disengagement) increase in the bullying process, they lead victims into less efficient and more strained states.

This study also aims to fill the gap in the literature on the mediating role of emotion-focused coping and perceived stress on the relationship with bullying and PTSD symptoms. Our double mediation model highlights the cognitive mechanism. In other words, when bullied persons appraise that demands of a specific situation exceed their ability to cope, they demonstrate more PTSD symptoms, as parallel to the results of Nielsen and Einarsen (2012). However, the relationship between bullying and perceived stress is mediated by emotion-focused coping. When victims employ more emotion-focused coping strategies, their perceived stress levels increase. The impact of interaction between two mediators explains the vicious cycle. In the same vein, findings of other studies also show that emotion-focused coping strategies exacerbate the psychological functioning of the individual (Billing & Moos, 1981; Nielsen & Knardahl, 2014; Skeffington et al., 2016).

Workplace bullying is a social, organizational, and economic threat, as well as being an individual one. Absenteeism, turnover, and productivity reductions cause huge financial costs and loss in organizations (Hoel, Cooper &Einarsen, 2020; Kline & Lewis, 2019). Although there is not any study examining cost of workplace bullying in Turkey, we can estimate that it is relatively high, (Minibas-Poussard & Idig-Camuroglu, 2016; Zapf et al., 2020) taking into consideration the fact that exposure rates are higher than European countries. In addition, Turkish Labor Law does not have a direct regulation to protect employees from bullying; still there are some related articles (Bayat & Baykal, 2016). Nevertheless, organizational health and safety law and other labor laws are not enough for prevention of workplace bullying, specific regulations are necessary to define the psychosocial risk factors (Tunc, 2017).

The results of this study have some HRM implications. Research shows that bullying and harassment behaviors are mostly ignored by organizations, until they start to affect employee productivity or profitability of the organizations and employees and supervisory staff had minimal practical skills or training on how to cope efficiently with workplace bullying (Van Rooyen & McCormack, 2013). According to Salin (2020), HRM has a great responsibility to handle bullying cases besides preparing anti-bullying policy, raising awareness and introducing robust conflict management. Intervention programs should be combined on both individual and organizational levels to be most effective and mutually reinforcing (Zapf & Vartia, 2020). Collective

efficacy plays a major role in the management of stressful events (Esnard & Roques, 2014). HR professionals can help create a culture in which employees feel comfortable to share their experiences, make formal complaints when needed and does not allow aggressive behaviors by preparing formal statements and training programs (Duffy, 2009). In addition, Proctor and Tehrani (2001) stated some organizational support sources such as a phone helpline, information/advice, secret supporter, official process supporter, training, mediator/conciliator, and counselling process.

Zapf and Vartia (2020) underlined the vital importance of stress management and self-assertiveness trainings to enable coping with bullying. Grynderup et al. (2016) showed that interventions aimed at decreasing perceived stress levels of workplace bullying victims may prevent sickness absence as well. In the same vein, Van den Brande et al. (2016) disclosed that in some cases, using effective coping strategies may inhibit workplace bullying. Reknes et al. (2016) underlined that victims of bullying tend to cope more negatively with stressful events than do non-victims. As Wilton, Craig and Pepler (2000) stated, maladaptive emotional regulation processes in bullying may lead individuals into chronic victimization.

As our aim was to demonstrate the effect of perceived stress and emotion-focused coping in the relationship between exposure to bullying and PTSD symptoms, the results of this study cannot be generalized as the cause and effect relationship between workplace bullying and PTSD. Mikkelsen et al. (2020) underlined that cross-sectional studies contributed to the understanding of causality as a first step by analyzing the associations between workplace bullying and the indicators of psychological distress reactions although they have shortfalls in explaining the direction of cause and effect. Future longitudinal and qualitative studies would contribute to explain this causality better in terms of getting into a vicious cycle.

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