Original article

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

Running title: BULLYING, RESILIENCE, RETURN TO WORK SELF-EFFICACY

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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.

Keywords: workplace bullying, resilience, return to work self-efficacy, common mental disorders, sick leave
Workplace bullying has been established as a major predictor of health problems and impaired well-being among exposed employees\textsuperscript{1,2}. It is associated with a greater risk for sick leave\textsuperscript{3} and even for expulsion from the workplace and potentially from working life itself\textsuperscript{4-6}. Some targets 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\textsuperscript{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\textsuperscript{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\textsuperscript{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 \cite{42,43}. Several newer studies contradict this. For instance, a study by Nielsen, Gjerstad, Jacobsen, and Einarsen \cite{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 \cite{45,46} and optimism \cite{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 \cite{44,45,47}. These findings, together with Nielsen and colleagues \cite{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 high on resilience. See Figure 1 for theoretical model.

[Insert Figure 1 about here]
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. As previously reported in Aarestad et al., 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.
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)\textsuperscript{50)}, MCT focuses on challenging metacognitions and psychological processes (e.g., rumination, worrying)\textsuperscript{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.\textsuperscript{49} for more information on the sample).

**Resilience Scale for Adults (RSA).** The RSA\textsuperscript{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 $\alpha = .82$) and interpersonal resilience (13 items, Cronbach’s $\alpha = .86$), in addition to a sum score for the total scale (33 items, Cronbach’s $\alpha = .86$).

**Return to Work Self-Efficacy (RTW-SE).** The RTW-SE scale\textsuperscript{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\textsuperscript{28}). Thus, for patients working fully the questionnaire is likely to reflect an evaluation of their current work function\textsuperscript{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. 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 = .89).

**Short version of the Negative Acts Questionnaire (S-NAQ).** The S-NAQ 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 = .88).

**The Beck Depression Inventory – II (BDI-II).** BDI-II 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 = .86).
The Beck Anxiety Inventory (BAI). BAI⁵⁵ 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 \( \leq 21 \) for low levels of anxiety symptoms, \( \geq 22 \) for moderate levels of anxiety symptoms and \( \geq 36 \) 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 \( \alpha = .90 \)).

Statistical Analysis

Statistical analyses were conducted with SPSS version 25.0⁵⁶ and the PROCESS macro 3.0 SPSS supplement⁵⁷. 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, 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.

[Insert Table 1 about here]

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 ($F (3, 641) = 6.05, p < .001$), controlling for age (Table 2). Exposure to bullying behaviours explained 2.3% of the variance in RTW-SE after controlling for age.

[Insert Table 2 about here]
The Resilience – RTW-SE Relationship

The results of the regression analysis showed a significant main effect of the RSA total scale \( (F(4, 640) = 19.94, p < .001) \), as well as for personal resilience \( (F(4, 640) = 29.10, p < .001) \), and interpersonal resilience on RTW-SE \( (F(4, 637) = 5.84, p < .001) \) 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 (Figure 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 \( (B = -.32, SE = .07, t = -4.46, p < .001) \) and moderate personal resilience score \( (B = -.20, SE = .06, t = -3.31, p < .01) \), but it was not significant for those with a low personal resilience score \( (B = -.10, SE = .08, t = -1.22, p > .05) \). Interpersonal resilience did not moderate the relationship. See Table 2 for interaction effects.

[Insert Figure 2 about here]
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 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 is 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\textsuperscript{59, 60}. For instance, Ortega and colleagues\textsuperscript{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\textsuperscript{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 been 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\textsuperscript{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\textsuperscript{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 not to 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. 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. However, if there is an incompatibility between the situation and the individual’s personality characteristics, it will lead to a heightened negative affect.

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. 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 common mental disorders have been exposed to bullying at workplace, which again may hamper their probability to return to work, e.g. by reducing their return to work self-efficacy. 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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References

1) Nielsen MB, Hetland J, Matthiesen SB, Einarsen S (2012) Longitudinal relationships between workplace bullying and psychological distress. Scand J Work Environ Health, 38, 38-46.

2) Vartia MAL (2001) Consequences of workplace bullying with respect to the well-being of its targets and the observers of bullying. Scand J Work Environ Health, 27, 63-69.

3) Nielsen MB, Indregard AMR, Øverland S (2016) Workplace bullying and sickness absence: a systematic review and meta-analysis of the research literature. Scand J Work Environ Health, 42, 359-370.

4) Finne LB, Knardahl S, Lau B (2011) Workplace bullying and mental distress - a prospective study of Norwegian employees. Scand J Work Environ Health, 37, 276-287.

5) Glambek M, Skogstad A, Einarsen S (2015) Take it or leave: a five-year prospective study of workplace bullying and indicators of expulsion in working life. Ind Health, 53, 160-170.

6) Leymann H (1996) The content and development of mobbing at work. Eur J Work Organ Psychol, 5, 165-184.

7) Einarsen S, Hoel H, Zapf D, Cooper CL (2011) The concept of bullying and harassment at work: the European tradition. In: Bullying and harassment in the workplace: developments in theory, research, and practice Einarsen, S., Hoel, H., Zapf D, Cooper CL (Eds.), 2nd Ed. 3-40, CRC Press, Boca Raton.

8) Einarsen S (2005) The nature, causes and consequences of bullying at work: The Norwegian experience. Perspectives Interdisciplinaires sur le Travail et la Santé, 7, 1-14.
9) Einarsen S, Skogstad A (1996) Bullying at work: Epidemiological findings in public and private organizations. Eur J Work Organ Psychol, 5, 185-201.

10) Harvey M, Treadway D, Heames JT, Duke A (2009) Bullying in the 21st century global organization: An ethical perspective. J Bus Ethics, 85, 27.

11) Nielsen MB, Einarsen S (2018) What we know, what we do not know, and what we should and could have known about workplace bullying: An overview of the literature and agenda for future research. Aggress Violent Behav, 42, 71-83.

12) Brousse G, Fontana L, Ouchchane L, Boisson C, Gerbaud L, Bourguet D, Perrier A, Schmitt A, Llorca PM, Chamoux A (2008) Psychopathological features of a patient population of targets of workplace bullying. Occup Med, 58, 122-128.

13) Hogh A, Mikkelsen EG, Hansen AM (2011) Individual consequences of workplace bullying/mobbing. In: Bullying and harassment in the workplace: developments in theory, research, and practice Einarsen, S., Hoel, H., Zapf D, Cooper CL (Eds.), 2nd Ed. 107-128, CRC Press, Boca Raton.

14) Nielsen MB, Einarsen S (2012) Outcomes of exposure to workplace bullying: A meta-analytic review. Work Stress, 26, 309-332.

15) Bowling NA, Beehr TA (2006) Workplace harassment from the victim's perspective: A theoretical model and meta-analysis. J Appl Psychol, 91, 998-1012.

16) Björkqvist K, Österman K, Hjelt-Bäck M (1994) Aggression among university employees. Aggress Behav, 20, 173-184.

17) Mikkelsen EG, Einarsen S (2002) Basic assumptions and symptoms of post-traumatic stress among victims of bullying at work. Eur J Work Organ Psychol, 11, 87-111.

18) Einarsen S, Nielsen MB (2014) Workplace bullying as an antecedent of mental health problems: a five-year prospective and representative study. Int Arch Occup Environ Health, 88, 131-142.
19) Reknes I, Pallesen S, Magerøy N, Moen BE, Bjorvatn B, Einarsen S (2014) Exposure to bullying behaviors as a predictor of mental health problems among Norwegian nurses: Results from the prospective SUSSH-survey. Int J Nurs Stud, 51, 479-487.

20) OECD 2015 Fit mind, fit job: evidence to practice in mental health and work, Mental health and work.27-123 OECD Publishing, Paris.

21) Brage S, Nossen JP (2017) Sykefravær på grunn av psykiske lidelser - uvikling siden 2003. Arbeid og Velferd, 2, 77-88.

22) Blank L, Peters J, Pickvance S, Wilford J, MacDonald E (2008) A systematic review of the factors which predict return to work for people suffering episodes of poor mental health. J Occup Rehabil, 18, 27-34.

23) Brouwer S, Reneman MF, Bültmann U, van der Klink JJL, Groothoff JW (2010) A Prospective Study of Return to Work Across Health Conditions: Perceived Work Attitude, Self-efficacy and Perceived Social Support. J Occup Rehabil, 20, 104-112.

24) Volker D, Zijlstra-Vlasveld M, Brouwers E, Van Lomwel A, Van der Feltz-Cornelis C (2015) Return-to-work self-efficacy and actual return to work among long-term sick-listed employees. J Occup Rehabil, 25, 423-431.

25) Nigatu YT, Liu Y, Uppal M, McKinney S, Gillis K, Rao S, Wang J (2017) Prognostic factors for return to work of employees with common mental disorders: a meta-analysis of cohort studies. Soc Psychiatry Psychiatr Epidemiol, 52, 1205-1215.

26) Bandura A (1977) Self-efficacy: Toward a unifying theory of behavioral change. Psychol Rev, 84, 191-215.

27) Brenninkmeijer V, Lagerveld SE, Blonk RWB, Schaufeli WB, Wijngaards-de Meij LDNV (2019) Predicting the Effectiveness of Work-Focused CBT for Common Mental Disorders: The Influence of Baseline Self-Efficacy, Depression and Anxiety. J Occup Rehabil, 29, 31-41.
28) Lagerveld SE, Blonk RWB, Brenninkmeijer V, Schaufeli WB (2010) Return to work among employees with mental health problems: development and validation of a self-efficacy questionnaire. Work Stress, 24, 359-375.

29) Friborg O, Hjemdal O, Rosenvinge JH, Martinussen M, Aslaksen PM, Flaten MA (2006) Resilience as a moderator of pain and stress. J Psychosom Res, 61, 213-219.

30) White B, Driver S, Warren AM (2008) Considering resilience in the rehabilitation of people with traumatic disabilities. Rehabil Psychol, 53, 9-17.

31) Friborg O, Hjemdal O, Rosenvinge JH, Martinussen M (2003) A new rating scale for adult resilience: what are the central protective resources behind healthy adjustment? Int J Methods Psychiatr Res, 12, 65-76.

32) Hjemdal O, Friborg O, Stiles TC, Rosenvinge JH, Martinussen M (2006) Resilience predicting psychiatric symptoms: a prospective study of protective factors and their role in adjustment to stressful life events. Clin Psychol Psychother, 13, 194-201.

33) Friborg O, Barlaug D, Martinussen M, Rosenvinge JH, Hjemdal O (2005) Resilience in relation to personality and intelligence. Int J Methods Psychiatr Res, 14, 29-42.

34) Hjemdal O, Friborg O, Martinussen M, Rosenvinge JH (2001) Mestring og psykologisk motstandsdyktighet hos voksne: Utvikling og foreløpig validering av et nytt instrument [Preliminary results from the development and validation of a Norwegian scale for measuring adult resilience]. Tidsskrift for Norsk Psykologforening, 38, 310-317.

35) Rutter M (2000) Psychosocial influences: Critiques, findings, and research needs. Dev Psychopathol, 12, 375-405.

36) Smith BW, Tooley EM, Christopher PJ, Kay VS (2010) Resilience as the ability to bounce back from stress: A neglected personal resource? J Posit Psychol, 5, 166-176.
37) Mealer M, Jones J, Newman J, McFann KK, Rothbaum B, Moss M (2012) The presence of resilience is associated with a healthier psychological profile in intensive care unit (ICU) nurses: Results of a national survey. Int J Nurs Stud, 49, 292-299.

38) Haveraaen LA, Skarpaas LS, Berg JE, Aas RW (2015) Do psychological job demands, decision control and social support predict return to work 3 months after a return-to-work (RTW) programme? The rapid-RTW cohort study. Work, 53, 61-71.

39) Brouwer S, Krol B, Reneman MF, Bültmann U, Franche RL, van der Klink J JL, Groothoff JW (2009) Behavioral Determinants as Predictors of Return to Work After Long-Term Sickness Absence: An Application of the Theory of Planned Behavior. J Occup Rehabil, 19, 166-174.

40) Hjemdal O, Friborg O, Stiles TC, Martinussen M, Rosenvinge JH (2006) A New Scale for Adolescent Resilience: Grasping the Central Protective Resources Behind Healthy Development. Meas Eval Couns Dev, 39, 84-96.

41) Reknes I, Harris A, Einarsen S (2018) The role of hardiness in the bullying-mental health relationship. Occup Med, 68, 64-66.

42) Carroll TL, Lauzier M (2014) Workplace bullying and job satisfaction: The buffering effect of social support. Univers J Psychol, 2, 81-89.

43) Quine L (2001) Workplace Bullying in Nurses. J Health Psychol, 6, 73-84.

44) Nielsen MB, Gjerstad J, Jacobsen DP, Einarsen SV (2017) Does Ability to Defend Moderate the Association between Exposure to Bullying and Symptoms of Anxiety? Front Psychol, 8, 1-11.

45) Reknes I, Einarsen S, Pallesen S, Bjorvatn B, Moen BE, Magerøy N (2016) Exposure to bullying behaviors at work and subsequent symptoms of anxiety: The moderating role of individual coping style. Ind Health, 54, 421-432.
46) Hewett R, Liefooghe A, Visockaite G, & Roongrerngsuke S (2018) Bullying at work: Cognitive appraisal of negative acts, coping, wellbeing, and performance. J Occup Health Psychol, 23, 71-84.

47) Britton AR, Sliter MT, Jex SM (2012) Is the glass really half-full? The reverse-buffering effect of optimism on undermining behavior. Pers Individ Dif, 52, 712-717.

48) World Health Organization (1993) The ICD-10 classification of mental and behavioural disorders: diagnostic criteria for research 10th ed. Volume 2. World Health Organization, Geneva.

49) Aarestad SH, Einarsen SV, Hjemdal O, Gjengedal RGH, Osnes K, Sandin K, Hannisdal M, Bjørndal MT, Harris A (2020) Clinical Characteristics of Patients Seeking Treatment for Common Mental Disorders Presenting With Workplace Bullying Experiences. Front Psychol, 11, 1-12.

50) Hofmann SG, Asnaani A, Vonk IJJ, Sawyer AT, Fang A (2012) The Efficacy of Cognitive Behavioral Therapy: A Review of Meta-analyses. Cognit Ther Res, 36, 427-440.

51) Fisher P, Wells A (2009) Metacognitive Therapy: Distinct features. Routledge, London.

52) Gjengedal RGH, Lagerveld S, Reme SE, Osnes K, Sandin K, Hjemdal O (In press) The Return to Work Self-Efficacy Questionnaire (RTW-SE): A validation study of predictive abilities and cut-off values for patients on sick leave due to anxiety or depression. J Occup Rehabil.

53) Notelaers G, Van der Heijden B, Hoel H, Einarsen S (2018) Measuring bullying at work with the short-negative acts questionnaire: identification of targets and criterion validity. Work Stress, 33, 58-75.
54) Beck AT, Brown GK, Steer RA (1996) BDI-II, Beck depression inventory: manual, 2nd ed. Psychological Corp, San Antonio.

55) Beck AT, Steer RA (1990) Manual for the Beck anxiety inventory. Psychological Corp, San Antonio

56) IBM Corp (2017) IBM SPSS Statistics for Windows, Version 25.0. IBM Corp, Armonk.

57) Hayes AF (2013) Introduction to mediation, moderation, and conditional process analysis: A regression-based approach. Guilford Press, New York.

58) Kivimäki M, Elovainio M, Vahtera J (2000) Workplace bullying and sickness absence in hospital staff. Occup Environ Med, 57, 656-660.

59) Ortega A, Christensen KB, Hogh A, Rugulies R, Borg V (2011) One-year prospective study on the effect of workplace bullying on long-term sickness absence. J Nurs Manag, 19, 752-759.

60) Berthelsen M, Skogstad A, Lau B, Einarsen S (2011) Do they stay or do they go? Int J Manpow, 32, 178-193.

61) Colombo D, Suso-Ribera C, Fernández-Álvarez J, Cipresso P, Garcia-Palacios A, Riva G, Botella C (2020) Affect Recall Bias: Being Resilient by Distorting Reality. Cognitive Therapy and Research, 44, 906-918.

62) Ursin H, Eriksen HR (2004) The cognitive activation theory of stress. Psychoneuroendocrinology, 29, 567-592.

63) Brosschot JF, Verkuil B, Thayer JF (2016) The default response to uncertainty and the importance of perceived safety in anxiety and stress: An evolution-theoretical perspective. J Anxiety Disord, 41, 22-34.

64) Diener E, Larsen RJ, Emmons RA (1984) Person × Situation interactions: Choice of situations and congruence response models. J Pers Soc Psychol, 47, 580-592.
65) Pervin LA, Cervone D (2010) Personality: theory and research, 11th ed. Wiley, Hoboken.

66) Ilies R, Johnson MD, Judge TA, Keeney J (2011) A within-individual study of interpersonal conflict as a work stressor: Dispositional and situational moderators. J Organ Behav, 32, 44-64.

67) Djurkovic N, McCormack D, Casimir G (2008) Workplace bullying and intention to leave: the moderating effect of perceived organisational support. Hum Resour Manag J, 18, 405-422.

68) Hjemdal O, Aune T, Reinfjell T, Stiles TC, Friborg O (2007) Resilience as a Predictor of Depressive Symptoms: A Correlational Study with Young Adolescents. Clin Child Psychol Psychiatry, 12, 91-104.
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, 0-3  | 672 | 1.25 (.42) | | | | | .02 |
| 3. | BAI, 0-3  | 670 | .91 (.48) | | | | | .13 ** .41 ** |
| 4. | RTW-SE, 1-6 | 668 | 3.25 (.96) | | | | | - .06 - .48 ** - .22 ** |
| 5. | S-NAQ, 1-5 | 651 | 1.43 (.58) | | | | | .08 .22 ** .13 ** - .16 ** |
| 6. | RSA – total, 1-7 | 668 | 4.36 (.74) | | | | | .09 * - .53 ** - .20 ** .29 ** - .04 |
| 7. | RSA - Personal, 1-7 | 669 | 3.77 (.84) | | | | | .16 ** - .52 ** - .25 ** .35 ** - .02 .87 ** |
| 8. | RSA - Interpersonal, 1-7 | 664 | 5.26 (1.00) | | | | | - .04 - .32 ** - .07 .09 * - .06 .77 ** .35 ** |

Notes. RSA = Resilience Scale for Adults. S-NAQ = Short-Negative Acts Questionnaire. BDI = Beck Depression Inventory-II. BAI = Beck Anxiety Inventory. * p < .05; ** p < .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.

| Step | RSA total scale (N=645) | RSA Personal (N=645) | RSA Interpersonal (N=642) |
|------|----------------------|---------------------|--------------------------|
|      | β  | SE  | t    | R²  | ΔR² | β  | SE  | t    | R²  | ΔR² | β  | SE  | t    | R²  | ΔR² |
| Step 1 |      | .00 | .00  | .00 | .00 |      | .00 | .00  | .00 | .00 |      | .00 | .00  | .00 | .00 |
| Age  | -.06 | .00 | -1.42 |      |      | -.06 | .00 | -1.42 |      |      | -.05 | .00 | -1.33 |      |      |
| Gender | .03  | .08  | .87  |      |      | .03  | .08  | .87  |      |      | .04  | .08  | .93  |      |      |
| Step 2 |      | .03  | .02  | .03 | .02 |      | .03  | .02  | .03 | .02 |      | .03  | .02  | .03 | .02 |
| Age  | -.05 | .00  | -1.15 |      |      | -.05 | .00  | -1.15 |      |      | -.04 | .00  | -1.05 |      |      |
| Gender | .04  | .08  | .98  |      |      | .04  | .08  | .98  |      |      | .04  | .08  | 1.04 |      |      |
| S-NAQ | -.15 | .04  | -3.92 | *** |      | -.15 | .04  | -3.92 | *** |      | -.15 | .04  | -3.94 | *** |      |
| Step 3 |      | .11  | .11  | .15 | .15 |      | .11  | .11  | .15 | .15 |      | .11  | .11  | .15 | .15 |
| Age  | -.07 | .00  | -1.96 |      |      | -.11 | .00  | -2.84 | **  |      | -.04 | .00  | -1.00 |      |      |
| Gender | .04  | .08  | 1.11 |      |      | .04  | .08  | 1.05 |      |      | .04  | .08  | 1.09 |      |      |
| S-NAQ | -.14 | .04  | -3.70 | *** |      | -.14 | .04  | -3.89 | *** |      | -.15 | .04  | -3.82 | *** |      |
| RSA  | .29  | .04  | 7.74 | ***  |      | .36  | .04  | 9.78 | ***  |      | .09  | .04  | 2.25  | *    |      |
| Step 4 |      | .11  | .11  | .16 | .15 |      | .11  | .11  | .16 | .15 |      | .11  | .11  | .16 | .15 |
| Age  | -.07 | .00  | -1.95 |      |      | -.11 | .00  | -2.84 | **  |      | -.04 | .00  | -1.01 |      |      |
| Gender | .04  | .08  | 1.05 |      |      | .04  | .08  | 1.02 |      |      | .04  | .08  | 1.11 |      |      |
| S-NAQ | -.13 | .04  | -3.42 | **  |      | -.13 | .04  | -3.51 | *** |      | -.15 | .04  | -3.83 | *** |      |
| RSA  | .30  | .04  | 7.86 | ***  |      | .36  | .04  | 9.90 | ***  |      | .09  | .04  | 2.23  | *    |      |
| S-NAQ x RSA | -.06 | .03  | -1.60 |      |      | -.08 | .03  | -2.20 | *    |      | .01  | .04  | .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 < .05; ** p < .01; *** p < .001
Figure 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.
Figure 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.