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Exposure to bullying behaviours, resilience, and return to work self-efficacy in patients on or at risk of sick leave

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Abstract: The study investigated relationships between exposure to bullying behaviours, return to work self-efficacy (RTW-SE) and resilience, and if resilience moderates the bullying-RTW-SE relationship among patients on sick leave or at risk of sick leave due to common mental disorders (CMD). A sample of 675 patients treated in an outpatient clinic was analysed using regressions and moderation analyses by employing SPSS and the Process macro SPSS supplement. The results showed a negative relationship between exposure to bullying behaviours and RTW-SE. There was also a positive main effect for resilience, as patients with high resilience score significantly higher on RTW-SE than patients with low resilience irrespective of levels of bullying. Further, the resilience sub-dimension personal resilience moderated the bullying-RTW-SE relationship, while the sub-dimension interpersonal resilience did not. Patients high on personal resilience showed relatively lower RTW-SE scores when exposed to bullying behaviours, compared to those that were not bullied with high personal resilience levels. Hence, one should take note of the fact that even if resilience may strengthen RTW-SE, bullying is an adverse event which particularly affects individuals who present with relatively high levels of resilience resources, at least when it comes to RTW-SE.

Key words: Workplace bullying, Resilience, Return to work self-efficacy, Common mental disorders, Sick leave

Introduction

Workplace bullying has been established as a major predictor of health problems and impaired well-being among exposed employees[1, 2]. It is associated with a greater risk for sick leave[3] and even for expulsion from the workplace and potentially from working life itself[4–6]. Some targets

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may leave by changing jobs and seeking new employment, while some develop health problems to such degree that it prevents them from returning to work after periods of sick leave. Hence, it is important to study factors that may decrease or increase the chance that individuals exposed to bullying return to work or avoid long-term sick leave all together. Two such important psychological factors in this respect are return to work self-efficacy (RTW-SE) and resilience. To our knowledge, there are no studies investigating the relationship between exposure to bullying behaviours at the workplace and RTW-SE, as well as the role of resilience in this respect. Thus, the present study investigates the relationship between exposure to bullying behaviours, resilience and RTW-SE in a highly relevant sample; patients on sick leave or at risk and in need of mental health treatment with return to work as an explicit aim. Furthermore, we examine the possible moderating effect of resilience on the proposed relationship between exposure to bullying behaviours and RTW-SE to shed light on the role of personal and interpersonal resilience factors in this proposed relationship.

Exposure to workplace bullying is about being subjected to systematic negative and unwanted behaviours at work over a prolonged period of time[7]. The negative behaviours involved tend first and foremost to be of a psychological nature and can include behaviours such as verbal hostility, obstruction of one's work, and social exclusion. It typically escalates over time. Hence, exposure to bullying behaviours can vary in both intensity and frequency[8]. Further, there is often a power imbalance between the target and the perpetrator, which makes it difficult for the individual to defend themselves in the actual situations[8–10].

Exposure to bullying behaviours is a severe psychosocial stressor for most targeted and is considered one of the most harmful psychosocial stressors one can endure in the contemporary workplace[11]. Studies have established a strong association between such exposure to bullying behaviours and impaired health and well-being among employees[1, 12–14]. It has been associated with health outcomes like physiological symptoms, insomnia, and general stress[2, 13, 15], and particularly with an increase in common mental disorders (CMD), such as anxiety and depression[12, 16]. Further, the psychological strain suffered by those exposed have been reported to include risk of post-traumatic stress disorder and risk of suicide even among men and women with no previous psychiatric disorders[13, 17]. A five-year follow-up study by Einarsen and Nielsen[18], found that exposure to workplace bullying was a significant predictor of mental health problems, even after controlling for mental health problems at baseline. In a study among nurses, even low intensity workplace bullying predicted an increase in anxiety one year after exposure[19].

Targets of workplace bullying typically become sick listed due to CMD, which may be related to the psychological consequences of bullying or become part of a vicious circle of events[3, 5, 14]. CMD has become one of the leading causes of long-term sick leave and affects one out of six in the working population[20]. In the Norwegian working population, CMD accounts for roughly 20% of the sick leave and one third of the disability pensions[21]. The chance of succeeding in return to work (RTW) decreases with long-term sick leave due to CMD, and only half of the individuals with a sick leave exceeding six months due to CMD are able to return to work[22].

One factor that have been found to be an important predictor for RTW for individuals with CMD is self-efficacy[23–25]. Self-efficacy has been described as an individual's belief in their own ability to be successful in performing specific behaviours, such as being able to handle the demands of their job[26]. It has developed into a valuable concept in RTW research, where individuals on sick leave due to CMD with high levels of self-efficacy have been shown to return to work faster than those with low levels of self-efficacy[23, 24, 27]. In a systematic review by Nigatu *et al.*[25] RTW-SE was an important prognostic factor for return to work in patients with CMD. Individuals with high levels of RTW-SE are more confident regarding their ability to handle expected demands at work compared to individuals low on RTW-SE[28].

Against this background, we assumed that a considerable amount among patients presenting with CMD have experienced workplace bullying, which then again may be a part of their problems in holding on to their job. Furthermore, experiencing bullying at work may in itself reduce RTW-SE due to one's real and perceived difficulties at work. However, to our knowledge, there have been no studies examining the relationship between exposure to bullying and RTW-SE, which is particularly relevant among patients with CMD on sick leave or at risk of such sick leave.

Another highly interesting facet of factors in this respect is the said individual's resilience. This concept is multidimensional and consists of several factors and processes representing both internal and external resources that may influence outcomes when facing adversity[29, 30]. The internal resources comprise an array of different personal qualities[30]; including e.g. perception of self, planned future, structured style, and social competence[31]. These internal resilience factors possess resources such as positive social

skills, feelings of self-efficacy, a high self-esteem, and a capacity for organizing their own life. Both social competence and planned future have been indicated to be significant predictors for lowered levels of psychological symptoms when exposed to stressful life events[32]. In addition, having a structured personal style has been associated with better coping when dealing with trauma[33]. For interpersonal resources, family cohesion and social resources focus on external resources, and are thought of as social sources of support that the individual has available when facing stressors. These types of interpersonal resources have also been found to be associated with better coping during stress[31, 34]. High levels of resilience seem to make individuals better at dealing with general challenges and adversities in life[31, 35]. It has also been associated with less health complaints, both physiological and psychological, and with less perceived stress in general[30, 36, 37]. Few studies have examined the relationship between resilience and RTW, but some studies have suggested that resilience resources, such as social support, are associated with higher RTW[38, 39]. RTW-SE can be seen as a proxy for RTW and considering previous resilience research one may postulate that highly resilient individuals would be better at handling challenges and adversity related to work, and as such would be more likely to have higher RTW-SE as compared to less resilient individuals. To the best of our knowledge, no studies have investigated the relationship between resilience and RTW-SE. Resilience research has identified both main and buffering effects[32, 40]. The latter is often illustrated with the fact that having higher levels of personal or interpersonal resilience, seem to protect the individual from adverse effects of exposure to a range of stressors[32].

Based on these findings one would expect that targets of bullying yet high on resilience should be more likely to keep up their RTW-SE even under higher levels of exposure, as compared to targets low on resilience. In this case resilience should act as a moderator in the proposed bullying-RTW-SE relationship. However, empirical studies examining the effect of personal dispositions, such as coping styles, and positive external resources, such as social support, have shown interesting, mixed and to some extent surprising results as moderating factors of the bullying-health relationship. Reknes and colleagues[41] investigated whether hardiness acted as a buffer for symptoms of anxiety and depression when exposed to bullying behaviours. Their findings indicated that when exposed to bullying behaviours non-hardy individuals reported an increase in anxiety, while hardy individuals reported lower levels of anxiety, regardless of degree of exposure. There was, however, no buffering effect of hardiness in relation to depression. In addition, social support has also been found by some studies to have a buffering effect in relation to stressors like workplace bullying[42, 43]. Several newer studies contradict this. For instance, a study by Nielsen, Gjerstad, Jacobsen, and Einarsen[44] examined the relationship between one's perceived ability to defend oneself when exposed to bullying and anxiety symptoms. The results suggested that the ability to defend oneself seemed to have a protective effect when there was no or low exposure of bullying behaviours. However, under high exposure to bullying behaviours, the protective buffering effect disappeared. In fact, individuals with a high ability to defend themselves had a larger increase in anxiety when moving from low to high exposure to bullying behaviours compared to individuals who felt unable to defend themselves. This result is supported by several other studies investigating other likely and related buffer factors such as coping styles[45, 46] and optimism[47], which all have found that these protective factors in fact did not protect the individuals who were exposed to high levels of bullying behaviours. Some of these studies did however show a protective main effect between the buffer factor and mental health complaints[44, 45, 47]. These findings, together with Nielsen and colleagues[44] findings, suggest that being exposed to a severe social stressor, such as bullying, will have negative effects also for those that generally have the resources to cope well with stress. In fact, according to these studies, individuals who have more protective resources seem to be relatively more negatively affected than individuals with less protective resources when under high exposure. A possible explanation is that some types of stressors, in particular interpersonal mistreatment such as workplace bullying, have a general negative affect on all those exposed, yet individuals with high abilities to deal with stressors may be relatively more overwhelmed and surprised when being exposed to bullying and hence relatively more affected.

Against this backdrop, one may postulate that patients exposed to high levels of bullying behaviours will experience a lack of protective buffering effect from resilience. We therefore hypothesised that high exposure to bullying behaviours will have a negative direct relationship with RTW-SE (H1). Further, there will be a positive main effect of resilience (H2), where individuals with high resilience scores will score higher on RTW-SE irrespective of levels of bullying. Finally, we hypothesised that resilience will show a reversed buffering effect for the bullying-RTW-SE relationship (H3), where a particularly strong negative relationship exists between bullying and RTW-SE for those

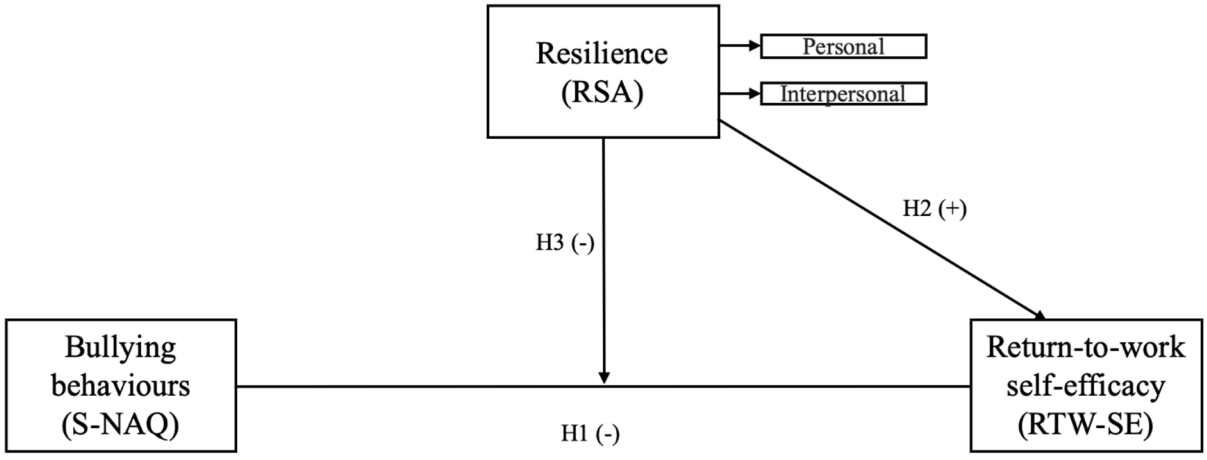

Fig. 1. Theoretical model showing the proposed relationships between exposure to bullying behaviours (S-NAQ) and return to work self-efficacy (RTW-SE), and resilience and RTW-SE. As well as, the proposed reversed buffering effect of resilience on the bullying-RTW-SE relationship.

high on resilience[11, 44]. See Fig. 1 for theoretical model.

Material and Methods

Participants and Procedure

A total of 998 potential patients were originally referred to the clinic during the inclusion period. In accordance with current clinics standard intake procedure patients with severe mental disorders (e.g., bipolar or psychosis), high risk of suicide or substance abuse were not assessed and referred to appropriate treatment in other clinics. Those offered treatment were then asked consent to take part in the research. To be included in this study the patient had to be employed, be above the age of 18, referred to the clinic due to mild-to-moderate depressive disorder and/or an anxiety disorder, and be on sick leave or at risk of sick leave. This resulted in a sample of 675 patients that were included in the present study. The data was collected from June 2017 through January 2019. The patients completed the questionnaires at intake.

The clinic offers treatment for depression and anxiety disorders for individuals who are on or at risk of sick leave, as determined by their general practitioner (GP). The patients were diagnosed by the clinical psychologists and psychiatrist responsible for treatment diagnoses in accordance with the national guidelines for assessment in secondary care and the International Classification of Diseases-10[48]. As previously reported in Aarestad *et al*.[49], the two most common psychiatric diagnosis among the patients where major depressive disorder and generalised anxiety disorder. In the sample 48.3% of the patients were fully working, 24.1% were on full sick leave, and 27.6% were combining work and partial sick leave. The patients had a number of different occupations, but a majority belonged to occupations classified by the Norwegian standard classification of occupations as professionals (e.g., engineering, health or teaching professions) followed by the category managers. For more information about the sample please see Aarestad *et al*.[49]

The clinic mainly uses cognitive behavioural therapy (CBT) and metacognitive therapy (MCT) with an added work-focus, which is in line with the clinics focal point; return to work. Both these treatments deal with maladaptive cognitions, while CBT focuses on challenging maladaptive thoughts and behaviours (e.g., reducing emotional distress, modifying problematic behaviour)[50], MCT focuses on challenging metacognitions and psychological processes (e.g., rumination, worrying)[51]. Medication was prescribed by the patients GP in accordance with national clinical guidelines.

Instruments

At intake, all participants completed a comprehensive questionnaire including demographic variables in addition to a range of standardised instruments. All the instruments have shown satisfactory reliability and validity (see Table 1 for further information on mean values and standard deviations in these scales. See also Aarestad *et al*.[49] for more information on the sample).

Resilience Scale for Adults (RSA)

The RSA[31, 33, 34] is a self-report global measure of

resilience, consisting of 33 items (e.g., "My personal problems") scored on a scale from 1 (e.g., "are unsolvable") to 7 (e.g., "I know how to solve"). The scale was divided into two sub-dimensions: personal resilience (20 items, Cronbach's α=0.82) and interpersonal resilience (13 items, Cronbach's α=0.86), in addition to a sum score for the total scale (33 items, Cronbach's α=0.86).

Return to Work Self-Efficacy (RTW-SE)

The RTW-SE scale[28, 52] is a self-report measure of expectations concerning one's own ability to function well at work, such as being able to set boundaries, perform one's work tasks, and being able to focus while at work. This scale has been specifically developed to measure work related self-efficacy in the return to work process for individuals suffering from a CMD[28]. Thus, for patients working fully the questionnaire is likely to reflect an evaluation of their current work function[28]. The scale consists of 11 items (e.g., "I will be able to cope with setbacks") scored on a Likert scale from 1 (*totally disagree*) to 6 (*totally agree*). A higher score indicated a higher level of self-efficacy in relation to one's work situation. RTW-SE scores between 4.6–6.0 can be categorized as high, scores between 3.7–4.6, as moderate and scores of 1–3.7 as low[52]. Since patients were working or on sick leave when they answered the scale, we did not refer to the scale as RTW-SE when in contact with the patients. The scale showed satisfactory reliability in the form of internal stability (Cronbach's α=0.89).

Short version of the Negative Acts Questionnaire (S-NAQ)

The S-NAQ[53] is a self-report measure of exposure to bullying behaviours in the workplace. The scale consists of nine items, describing typical bullying acts directed at the individual personally and socially (e.g., 'being ignored or excluded') or at their work situation and work efforts (e.g., 'being withheld vital information'). Based on their experiences over the last six months the scale was scored on a scale from 1 (*never*) to 5 (*daily*). Patients who had been on sick leave or away from work during this time were asked to answer based on the last six months before their sick leave. The scale showed satisfactory reliability in the form of internal stability (Cronbach's α=0.88).

The Beck Depression Inventory-II (BDI-II)

BDI-II[54] is a self-reported measure of depressive symptoms and consists of 21 items measuring different affective and cognitive states, such as self-criticalness and sadness. Each item is rated on a four-point Likert scale ranging from 0 (not at all) to 3 (severely – it bothered me a lot) based on the patient's state over the last two weeks. For descriptive purposes we used validated cut-off scores of ≤13 for minimal depressive symptoms, ≥14 for mild depressive symptoms, ≥20 for moderate depressive symptoms, and ≥29 for severe depressive symptoms. The scale showed satisfactory reliability in the form of internal stability (Cronbach's α=0.86).

The Beck Anxiety Inventory (BAI)

BAI[55] is a self-reported measure of anxiety and consists of 21 items measuring anxiety symptoms. Each item is rated on a four-point Likert scale from 0 (not at all) to 3 (severely – it bothered me a lot) based on the patient's state over the last week. For descriptive purposes we used validated cut-off scores of ≤21 for low levels of anxiety symptoms, ≥22 for moderate levels of anxiety symptoms and ≥36 for potential concerning levels of anxiety symptoms were used for descriptive purposes. The scale showed satisfactory reliability in the form of internal stability (Cronbach's α=0.90).

Statistical Analysis

Statistical analyses were conducted with SPSS version 25.0[56] and the PROCESS macro 3.0 SPSS supplement[57]. Pearson's correlation analyses (continuous variables) and independent-samples *t*-tests (categorical variables) were employed to examine the relationship between the dependent variable (RTW-SE), the predictor variable (S-NAQ), the moderator variables RSA total scale and RSA personal and interpersonal dimensions, and demographics (age and gender). To examine if exposure to bullying behaviours predict RTW-SE (H1) and if resilience (as a total scale and the two sub-dimensions: personal and interpersonal) predict RTW-SE (H2) we used a four-step regression analyses. In the first step we entered the control variables, age and gender, while S-NAQ was entered in the second step. In the third step we added the RSA total scale, and in the fourth step we added the interaction term (S-NAQ×RSA total scale). Model 1 in the PROCESS macro supplement was used to test the moderating effect of resilience (H3) on the proposed S-NAQ-RTW-SE relationship, as well as to investigate the nature of the moderation employing a simple slope test. In addition, we chose to investigate the two sub-dimensions personal and interpersonal resilience in separate analyses. To categorise resilience, we divided the patients into three groups using percentiles: low (16th percentile), moderate (50th percentile), and high (84th percentile) resilience. The plot was derived from the moderation analysis, and scores were plotted using the above-mentioned percentile groups for resilience and exposure to bullying behaviours. The variables were centred prior to the analyses.

Ethical considerations

The study was conducted in accordance with the Helsinki Declaration and was approved by the Data Protection Office at Oslo University Hospital (ref. nr.: 2015/15606). All patients provided written informed consent.

Results

Descriptive Statistics and Correlations

The patient sample comprised 70.5% women (n=476) and 29.5% men (n=199), with a mean age of 38.7 years (SD=10.5; age ranged from 20 to 66 years). According to the predefined cut-off values for depressive symptoms as measured with BDI-II , 5.3%, could be classified as having minimal depressive symptoms, 16.1% mild depressive symptoms, 36.1% moderate depressive symptoms, and 35.7% severe depressive symptoms. Following the predefined cut-off values for anxiety symptoms as measured with BAI, 54.8% could be classified as having low anxiety symptoms, 25.6% having moderate anxiety symptoms, and 5.3% presenting with severe anxiety symptoms. The Pearson's correlations, means, and standard deviations (SD), between the variables included in the moderation model and the internal consistency are presented in Table 1. As expected, there was a significant negative correlation between the S-NAQ and RTW-SE. There was also a significant positive correlation between RTW-SE and the RSA total scale, as well as with both RSA sub-dimensions, with interpersonal resilience showing a weaker correlation than personal resilience. However, there was no significant correlation between the S-NAQ and the RSA total scale, nor with the two RSA sub-dimensions.

The Bullying Behaviours - RTW-SE Relationship

The results of the regression analysis showed that there was a significant main effect of S-NAQ on RTW-SE (F (3, 641) = 6.05, p<0.001), controlling for age (Table 2). Exposure to bullying behaviours explained 2.3% of the variance in RTW-SE after controlling for age.

The Resilience – RTW-SE Relationship

The results of the regression analysis showed a significant main effect of the RSA total scale (F (4, 640) = 19.94, p<0.001), as well as for personal resilience (F (4, 640) = 29.10, p<0.001), and interpersonal resilience on RTW-SE (F (4, 637) = 5.84, p<0.001) respectively, controlling for age and S-NAQ (Table 2). Resilience as a total scale explained 10.5% of the variance in RTW-SE after controlling for age and S-NAQ. Personal resilience explained 14.9%, and interpersonal resilience explained 2.9% of the variance when analysed separately. To sum up, higher levels of resilience predicted higher levels of RTW-SE, even when controlling for age and levels of bullying.

Resilience as a Moderator

The relationship between S-NAQ and RTW-SE was not moderated by the RSA total scale, controlling for age. However, when examining the two sub-dimensions separately, the S-NAQ–RTW-SE relationship was moderated by personal resilience, controlling for age (Fig. 2). The model explained 16.0% of the variance for RTW-SE, where of 0.6% was explained by the interaction. The slope was significant for those with a high (B=-0.32, SE=0.07, t=-4.46, p<0.001) and moderate personal resilience score (B=-0.20, SE=0.06, t=-3.31, p<0.01), but it was not significant for those with a low personal resilience score (B=-0.10, SE=0.08, t=-1.22, p>0.05). Interpersonal resilience did not moderate the relationship. See Table 2 for interaction effects.

Discussion

The present study investigated relationships between exposure to bullying behaviours, resilience and return to work self-efficacy (RTW-SE), and the possible moderating effect of resilience on the proposed relationship between exposure to bullying behaviours and RTW-SE. In accordance with the hypotheses, the results showed a negative relationship between exposure to bullying behaviours and RTW-SE scores (H1). There was also support for a positive main effect of resilience (H2), indicating that patients with higher scores of resilience had higher scores on RTW-SE irrespective of levels of bullying compared to those with low resilience scores. Further, there was partial support for H3, the results showed that personal resilience, but not interpersonal resilience, moderated the negative relationship between exposure to bullying behaviours and RTW-SE, yet in the form of a reversed buffering effect where personal resilience moderated the relationship among those with a high score on personal resilience.

Hence, a negative relationship existed between exposure to bullying behaviours and RTW-SE. The patients in the present study had a mean RTW-SE score that is under the suggested cut-off of 3.7 for a low score[52]. Based on the negative correlation between exposure to bullying and RTW-SE it could be suggested that patients exposed to severe bullying have a particularly low confidence in their ability to return to work, indicating a high risk of not actually returning. When interpreting the results, it should nevertheless be mentioned that the R-square value was quite low. However, this is quite common and to be expected in

Table 1. Descriptive statistics and Pearson product-moment correlations between return to work self-efficacy (RTW-SE), exposure to bullying behaviours (S-NAQ), and resilience (RSA; both the total scale and the two dimensions – personal and interpersonal).

	N	Mean (SD)	1.	2.	3.	4.	5.	6.	7.
1. Age	675	38.74 (10.53)							
2. BDI-II, 0-3	672	1.25 (0.42)	0.02						
3. BAI, 0-3	670	0.91 (0.48)	0.13 **	0.41 **					
4. RTW-SE, 1-6	668	3.25 (0.96)	-0.06	-0.48 **	-0.22 **				
5. S-NAQ, 1-5	651	1.43 (0.58)	0.08	0.22 **	0.13 **	-0.16 **			
6. RSA – total, 1-7	668	4.36 (0.74)	0.09 *	-0.53 **	-0.20 **	0.29 **	-0.04		
7. RSA - Personal, 1-7	669	3.77 (0.84)	0.16 **	-0.52 **	-0.25 **	0.35 **	-0.02	0.87 **	
8. RSA - Interpersonal, 1-7	664	5.26 (1.00)	-0.04	-0.32 **	-0.07	0.09 *	-0.06	0.77 **	0.35 **

Notes. RSA = Resilience Scale for Adults. S-NAQ = Short-Negative Acts Questionnaire. BDI-II = Beck Depression Inventory-II. BAI = Beck Anxiety Inventory.
* $p<0.05$; ** $p<0.01$

Table 2. Four-step regression analysis of age, exposure to bullying (S-NAQ), and resilience with return to work self-efficacy (RTW-SE) as dependent variable. We ran three separate analyses for resilience to examine both the RSA total scale and the two RSA dimensions – personal and interpersonal.

	RSA total scale (N=645)					RSA Personal (N=645)					RSA Interpersonal (N=642)				
	β	*SE*	*t*	R^2	ΔR^2	*β*	*SE*	*t*	R^2	ΔR^2	*β*	*SE*	*t*	R^2	ΔR^2
Step 1				0.00					0.00					0.00	
Age	-0.06	0.00	-1.42			-0.06	0.00	-1.42			-0.05	0.00	-1.33		
Gender	0.03	0.08	0.87			0.03	0.08	0.87			0.04	0.08	0.93		
Step 2				0.03	0.02				0.03	0.02				0.03	0.02
Age	-0.05	0.00	-1.15			-0.05	0.00	-1.15			-0.04	0.00	-1.05		
Gender	0.04	0.08	0.98			0.04	0.08	0.98			0.04	0.08	1.04		
S-NAQ	-0.15	0.04	-3.92 ***			-0.15	0.04	-3.92 ***			-0.15	0.04	-3.94 ***		
Step 3				0.11	0.11				0.15	0.15				0.04	0.03
Age	-0.07	0.00	-1.96			-0.11	0.00	-2.84 **			-0.04	0.00	-1.00		
Gender	0.04	0.08	1.11			0.04	0.08	1.05			0.04	0.08	1.09		
S-NAQ	-0 .14	0.04	-3.70 ***			-0.14	0.04	-3.89 ***			-0.15	0.04	-3.82 ***		
RSA	0.29	0.04	7.74 ***			0.36	0.04	9.78 ***			0.09	0.04	2.25 *		
Step 4				0.11	0.11				0.16	0.15				0.04	0.03
Age	-0.07	0.00	-0.95			-0.11	0.00	-2.84 **			-0.04	0.00	-1.01		
Gender	0.04	0.08	1.05			0.04	0.08	1.02			0.04	0.08	1.11		
S-NAQ	-0.13	0.04	-3.42 **			-0.13	0.04	-3.51 ***			-0.15	0.04	-3.83 ***		
RSA	0.30	0.04	7.86 ***			0.36	0.04	9.90 ***			0.09	0.04	2.23 *		
S-NAQ x RSA	-0.06	0.03	-1.60			-0.08	0.03	-2.20 *			0.01	0.04	0.36		

Notes. RSA = Resilience Scale for Adults. S-NAQ = Short-Negative Acts Questionnaire (exposure to bullying behaviours).
RSA (total scale, personal and interpersonal) and S-NAQ were centred prior to analyses.
* $p<0.05$; ** $p<0.01$; *** $p<0.001$

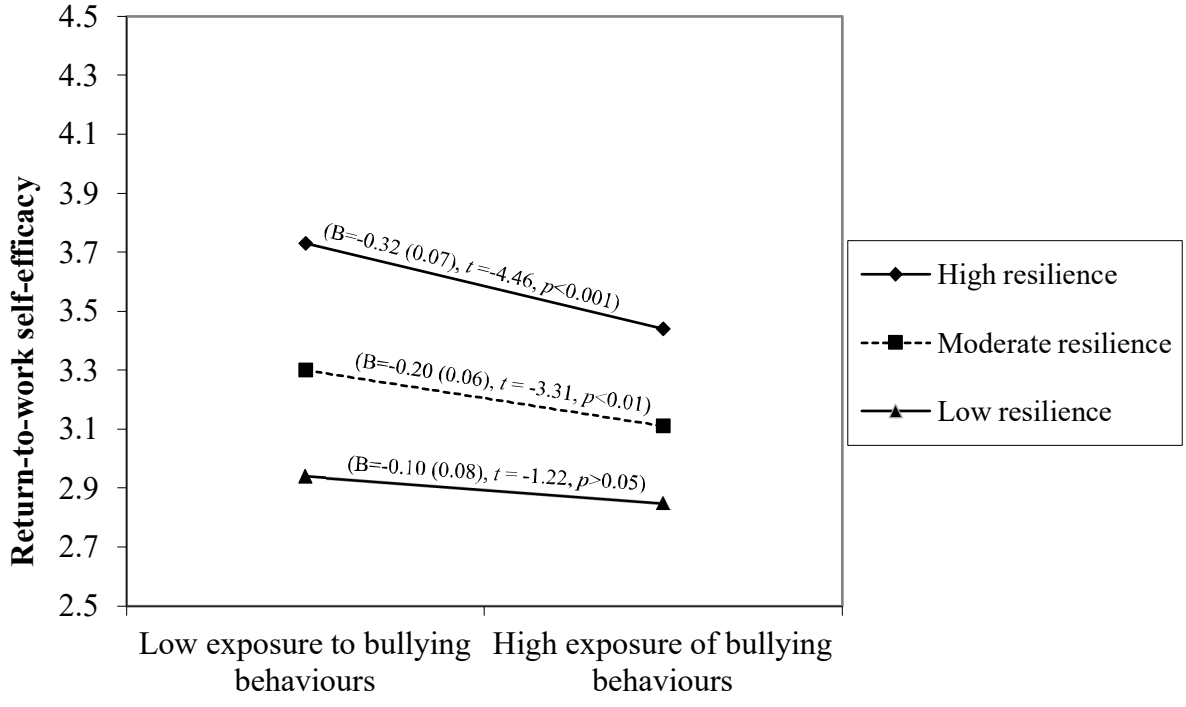

Fig. 2. Personal resilience as a moderator in the bullying-return to work self-efficacy relationship (*N*=645). The variables were mean centred prior to analysis.

fields, such as psychology, that attempts to predict complex human behaviour and experiences. Hence, even though there is a low R-square value the findings can still be of considerable value considering exposure to bullying behaviours at the workplace being a low frequent phenomenon in the first place. The findings from the present study are in accordance with studies examining the relationship between workplace bullying and sick leave[3, 58]. Some studies have found not only an increased risk for sick leave, but also showing an increased risk for future work disability among individuals exposed to bullying behaviours[59, 60]. For instance, Ortega and colleagues[59] found that the risk of long-term sick leave was significantly higher for victims of workplace bullying than for non-victims, even after adjusting for exposure to other psychosocial work characteristics (e.g., role-conflicts). High scores on RTW-SE are however associated with higher probability of returning to work[22, 52]. The negative association between the two was therefore expected. This increased risk associated with bullying may be related to the severe health complaints associated with bullying. At the same time, exposure to workplace bullying, may also reduce motivation to return to work as well as one's belief in the ability to manage future work situations. The prospect of returning to a work situation with potential bullying, is likely difficult for most victims and may even be perceived as impossible. However, one should also consider that patients who might experience more mental health complaints may have stronger recall bias compared to those who might have milder complaints, which could lead these patients to feel the exposure to bullying more sensitively[61].

Also as expected the results indicated a positive relationship existed between resilience and RTW-SE, both for the total scale and for both resilience sub-dimensions: personal resilience and interpersonal resilience. These findings are in accordance with expectation based on previous resilience research, where access to resilience resources have generally been associated with less health complaints and being better equipped to cope with stressful situations[30]. This finding suggests that resilience is associated with higher levels of RTW-SE irrespective of exposure to bullying, supporting a main effect of resilience, and as such resilience acts as an important predictor of RTW-SE.

We found partial support for our hypothesis with a reversed buffer effect of personal resilience on the bullying-RTW-SE relationship, as the negative relationship between bullying and RTW-SE was stronger for patients scoring high on personal resilience. The results from the moderator analysis counters to a common notion in stress theories, such as the Cognitive Activation Theory of Stress (CATS)[62], and the general notion related to the protective effect of factors in resilience. Even if those scoring high on internal protective resources, such as personal resilience, are better off in general compared to those with low levels of resources, they still seem to be relatively more negatively affected when being increasingly subjected to bullying. Yet, this finding is in line with some recent empirical findings showing that buffer effects of presumed personal protective factors seem to not have the expected effect when highly exposed to bullying behaviours and when looking at various health outcomes[44, 45, 47]. Similarly, Hewett and colleagues[46] found that although problem-focused coping was effective when exposed to low levels of bullying behaviours, problem-focused coping strategies were associated with elevated levels of psychological strain when exposed to high levels of bullying. These studies[44–47], together with the present study, support the notion that buffer effects associated with personal protective resources seem to depend on the nature and intensity of the stressor involved. Thereby indicating that high intensity exposure to bullying behaviours seems to be detrimental for all.

Theoretical explanations for the present moderation findings may however be related to the very nature of bullying as a stressor. The Generalised Unsafety Theory of Stress (GUTS)[63] proposes that it is not the perception of threat that causes a prolonged activation when exposed to a stressor, but rather the general and prolonged lack of safety perceived in the actual situation. According to GUTS, even when the stressors are no longer present, a prolonged and even chronic stress response can still occur within the individual. GUTS proposes that this happens because the individual continuously perceives a lack of safety, combined with an increased feeling of uncertainty, resulting in a stress response even when neither the bully nor the bullying behaviours are immediately present. This may maintain the stress response thus leading to a prolonged stress activation, which can override protective resources and result in potential impaired health for the individual, perhaps particularly so for individuals with a personal history of generally feeling highly safe when experiencing stressors in life.

The reversed buffer effect of personal resilience may also be explained by the situational congruence model[64]. This model proposes that an individual with a high amount of individual resources, yet who are exposed to bullying behaviours, experience a situation incongruence and thus experience cognitive dissonance. This happens because exposure to bullying behaviours represents a situation that

does not correspond with the individual's perceived self-concept nor how they perceive the world. When there is congruence between the situation and the individual's personality, there will be more positive and less negative affect[65]. However, if there is an incompatibility between the situation and the individual's personality characteristics, it will lead to a heightened negative affect[64, 66].

The present study found a main effect, but no buffering effect for interpersonal resilience. This may be related to the fact that in the present study, interpersonal resilience focused on family relations and social support from family and friends. Studies have shown that external resources such as perceived organisational support may act as a buffer in the case of workplace bullying[43, 67]. We may speculate that since workplace bullying is a work-related stressor, external resources focusing on private sources of support (e.g., family support) might be less relevant as a buffer against this type of exposure. Future studies may instead explore external resources related to work, such as perceived organisational support or support from co-workers, and their potential buffering effects.

Strengths and limitations

Some important strengths and limitations of the study must be addressed. In this respect it is worth noticing that the study has a large sample size, which is due to this study being a part of the intake procedure at an outpatient clinic. Hence, the study is based on patients actually seeking help in order to secure a successful return to work. Furthermore, resilience, RTW-SE and exposure to bullying behaviours were assessed with well-established and psychometrically sound instruments.

However, the present study is based on self-report measures only. Subjective measures are usually not as reliable as objective measures. Yet, most studies investigate perceived exposure to bullying. One may even argue that perceptions of exposure to bullying, and in particular return to work self-efficacy as well as resilience, are subjective concepts in their very nature. Also, due to the cross-sectional design further studies are needed to explore more causal relationships between resilience, RTW-SE and bullying behaviours. Furthermore, there is a discussion in the field of protective factors whether they have a general protective effect or a buffering effect. Findings in relation to protective factors and resilience have indicated that it may be both main and buffering effects dependent on the design of the study. Some findings based on correlational designs indicate main effects while other findings based on longitudinal designs indicate buffering effects[32, 68]. Future studies in relation to buffering effects of protective factors and bullying should look more into longitudinal designs.

Conclusion and implications

The present study documents that many patients seeking psychological treatment for CMD have been exposed to bullying at workplace, which again may hamper their probability to return to work, e.g. by reducing their RTW-SE. Treatment procedures addressing patients with CMD, should take such knowledge into account, as should all professionals involved in the counselling and treatment of such patients. Furthermore, one should take note of the fact that even if resilience may strengthen RTW-SE, bullying is an adverse event which particularly affects individuals who present with relatively high levels of resilience resources, at least when it comes to RTW-SE. This also indicates that rather than building resources and resistance towards bullying, preventing bullying, its severity and duration, should be a focus as preventive measures in organisations. Future studies should explore how patients exposed to bullying benefit from regular treatment procedures or if other treatment procedures and help is needed in order to effectively return to work. Furthermore, it is worth noting that the interpersonal resilience dimension in the present study mainly focused on family relations and social support from family and friends, which might not be as beneficial when exposed to a work-related stressor as for example social support at work.

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