

Treating the aftermath of exposure to workplace bullying and preventing exclusion from working life

The effect of individual resilience, return to work self-efficacy, and work-focused metacognitive and cognitive treatment

Sarah Helene Aarestad

Thesis for the degree of Philosophiae Doctor (PhD)
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Scientific environment

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Abstract

Workplace bullying is cemented in the literature as a severe social stressor that can lead to devastating consequences for the person involved. Decades of research have established a strong association with both psychological and physiological health complaints, as well as an increased risk of sick leave among those targeted. However, although the detrimental consequences of workplace bullying are well established in the literature, there has been limited research into the possibilities for psychological treatment for victims of workplace bullying presenting with mental health problems. Hence, the objective of the thesis was firstly to investigate the prevalence of workplace bullying experiences among patients suffering from common mental disorders (CMD) who are either currently on or at risk of sick leave, and to examine their clinical and work-related characteristics as compared to other patients. Additionally, it is of importance to explore whether individual characteristics and resources, such as resilience, have a protective effect when exposed to a severe stressor such as workplace bullying, in our case as a moderator in the relationship between exposure to bullying behaviours and return to work self-efficacy (RTW-SE). The literature has previously shown mixed results and identified reversed buffer effects for this vulnerable group of individuals. It is, therefore, of value to investigate this further in a group of patients that are victims of workplace bullying at risk of being excluded from work and working life. Lastly, we examined whether metacognitive therapy (MCT) or cognitive behavioural therapy (CBT) with work-focus can cause symptom reduction and an increase in workforce participation. We further examined whether such treatment may be as effective for victims of bullying as for other patients not exposed to bullying.

The first of three included studies investigated the clinical characteristics of patients seeking treatment for CMD presenting with experiences of workplace bullying. The aim was to investigate the prevalence of workplace bullying in a patient group seeking treatment for CMD. Additionally we examined whether these patients differed from other patients not exposed to bullying with regard to both clinical and

work-related characteristics. The paper included a sample of 675 patients on sick leave or at risk of sick leave due to CMD, who had been referred to an outpatient clinic in Norway. There was a high prevalence of workplace bullying in this sample with one out of four being classified as victims of bullying. The findings indicated that the victims of bullying were more often diagnosed with major depressive disorder (MDD) and reported higher levels of psychological symptoms, and lower levels of resilience. In addition, the victims reported more frequent alcohol use than the other patients, although both groups scored within what is considered normal alcohol consumption. Furthermore, twice as many of the bullied patients were on full sick leave and they reported lower work ability, a lower RTW-SE and less job satisfaction, as compared to the other patients. Additionally, the majority of the victims of bullying reported that they would prefer another job over the one they currently had. This further indicates that these individuals represent a vulnerable group at risk of sick leave and that there is a high possibility that if these concerns are not addressed these individuals have an increased risk of losing their foothold in working life. Thus, there is a need for studies to investigate whether individual factors, such as resilience, acts as a buffer with regard to these severe symptoms and complaints, in addition to studies investigating whether these individuals could benefit from the same treatment as other patients with CMD, not exposed to bullying.

The second study was, therefore, designed to investigate the effect of resilience as a protective buffer in the expected and negative relationship between workplace bullying and RTW-SE, as there have been mixed results on the effect of such individual protective resources when faced with workplace bullying. Thus, the study aims to examine whether resilience will show a reversed buffering effect for the bullying – RTW-SE relationship. The same sample as in study one was used. The results showed a negative relationship between bullying and RTW-SE and a positive main effect for resilience, as patients with high resilience scored significantly higher on RTW-SE than patients with low resilience irrespective of levels of bullying. Furthermore, the results indicated that the resilience sub-dimension, *personal resilience*, moderated the bullying – RTW-SE relationship, while the sub-dimension, *interpersonal resilience*, did not. Thus, this suggests that patients with high personal

resilience showed relatively lower RTW-SE scores when being exposed to bullying behaviours by comparison with those individuals with high personal resilience that were not subjected to bullying. This would indicate that also groups with high personal resilience are affected by a stressor as severe as workplace bullying.

The third study was therefore designed to investigate whether victims of workplace bullying benefit from MCT or CBT with work-focus, in terms of symptom reduction and change in workplace participation. The study used a sample of 423 patients from the same outpatient clinic in Norway and data were collected pre-treatment and post-treatment. Two comparisons were made in the analyses; firstly, we compared the victims of workplace bullying with patients not exposed to bullying, secondly, we divided the victims of workplace bullying into a treatment group and a waitlist control group. The results showed that the treatment was effective in terms of reducing symptoms of depression, anxiety, and subjective health complaints for the victims of workplace bullying to a similar degree as for patients not exposed to bullying. Furthermore, the victims of workplace bullying receiving treatment exhibited a significantly greater improvement compared to the waitlist control group. However, looking at patients who had been on sick leave pre-treatment, fewer of the victims of workplace bullying did return to full work post-treatment (45.7%), as compared to the other patients (66.0%).

Findings from this thesis have several important implications. Many patients seeking ordinary clinical treatment for CMD, will most likely have severe experiences with workplace bullying. They may even present with more severe health complaints than other patients. Personal resilience, although generally being an individual resource, seems to be relatively less of a resource for the more severely exposed victims. Yet, a general therapeutical procedure with MCT or CBT with work-focus seem to be as highly effective for victims of bullying as for other patients, at least in terms of symptom reduction. Yet, these patients may in addition need help in changing their employment or in handling a bullying situation at work.

List of Publications

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Abbreviations

BAI – Beck Anxiety Inventory

BDI-II – Beck Depression Inventory-II

CATS – Cognitive Activation Theory of Stress

CAS – Cognitive Attentional Syndrome

CBT – Cognitive Behavioural Therapy

CMD – Common Mental Disorders

GUTS – Generalised Unsafety Theory of Stress

MCT – Metacognitive Therapy

MDD – Major Depressive Disorders

RTW-SE – Return to Work Self-Efficacy

SHC – Subjective Health Complaints

S-REF – Self-Regulatory Executive Function

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1. Introduction

Over the last few decades, overwhelming evidence has shown that workplace bullying is not only a prevalent social stressor at work, its outcomes are devastating for those employees involved and are also detrimental to both organisations, and society at large (Nielsen & Einarsen, 2018). Compared to other well-known psychosocial work stressors, bullying seems to be closely associated with both health problems and sick leave. In a study of risk factors relating to sick leave in 31 European countries, workplace bullying was the most significant factor (Niedhammer et al., 2012). A study with data from 34 European countries showed that workplace bullying, discrimination, and a minimal sense of community were by far the most noteworthy work-related predictors of well-being (Schütte et al., 2014). This highlight bullying and social exclusion at work as extremely significant issues in contemporary working life. Yet, while the prevalence rates and outcomes of workplace bullying are relatively well-established across the globe, there is a striking lack of knowledge as to the way in which this pertinent problem should be managed, be it on an individual, an organisational, or a societal level. Although a clear association between workplace bullying, severe mental health complaints and sick leave has been established, there is still a lack of knowledge regarding the situation facing the group of workers that have been exposed to bullying and are either on sick leave or at risk of sick leave, due to mental health problems. Based on meta-analyses (e.g., Nielsen & Einarsen, 2012; Nielsen, Indregard, et al., 2016; Verkuil et al., 2015) we know that workplace bullying is a prevalent social stressor, with severely detrimental consequences for those involved, therefore it could be the case that victims of workplace bullying could be overrepresented among individuals on sick leave or at risk of taking sick leave due to CMD. As there are few specific clinical treatment programs for this group many should find their way into ordinary mental health clinics. Knowledge of how to treat the mental disorders suffered by victims of bullying, preventing exclusion from working life, and securing the safe return to work for victims after periods of sick leave, is paramount both from an academic and an applied perspective.

Drawing on the short comings in the literature, the overarching objectives of the present PhD project will be to generate more knowledge in relation to the health status of workers exposed to workplace bullying on sick leave or are at risk of sick leave, seeking psychological treatment due to CMD. This study will also explore whether resilience can have a protective effect on a severe stressor such as bullying in relation to RTW-SE. Lastly, this PhD project will evaluate whether MCT or CBT with a work-focus, had the same effect on this group as patients that have not been exposed to workplace bullying.

1.1 Workplace bullying

Workplace bullying is a well-established phenomenon that have gained increasing interest over the last few decades. The phenomenon was explored as early as 1976 by the psychiatrist Carroll M. Brodsky, in his book “The Harassed Worker” (Brodsky, 1976). The book was based on several case studies of workers who had been exposed to repeated and persistent mistreatment by colleagues or supervisors. The findings from the case studies indicated that being exposed to harassment at work constituted a severe stressor for the individual and could lead to serious consequences for that individual in terms of health and well-being. However, even though Brodsky highlighted this phenomenon in the 1970s, his research was only rediscovered many years later (Einarsen et al., 2020). The term workplace bullying originated in Scandinavia during the 1980s, before spreading to the rest of the world. Research on the topic was partly inspired by the ongoing research into bullying among school children during the 1970s (Olweus, 1974, 1978), with Heinz Leymann describing a similar phenomenon among adults in a workplace setting (Leymann, 1986, 1990, 1996). Leymann argued that workplace bullying had more to do with a problem rooted in the work environment and less to do with the individuals involved. He suggested it could be caused by various organizational factors and the quality of the psychosocial work environment. Building on Leymann’s work, researchers in Norway (Einarsen et al., 1990; Einarsen et al., 1994; Matthiesen et al., 1989) and Finland (Björkqvist et al., 1994; Vartia, 1996) conducted several large studies, further

documenting workplace bullying as a workplace phenomenon and the severe consequences that followed when individuals are exposed to such a severe stressor. The interest in workplace bullying was primarily limited to Scandinavia until the 1990s when it started gaining interest in other countries (Einarsen et al., 2020), such as the United Kingdom (Adams & Crawford, 1992; Hoel & Cooper, 2000), Italy (Ege, 1996), Australia (McCarthy et al., 1996), the Netherlands (Hubert & van Veldhoven, 2001), Turkey (Yüçetürk & Öke, 2005), Spain (Moreno-Jiménez et al., 2007), India (D'Cruz & Noronha, 2009), and Japan (Tsuno et al., 2010) to name a few.

Although there was a great deal of research on workplace bullying during the 1990s, interest in the phenomenon has increased, in particular since 2000. According to a meta-analysis, conducted in 2009, as much as 81.3% of workplace bullying research was in fact published between 2000-2008 (Nielsen et al., 2010). With the increasing interest, research into workplace bullying has become steadily more sophisticated. For example, through the use of representative samples and prospective research designs with improving methodological quality. As the knowledge surrounding this issue has advanced considerably since the 1990s, we now know more about its conceptualisation and how to assess the phenomenon, as well as the various prevalence rates across different countries and industries (Einarsen et al., 2020; Zapf et al., 2020). We have also gained more knowledge of antecedents and predictors of workplace bullying, and the severe consequences that exposure to workplace bullying can have on an individual (Nielsen & Einarsen, 2018). Yet, there is still a great deal that we do not know about workplace bullying and more knowledge is required, especially regarding interventions and the rehabilitation of victims of workplace bullying, which will be the focus of the current thesis.

1.1.1 Definition

Workplace bullying has become a well-established phenomenon worldwide describing it as a situation where an employee is exposed to negative and unwanted social acts systematically over time by mainly one's superiors or colleagues while at work. Nevertheless, several different terms have been used to describe bullying at the

workplace, such as mobbing (Leymann, 1986, 1990), incivility (Andersson & Pearson, 1999; Cortina et al., 2001), harassment (Björkqvist et al., 1994; Bowling & Beehr, 2006; Brodsky, 1976), and workplace bullying (Einarsen et al., 1994; Einarsen & Skogstad, 1996; Hoel & Cooper, 2000). All referring to the same underlying concept of repeated and unwanted negative behaviour that are taking place in a workplace setting. Workplace bullying have become one of the most commonly and widely used terms when researching bullying in the workplace (Einarsen et al., 2011). Workplace bullying is defined as situations where an employee repeatedly and over a prolonged period of time is exposed to harassing behaviour from one or more colleagues (including subordinates and leaders), and where the targeted person is unable to defend him/herself against this systematic mistreatment (Einarsen et al., 2011; Einarsen & Nielsen, 2015; Olweus, 1993). Even though there is still no official definition for this phenomenon there is some consensus regarding the features that should be included when defining the term. Certain important elements when discussing the definition of workplace bullying are the nature of the behaviours, the frequency of negative behaviour, the duration of the bullying, and imbalance of power between the parties (Einarsen et al., 1994; Leymann, 1996).

The negative behaviours that are associated with being a target of workplace bullying can be of a person-related or a work-related nature. Person-related bullying might take the form of persistent criticism, spreading gossip or rumours, practical jokes on the targets expense, threats, or socially isolating the target (Hoel & Cooper, 2000; Zapf & Einarsen, 2005). These types of negative behaviours are usually independent of work context. Work-related bullying on the other hand may take the form of being given unreasonable deadlines, unmanageable workload, vital information being withheld, excessive monitoring of work, or meaningless tasks (Hoel & Cooper, 2000; Zapf & Einarsen, 2005). It is often harder to distinguish non-victims from victims when reporting work-related bullying behaviours as many that consider themselves non-victims may also report that they have unmanageable workloads (Einarsen et al., 2020). This could for example occur if the organisation is downsizing and there will be less employees to do the same amount of work. However, one of the most frequent negative behaviours reported by victims are that vital information is withheld from

them, making it hard to complete their work. This is also reported by non-victims, but not as frequently (Einarsen et al., 2020). The negative behaviours can also be of an active or passive nature. An example of a passive and indirect negative behaviour would be social isolation or spreading rumours about the target. While an active and direct negative behaviour could be public humiliation or practical jokes on the targets expense (Escartín et al., 2010; Moreno-Jiménez et al., 2007). Early in the bullying process, the negative acts are often of a subtle and indirect manner, and as a result, it might be challenging for the target of these behaviours to recognise what is happening. As a result, the process continues to escalate over time, in which the negative acts often become more direct and can often lead to the target being humiliated and excluded (Leymann, 1996).

Workplace bullying does normally not involve single isolated events, but rather repeated exposure to unwanted negative behaviours over a prolonged period of time (Einarsen et al., 1994; Leymann, 1996). Leymann (1996) suggests that for something to be defined as workplace bullying, one would have to be exposed to at least one bullying behaviour, and this exposure would have to occur at least once a week over a duration of at least six months. However, Einarsen et al. (2011) have argued that Leymann's criteria of frequency might be difficult to apply, due to the fact that not all bullying behaviours can be considered strictly episodic in nature. Therefore, not all bullying behaviours will necessarily be able to fulfil the once-a-week criterion. For instance, gossip or rumours, which might be harmful to the target's reputation or job, are not negative behaviours that have to be repeated weekly, as this type of behaviour often circulates independently. Another example could be having key areas of the targets' job removed from his/her responsibility. This negative behaviour might only occur once, but it could be regarded as being exposed to bullying behaviour in a permanent state, as an individual has been stripped of the responsibilities that his/her job is supposed to entail.

Leymann (1990) suggested that one would have to be exposed to bullying behaviours for more than six months for it to be defined as workplace bullying. This timeframe was suggested as over a six-month period, one would be able to eliminate other

sources of negative behaviour, such as temporary conflicts. However, most definitions have avoided using a rigorous cut-off and have rather stated that it needs to occur for an extended period of time (Einarsen et al., 2020; Zapf & Einarsen, 2005). Many studies have chosen to measure repeated exposure to negative behaviours within a six-month period (Einarsen et al., 2020), thus including events of a shorter duration than six-months as long as they are experienced as ongoing. The targets, who are frequently exposed to workplace bullying, often report being exposed for a longer duration than targets who are not exposed as frequently to workplace bullying (Einarsen & Skogstad, 1996; Zapf et al., 2011).

There is often also an element of imbalance of power between the target and the perpetrator. The target is often in a position that could be characterised by being in an inferior position, which makes it difficult for them to defend him/herself from the perpetrator (Einarsen et al., 2020; Hoel & Cooper, 2000; Olweus, 1994). The power imbalance may occur in the form of formal power (e.g., being bullied by a supervisor) or informal power (e.g., number of perpetrators, social position). The power imbalance may have been representative for the relationship before the bullying (e.g., supervisor and employee), but it is also possible for the power imbalance to develop over time. The parties may start out on equal terms, but as the process escalates the power will shift until the weaker party ends up in a victimised position (Einarsen et al., 2020).

In accordance with the summary above of some of the most widely used workplace bullying criteria the present thesis have used the following definition of workplace bullying by Einarsen et al. (2011, p. 22):

“Bullying at work means harassing, offending, or socially excluding someone or negatively affecting someone’s work. In order for the label bullying (or mobbing) to be applied to a particular activity, interaction, or process, the bullying behaviour has to occur repeatedly and regularly (e.g., weekly), and over a period of time (e.g., about six months). Bullying is an escalating process in the course of which the person confronted ends up in an inferior position

and becomes the target of systematic negative social acts. A conflict cannot be called bullying if the incident is an isolated event or if two parties of approximately equal strength are in conflict.”

1.1.2 Measuring workplace bullying

There are several different ways of measuring exposure to workplace bullying and the research field has become increasingly sophisticated and advanced over the years (see also Nielsen, Notelaers, et al., 2020). The research conducted in the workplace bullying field has to date been primarily based on self-report from the victims themselves, either by using the so-called self-labelling or the behavioural experience method. These two methods will both be employed in the present thesis.

The self-labelling method is used to measure whether an individual perceives him/herself as being a target of bullying behaviours in the workplace and whether he/she identifies with being a victim of workplace bullying (Nielsen, Notelaers, et al., 2020). A common way of applying the self-labelling method is to present the respondent with a definition of workplace bullying (Einarsen & Skogstad, 1996; Nielsen et al., 2009). This is usually followed by a single item measuring, if the respondent has been subjected to bullying in his/her workplace over a given period of time, and the frequency of the exposure (e.g., daily, weekly, monthly). Other studies have chosen to measure workplace bullying by using a single item question without presenting a definition of the phenomenon (Nielsen, Notelaers, et al., 2020).

Self-labelling is a very easy and convenient way of measuring workplace bullying, and this may be why it is one of the two most widely used methods of measuring the concept of workplace bullying in the bullying literature (Nielsen et al., 2009). In addition, the self-labelling method often has a high construct validity, at least if the participants have been presented with an easy and concise definition that explains workplace bullying (Nielsen et al., 2011). Even though there are several advantages associated with using the self-labelling method one of the main limitations is that it does not provide an insight into the nature of the workplace bullying or the bullying behaviours involved (Nielsen et al., 2009). It only provides information as to whether

or not the participants define themselves as victims of workplace bullying. Therefore, one could potentially miss a great deal of crucial information concerning the process of workplace bullying to which one might have had access if one chose to measure workplace bullying using another method. Another limitation worth mentioning is the fact that although self-labelling is widely used in workplace bullying research, certain studies have indicated that some individuals, who are exposed to bullying behaviours in their workplace and could by definition be defined as victims of workplace bullying, do not label themselves as being exposed to workplace bullying (Nielsen et al., 2009). These individuals do not seem to regard their experiences as workplace bullying, even if the bullying behaviours they are exposed to meet the criteria defined as workplace bullying. This could potentially indicate that prevalence rates using self-labelling could be of a conservative nature.

Another way of measuring workplace bullying, as a concept, is by using the behavioural experience method. This method is based on the individual's experience of being exposed to negative acts, both in terms of their frequency and their duration (Nielsen et al., 2011). When measuring workplace bullying using the behavioural experience method the participants are presented with different items, which include a range of different negative acts that can be experienced in the workplace (e.g., "someone withholding information which affects your performance", "being humiliated or ridiculed in connection with your work") (Einarsen et al., 2009; Notelaers & Einarsen, 2013). The items are then scored based on how frequently the participants have experienced them over a given period of time, often over a six-month period. Being exposed to these types of negative acts in the workplace can be considered as workplace bullying if they occur repeatedly over a long period of time.

One of the main advantages of using the behavioural experience method to measure workplace bullying is that it provides more information compared to the use of self-labelling. By using this method, one can gather information regarding the types of negative acts that an individual is exposed to, the frequency of the exposure and in some instances, the duration of the negative acts. This differs from the self-labelling method, which only provides information regarding whether or not the individual

considers him/herself to be a target of workplace bullying. However, the behavioural experience method, unfortunately, does not provide any information in relation to the power distance between the perpetrator(s) and the target, or whether the target considers him/herself to be a victim of workplace bullying. Another factor that can be considered an advantage when adopting the behavioural experience method is that its method is more objective than self-labelling, when obtaining information regarding the bullying. This method does not require that the individual label him/herself and his/her experiences of various negative acts as workplace bullying. Therefore, there is a lower risk of the participant's responses being affected by cognitive or emotional processes.

An example of a behavioural experience method that is both well-known and frequently used in workplace bullying literature is the Negative Acts Questionnaire (NAQ; Einarsen et al., 2009). In a meta-analysis from 2012 the NAQ had been used in 56% of the studies using the behavioural experience method (Nielsen & Einarsen, 2012). This is also the questionnaire that was employed in the present thesis. When measuring workplace bullying with a self-report questionnaire, like the NAQ, one needs to consider whether the criteria used to distinguish between victims of exposure to bullying behaviours and non-victims are sufficient. It is important that these criteria are strict enough to capture the individuals that have experienced a truly invasive bullying experience, but not too strict so as to devalue the individuals' very real experience of exposure to bullying (Nielsen, Notelaers, et al., 2020). Thus, being able to choose an appropriate cut-off criterion to distinguish the victims from the non-victims is of great importance. In this thesis this has been done by basing it on the cut-off criterion suggested by Notelaers and Einarsen (2013) for the NAQ-R. These cut-off scores were calculated using a receiver operation characteristic curve and have been developed by taking both sensitivity and specificity into account (Notelaers & Einarsen, 2013). Other criteria have also been used in workplace bullying research, with Leymann (1996) suggesting being exposed to at least one negative act weekly could be classified as being bullied. However, it is worth considering that not all acts may occur on a weekly basis. An example would be being ordered to do work below

your level of competence as this is a negative act that does not necessarily occur weekly.

However, it is worth noting that the two methods yield different prevalence (Nielsen et al., 2009). A meta-analysis by Nielsen et al. (2010) indicated that there can be as much as an 8.7% difference in prevalence rates, when using different methods. In paper 1, we therefore choose to report prevalence calculated with both instruments.

1.1.3 Prevalence

Workplace bullying is a prevalent problem that can be found in all industries and professions. The prevalence can range from 5 to 20% depending on the country, the operational definition, and the estimation methods that have been used (Zapf et al., 2020). In Norway, where the studies in the present thesis were conducted, the prevalence of workplace bullying have been shown to range from 4 to 12% depending on the estimation method in the general working population (Nielsen et al., 2009). Norway have a fairly low prevalence of workplace bullying compared to other countries and it has been suggested to be a potential low risk culture because of its strong egalitarian values (Van de Vliert et al., 2013).

Although the prevalence of workplace bullying has been studied across several different countries and professions little is still known about the prevalence of workplace bullying among patients presenting with CMD who are on or at risk of sick leave and are seeking psychological treatment for their complaints.

1.2 Workplace bullying, health, and work

1.2.1 Mental health

Decades of research into the consequences of workplace bullying have highlighted the detrimental effects it can have on the victims. One of the most established outcomes of workplace bullying has been common mental disorders (CMD; e.g., depression, anxiety), and several cross-sectional and longitudinal studies have identified a significant association between workplace bullying and self-reports of

such mental health problems (e.g., Loerbroks et al., 2015; Tatar & Yüksel, 2019; Verkuil et al., 2015). Findings have also indicated that workplace bullying is associated with symptoms of a post-traumatic stress disorder (PTSD; e.g., Mikkelsen & Einarsen, 2002; Tatar & Yüksel, 2019) and an increased risk of suicidal ideation among the victims (e.g., Nielsen, Einarsen, et al., 2016).

In a recent systematic review, Boudrias et al. (2021) examined the research into the longitudinal consequences of workplace bullying, thereby extending the meta-analysis of Nielsen and Einarsen (2012). The systematic review consisted of longitudinal studies, published between 2012 and 2019, with 54 articles meeting the inclusion criteria. The findings showed that depression and anxiety are among the most studied negative health outcomes that are investigated as an individual outcome of exposure to workplace bullying. Furthermore, several studies have found that this negative relationship persists over time. A study by Einarsen and Nielsen (2015), for example, investigated the long-term relationship between exposure to workplace bullying and subsequent mental health problems in terms of depression and anxiety. This study used a representative sample of the Norwegian work force, consisting of 1613 employees, and data were collected at the baseline and at the five-year follow up. The results from the study showed that exposure to workplace bullying predicted higher levels of mental health problems years later. This is similar to the findings of Bonde et al. (2016), who also found that diagnosed depression and depressive symptoms persisted for several years after having been exposed to workplace bullying, regardless of whether or not the bullying had ceased.

The fact that depressive symptoms can persist for years after the bullying has stopped, is a strong indication that these individuals have an increased likelihood of requiring psychological treatment in order to improve. It also raises an important question regarding those in general who are seeking mental health care services for such mental health problems; How many of these are being or have been exposed to workplace bullying? Very few studies have investigated the prevalence of workplace bullying among patients seeking health care treatment. One of the few studies that has examined this issue previously is that of Tatar and Yüksel (2019), who aimed to

investigate the development of mental health problems caused by traumatic experiences of individuals who had been subjected to workplace bullying and who had been admitted to psychiatric services. Of the 300 patients referred, 43.3% could be classified as having been exposed to workplace bullying. Among these, 78.5% were diagnosed with MDD and 71.5% were diagnosed with PTSD, a finding that also points to potentially high comorbidity for this group. Their results concur with previous studies, namely, that individuals exposed to workplace bullying are a vulnerable group that appear to exhibit severe mental health problems. Although the patients in the aforementioned study were referred from psychiatric clinics, one of the requirements of the study was that they had experienced traumatic experiences at work. Thus, it is still unclear how many victims of workplace bullying are among the general population of patients seeking mental health care services.

Considering the detrimental consequences of workplace bullying the likelihood of victims of workplace bullying possible needing treatment is high. It could therefore be of value to investigate the prevalence of victims of bullying in a sample of patients seeking treatment for CMD. Additionally, it would be of value to examine if these patients with bullying experiences distinguishes themselves from the other patients when it comes to characteristics, health status, and coping, as well as investigating any effect of the treatment offered.

1.2.2 Physical health

The severe social stress that comes with being exposed to workplace bullying is not only associated with an increased risk of severe psychological health complaints, but also with various physical diseases. For example, it has been suggested that there is a risk of type 2 diabetes among victims of bullying (Xu et al., 2018). Several studies have also found an increased risk of cardiovascular diseases (Jacob & Kostev, 2017; Kivimäki et al., 2003; Starke et al., 2020; Xu et al., 2019) and sleep disorders (Nielsen, Harris, et al., 2020; Rodríguez-Muñoz et al., 2020) when exposed to workplace bullying. In a study by Xu et al. (2019) comprising nearly 80 000 employees from Denmark and Sweden between the age of 18 and 65 with no prior cardiovascular disease, it was investigated whether workplace bullying could be a

risk factor for cardiovascular disease years later. Their findings suggested that there was a 59% higher risk of incident cardiovascular disease among individuals exposed to workplace bullying, and that the individuals that were frequently bullied were more at risk than the individuals that were occasionally exposed to bullying.

In addition to these severe diseases, there are also several subjective psychosomatic health complaints that are associated with workplace bullying. Most individuals experience subjective health complaints at some stage of their life, but some report more complaints than others (Ihlebaek et al., 2002; Ursin & Eriksen, 2001).

Subjective health complaints are ordinary health complaints which do not occur for any particular reason and in some cases, the complaints are of a more severe nature than one would expect based on the objective medical findings (Eriksen & Olsen, 2021). The most common subjective health complaints are musculoskeletal complaints, gastrointestinal complaints, and pseudoneurological complaints.

Individuals that experience several subjective health complaints often have a higher comorbidity of mental health complaints, such as CMD (Johnsen et al., 2017; Ursin, 1997). Subjective health complaints are often associated with stress, and it has been suggested that sustained activation, combined with sensitisation, could be a possible explanation as to why common subjective health complaints in some instances develop into severe health complaints (Eriksen & Ursin, 2004; Wyller et al., 2009). If we consider how workplace bullying is a severe stressor that cause sustained activation, it is reasonable to assume that victims of workplace bullying could experience several, and potentially severe, subjective health complaints. This is reflected in the literature with studies finding that workplace bullying is associated with several subjective health complaints, such as gastrointestinal complaints (Lever et al., 2019; Topa et al., 2014), musculoskeletal complaints (Buhaug et al., 2021; Vignoli et al., 2015), pseudoneurological complaints (Topa et al., 2014), and sleep problems (Hansen et al., 2014).

1.2.3 Sick leave and work

Musculoskeletal complaints are the most common reason for sick leave in Norway and accounted for 32.8% of the total sickness absence in 2021 (Norwegian Labour

and Welfare Administration (NAV), 2021). This prevalence has been more or less stable for the last 20 years. However, since 2001, musculoskeletal complaints have slowly declined after accounting for 39.8% of sick leave at their peak in 2001 (Norwegian Labour and Welfare Administration (NAV), 2010). By comparison, CMD has steadily increased from accounting for 12.1% of sick leave in 2001 to 18.5% in 2021 (Norwegian Labour and Welfare Administration (NAV), 2010, 2021). CMD is the second most common reason for sick leave in Norway and accounts for approximately one third of the disability pensions among the Norwegian working population (Ellingsen, 2021). Together with musculoskeletal complaints, CMD accounts for over half of the sick leave in Norway.

It is well established in the literature that workplace bullying lead to impairment of both mental and physical health. Thus, it is not surprising that workplace bullying has been associated with an increased risk of sick leave and on being on disability pensions (Berthelsen et al., 2011). However, although workplace bullying is associated with an increased risk of sick leave, it is still not a valid reason for sick leave in Norway in itself. Therefore, the victims are often granted sick leave, due to the consequences that follow exposure to workplace bullying, such as CMD. One could, therefore, postulate that there might be a significant number of individuals that are on sick leave, due to CMD, that have in fact been or are exposed to workplace bullying, considering the detrimental consequences that results from this exposure. In a systematic review and meta-analysis by Nielsen, Indregard, et al. (2016) the association between workplace bullying and sick leave was investigated. It included 17 primary studies, while the meta-analysis was based on 10 studies. The results showed that there is evidence of a moderate association between workplace bullying and sick leave, and that workplace bullying can be considered a risk factor for sick leave. The results are also confirmed in a recent systematic review (Boudrias et al., 2021).

Yet, although several studies have established a clear relationship between sick leave and workplace bullying, a relationship between workplace bullying and presenteeism (i.e., attending work even when you are sick) has also been suggested (Conway et al.,

2016; Neto et al., 2017), which may explain the moderate relationship between bullying and absenteeism. The fact that workplace bullying is associated, both with an increased risk of sick leave, and an increased risk of presenteeism could suggest that victims of bullying try to remain in work for as long as possible, even though they might be suffering mentally from their experiences at work. Based on this one could speculate whether victims of workplace bullying may end up having to go directly on full-time sick leave when they cannot longer be at work rather than combined work and sick leave.

When considering the severe impairment of health that can result from being a victim of bullying, the probability of sick leave increases, while the probability of returning after such sick leave probably decreases (Glambek et al., 2015; Leymann, 1996). Studies have found self-efficacy to be a strong predictive factor regarding a return to work among individuals with CMD (Brouwer et al., 2010; Nigatu et al., 2017). Self-efficacy can be defined as individuals' belief in their own capability to perform and succeed in specific behaviours, and it can be a valuable concept with regard to integrating and upholding behaviours (Bandura, 1977). When considered in a return to work context, self-efficacy refers to the individual's expectations regarding their own ability to be successful in working, and to be successful in either returning to or mastering their current work situation, referred to as RTW-SE (Lagerveld et al., 2010). RTW-SE, has over the last few decades, developed into a very popular concept in the return to work literature, and several studies have indicated that low RTW-SE can be an obstacle in the return to work process for individuals with CMD (e.g., Huijs et al., 2012; Lagerveld et al., 2017; Volker et al., 2015). In a study investigating the predictable value of change in work-related self-efficacy in relation to return to work among employees with CMD, results have shown that having a high RTW-SE at the baseline, with subsequent increases in RTW-SE during the interventions, were both strong predictors of a return to work (Lagerveld et al., 2017). This is in accordance with the findings of other studies showing that RTW-SE can help facilitate return to work (e.g., Nieuwenhuijsen et al., 2013; Nigatu et al., 2017). Lagerveld et al. (2017) suggest that when creating job interventions, these should be in accordance with Bandura (1994) theory of increasing self-efficacy. According to

Bandura (1994), four potential ways of helping to increase self-efficacy are mastery experiences, vicarious learning, verbal persuasion, and emotional regulation.

Considering the aftermath of workplace bullying and the strong link with sick leave and the risk of exclusion from working life following bullying experiences (Glambek et al., 2014), RTW-SE is a concept that should be given more attention in workplace bullying research as RTW-SE has been highlighted as being a very robust predictor of actual return to work in patients with CMD who are either currently on sick leave or are at risk of sick leave (Gjengedal et al., 2021; Lagerveld et al., 2017). It is highly plausible that victims of workplace bullying will have less belief in their ability to return to work, considering the severe stressor they are exposed to and the detrimental consequences that follow. Bullying often take the form of social exclusion at work or have it as its consequence. Furthermore, workplace bullying is not only associated with health-related outcomes, but are also found to be associated with negative, work-related consequences like lower job satisfaction (Arenas et al., 2015; Devonish, 2013; Olsen et al., 2017), lower productivity (Bowling & Beehr, 2006), and reduced work ability as manifested in sick leave (Nielsen, Indregard, et al., 2016), and elevated intentions to leave (Glambek et al., 2014). Workplace bullying has also been associated with a greater risk of expulsion in the form of changing workplaces, work disability (sick leave or disability pension), and unemployment (Glambek et al., 2015). When considering all the consequences of workplace bullying in terms of both health and work, in addition to the increased risk of expulsion, one could postulate that a return to work for victims of workplace bullying will often mean, at best, a return to a different workplace, as suggested by Schwickerath (2001). Anyhow it is worth looking at the relationship between exposure to bullying among patients and RTW-SE.

1.3 Workplace bullying and individual differences

Work factors and individual dispositional factors are the two dominant explanations for the occurrence of exposure to bullying (Zapf & Einarsen, 2011). According to the

individual-dispositions hypothesis (Zapf & Einarsen, 2011), individual characteristics such as personality traits are highlighted as potential precursors and risk factors of exposure to bullying. A meta-analysis from 2017 supported this hypothesis and showed that the personality trait extraversion was associated with a lower risk, and the personality trait neuroticism was associated with an increased risk of self-reported exposure to workplace harassment (Nielsen, Glasø, et al., 2017). Despite the considerable attention that has been devoted to both individual dispositional factors and the predictors of mental health problems and sick leave associated with workplace bullying, most studies have focused on the direct relationship between these factors (Nielsen, Hoel, et al., 2015). Consequently, less attention has been paid to personal dispositions in terms of when and for whom bullying has the most negative effects.

An interesting facet of factors with regard to individual dispositions is the individual's resilience. There is no universal definition of resilience, but it has become an overarching construct for positive factors and processes involved in assuring good mental health despite adversity (Aburn et al., 2016; Luthar et al., 2000). In a review of the empirical literature from 2000 to 2015 on resilience, Aburn et al. (2016) found that although there is no universal definition for resilience, there were, nevertheless, several common themes that were repeated (e.g., rising above to overcome adversity, adaption and adjustment, the ability to bounce back). Hence, resilience may be considered a multidimensional concept consisting of several factors and processes that include both external and internal resources that can affect an individual when adapting to risk and stress, as well as when overcoming adversity (Friborg et al., 2006; White et al., 2008). It is not the absence of risk, but the presence of either individual or social protective factors or processes that can act as a buffer when facing adversity. Internal resources consist of various personal qualities and characteristics, such as the perception of self, a planned future, a structured style and social competence (Friborg et al., 2006). These can be found in resources like self-efficacy, high self-esteem, the ability to deal with stressors in an organized manner or having positive social skills. External resources on the other hand consist of social sources of support that are available to individuals when facing stressors in their

lives, such as family cohesion and social resources (Friborg et al., 2006). This could entail the availability of family and friends in terms of helping an individual cope and make adjustments when facing stressors. Individuals with high levels of resilience are often better at dealing with adversity and the challenges that they encounter (Friborg et al., 2003; Rutter, 2000), as well as being associated with fewer psychological and physical health complaints (Mealer et al., 2012; Smith et al., 2010). Certain studies have also suggested that good mental health can function as a proxy for resilience (Aburn et al., 2016) and have suggested that it can function as a form of immunity, helping to protect individuals from disease (e.g., Burns & Anstey, 2010; Davydov et al., 2010; Rutter, 1987). However, other researchers have argued that the presence or absence of psychological disorders do not necessarily correlate with resilience (e.g., Bonanno et al., 2007; Deshields et al., 2006).

Based on research into resilience and cognitive stress theory (Ursin & Eriksen, 2004), it is likely that the effect of bullying will depend upon individual dispositions, and one would expect that individuals who score highly in terms of protective factors, such as resilience, will cope better with stress and adversity, compared to individuals with fewer protective resources at their disposal. To this date, some studies have examined the potential role of other individual protective factors in relation to workplace bullying (e.g., Britton et al., 2012; Hamre et al., 2020; Nielsen, Gjerstad, et al., 2017; Reknes et al., 2016; Reknes et al., 2018). However, several recent studies have shown that protective resources, usually associated with good health and coping, have not shown the expected protective buffering effect when being faced with a stressor such as workplace bullying (e.g., Hamre et al., 2020; Hewett et al., 2018). On the contrary, studies have demonstrated that the association between workplace bullying and the reporting of different types of negative health complaints seems to be strongest for individuals with personal traits and coping abilities that should be the best equipped to cope, at least when facing this type of stressor (Nielsen, Gjerstad, et al., 2017; Reknes et al., 2016). On the other hand, studies show no relationships between exposure to bullying and mental health problems for individuals that have low scores regarding such protective resources. Yet, these individuals often report more health-related complaints, regardless of whether or not they are being bullied

(Einarsen, 2021; Nielsen & Einarsen, 2018). In cases of no or low exposure to aggression and bullying in the workplace, personal factors, such as hardiness (Reknes et al., 2018) have indicated a protective effect regarding the bullying - mental health relationship. In cases of high exposure, targets report equally high levels of mental distress irrespective of their individual predispositions, which may indicate that high intensity bullying is detrimental to all (Annor & Amponsah-Tawiah, 2020; Nielsen, Gjerstad, et al., 2017; Reknes et al., 2016). Thus, one should investigate this further among victims of workplace bullying who are currently on or at risk of sick leave due to CMD, and to investigate how resilience may affect the potential return to work for victims on sick leave.

1.4 Rehabilitation of victims

To handle and treat victims of bullying at risk of exclusion from working life due to mental health problems, we require in depth knowledge of effective treatment programmes. Few studies propose and evaluate procedures for treating and rehabilitating former targets of bullying. Thus, we do not know how to treat the mental health problems resulting from exposure to workplace bullying or how to prevent social exclusion and secure a safe return to work for these patients. For instance, findings indicate that bullying can change the targets' basic assumptions about themselves and the world in terms of being worthy and meaningful (Adoric & Kvartuc, 2007; Mikkelsen & Einarsen, 2002; Rodríguez-Muñoz et al., 2010). Hence, a potential intervention should not only be directed at treating the relevant health symptoms but should also focus on re-adjusting and reversing destructive assumptions that may hinder a return to work. Following this line of argument, the return to work should be an explicit goal of the treatment, in order to secure a more permanent inclusion and prevent exclusion from working life. An important question in this regard is whether patients on sick leave or at risk of being sick listed related to CMD would benefit from the same treatment procedures irrespective of their prior exposure to workplace bullying or whether a victim group would require some kind of tailor-made intervention.

To date, there are a few treatment facilities that provide therapy tailored to victims of workplace bullying across Europe (Field & Ferris, 2021). Some of these facilities are “AHG-Klinik Berus” in Germany, “Jobbfast” in Norway, “Clinica del lavoro Luigi Devoto” in Italy, “Specular” in Denmark (Field & Ferris, 2021), and “Noreen Tehrani Associates Limited” in England (Norreen Tehrani Associates Limited, 2020; Tehrani, 2003, 2012). “Clinica del lavoro Luigi Devoto”, “Specular”, and “Noreen Tehrani Associates Limited” do not offer treatment exclusively to victims of workplace bullying but are instead specialised in occupational medicine (“Clinica del lavoro Luigi Devoto” and “Specular”) and work-related trauma (“Noreen Tehrani Associates Limited”). “AHG-Klinik Berus” and “Jobbfast” on the other hand, are two of the few clinics that specialised in providing therapy, tailored to victims of workplace bullying.

“Jobbfast” was established in 2011 as a treatment option tailored to patients experiencing impaired health caused by psychosocial conflicts at work, workplace bullying, sexual harassment, and whistleblowing (Buhaug et al., 2013; Hoprekstad & Magerøy, 2016). The clinic, however discontinued in late 2017, offered a three-day intervention and evaluation programme, with the aim of assessing, treating and rehabilitating the patient (Hoprekstad & Magerøy, 2016), the two latter however in collaboration with the patient’s family doctor. The clinic emphasised that the patients should be given time to share their personal stories during the intervention, meeting a team consisting of doctors specialising in occupational medicine, psychologists, physical therapists, and employment consultants with a professional background in return to work and the social security system of Norway. At the start of their stay, there is a thorough clinical assessment including an evaluation of the patients’ mental health status, blood samples to screen for possible differential disorders (e.g., metabolism disorders), a physical therapist evaluation, and an examination of the patients’ occupational medical history. Patients also met with an employment consultant to discuss their current work situation, the services offered by NAV (the Norwegian social and work security authorities) as well as their own personal finances and personal situation. The patients are also given information regarding the Working Environment Act and their legal rights at work, as well as information about

workplace bullying and its potential health consequences. Throughout their stay, patients are also encouraged to write down all their experiences of workplace bullying, hence there are elements of narratives in the treatment procedures. At the end of their stay the team have a meeting to evaluate and plan for the patients' further recovery, which includes a four-week later follow up with the team and the patients' general practitioner who then take over the further treatment of the patient. "Jobbfast" treated 30-42 patients annually while active, but unfortunately this clinic was closed in late 2017, due to funding issues according to the hospital.

The only current treatment as far as we know, specifically tailored for victims of workplace bullying, to the authors knowledge, is "MEDIAN Klinik Berus" (previously known as AHG-Klinik Berus) in Germany. This clinic was established in 1986 and offers an inpatient treatment programme lasting between six and eight weeks (Field & Ferris, 2021; Schwickerath & Zapf, 2020). One of the main aims of the treatment offered is to help the patients obtain or re-establish their work ability, thus ensuring that they will not lose their footing in the workplace. The therapy is based on CBT and workplace bullying research and is tailored to victims of workplace bullying. At the start of their stay at the clinic, all patients are diagnosed before beginning the treatment. The therapy is goal-oriented and is characterised by four main stages. The first stage aims to distance the patients from the bullying situation in the workplace, so they are able to focus on constructive ways of solving the problem at hand. By staying at the inpatient clinic, patients also physically distance themselves from the situation, which could be valuable, as empirical studies have suggested that victims of workplace bullying have more difficulty distancing themselves from problems they face at work, compared to non-bullied employees (Schwickerath & Zapf, 2020). The first stage focuses on acknowledging the issues concerning the patients and considers ways of addressing these. The second stage involves understanding of one's own situation, A key aspects is to develop a model of the dysfunctional factors that are contributing to the patients' problems. Recognising dysfunctional patterns is an important element of CBT. The third stage is related to decision-making, with the aim of mapping out the patients' path going forward in relation to their workplace and their further role on relations to working life. Here it is

important to ascertain whether the patients can return to their current workplace or whether it would be more beneficial to relocate within the company or move on to a different workplace. The fourth stage involves taking action and empower patients with the abilities and skills needed to acquire a new perspective on their situation and a way forward. An example would be learning techniques to help with problem-solving and establishing strategies to distance themselves from workplace bullying situations.

Evaluation studies from the clinic have suggested the treatment to be effective and have shown a significant improvement in health-related symptoms such as depression (Cohen's $d = .76$) and a higher employability rate (Schwickerath & Zapf, 2020). However, an inpatient treatment programme of this kind requires considerable resources both in terms of personnel and financial costs. It should, therefore, be explored whether victims of workplace bullying would benefit from psychological treatment at an outpatient clinic and perhaps even a more general programme of work-related psychological treatment for mental health problems. This could potentially be more cost effective.

There is currently no specific treatment programme for victims of workplace bullying in Norway. Should these individuals require help with medical or psychological health complaints, they must contact their general practitioner, who may then refer them to the specialist health care services. Considering that anxiety and depression are two of the most common consequences of workplace bullying, it is likely that many will be referred to outpatient clinics specialising in mental health care services. Thus, it will be of value to examine the prevalence of victims of workplace bullying among the patients in such clinics and whether the victims of bullying possess the same characteristics as the other patients referred. Furthermore, it will be of importance to evaluate if the victims of workplace bullying benefit from existing treatment procedures made available through general mental health care services.

1.4.1 A general approach to the treatment of CMD

Cognitive behavioural therapy (CBT) is one of the most common therapies used in mental health care services for treating CMD and is considered best practice when treating anxiety and depression (National Institute of Health and Care Excellence, 2009, 2011). It was first pioneered by Beck (1970) and Ellis (1962) and has been found to have a very strong evidence base (Hofmann et al., 2012). The core premise for CBT is the interplay between emotions, thoughts, behaviour, and physical reactions that occur both when problems are developed and when trying to create change in the beliefs that have been developed. According to the model proposed by Beck (1970), individuals with disorders have a disordered thinking that contribute to emotional stress and problem behaviour they are experiencing. They often have general beliefs about themselves, the world, and their future, which results in specific thoughts arising automatically in certain situations. An example would be to think that in order to be happy, a person has to be loved by everyone. This would be considered an irrational thought, as being loved by everyone is almost impossible to achieve. He further describes cognitive distortions like overgeneralising and magnification of the importance of a particular event. Examples of these can be thoughts related to expecting catastrophes, like always expecting the worst to happen. An example of this could be that individuals recall a previous failure and because of this, expect that they will fail in the future, despite the fact that the situation might be different from their last experience. CBT's role is to identify these types of negative automatic thoughts and cognitive distortions and test their validity and help the patient develop more realistic conceptualisations as well as modifying the behaviours that these thoughts and distortions may lead to (Hofmann et al., 2012).

Another more recent form of therapy introduced to treat CMD, is metacognitive therapy (MCT). MCT has been shown to have great effects on patients with CMD and it has been suggested by certain comparative studies that MCT may even be superior to CBT (Normann & Morina, 2018). The therapy is based on the self-regulatory executive function (S-REF) model (Wells & Matthews, 1994, 1996). This model suggests that CMD is linked to self-regulation strategies, and the type of thinking style used in these strategies is known as the cognitive attentional syndrome

(CAS). The CAS consists of threat monitoring, the perseverative thinking styles rumination and worrying, and maladaptive coping styles (e.g., thought suppression, avoidance, withdrawal, distraction). It maintains mental disorders in patients (Wells, 2009). The CAS is driven by a set of metabeliefs that can be both positive and negative metacognitions. The positive metacognitive beliefs (e.g., “I need to remember everything and then I will know if I am to blame”) are related to the usefulness of strategies like worrying, threat monitoring, and rumination, while negative metacognitive beliefs (e.g., “I cannot control my worries, it must be an indication that I’m going crazy”) are related to individuals’ perception of lack of control over thinking processes or the potential danger of them. The basis of MCT is to identify and challenge these maladaptive metacognitive beliefs (Wells, 2009). This is often achieved using therapeutic techniques, such as detached mindfulness, postponement of worry and rumination, attention training and experiments, that are designed to target the metacognitions (Normann & Morina, 2018). MCT differentiates between an object mode and a metacognitive mode, where the latter refers to the different types of relationships individuals may have towards their thoughts. In object mode are treated as direct perceptions and facts, while in metacognitive mode thoughts are experienced as events or stimuli in the mind, and therefore thoughts in which the individual can step out of and look at (Wells & Matthews, 1994). Thus, MCT helps patients to become aware of the metacognitive mode and to interrupt perseverative processes and reduce maladaptive self-monitoring by establishing more adaptive ways for patients to respond to their thoughts, thinking and feelings (Wells, 2009). There is initial evidence that metacognitions are linked to their work status (Nordahl & Wells, 2018, 2019, 2020), and that MCT alone increases the probability of return to work (Solem et al., 2019).

Most research on treatment of CMD and work is related to CBT which has been proven to be effective when treating symptoms of CMD. There has not been consensus as to whether symptom reduction achieved in CBT, on its own, is sufficient to reduce the length of sick leave and ensure a return to work, as studies investigating this have indicated mixed results (e.g., Ejeby et al., 2014; Marco et al., 2018). Several findings highlight that CBT integrated with work-focus in the therapy,

can provide better results in relation to a return to work than regular CBT alone, while still maintaining the same symptom reduction (Kröger et al., 2015; Lagerveld et al., 2012). This was also supported by a systematic review by Cullen et al. (2018). The findings from the systematic review have indicated that there is not enough evidence to support the assumption that cognitive therapies, such as CBT, are able to reduce sick leave independently; the review recommends that work-focused interventions be implemented with these general therapeutical approaches when treating patients with CMD to help facilitate their return to work. A study by Gjengedal et al. (2020), using a sample from the same patient population as those in the present thesis, investigated the effect of MCT or CBT with work-focus in a sample of patients with CMD on sick leave. The study examined the effect of the treatments by comparing a treatment group with a wait-list control group in a quasi-experimental design. The results showed that significantly more patients in the treatment group recovered from depression and anxiety compared to the control group. A total of 41.4% of patients in the treatment group were able to return to work fully, compared to the control group where 26.3% returned to work fully. These findings supports the findings from studies from the Netherlands (Brenninkmeijer et al., 2019; Lagerveld et al., 2012) and Germany (Kröger et al., 2015). Nevertheless, there are also certain studies that do not report the effect of combining a work-focused intervention with psychological therapy (e.g., CBT) (Lammerts et al., 2016; Salomonsson et al., 2017). That said, the way in which work-focused interventions are described in the research literature is inconsistent, making it difficult to compare the results from the different studies. It is likely that some therapeutic interventions or work interventions may work better than others. To date, most of the research investigating work-focused interventions has primarily been integrated with cognitive therapy, however, in theory, it is possible to integrate a work-focused interventions into any type of psychological therapy (Wright et al., 2021).

Based on the aforementioned studies, the literature has established that there is a high risk of sick leave (Nielsen, Indregard, et al., 2016), disability pensions (Berthelsen et al., 2011), and exclusion from the workplace (Glambek et al., 2015) in relation to victims of workplace bullying, suffering from CMD. Thus, it may be beneficial for

the treatment to target both symptom reduction and work, to address work participation within this vulnerable group, thereby rendering MCT or CBT with work-focus, a potential option for this group. Furthermore, CBT and perhaps also MCT will anyway be what awaits many patients when seeking treatment for their CMD, including those with bullying experiences. Hence, the effect of these more general approaches needs to be investigated.

1.5 Theoretical framework

The main theoretical framework for the present thesis is based on the Cognitive Activation Theory of Stress (CATS; Ursin & Eriksen, 2004). This theory states that the way in which stressors are perceived depends on the situation at hand and the individual's experience of coping with similar situations (Ursin & Eriksen, 2010). In other words, different individuals will react differently to the same situation, and this can lead to different consequences in the form of physiological behaviour and health responses. Workplace bullying has been established in the literature as a severe social stressor that can result in detrimental consequences for the recipient. The high comorbidity of health complaints following workplace bullying may potentially be explained by the CATS. According to the CATS, if a stressor, such as being exposed to bullying behaviours, is perceived as threatening, this may lead to a sustained cognitive activation (e.g., worrying about being bullied). This response may then lead to prolonged physiological activation and subsequently to impaired health, affecting an individual's well-being (Ursin & Eriksen, 2004). This may explain why these individuals develop an increased sensitisation, due to repeated exposure to the stimulus (e.g., repeated exposure to bullying behaviours) (Ursin, 2014; Ursin & Eriksen, 2010). Individuals may, therefore, experience attentional bias, causing their thoughts and the information regarding the bullying to be prioritised, resulting in perseverative cognition. The latter will be manifested in rumination and worry and this can cause further sustained activation (Brosschot et al., 2006). Sustained activation will cause an enhanced activation via the immune, endocrine, cardiovascular, and the autonomic nervous system (Brosschot et al., 2006). This

imposes a strain on the individual's organs (e.g., gastrointestinal tract), which again can cause somatic symptoms and diseases.

Stress responses may occur when there is a discrepancy between what is expected by an individual and what actually occurs. Stimuli that signal a challenge to the individual (e.g., bullying behaviour) are then evaluated based on that individual's experiences, leading to a stimulus expectancy and a response outcome expectancy (Ursin & Eriksen, 2010). *What does the stimulus mean and what will be the outcome?* Based on the CATS, three response outcome expectancies were defined: positive (coping), negative (hopelessness), and uncertain (helplessness). The CATS define coping as a positive outcome response expectancy, and in this case, it is expected that the response the individual provides in order to manage the situation will usually result in a positive outcome. For example, having higher levels of resilience could help the individual cope when exposed to stressors, such as exposure to bullying behaviours, thus could help protect the individual from having sustained activation. However, there are both active and passive coping strategies, and although certain individuals may actively try to resolve the problem, others might worry or avoid the situation. Even though all coping strategies may be defined as positive outcome expectancies in the framework of CATS, certain strategies may be viewed as more appropriate than others. Coping strategies, such as avoidance, can cause other negative consequences, even though they reduce the stress response in the moment if the individual expects that avoidance will result in a positive outcome. Avoidance will lead to more time to think about their situation for the individual, which may result in increased anxiety or depression (Eriksen & Olsen, 2021) or helplessness and hopelessness, as referred to in the CATS framework (Ursin & Eriksen, 2004). In certain situations, one may experience either a no or a negative outcome expectancy. A no outcome expectancy is associated with helplessness. After experiencing a situation that is out of their control or a negative, unpredictable experience, some individuals will learn that there is no relationship between their actions and the outcome of the given situation, and they will generalise this to fit any given situation (Ursin & Eriksen, 2010). Helplessness has been accepted as a possible model for depression and anxiety (Ursin & Eriksen, 2010). A negative outcome expectancy is

associated with hopelessness. In this outcome expectancy, the individual has learned to expect that most or everything he/she does will lead to a negative result. In this outcome expectancy, the individual feels that he/she has control over the situation. This is, in contrast to helplessness, in which case individuals do not believe that they have control over the situation, and as they expect a negative outcome, many may blame themselves, leading to feelings of guilt and shame. Based on this, Ursin and Eriksen (2010) have suggested that hopelessness may be a better model for depression than helplessness. However, as regards such a powerful stressor like workplace bullying, the picture may be more complex than that described in the CATS, with recent studies indicating that buffering effects expected from individual resources such as resilience and coping, may in fact show a reversed buffering effect when being exposed to bullying behaviours (e.g., Hewett et al., 2018; Reknes et al., 2016). Thus, this indicates that even though these protective resources are usually associated with good health and coping this does not seem to be the case when the individual is exposed to a powerful social stressor like workplace bullying. This further suggests that bullying is such a severe stressor that it affects even individuals that have high levels of protective resources, which is in line with other newer resilience research that have indicated that severe stress does affect all, independent of their level of protection (Masten, 2021).

To explain the reversed buffering effect, one might have to consider the very nature of workplace bullying as a stressor. The Generalised Unsafety Theory of Stress (GUTS; Brosschot et al., 2016) states that it is not the perception of a threat that causes sustained activation, such as that proposed by the CATS, instead it is the general and prolonged lack of safety that might be perceived by the individual in that situation. The theory suggests that even if the stressor (e.g., exposure to bullying) is not present, it is still possible for the individual to experience a prolonged and potentially chronic stress response. The GUTS suggests that this prolonged stress responses occurs because the individual feels an increased sense of uncertainty. This results in a stress response for the individual, even if the individual is not currently in the immediate presence of the bully or is being exposed to the bullying behaviours. This could potentially explain why certain studies have found that depression can

withstand years after the bullying has ceased (Bonde et al., 2016). The stress response might start out specifically linked to the workplace bullying exposure before gradually becoming generalised to other aspects related to work (e.g., office, work emails) before eventually becoming related to thoughts that are non-stressor related (Brosschot et al., 2017). This suggests that it is the feeling of insecurity that the individual is experiencing that could extend the stress response and, as a result, cause prolonged stress activation. Thus, one could postulate that this feeling could potentially override the protective resources the individual possesses and result in impaired health. In general, the latter could especially be the case for individuals that have a history of experiencing a high degree of insecurity when they encounter severe life stressors, hence becoming relatively less affected by just another social stressor. If so, this could explain the reversed buffer effect in which those high on these resources may become relatively more worried as their feeling of safety is relatively more damaged.

1.6 Aims of the thesis

The overall aim of the thesis was to generate more knowledge about victims of workplace bullying presenting with CMD, who are either currently on or at risk of sick leave and therefore seek general psychological treatment. And further, whether a therapeutical treatment procedure based on MCT or CBT, with work-focus, may help this group with symptom reduction and increased work participation.

Aims of paper 1

The first aim of paper 1, was to investigate the prevalence of exposure to workplace bullying among patients with CMD who are either currently on or at risk of sick leave and referred to an outpatient mental health clinic. The second aim was to examine the characteristics of patients exposed to workplace bullying compared to other patients with CMD currently on or at risk of sick leave. To address these aims three research questions (RQ) were examined:

RQ1: What is the prevalence of exposure to bullying in patients referred to an outpatient clinic due to CMD?

RQ2: Will patients exposed to bullying present with more psychiatric disorders, or higher levels of depressive symptoms, anxiety symptoms, subjective health complaints, alcohol use and lower levels of resilience compared to the patients not exposed to bullying?

RQ3: Will patients exposed to bullying report higher levels of sick leave, and lower levels of work ability, job satisfaction and job preference (wishing to stay at their current job, change jobs or not work at all) compared to the patients not exposed to bullying?

Aims of paper 2

The aim of paper 2, was to investigate the relationship between workplace bullying, resilience, and RTW-SE and to examine if individual dispositional factors, such as resilience, could have a reversed buffering effect when exposed to bullying behaviours. While theory would predict a buffering effect in the bullying -outcome relationship, a range of studies have shown a reversed buffering effect of related individual resources for victims of workplace bullying in relation to health outcomes (Nielsen & Einarsen, 2018). To address this aim, three hypotheses (H) were examined:

H1: High exposure to bullying behaviours will have a negative direct relationship with RTW-SE.

H2: There will be a positive main effect of resilience, where individuals with high resilience scores, will score higher on RTW-SE, irrespective of levels of bullying.

H3: Resilience will show a reversed buffering effect for the bullying-RTW-SE relationship, where a particularly strong negative relationship exists between bullying and RTW-SE for those high on resilience.

Aims of paper 3

The aim of paper 3 was to examine if victims of workplace bullying suffering from CMD benefit from MCT or CBT with work-focus offered at an outpatient clinic, be it in the form of symptom reduction and increased work participation. To address this aim, three research questions (RQ) were examined:

RQ 1a) Will victims of bullying have a decrease in depressive symptoms, symptoms of anxiety, and subjective health complaints, after MCT or CBT with work-focus, compared with a wait-list control group consisting of patients who had been exposed to bullying but were awaiting treatment? 1b) Will the victims of bullying have a similar change in symptoms as the patients not exposed to bullying after treatment?

RQ 2a) Will victims of bullying have an increase in RTW-SE, after MCT or CBT with work-focus, compared with a wait-list control group consisting of patients who had been exposed to bullying but were awaiting treatment? 2b) Will the victims of bullying have a similar change in RTW-SE as the patients not exposed to bullying after treatment?

RQ 3) Will MCT or CBT with work-focus be as effective among victims of bullying in respect to actual return to work after sick leave compared with patients not exposed to bullying?

2. Methods

2.1 Design, procedure, and sample

The PhD project used quantitative data collected in collaboration with an outpatient clinic at Diakonhjemmet Hospital in Norway. The data was used to examine the extent of exposure to workplace bullying in this patient population, the symptoms exhibited by this group of patients, individual dispositional factors, and if the treatment offered at the clinic, is associated with symptom reduction and increased work participation. All patients at the clinic were asked to volunteer in the research and confirmed this by signing an informed consent.

To be included in this study, the patients had to be above the age of 18, diagnosed with mild-to-moderate depressive disorder and/or an anxiety disorder, be currently employed, and either be currently on or at risk of sick leave. Patients with severe mental disorders (e.g., bipolar or psychosis), high risk of suicide or substance abuse, were excluded from the study, in accordance with standard intake procedure at the clinic.

Papers 1, 2 and 3 used data obtained from 423 patients, who had agreed to participate in research from May 2017 through June 2020. Papers 1 and 2, will in addition to this use cross-sectional data collected from June 2017 through January 2019 from an ongoing clinical trial at the same clinic called “Work focused metacognitive therapy for patients on sick leave due to common mental disorders (CMD). A randomized controlled wait-list trial”. Papers 1 and 2 will therefore include 675 patients.

All the patients completed the same questionnaires at three points in time. Pre-treatment the patients completed the questionnaires at intake (T1), before first treatment session (T2), and then again post-treatment after the last treatment session (T3). Papers 1 and 2 used data from T1, while paper 3 used data from T1, T2, and T3. Papers 1 and 2 made comparisons between patients that were victims of workplace bullying (paper 1) or experiencing high exposure to bullying behaviours (paper 2),

and other patients not exposed to workplace bullying. In paper 3, patients were categorised into two groups prior to statistical analyses: victims of bullying and patients not exposed to workplace bullying. Additionally, the victims of workplace bullying were also divided into two subgroups: a treatment group and a waitlist control group.

2.2 Intervention

The intervention used in this PhD project (paper 3) integrated evidence-based psychotherapy, MCT or CBT with work-focus, to enhance coping at work and promote an increase in workplace participation. Both MCT and CBT, deal with maladaptive cognitions (Fisher & Wells, 2009) and are frequently used when treating anxiety and depression. CBT focuses on challenging the function and validity of maladaptive cognitions to reduce the patient's emotional distress, and to help modify the behaviour that is of a problematic nature (Hofmann et al., 2012). While MCT focuses on, identifying and challenging maladaptive metacognitive beliefs and perseverative process (e.g., worrying, rumination, threat monitoring and maladaptive coping strategies) (Wells, 2009). MCT helps the patients to interrupt perseverative processes like worry, rumination or threat monitoring, as well as and maladaptive coping strategies which maintain their mental disorders (Wells, 2009).

The patients at the clinic received either MCT (Wells, 2009) or CBT (Hofmann et al., 2012), and a version of work-focus adapted to the Norwegian context (Berge et al., 2019). The treatment manuals did not address bullying explicitly, and all the patients included in the study received the same treatment procedure regardless of being a victim of bullying or not. However, the work focus intervention was flexibly tailored to the individual needs of each patient. Identifying the patient's situation starts with a workplace analysis of the patients' workplace to assess both benefits and challenges with their workplace. This included for example questions about the patients' working conditions, workload, psychosocial work environment, relationship with colleagues and managers. The patients were also asked how they thought their mental health symptoms affected their work ability. If work related risk factors such as

workplace bullying was identified during this process, an important treatment goal during treatment may be a permanent job change (Harvey et al., 2017). Furthermore, the patient examines together with their therapists, their own assumptions regarding their work situation, as well as the patient's own assumptions regarding their work, mental health, and sick leave. Here the therapists also provided the patient with psychoeducation regarding both mental health and work.

A return to work plan was drafted with the patient and communicated to their GP. This plan aimed at facilitating a gradual return to their workplace, or in some case a job change, if going back to their current workplace was not seen as an appropriate option over the course of the treatment. Possible barriers for returning to work were examined. It is important to examine adjustments that can be made at the workplace, to enhance their self-efficacy in order to help them cope with potential setbacks that could arise during the return to work process. It was encouraged throughout the treatment that the patient used their own workplace or work-related content like worrying about work functioning to design experiments to explore different coping strategies and learning points during the intervention. The patients were also encouraged to establish a dialogue with the workplace, and an information strategy was formed in collaboration with the therapist. The therapist did, however, not have regular contact with the employer as a part of the intervention.

All the therapists, who took part in the study, were trained at addressing workplace issues and received weekly supervision in teams, in how to integrate the work-focus in parallel to MCT and CBT protocols. The therapists developed individual treatment plans based on each patient's disorder and work situation and integrated the work-focused intervention accordingly.

2.3 Instruments

2.3.1 Background variables

Age (Papers 1, 2, and 3) was measured as a continuous variable.

Gender (Papers 1, 2, and 3) was measured as a binary variable: 1 = males and 2 = females.

Marital status (Papers 1 and 3) was measured at T1 and the patient's response options were "single", "married/cohabitating", "separated/divorced", and "widow/widower".

Education (Papers 1 and 3) was measured by asking the patients' what their highest completed education was at T1. The response options included "primary school", "upper secondary school", "higher education 1-4 years", and "higher education > 4 years".

Occupation (Papers 1 and 3) was measured at T1 with an open-ended question asking, "what is your occupation?". The responses were categorised using the Norwegian standard classification system of occupations, called STYRK-08, which was developed by Statistics Norway (2011).

2.3.2 Workplace bullying

The Short version of the Negative Acts Questionnaire (S-NAQ; Notelaers et al., 2019) was used to measure exposure to workplace bullying in papers 1, 2, and 3. The scale consists of nine items, describing different negative acts, both of a work and person related nature, that are typically experienced by victims of workplace bullying. Example of these items are: "having insulting or offensive remarks made about your person, attitudes or your private life", "being ignored or excluded", and "persisting criticism of your work and effort". The patients were asked to score these negative acts on how frequently they had experienced them over the last six months they have been at work, on a five-point scale ranging from 1 (never) to 5 (daily). The Negative Acts Questionnaires-Revised (NAQ-R; Einarsen et al., 2009; Notelaers & Einarsen, 2013) predefined cut-off scores were used to determine the cut-off values for the S-NAQ by dividing the NAQ-R cut-off value (occasionally exposed to bullying = 33, severe exposure to bullying = 45) with the number of items in the NAQ-R (22 items), and multiplying this number with the number of items that were included in the S-NAQ (9 items). This gives us three groups; not bullied (S-NAQ score of ≤ 13), occasionally exposed to bullying (S-NAQ score of 14-18), and severe

exposure to bullying (S-NAQ score of ≥ 19). For the purposes of the present thesis, the three cut-off categories were used for the S-NAQ at T1 for descriptive purposes in paper 1. For measuring the prevalence of exposure to workplace bullying and to compare patients exposed to workplace bullying to the patients not exposed to bullying in paper 1, S-NAQ at T1 was dichotomised into patients not exposed to workplace bullying (S-NAQ score of ≤ 13) and patients exposed to workplace bullying (S-NAQ score of ≥ 14). S-NAQ at T1 was also dichotomised in paper 3, using the same cut-off scores, to compare patients exposed to workplace bullying with patients not exposed to bullying. In paper 2, S-NAQ at T1 was used as a continuous variable when examining if exposure to bullying behaviours predict RTW-SE (H1). When examining the moderating effect of resilience on the S-NAQ – RTW-SE relationship (H3), S-NAQ at T1 was categorised into three groups, using percentiles, low (16th percentile), moderate (50th percentile), and high (84th percentile). Cronbach's α values for this scale were .88 in paper 1 and paper 2, and .87 in paper 3.

Self-labelled victimisation of workplace bullying was measured using two single item questions after presenting the patients with a definition of workplace bullying at T1 (paper 1). The definition presented was as follows: *“Bullying (for example harassment, torment, exclusion or hurtful teasing and insults) is a problem in some workplaces and for some workers. To call something bullying, the behaviour must be repeated over a period of time, and the target must have difficulty defending themselves. We are not defining behaviour as bullying if two individuals of equal strength are in a conflict or if it only concerns an isolated incident”* (Einarsen et al., 1994; Einarsen & Skogstad, 1996). The first item “have you been exposed to workplace bullying at your current workplace?” was rated “no”, “yes, once or twice”, “yes, now and then”, “yes, about once a week”, or “yes, several times a week”. The second item “have you been exposed to workplace bullying at a previous workplace?” was rated “no”, “yes, in short periods of time”, or “yes, in long periods of time”. In paper 1, this measure was used for descriptive purposes, to sample information about the prevalence of workplace bullying in the patient sample.

The full version of the NAQ-R was used in paper 1, yet only completed by patients identified as self-labelled victims, in order to examine the exposure of workplace bullying when it was at its worst. This scale is the full version of the S-NAQ and comprise of 22 items describing different negative acts that can be direct, indirect, or directed at the individual's work. Example of acts could be "being humiliated or ridiculed in connection with your work", "having your opinions ignored", or "excessive monitoring of your work". The items were scored on a five-point Likert scale from 1 (never) to 5 (daily). Validated cut-off scores (Notelaers & Einarsen, 2013) were used to divide the patients into not bullied (NAQ-R score of ≤ 32), occasionally exposed to bullying (NAQ-R score of 33-44) and severe exposure to bullying (NAQ-R score of ≥ 45). The NAQ-R at T1 was used in paper 1 for descriptive purposes, to collect information about the prevalence of workplace bullying in the patient sample. Cronbach's α values for this scale were .91 in paper 1.

2.3.3 Psychiatric disorders, health, and resilience

Psychiatric disorders were identified in paper 1, using the Norwegian version of the Mini-International Neuropsychiatric interview (MINI; Sheehan et al., 1998) labelled the MINI 6.0.0 (Leiknes et al., 2009). The MINI is a structured diagnostic interview, comprising of 15 axis I disorders and one axis II disorder, based on criteria of DSM-IV (American Psychiatric Association, 1994) and ICD-10 (World Health Organization, 1993). The following disorders are included: anxiety disorders (generalised anxiety disorder, social phobia, agoraphobia, panic disorder, obsessive compulsive disorder, and post-traumatic stress disorder), eating disorders (bulimia and anorexia), mood disorders (manic episodes and major depressive disorder), psychotic disorders, substance related disorders (substances and alcohol), and antisocial personality disorders. The patients responded to the interview questions, using the response categories "yes" and "no". For the present thesis, the MINI was measured at T1 and used in paper 1 to investigate the prevalence of diagnosed psychiatric disorders among the patients exposed to workplace bullying and to examine whether there were any differences between the exposed patients and the patients not exposed to workplace bullying.

Beck's Depression Inventory-II (BDI-II; Beck et al., 1996) was used to measure symptoms of depression in papers 1, 2, and 3. BDI-II comprises of 21 items, that aims to measure different cognitive (e.g., feelings of guilt) and affective (e.g., sadness) states over the last two weeks. Each item is rated on a four-point Likert scale, where the responses ranges from 0 (not at all) to 3 (severely, it bothers you a lot). For the present thesis, predefined cut-off scores at T1, were used for descriptive purposes in papers 1 and 2. The cut-off scores give four groups; patients with minimal depressive symptoms (BDI-II score of ≤ 13), mild depressive symptoms (BDI-II score of 14-19), moderate depressive symptoms (BDI-II score of 20-28) and severe depressive symptoms (BDI-II score of ≥ 29). In paper 1, BDI-II at T1 was also used to compare levels of depressive symptoms between the patients exposed to workplace bullying and the other patients. In paper 3, BDI-II at T1 and T3 were used to examine differences in depressive symptoms pre- and post-treatment, and comparisons were made between the patients exposed to bullying and the other patients. Comparisons were also made between the victims of bullying in the treatment group and the victims of bullying in the wait-list control group. For the wait-list control group comparisons were made between T1 and T2. Cronbach's α values for this scale was .86 in paper 1, paper 2, and paper 3.

To measure symptoms of anxiety, Beck's Anxiety Inventory (BAI; Beck et al., 1988; Beck & Steer, 1990) was used in papers 1, 2, and 3. BAI comprise of 21 items measuring different anxiety symptoms, such as numbness and difficulties breathing. Each item is rated on a four-point Likert scale with response categories being as follow; 0 = not at all, 1 = mildly, but it did not bother me much, 2 = moderately, it was not pleasant at times, 3 = severely, it bothered me a lot. For the present thesis, the following cut-off scores at T1 were used for descriptive purposes in papers 1 and 2. The cut-off scores gives us three groups: low levels of anxiety symptoms (BAI score of ≤ 21), moderate levels of anxiety symptoms (BAI score of 22-35), and potential concerning levels of anxiety symptoms (BAI score of ≥ 36). For paper 1, BAI at T1 was also used to compare levels of depressive symptoms between the patients exposed to workplace bullying and the other patients. In paper 3, BAI at T1 and T3 were used to examine differences in depressive symptoms pre- and post-treatment

and comparisons were made between the patients exposed to bullying and the other patients. Comparisons were also made between the victims of bullying in the treatment group and the victims of bullying in the wait-list control group. For the wait-list control group comparisons were made between T1 and T2. Cronbach's α values for this scale was .90 in paper 1, paper 2, and paper 3.

Subjective somatic and psychological complaints were measured with the Subjective Health Complaints (SHC; Eriksen et al., 1999) scale in papers 1 and 3. The scale measure 29 common somatic and psychological health complaints experienced during the past 30 days. Severity of complaints were scored on a four-point Likert scale, with the response categories; 0 = no complaints, 1 = few complaints, 2 = some complaints, 3 = serious complaints. The SHC consists of five sub-categories: musculoskeletal complaints, gastrointestinal complaints, pseudoneurology, allergy, and flu. For the present thesis, both the SHC total scale and the sub-categories at T1 were used in paper 1 to compare differences in somatic and psychological health complaints, for the patients exposed to bullying with the other patients. In paper 3, the SHC total scale, at T1 and T3, were used to examine differences in somatic and psychological health complaints pre- and post-treatment and comparisons were made between the patients exposed to bullying and the other patients. Comparisons were also made between the victims of bullying in the treatment group and the victims of bullying in the wait-list control group. For the wait-list control group comparisons were made between T1 and T2. Cronbach's α values for the total scale were .84 in paper 1 and .83 in paper 3.

To examine excessive drinking and alcohol use disorder, the Alcohol Use Disorder Identification Test (AUDIT; Saunders et al., 1993) was used in paper 1. It comprised of 10 items and includes items such as "how often during the last year have you found that you were not able to stop drinking once you had started?" and "have you or someone else been injured as a result of your drinking?". Out of the 10 items, eight of the items are scored on a five-point Likert scale and two of the items are scored on a three-point Likert scale. The patients receive a total score, ranging between 0-40. A score of eight or higher have been suggested by Saunders et al. (1993) to indicate a

strong possibility of harmful levels of alcohol consumption. The AUDIT at T1 was used in paper 1 to examine alcohol consumption and alcohol use disorder among the patients exposed to workplace bullying and to compare the result with the other patients not exposed to bullying. Cronbach's α values for the scale was .80 in paper 1.

Resilience Scale for Adults (RSA; Friborg et al., 2005; Friborg et al., 2003; Hjemdal et al., 2001) was used to examine resilience in papers 1 and 2. The scale comprise of 33 items, rated on a seven-point Likert scale. An example item from the scale is "my plans for the future are" and this item is then rated by the patient from 1 (difficult to accomplish) to 7 (possible to accomplish). The RSA scale consists of six factors that can be divided into two sub-dimensions: personal resilience (perception of self, perception of future, structured style, and social competence) and interpersonal resilience (family cohesion and social resources). In paper 1, the RSA scale was used to measure levels of resilience among the patients exposed to workplace bullying and to compare their resilience levels with non-bullied patients. For these analyses, RSA was used as a continuous variable, sum scores for the RSA total scale and the two sub-dimensions were used. For paper 2, the RSA scale at T1 was used to examine the relationship between resilience and return to work self-efficacy, and to investigate if resilience has a moderating effect on the relationship between exposure to bullying behaviours and return to work self-efficacy. Cronbach's α values for the total scale was .86 in paper 1 and paper 2.

2.3.4 Work measures

Patients' workplace participation was measured in paper 1 to examine how many that where on sick leave and how many that were fully working at T1. This was done with use of a single item question, where the patients choose the response option that described their workplace participation. The possible response categories were as follow; Work without benefits, combined work and sick leave, full-time sick leave, unemployed, student, work assessment allowance, disability pension, neither work nor pension, and other. In paper 1, the patient's workplace participation was measured to examine how many where on sick leave and how many fully working

among the patients exposed to workplace bullying, and to compare this to patients not exposed to bullying.

Work ability was measured using three items taken from the Work Ability Index (Ilmarinen, 2007; Tuomi et al., 1998) in paper 1. The first item examined if the patient had been on sick leave during the last 12 months and the following response categories were given; “0-2 months”, “3-6 months”, and “7-12 months”. The second item had the patients evaluate their current work ability compared to their lifetime best. This item was scored on a 10-point Likert scale from 1 (*no ability to work*) to 10 (*work ability at its best*). The third item was regarding the patient’s work ability in term of job demands. This item was divided into two, with one asking how they evaluated their work ability concerning psychological job demands, and the other asking about physiological job demands. The scale was rated on a five-point Likert scale ranging from 1 (*very poor*) to 5 (*very good*). In paper 1, the three items from the Work Ability Index, measured at T1, was used to examine differences in work ability between the patients exposed to workplace bullying and the other patients not exposed to bullying.

Return to work self-efficacy (RTW-SE; Lagerveld et al., 2010) was used to measure the patients’ expectation and perceived ability to function well at work (e.g., being able to set boundaries and performing work tasks) in papers 1, 2, and 3. The scale was originally developed for individuals with CMD to measure work related self-efficacy and can be used both for individuals that are on sick leave, and for individuals that are currently working, as it aims to evaluate the patients current work function (Lagerveld et al., 2010). For the present thesis, the validated Norwegian version of the RTW-SE scale was used (Gjengedal et al., 2021). The scale comprises of 11 items and includes items such as “I will be able to cope with work pressure”. Each item is rated on a six-point Likert scale, with responses ranging from 1 (*totally disagree*) to 6 (*totally agree*). To calculate a sum score for the scale, the answers are added together and then divided on the total number of items in the scale (11), giving us a sum score ranging from 1 to 6. Higher levels of self-efficacy are indicated by a higher sum score. In a recent study by Gjengedal et al. (2021), cut-offs were

suggested for a low score (RTW-SE score of ≤ 3.6), a moderate score (RTW-SE score of 3.7-4.5), and a high score (RTW-SE score of 4.6-6.0). In paper 1, RTW-SE measured at T1, was used to examine differences between the patients exposed to workplace bullying and patients not exposed to bullying. In paper 2, RTW-SE was used as a continuous variable when examining the relationship between resilience and RTW-SE and when investigating whether resilience moderate the relationship between exposure to bullying behaviours and RTW-SE. In paper 3, RTW-SE measured at T1 and T3 were used to examine differences in pre- and post-treatment, and comparisons were made between the patients exposed to bullying and the other patients. Comparisons were also made between the victims of bullying in the treatment group and victims of bullying in the wait-list control group. For the wait-list control group comparisons were made between T1 and T2. Cronbach's α values for the total scale was .89 in paper 1, paper 2, and paper 3.

To measure job satisfaction in paper 1, a single item was used asking "overall, how satisfied are you with your job?". The item was scored on a five-point Likert scale, with the responses ranging from 1 (*very satisfied*) to 5 (*very unsatisfied*). In paper 1, this item was measured at T1 and used to examine differences in job satisfaction between the patients exposed to bullying and non-bullied patients.

Job preference was measured in paper 1, using a single item asking; "if you could choose to have any job, what would you prefer?". The response categories included "prefer the job I have today", "prefer a different job", and "prefer not working at all". In paper 1, this item was measured at T1 to examine differences when it came to job preferences among the patients exposed to workplace bullying and the other patients.

2.4 Statistical analyses

All analyses in the present thesis were conducted using the software package IBM Statistical Package for Social Sciences (SPSS; IBM Corporation, 2017), version 25.0 (papers 1, 2, and 3) and the PROCESS macro 3.0 SPSS supplement (Hayes, 2013) (paper 2). The significance level was set to 0.5, and the confidence interval to 95%.

Demographic and variable statistics were provided for the study variables in all three papers.

2.4.1 Paper 1

In paper 1, the prevalence of workplace bullying was calculated using the above-mentioned cut-off for S-NAQ. For descriptive purposes, we also calculated the severity of exposure to workplace bullying among the victims of workplace bullying that self-labelled as bullied by using the validated cut-off for NAQ-R.

Descriptive statistics on demographic, health, and work-related variables were calculated for the total sample, and for each patient group (patients exposed to workplace bullying and patients not exposed to workplace bullying). Differences between the groups were analysed using chi-square tests for categorical variables, while for continuous variable independent *t*-tests (normally distributed data) and Mann-Whitney *U*-tests (positively skewed data) were used. Mean differences and Cohen's *d* were measured for continuous variables.

2.4.2 Paper 2

In paper 2, Pearson's correlation analyses were used for the continuous variables and independent sample *t*-tests were used for the categorical variables, to investigate the relationship between the outcome variable (RTW-SE), the predictor (S-NAQ), and the moderator variables (RSA total scale, RSA personal, and RSA interpersonal) and demographics (gender and age).

Four-step regression analysis were used to examine the relationship between bullying behaviour (S-NAQ) and RTW-SE, and the relationship between resilience (as a total scale and the two sub-dimensions: personal and interpersonal) and RTW-SE. In the first step of the regression analysis, the control variables age and gender were entered. In the second step, S-NAQ was entered, while the RSA total scale was entered in the third step. The interaction term, S-NAQ×RSA total scale, was entered in the fourth step.

In order to investigate the moderating role of resilience on the proposed relationship between exposure to bullying behaviours (S-NAQ) and RTW-SE interaction analyses were performed with multiple linear regression analyses, using Model 1 in the PROCESS macro SPSS supplement (Hayes, 2013).

In line with Hayes (2013), unstandardised B-values were reported in the results of the moderation analyses rather than β -values. Resilience was categorised based on percentiles into three groups: low (16 percentile), moderate (50th percentile), and high (84th percentile). A plot was derived from the moderation analyses using the abovementioned groups for resilience and exposure to bullying behaviours. In addition, all variables were centred prior to the moderation analyses.

We also examine the two sub-dimensions of resilience (personal and interpersonal resilience) in separate analyses.

2.4.3 Paper 3

In paper 3, difference between the victims of workplace bullying in the treatment group (delay of 0 - 30 days before their first treatment session) and the wait-list control group (delay of ≥ 60 days before their first treatment session) were calculated using ANCOVA analyses, to compare the changes in symptoms of depression (BDI-II), anxiety (BAI), subjective health complaints (SHC), and return to work self-efficacy (RTW-SE), controlling for baseline measure on the respective scales, age, and gender. To compare pre- and post-scores within both groups, paired sample *t*-tests were used. The same ANCOVA and paired sample *t*-test analyses were repeated to compare changes in scores between the victims of workplace bullying and the other patients not exposed to bullying.

A Fisher's exact test was used to investigate change in workplace participation among patients that were either on full sick leave or combined work and sick leave pre-treatment by comparing how many among them were fully working post-treatment. Comparisons were made between the victims of workplace bullying and patients not exposed to bullying.

2.5 Ethics

The data collection for the present thesis was conducted in accordance with the Helsinki Declaration. The data used in the present thesis qualified as health-service research and was approved by the Data Protection Office at Oslo University Hospital (ref. nr.: 2015/15606). All patients confirmed by signing a consent form and were informed that they could withdraw consent at any time, without providing an explanation.

3. Results

3.1 Paper 1

The aim of the first paper was to investigate the prevalence of exposure to workplace bullying in a group of patients currently on sick leave or at risk of being sick listed due to CMD, seeking treatment at an out-patient mental health clinic. A secondary aim was to examine the characteristics of patients currently or previously exposed to bullying at the workplace to determine the extent to which they differ from the non-bullied patients also presenting with CMD.

A total of 25.8% of the patients were classified as being subjected to systematic exposure to bullying. Among targets identified by self-labelling at a current or previous workplace ($n = 193$), 33.7% were classified as severely exposed. According to predefined cut-off values, 45.2% of the patients exposed to bullying reported severe levels of depressive symptoms, in comparison to 34.7% of the non-exposed patients. Further, 7.6% among the patients exposed to bullying presented with severe levels of anxiety symptoms, compared to 4.9% among the non-exposed patients. Additionally, patients exposed to bullying reported significantly more subjective health complaints, and lower resilience score, as compared to the non-exposed patients. The victims of workplace bullying also reported more frequent alcohol use than the non-exposed patients, yet both groups were within what is considered normal values.

Almost twice as many patients exposed to bullying were on full sick leave compensation, compared to the non-exposed patients, while there was a larger percentage of the non-exposed patients who combined work and sick leave. No significant difference existed between the groups when examining their self-reported sick leave over the last 12 months. Overall, the patients exposed to bullying reported significantly poorer current work ability compared to lifetime best as compared to the non-exposed patients. Regarding work ability, targets of bullying reported a significantly poorer ability to handle both the psychological and physiological demands of their job, as compared to other patients. Further, patients exposed to

bullying reported significantly lower RTW-SE ($M = 3.03$, $SD = .89$) than the non-exposed patients ($M = 3.32$, $SD = .98$).

Targets of bullying reported significantly lower job satisfaction, and a majority among them reported that they would prefer another job over the one they currently had (73.9%), a significant higher proportion than among the rest of the patients (45.7%). However, very few among the victims of bullying reported not wanting to work at all (5.7%), while some preferred their current job (20.4%). This compared to the non-bullied patients where about half preferred the job they already had (51.7%), but also in this group very few reported that they did not want to work at all (2.6%).

3.2 Paper 2

The aim of the second paper was to investigate the relationship between exposure to bullying behaviours, resilience, and RTW-SE in our sample of patients currently 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.

The results of the regression analysis showed that after controlling for age and gender, exposure to bullying behaviours was associated with lower levels of RTW-SE. It also showed resilience being associated with higher levels of RTW-SE irrespective of levels of bullying. This was also the case for the two resilience sub-dimensions: personal resilience and interpersonal resilience.

The moderation analysis showed that the relationship between exposure to bullying behaviours and RTW-SE was not moderated by the total resilience score, controlling for age and gender. However, when examining the two resilience sub-dimensions separately, the relationship between exposure to bullying behaviours and RTW-SE was moderated only by personal resilience, not interpersonal resilience. The personal resilience moderated the relationship in the form of a reversed buffering effect, thus

suggesting that patients with high personal resilience showed relatively lower RTW-SE scores when being exposed to bullying behaviours by comparison with those individuals with high personal resilience that were not subjected to bullying.

3.3 Paper 3

The aim of paper 3 was to examine if victims of workplace bullying suffering from CMD benefit, in the form of symptom reduction and increased work participation, from clinical treatment for their mental health problems at an outpatient clinic treating patients using MCT or CBT with work-focus. Comparisons were made between a treatment group (delay of 0 - 30 days before their first treatment session) and a wait-list control group (delay of ≥ 60 days before their first treatment session) among the victims of workplace bullying. Additionally, comparisons were also made between the victims of workplace bullying and the patients who had not been exposed to workplace bullying.

The results showed that the treatment offered at the clinic was effective in reducing symptoms (BDI-II, BAI, and SHC) for the victims of workplace bullying receiving treatment, showing a significantly larger improvement over the course of treatment compared to the victims in the wait-list control group, controlling for baseline scores on the respective scales, age, and gender. The same result was found for RTW-SE, where the victims in the treatment group experienced an increase in RTW-SE scores post-treatment and showed a significantly larger improvement, compared to the wait-list control group, controlling for baseline scores on the respective scale, age, and gender.

The victims of workplace bullying showed a similar decrease in symptoms (BDI-II, BAI, and SHC) as for patients not exposed to workplace bullying, controlling for baseline scores on the respective scales, age, and gender. Thereby, suggesting that the treatment did not affect the groups differently, as both groups showed a significant reduction in symptoms post-treatment. There was no significant difference between the victims of bullying and the patients not exposed to bullying on change in RTW-

SE scores, with the victims of workplace bullying showing a similar increase in RTW-SE scores as the other patients, controlling for baseline scores on the respective scale, age, and gender. Gender did not have a significant effect on the RTW-SE scores, but age was borderline ($p = .05$). A secondary analysis revealed a significant interaction between exposure to bullying behaviours (S-NAQ) and age on RTW-SE ($F(1, 388) = 5.74, p < .05, \eta p^2 = .02$). This suggests that victims of bullying that were older, reported a smaller change in RTW-SE scores from pre-treatment to post-treatment, as compared to older patients not exposed to bullying. Meanwhile, younger patients had a similar change in RTW-SE scores regardless of they were victims of workplace bullying or not.

The results further showed a significant lower workplace participation among the victims of workplace bullying compared to the other patients. Among the patients on sick leave pre-treatment, significantly fewer among the victims of bullying were fully working post-treatment, as compared to the other patients.

4. Discussion

The overarching aim of the present thesis was to generate more knowledge about victims of workplace bullying with CMD who are either currently on or at risk of sick leave and seeking treatment for their mental health problems. The investigation was carried out at an outpatient clinic for patients either currently on or at risk of sick leave due to CMD. The results showed that among the patients at the clinic, more than one in four could be classified as a victim of workplace bullying. Furthermore, the victims reported more negative health and work outcomes than did patients not exposed to workplace bullying. In addition, we examined whether individual dispositional factors, in our case resilience, have a reversed buffering effect on the relationship between exposure to bullying and RTW-SE. Patients scoring high on personal resilience had relatively lower RTW-SE scores when exposed to bullying behaviours, compared to patients scoring high on personal resilience who had not been exposed to bullying behaviours. Hence, although scoring high on personal resilience generally was related to better scores on RTW-SE, this beneficial effect was relatively lower as scores on workplace bullying increased, showing a reversed buffering effect. Lastly, we investigated whether MCT or CBT with work-focus may help this group of patients with symptom reduction and promote an increase in workplace participation. The results showed that MCT or CBT with work-focus was effective in symptom reduction for victims of bullying in the treatment group, who showed a significant improvement compared to victims of bullying in the wait-list control group. The victims of workplace bullying also showed improvement to a similar degree as patients not exposed to bullying. However, among patients on sick leave prior to treatment, significantly fewer victims of workplace bullying were able to make a full return to work by the end of the treatment, as compared to patients not exposed to bullying.

4.1 Prevalence of workplace bullying among patients

In paper 1, the results showed that 25.8% of the included patients could be classified as victims of workplace bullying employing the behavioural experience method

(using S-NAQ), while 14.1% self-labelled themselves as victims of bullying, respectively. This is a relatively high prevalence compared to the general Norwegian population, where the prevalence has been calculated to be between 6.2 and 14.3%, depending on the cut-off used when using the behavioural experience method, while the prevalence using self-labelling is 4.6% (Nielsen et al., 2009). Among the patients in our study that self-labelled as being a victim of workplace bullying, either at a current or previous workplace, as many as 33.7% had been a victim of severe bullying, while among the Norwegian population, the same can only be said for 6.8% employees that self-label as victims of bullying (Nielsen et al., 2009). In addition, Norway has been found to have a relatively low prevalence of workplace bullying in the general working population (Van de Vliert et al., 2013). However, the prevalence found at the clinic is also high compared to countries outside of Norway, where prevalence rates measured with the NAQ or S-NAQ in the general population have been found to vary between 10.0 and 17.0% (Zapf et al., 2020). In a similar patient sample from the psycho-social trauma programme at the Istanbul Faculty of Medicine in Turkey, a prevalence of 43.3% was found. The patients were considered victims of workplace bullying if they had been exposed to workplace bullying-related activities at least once a week over the previous six months. Although the prevalence in that study was higher than that of the present study, it is worth noting that the prevalence criteria in the study by Tatar and Yüksel (2019) could be considered less strict than the ones used in the present study. This could potentially mean that the prevalence is in fact more similar than it may appear at first glance. It is therefore important when discussing the prevalence of workplace bullying to keep in mind that the use of different instruments (e.g., the behavioural experience method and self-labelling) as well as different cut-off scores affects the reported prevalence. One should therefore be careful when comparing across studies that have used different instruments or cut-off scores. Another study, with a similar sample as the present study, investigated the association between workplace bullying and subsequent benefit reciprocity among workers with CMD who were either already on sick leave or at risk of this (Løvvik et al., 2021). In this study, 36.0% of respondents reported being exposed to workplace bullying, which is slightly higher than the prevalence

found in the present study. However, Løvvik et al. (2021) measured exposure to workplace bullying with a self-label question that did not provide a definition, which can possibly lead to an increase in false positive responses (Nielsen et al., 2009).

Nevertheless, the result of the present thesis supports findings that the prevalence of workplace bullying is high among patients with CMD at risk of losing their foothold in working life, particularly when comparing to the general Norwegian working population. This is in line with what one might expect based on the earlier empirical findings in literature. It has been established that being a victim of workplace bullying cause severe mental health complaints, as well as an increased risk of sick leave or even stopping work altogether (e.g., Bonde et al., 2016; Boudrias et al., 2021; Glambek et al., 2015; Løvvik et al., 2021). The present study provides evidence indicating that the aftermath of workplace bullying is, in fact, so severe that many have to seek help for their mental health complaints. Furthermore, the results from the present thesis show that victims of workplace bullying account for more than 25% of patients seeking medical healthcare for CMD, which further underlines the extent of the issue at hand. It also highlights the need for effective intervention programmes and treatment protocols to help reduce symptoms and increase workplace participation in this group. These patients seem to be worse off as compared to the general patient population, which again underlines the severeness of their problem and their need for treatment.

4.2 Outcomes of workplace bullying

In paper 1, it was found that victims of workplace bullying reported significantly more health complaints than patients not exposed to bullying. Among the victims of bullying, 70.7% presented with MDD, when diagnosed with criteria presented in the DSM-IV, as compared to 60.0% among non-exposed patients. This is similar to the findings of Tatar and Yüksel (2019), who found that 78.5% of patients exposed to workplace bullying could be diagnosed with MDD in accordance with the DSM-IV-TR. Furthermore, the results from paper 1 also revealed that victims of workplace bullying experienced significantly more severe symptoms of depression (measured

with the BDI-II), symptoms of anxiety (measured with the BAI), and pseudoneurological-related complaints (measured with the SHC) compared to other patients. This is in line with previous research which has established a strong association between workplace bullying and mental health complaints (e.g., Bonde et al., 2016; Boudrias et al., 2021; Verkuil et al., 2015).

These findings may be explained in several different ways. One possible explanation for why victims of workplace bullying experience significantly more mental health complaints could be explained by the CATS. According to the theory, being exposed to a threatening stressor, such as workplace bullying, can lead to sustained cognitive activation, which again could lead to impaired health. Sustained cognitive activation because of bullying exposure can cause increased sensitisation. It may lead to attentional bias, which can influence their thoughts and information regarding the bullying, being prioritised, and ultimately causing preservative cognition. This preservative cognition may manifest itself in rumination and worrying, both common in patients suffering from depression or anxiety. This may then cause further sustained activation (Brosschot, 2002; Nolen-Hoeksema, 2000; Wells & Matthews, 1994). Some coping strategies (e.g., avoidance) that are used when trying to master negative thoughts can further contribute to sustained activation, health problems, and lack of a successful coping experience. Although coping strategies such as avoidance initially might reduce stress responses, they might still have negative consequences. The avoidance will lead to victims spending more time worrying and ruminating, which could potentially result in feelings of anxiety or depression (Eriksen & Olsen, 2021). Previous studies have indicated that victims of workplace bullying tend to use more passive and negative coping styles than non-victims (e.g., Høgh & Dofradottir, 2001; Ólafsson & Jóhannsdóttir, 2004). According to the CATS, response outcome expectancies may be positive (coping), negative (hopelessness), or none (helplessness) (Ursin & Eriksen, 2004). Given that outcome expectancies will affect physiological activation, victims of workplace bullying who expect to have a positive result when attempting to manage the bullying situation, will experience short-term phasic activation, which will lead to no harm (Ursin & Eriksen, 2004). Victims, who do not expect their attempts to manage the bullying situation to have any effect or

who expect that such attempts will lead to a negative result, will experience sustained activation which could lead to health problems (Ursin & Eriksen, 2004). However, considering the severity of workplace bullying as a stressor, one could postulate that it is more likely that a positive outcome expectancy will occur during the initial stages of the bullying process. This if the bullying behaviours that the victim is exposed to are of a low frequency and intensity (Mikkelsen et al., 2020). However, if the victim is subjected to prolonged exposure to workplace bullying or if the bullying is of a high frequency and intensity, it is more likely that this will result in victims experiencing no or negative outcome expectancy (Mikkelsen et al., 2020). This could also help explain why the victims of bullying also experience more subjective health complaints, in particular gastrointestinal complaints, pseudoneurological complaints, and flu complaints, compared to patients not exposed to workplace bullying. The sustained activation experienced by the victims of workplace bullying can cause enhanced activation via the immune, endocrine, cardiovascular, and autonomic nervous system, which can create strain on the individual's organs, and lead to further somatic symptoms and diseases (Brosschot et al., 2006). These theoretical assumptions are in accordance with our findings from paper 1, where victims of bullying scored higher on gastrointestinal complaints, which could be explained by sustained activation, leading to strain on the gastrointestinal tract. Higher scores for flu symptoms could also be explained by sustained activation causing strain on the victim's immune system. Thus, high comorbidity of health complaints among victims of workplace bullying could be explained by the CATS.

A reversed relationship or a vicious circle of events between workplace bullying and mental health complaints has in longitudinal studies also been suggested as an explanation for why victims of workplace bullying experience more mental health complaints (Kivimäki et al., 2003; Loerbroks et al., 2015; Nielsen et al., 2012; Rodríguez-Muñoz et al., 2015). A reversed relationship would suggest that mental health problems at baseline could be associated with an increased risk of being exposed to workplace bullying at a later stage. Considering that patients who have experienced more mental health complaints often have a stronger recall bias, compared to patients with fewer complaints, they may be more sensitive to exposure

to workplace bullying (Colombo et al., 2020). However, there are also several longitudinal studies that does not find this reversed relationship (Trépanier et al., 2015, 2016). A five-year longitudinal study by Einarsen and Nielsen (2015) examined the proposed long-term relationship between exposure to workplace bullying and mental health complaints. They found that baseline levels of depression and anxiety did not predict subsequent exposure to workplace bullying among women at follow-up, but baseline anxiety levels predicted exposure to bullying for men at follow-up. The findings from the study suggested that there was a reciprocal relationship for men between workplace bullying and anxiety, but the strength of the association seemed to indicate that the long-term relationship went from exposure to workplace bullying to subsequent mental health complaints which is in line with theoretical frameworks related to outcomes of trauma (Einarsen & Nielsen, 2015). One possible reason for the inconsistent results when investigating if there is a reversed relationship between mental health complaints and exposure to bullying could be the use of different indicators to measure health or the time interval in the studies (Boudrias et al., 2021). The contradictory results, together with few studies investigating the relationship, indicated that more research on this topic is needed.

Our findings from paper 1 are in line with previous findings that have established a strong association between exposure to workplace bullying and health complaints (e.g., Boudrias et al., 2021; Buhaug et al., 2020; Lever et al., 2019; Mikkelsen et al., 2020; Nielsen, Harris, et al., 2020). The severity of complaints reported further underlines the detrimental consequences of workplace bullying, as already pinpointed. This is further reflected in the results from paper 1, showing that almost twice as many victims of workplace bullying were on full-time sick leave (39.4%), compared to patients not exposed to bullying (20.3%). Furthermore, more patients who had not been exposed to bullying were combining work with partial sick leave (30.1%), compared to those who were victims of bullying (20.6%). These results indicate that victims of bullying seem to either stay in their job for as long as possible or go on full-time sick leave. There are several possible explanations for this. Firstly, victims of bullying may try to stay at work for as long as possible, even when they might be too sick to be at work. Thus, when they first have to go on sick leave, they

may need full-time sick leave instead of combining work with partial sick leave. Secondly, it may be that full time sick leave is used as a coping strategy for victims, as a way of protecting themselves and coping with the bullying by limiting contact with the bully and related work situations (Nielsen, Indregard, et al., 2016; Ursin & Eriksen, 2004). However, when we examined patients' sick leave over the preceding 12 months in paper 1, the results did not indicate a significant difference between victims of workplace bullying and patients not exposed to bullying. This potentially suggest that employees exposed to workplace bullying report higher sickness presenteeism (i.e., working while sick) than employees not exposed to bullying (Mikkelsen et al., 2020). In a study by Ariza-Montes et al. (2021) it was suggested that different types of workplace bullying are associated with presenteeism and sick leave. This was investigated among employees in the cruise industry, and the results suggested that individuals exposed to work-related bullying behaviours were positively associated with presenteeism, while person-related bullying behaviours were negatively related. This could suggest that different types of workplace bullying may affect whether victims stay in their job longer than they should despite being too sick to work. A possible reason for the difference could be that if individuals experience work-related bullying such as constant criticism of their work, and an unreasonable workload or deadlines, they might show up to work even when sick out of fear that there will be repercussions if they are absent (Neto et al., 2017). Failure to attend work can, for example, reinforce the bully's opinion about their work ability, aggravating the situation still further (Ariza-Montes et al., 2021). Thus, the victim may assume that being absent from their work will present an increased risk of the bullying situation to escalate (Conway et al., 2016; Hoel et al., 2020). However, if victims are exposed to person-related bullying behaviours like being ignored or excluded, or having gossip and rumours spread about them, they might choose to protect themselves by distancing themselves from the situation. Thus, this may result in them being absent from work rather than remaining when they are too sick to work (Ariza-Montes et al., 2021).

The victims of workplace bullying were also found to have significantly lower scores on RTW-SE than patients who had not been exposed to workplace bullying. It is

plausible that exposure to workplace bullying may reduce the motivation to return to work and lessen victim's belief in their own ability to manage future work situations. Victims are likely to perceive the prospect of returning to a work situation with potential bullying as being impossible to face. This is further reflected in the result that 74% of victims of workplace bullying preferred another job rather than to return to their existing one, compared to 45.7% of those that had not been exposed to workplace bullying. However, very few victims reported that they did not want to work at all (5.7%). The victims of workplace bullying also reported lower perceived work ability and lower levels of job satisfaction compared to patients not exposed to workplace bullying. This is in accordance with several other studies that have found that victims of workplace bullying seem to evaluate their own work ability as being lower (e.g., Olsen et al., 2017). Their lower perceived level of work ability is also reflected in a strong association between bullying and sick leave in a range of studies (e.g., Nielsen, Indregard, et al., 2016). Several studies have also found an association between workplace bullying and reduced job satisfaction (Arenas et al., 2015; Steele et al., 2020). It might not be too surprising considering that job satisfaction has been found to have a strong association with health outcomes such as psychological health complaints like anxiety and depression, with stress, and also with subjective physical illness like headache, digestive problems, muscle pain, and cardiovascular disease (Faragher et al., 2005), all of which are also associated with being a victim of workplace bullying.

These findings support previous evidence indicating that workplace bullying can be seen as a severe social stressor, which is associated with detrimental consequences, both in the form of psychological distress and reduced well-being at work. These findings further highlight that victims of workplace bullying with CMD represent a vulnerable group that is in danger of involuntarily being excluded from working life. As well as that many patients seeking treatment for their mental health problems may present with exposure to workplace bullying as an additional problem and with a situation where the cause of their mental health problems, at least partially, may be found in their work situation itself.

4.3 The buffering effect of resilience

The results from paper 2 showed that exposure to bullying behaviours is associated with lower RTW-SE scores. The results also indicated that levels of resilience are associated with an increase in RTW-SE scores, thus suggesting that higher resilience is associated with higher levels of RTW-SE irrespective of exposure to workplace bullying. This is to be expected and is in line with existing resilience literature, reporting that individuals with access to resilience resources are generally better equipped when encountering stressful situations (White et al., 2008), in addition to reporting fewer health complaints (White et al., 2008). So, in the face of adversity like bullying those with higher levels of resilience are less affected than those with lower levels of resilience. The results from paper 2, also showed that the relationship between exposure to bullying behaviours and RTW-SE among the sample was not moderated by resilience as a total scale. It was, however, moderated by the sub-dimension of personal resilience. The results showed that personal resilience has a reversed buffering effect on the negative relationship between exposure to bullying behaviours and RTW-SE, with a stronger negative relationship between exposure to bullying behaviours and RTW-SE for patients who score higher on personal resilience compared to those with lower scores on personal resilience. Although the findings indicated that those scoring higher on personal resilience were better off in general, when compared to individuals with a lower score on personal resilience, they still seemed to be relatively more negatively affected by high exposure to bullying behaviours. It is however important to note that those with higher resilience scores that experienced bullying still score significantly higher than those with lower resilience scores that experienced bullying.

These results contradict common notions that are based on stress theories such as the CATS. The results are, however, in accordance with recent empirical studies that consistently have found reversed buffering effects of internal mental resources, when individuals are exposed to bullying behaviours (e.g., Annor & Amponsah-Tawiah, 2020; Britton et al., 2012; Hewett et al., 2018; Reknes et al., 2016). In a recent study, Reknes et al. (2016) investigated whether coping styles moderated the prospective

relationship between exposure to bullying and anxiety in a sample of nurses. The results suggested that goal-oriented coping only seemed to be beneficial for nurses when the exposure to bullying behaviours was very low, whereas when the exposure level was high, the effect of any of the coping style used by the participants in the study seemed to decline. These findings (e.g., Annor & Amponsah-Tawiah, 2020; Hewett et al., 2018; Reknès et al., 2016), combined with findings from paper 2, corroborate the notion that relative buffering effects associated with internal resources, such as personal resilience, may depend on the intensity and the nature of the stressor in question, in our case exposure to workplace bullying.

The findings of our study, along with other recent empirical findings, could suggest that when it comes to such a strong and severe stressor as workplace bullying, the picture may be more complex than stated in the CATS. The GUTS states that it is not the perception of a threat that causes sustained activation, as proposed by the CATS, but rather general and prolonged lack of safety that might be perceived by the individual in the situation. This theory could help explain why some studies have found that depression can occur years after the bullying has ceased (Bonde et al., 2016). This theory suggests that it is the individual's feeling of unsafety that maintains the stress response initially caused by exposure to bullying behaviours (Brosschot et al., 2017). The maintained stress response will lead to prolonged stress activation (Brosschot et al., 2017). Based on this, one could speculate that exposure to bullying behaviours experienced by individuals high on copying resources could possibly influence them even more by creating even higher levels of uncertainty, which could, in turn, lead to impaired health. This could potentially be the case particularly for individuals who have a history of feeling a high degree of safety and who feel equipped to master the life stressors they have previously faced. This is also in line with bullying research which have suggested victims of workplace bullying may as the bullying progresses find themselves experiencing an almost complete lack of resources (e.g., loss of control, loss of social support, loss of coping strategies) (Zapf & Einarsen, 2005).

Based on the theory of shattered assumptions (Janoff-Bulman, 1989, 1992), it has been suggested that workplace bullying is a traumatic event, where prolonged exposure could lead to individuals' most basic assumptions and cognitive schemas about how they perceive the world, other people and themselves being shattered (Mikkelsen & Einarsen, 2002). Janoff-Bulman (1989) proposed a model of the basic assumptions held by most people and seen as fundamental for mental well-being and good health. The three main assumptions are the benevolence of the world, meaningfulness of the world, and self-worth. The benevolence of the world refers to the extent to which individuals view the world either positively or negatively, and the extent to what which they think good events, as opposed to bad events happen. This category can be further divided into two other assumptions: the benevolence of the world and that of people. The more an individual believes in the benevolence of the world, the more likely they are to believe that the world is, in fact, a good place and that most people do not experience misfortunes, while if they believe in the benevolence of people, they are more likely to believe that most people are generally kind, caring, and have good intentions. Thus, they tend to underestimate their own vulnerability to misfortunes, and this protects them from experiencing stress, worries, and anxiety related to this type of threat (Janoff-Bulman, 1989; Janoff-Bulman & Frieze, 1983). One example would be that most people do not expect that they will get bullied in their workplace. However, when they experience being a victim of bullying behaviours in the workplace, this might shatter their assumptions and could potentially lead to feelings of unsafety.

Meaningfulness of the world refers to whether the individual perceives the world as comprehensible and meaningful (Janoff-Bulman, 1989). This includes the individual's beliefs about how positive and negative outcomes are distributed (Janoff-Bulman, 1989). Janoff-Bulman (1989) proposed that in the western world, the majority of people will generally regard the world as just, predictable and controllable. However, this assumption might be shattered if an individual is exposed to a situation such as bullying behaviours as this might be perceived by the victim as a situation that is unjust, unpredictable and uncontrollable (Rodríguez-Muñoz et al., 2010).

Self-worth refers to individuals' beliefs about themselves (Janoff-Bulman, 1989). This category can be divided into three assumptions: an individual's belief in their own self-worth (e.g., perceiving themselves as a moral and decent person); self-controllability (e.g., perceiving themselves as someone who engages in appropriate behaviours); and chance (e.g., perceiving themselves as more lucky or less lucky). Most individuals generally believe that they are decent and worthy, and they have reasonably high self-esteem. However, if one is a victim of bullying behaviours, these assumptions about self-worth could be shattered.

Exposure to bullying behaviours may threaten the assumptions proposed by Janoff-Bulman, due to the limited opportunity one might have to protect oneself from the situation when facing workplace bullying, thus, leading to assumptions about the benevolence and meaningfulness of the world, as well as self-worth, being shattered. When individuals experience that their assumptions about the world, other people and themselves no longer match the current situation, this could lead to them experiencing this as being very threatening and could result in a psychological crisis for the individuals concerned (Janoff-Bulman, 1992; Janoff-Bulman & Frieze, 1983). This will lead to individuals experiencing an elevated stress response as the fundamental schemas they already possess need to be revised and rebuilt based on more viable core assumptions that are built on their new experiences. However, some victims find this more difficult than others and this could lead to them remaining in a chronic state of worry, anxiety, and cognitive confusion (Mikkelsen & Einarsen, 2002). This is often seen with post-traumatic stress disorder (PTSD), which has been associated with workplace bullying (Nielsen, Tangen, et al., 2015). If the victims of exposure to bullying behaviours stay in this chronic state, they may experience prolonged activation, which could further lead to them experiencing increased levels of worry, anxiety, and depression. Thus, it could suggest that it is the feeling of insecurity the victim is experiencing when exposed to workplace bullying that could extend the stress response and result in them feeling a prolonged stress activation that could potentially override the protective resources the individual is possessing, like proposed by GUTS (Brosschot et al., 2017). Individuals that have a history of experiencing a high degree of insecurity when they encounter severe life stressors

may become relatively less affected by just another social stressor as this will not shatter the assumptions they have established about the world. While individuals that are used to successfully coping with stressors may experience more worry and insecurity as their feeling of safety is relatively more damaged when facing such a severe and uncontrollable stressor as workplace bullying. This could potentially explain the reversed buffer effect in which those high on personal resources may become relatively more affected compared to those who possess less resources.

In their study, Hamre et al. (2020) investigated the relationship between accumulated long-term exposure to workplace bullying and subsequent changes in psychological hardiness in nurses over five years. Accumulated exposure to bullying behaviours over several years had a negative effect on psychological hardiness. Nurses who had been subjected to long-term exposure to bullying behaviours were more likely to display a decline in hardiness over time. Additionally, Hamre and colleagues' study also found that nurses who scored lower on hardiness reported some degree of higher subsequent exposure to bullying behaviours. However, this relationship was not as strong as the reversed effect, which could indicate that workplace bullying is a stronger predictor when it comes to changes in hardiness, as compared to the ability of hardiness to predict subsequent exposure to bullying behaviours. Considering this finding and the reversed buffering effect that has often been found when exposure to bullying behaviours is high (e.g., Reknes et al., 2016), one could postulate that part of the reason for the reversed buffering effect could be personal protective effects potentially declining slightly over time when someone is subjected to this type of severe stressor. This is in accordance with Zapf and Einarsen (2005) who suggests that workplace bullying is a situation beyond the victim's control and can be characterised by the victim experiencing an almost complete lack of resources.

Interpersonal resilience, on the other hand, was not found to moderate the relationship in paper 2. While personal resilience is associated with internal resources, interpersonal resilience is associated with external resources, such as family relations and social support. Some studies have found a buffering effect for the relationship between exposure to bullying behaviours and different health and work outcomes

(e.g., mental distress, burnout and intention to leave a job) from external resources such as work-related social support and perceived organisational support (Djurkovic et al., 2008; Nielsen, Christensen, et al., 2020; Quine, 2001; Rossiter & Sochos, 2018). Based on this, one could postulate that work-related social support, such as social support from co-workers or perceived organisational support, may be better suited as a protective buffer when an individual is exposed to a strong work-related stressor like workplace bullying, rather than social support from family and friends.

4.4 The benefit of metacognitive therapy or cognitive behavioural therapy with work-focus

The results from paper 3, showed that MCT or CBT with work-focus can be an effective treatment for victims of workplace bullying in terms of symptom reduction and increasing workplace participation. The victims of workplace bullying presented with a large improvement in depressive symptoms, anxiety symptoms and subjective health complaints, compared to victims of bullying in the wait-list control group who still had high scores at the end of the waiting period. The symptom reduction found in the present study is similar to findings from the studies conducted at the MEDIAN Klinik Berus in Germany (Schwickerath & Zapf, 2020). They also found a significant reduction in psychosomatic complaints, health symptoms and depressive moods after patients completed the treatment programme. However, while the MEDIAN Klinik admitted their patients for inpatient care treatment lasting six to eight weeks, the present study used, on average, 10.8 sessions, conducted at an outpatient clinic, thereby achieving a similar reduction in symptoms reduction with far fewer resources. The victims of workplace bullying had a similar level of symptom reduction to the patients who had not been exposed to workplace bullying, indicating that they both benefitted from MCT or CBT with work-focus. However, it is worth noting that the victims of workplace bullying reported significantly higher levels of mental health complaints and subjective health complaints than the other patients' pre-treatment. The fact that several studies have found mental health complaints such as depression persisting for several years, regardless of whether the bullying has subsided or not (e.g., Bonde et al., 2016; Verkuil et al., 2015) only further highlights

the importance of providing an effective treatment programme for this vulnerable patient group. Our findings from the present study indicated that the symptoms of victims in the wait-list control group did not subside over the waiting period. Thus, it does not seem like these patients will get significantly better with time without treatment.

The treatment also showed a good effect for the victims of bullying when it came to their belief in their own ability to function well at work, with the victims of workplace bullying showing a significantly higher RTW-SE score after completing the treatment, compared to victims in the wait-list control group. Based on recent findings, it has been suggested that the RTW-SE scale can predict individuals' return to work (Gjengedal et al., 2021). An RTW-SE score between 1.0 and 3.7 is associated with no return to work; a score between 3.7 and 4.6 is associated with a partial return to work; and a score between 4.6 and 6 is associated with a full return to work. This would suggest that the victims of workplace bullying in the treatment group went from having a score of 2.96, which is associated with no return to work, to a score of 4.31 post-treatment, which is associated with partial return to work. The victims in the wait-list control group did not improve from a score associated with no return to work, moving only from a score of 2.95 to 3.11. This further highlight that this is a vulnerable group who if untreated have elevated risk of withdrawal from work and potentially even from working life altogether.

There was no significant difference between the victims of workplace bullying and patients not exposed to bullying when it came to a change in RTW-SE scores. However, there was a significant interaction effect between workplace bullying and age, indicating that younger patients had greater belief in their own ability to return to work after completing the treatment, regardless of being a victim or not. Whereas older patients on the other hand were more negatively affected when bullied and showed a smaller improvement in RTW-SE scores when they were victims of workplace bullying. A possible reason for this finding is that for victims of workplace bullying, it is often not an option to return to their current workplace, and many choose to change jobs to escape the bullying (Glambek et al., 2015). Yet, finding a

new workplace may be more challenging for older workers, who often end up staying with their organisation due to the limited opportunities they have in the labour market and due to a high level of organisational commitment (Ajayi, 2017; Mykletun, 2016). Nonetheless, it should be noted that this finding is based on secondary analysis and further studies are needed to explore the relationship between workplace bullying, RTW-SE and age.

Treatment was also shown to be beneficial for increased workplace participation among patients either on full sick leave or combined work and sick leave pre-treatment. However, our results indicated that there were significantly fewer among the victims of workplace bullying (45.7%) who were fully working post-treatment, compared to patients who had not been exposed to workplace bullying (66.0%). Thus, although the victims of workplace bullying benefitted from treatment, they did not benefit as much as the patients not exposed to bullying. This was particularly evident when it came to an increase in work participation, indicating that treating the health complaints of victims of workplace bullying seems to be relatively easier to achieve than increasing their work participation. There may be several reasons for this. For those that have been exposed to bullying changing workplace may be one of the solutions. Changing workplace may take longer than going back to the same job. It is possible that those exposed to bullying have more severe symptoms that takes longer to change. Additionally, it is possible that the victims of bullying may need a greater focus on work integrated to their treatment plan than the other patients at the clinic in order to be able to increase their work participation. If so, it may be of value to potentially add a tailored component to their treatment plan, with a focus on addressing the actual bullying scenario to a greater extent.

Tehrani (2003) has suggested that to treat victims of workplace bullying, one should start with a thorough psychological assessment, to provide a baseline, and give the therapist an indication of the nature and severity of the victim's conditions. At the end of the assessment, she recommends psychoeducation with information about workplace bullying and common health consequences that may follow. Tehrani recommends starting off with psychological debriefing about the victim's

experiences. The debriefing will help to identify symptoms described in the psychological assessment, and the debrief will also examine the victim's life before the bullying, to help give the therapist an overview of what the victim's situation was like before the bullying started. During the debriefing the victim will also give a detailed factual description of the workplace bullying experiences, preferably with a focus on sensory experiences that may be associated with the bullying behaviours. This is because smells, sounds or mental images have an inherent power to trigger symptoms, such as intrusive thoughts or emotions (Tehrani, 2003). When the victim is retelling the story the second time, they are asked to recall any thoughts that occurred to them when exposed to the bullying behaviours, while during the third retelling they are asked to focus on the emotional responses to the thoughts and facts that have been identified and examined during the previous renditions of the story. The therapist should, by the end of the debriefing, be able to identify possible sensory triggers that are likely to cause symptoms to be re-experienced by the victim and which may trigger irrational thinking, all of which may delay recovery for the victim (Tehrani, 2003). CBT can be an efficient and helpful way of dealing with irrational thinking.

Another intervention proposed by Tehrani (2003) is narrative therapy, which builds on psychological debriefing. Narrative therapy is a tool to help victims tell their life stories in such a way that their experiences are understood and validated. When the victim is able to understand the story that has been constructed about the bullying during the debriefing, they will become more aware of their own tendencies to construct self-destructive stories related to their experiences. The goal with the therapy is to enable victims to accept that their experiences with workplace bullying are part of their life story but without allowing these to dominate or overshadow their life. However, this type of deconstructing and rewriting of the victim's own experiences can potentially be difficult for some, and assistance from a therapist during this process may be needed.

Another option that could also potentially be of value is to focus even more on a change of workplace for victims of workplace bullying if returning to their current

workplace is not a viable option. For most victims, a change of workplace will be at the better option for them, mitigating the danger of losing their foothold in working life. This is supported by the few studies that have examined treatment of victims of bullying, which suggest that victims who change their workplace and are no longer confronted with the bullies seem to benefit more from treatment than victims who stay (Schwickerath & Zapf, 2020). Schwickerath (2001) suggests that it is important to identify whether there is the option for victims to successfully return to their current work situation or whether the workplace bullying has reached a stage where there is no possibility of starting over. In the case of the latter, the goal should be for the victim to move to a new workplace. Thus, even if treatment is beneficial in terms of symptom reduction, this alone might not be enough to increase work participation if victims return to the same work situation. To help identify a new appropriate work situation for victims who need this they may benefit from a treatment plan that is combined with individual job support. Nevertheless, changing workplaces is often a very long and time-consuming process, and some victims of bullying may still be on sick leave at the end of the treatment. There is therefore a need for future studies to investigate this further, using a longer follow-up time than the present study.

4.5 Methodological considerations

4.5.1 Design, sample, and generalisability

The present study was implemented in a naturalistic health care setting at an outpatient clinic specialising in mental health care services. Although the naturalistic health care design gives the study a high ecological validity, the absence of a randomised control trial (RCT) design could still be seen as a limitation. RCTs are seen as the gold standard for intervention studies and are among the most rigorous designs when determining whether there are causal relationships between treatments and outcomes, as well as when directly comparing the effectiveness of treatments (Essock et al., 2003; Sibbald & Roland, 1998). However, one advantage of a naturalist study design is that this is a better ecological validity, and more of a reflection of real-world practise than an RCT design. So, even though RCT has many

methodological advantages, it does not capture this aspect as well as a naturalistic study design. Another potential limitation of paper 3 is that therapists' adherence to the treatment protocol was not monitored during the study because of the naturalistic design. It was therefore not possible to assess the degree to which therapists were able to integrate different elements of work-focused interventions (e.g., gradual exposure to work) and MCT or CBT.

It is also worth mentioning that a possible limitation of the design of paper 1 and paper 2 is the cross-sectional design of these studies, which did not account for causal relationships between the study variables.

The data used in papers 1, 2 and 3 were collected as part of an intake procedure at an outpatient mental health care clinic, and we were therefore able to get a fairly large sample size, with a high response rate. The large sample size and the design of the study made it possible to compare the benefits of treatment for victims of workplace bullying with a similar group, consisting of patients with CMD currently on or at risk of sick leave, who had not been exposed to bullying. As well as to make a comparison with a wait-list control group comprising of patients who were victims of workplace bullying still awaiting treatment. Since the clinic is part of the specialist health service for mental health in Norway, and given the long recruitment period, the sample could be said to be representative when describing the prevalence of victims of workplace bullying seeking mental healthcare services. It is also likely that the characteristics these patients display are representative as they are in accordance with the literature, where the strong association between workplace bullying and severe health complaints has already been established (e.g., Boudrias et al., 2021; Lever et al., 2019; Verkuil et al., 2015), as well as for an increased risk of sick leave (e.g., Nielsen, Indregard, et al., 2016). Nevertheless, the present thesis was only based on data from one clinic, which may limit the generalisability of our findings to other outpatient clinics.

4.5.2 Self-reported measures

The data in the present thesis were collected pre-treatment (on admission and before the first session) and post-treatment using only self-reported measures. To measure levels of symptoms we used a well-known clinical interview method (MINI) and frequently used self-report questionnaires to measure levels of symptoms (BDI-II, BAI, and SHC) and to examine exposure to bullying behaviours (S-NAQ and NAQ-R). However, it is worth noting that subjective measures are generally not as reliable as objective measures, and there is an increased risk of self-reporting bias (Althubaiti, 2016). This could, for example, include individuals responding to the questionnaire in a socially desirable way or issues concerning recalling past events. However, self-report measures may be the best measurement available for outcomes where it is not necessarily possible to measure objectively without the information being interpreted by others. This is particularly relevant for both the health- and work-related outcomes in papers 1, 2, and 3.

Exposure to workplace bullying is mainly measured in the literature using self-report measures such as self-labelling and behavioural experience method, and it has been argued that perception of exposure to workplace bullying is subjective in its very nature. In paper 1, we measured the prevalence of workplace bullying with both self-labelling and the behavioural experience method (e.g., S-NAQ), which is in line with recommendations given in the literature (Nielsen, Notelaers, et al., 2020; Nielsen et al., 2009), while in paper 2 and paper 3 only the behavioural experience method was used. Although the self-labelling procedure has high face- and construct validity (Nielsen, Notelaers, et al., 2020), there is also potentially a higher risk of underreporting as many respondents will have a high threshold for labelling themselves as victims of workplace bullying (Nielsen et al., 2009). The behavioural experience method, on the other hand, measures the frequency with which individuals have been exposed to various negative acts related to workplace bullying during the preceding six months. One could therefore suggest that this method might yield a more objective estimate when it comes to the prevalence of workplace bullying. By not having to refer to the concept of workplace bullying, but rather responding to the frequency of exposure to different negative acts, individuals may try to respond as

objectively as possible. Thus, they could potentially be less likely to attempt to respond to the questionnaire in a socially desirable way. The behavioural experience method yields a higher prevalence than self-labelling (Nielsen, Notelaers, et al., 2020). Yet, it has been argued that although both methods are likely to provide valid information about workplace bullying, they supplement one another as they each measure somewhat different aspects of bullying (Nielsen et al., 2009).

In the present thesis, a distinction has been made between victims of workplace bullying (paper 1 and paper 3) and patients not exposed to bullying behaviours (paper 2). This is because in paper 1 and paper 3, we used cut-offs that were calculated for the S-NAQ based on validated cut-offs from the NAQ-R, in order to divide the patients into victims of workplace bullying and patients not exposed to workplace bullying. This was done so that we could compare the groups in terms of a number of different characteristics and evaluate whether they had similar benefits from the treatment offered. In paper 2, on the other hand, examination was made on whether there was a main effect between exposure to bullying behaviours and RTW-SE, and whether resilience could moderate this relationship. To be able to examine this hypothesis, the S-NAQ was used as a continuous variable for the regression analyses. For the moderation analyses it was categorised into three categories based on percentiles: low (16th percentile), moderate (50th percentile) and high (84th percentile). Percentiles were used rather than +/- 1 standard deviation (which is often used in moderation analyses), because this would have resulted in a score below the lowest possible score on the S-NAQ for the low exposure group. It was therefore decided that percentiles would be used instead.

4.5.3 Multiple testing

In paper 1 and paper 3, multiple comparisons were made of many outcome variables, where we compared victims of workplace bullying and patients not exposed to workplace bullying (paper 1 and paper 3), as well as victims of bullying receiving treatment, compared to a wait-list control group consisting of victims still awaiting treatment (paper 3). Thus, these results should be interpreted with some caution. However, most of the differences in our results had a significant level of $p < .01$,

except when comparing the benefits of treatment (paper 3) for victims of bullying and patients not exposed to bullying. Here, there were no significant differences between the groups after controlling for the baseline for respective scales, age and gender. To supplement the *p*-value in paper 1, the mean difference and confidence interval of the differences were added to the table containing the *t*-tests. In addition, it is worth noting that the findings were in line with previous findings from the literature, and thus it is possible to postulate that it might be less likely that these findings are a result of type I error due to multiple testing.

4.6 Implications and directions for future research

The findings from the present thesis have both theoretical and practical implications. The results of paper 2 showed a reversed buffering effect of personal resilience on the relationship between exposure to bullying behaviours and RTW-SE. Based on stress theories, such as the CATS, an individual with resilient qualities should be protected when exposed to a stressor such as workplace bullying. There have been several studies showing that resilience functions as a protective effect when individuals are exposed to other critical incidents and traumas (Friborg et al., 2006; Lee et al., 2014; Sinclair et al., 2016; Wingo et al., 2010). Based on our findings in paper 2 it seems as if also those with high personal resilience levels report low scores on RTW-SE when bullied. Their scores are, however, still significantly higher than for those with low resilience. The finding does indicate that bullying is a severe stressor which affects individuals that also have high levels of protective resources, which is in line with other resilience research. Severe stress or life events does affect all independent of their level of protection (Masten, 2021).

Janoff-Bulman's theory of shattered assumptions may be of interest in this relation particularly in relation to how victims of workplace bullying have been linked to post-traumatic stress (Mikkelsen & Einarsen, 2002; Rodríguez-Muñoz et al., 2010; Tehrani, 2004). One could here speculate whether workplace bullying should be considered as a trauma rather than merely a stressor? Nevertheless, the findings from

the present study indicates that those who have high levels of resilience, normally related to good health and well-being (White et al., 2008), seem to be relatively more negatively affected when exposed to high levels of bullying than those with low resilience. This finding is in accordance with resilience findings where severe stress affects all. But further research can help pinpoint specific reasons for the relationship between exposure to bullying behaviours, resilience, and RTW-SE, and thus promote a better understanding of these findings and also better understand how the effects of bullying may be explained. These findings should also be considered by therapists and those designing standardised treatment programmes so that one understands the severity of bullying exposure and its trauma-like experiences.

The results from the present thesis also highlights that victims of workplace bullying are overrepresented among patients seeking treatment for CMD and who are either currently on or at risk of sick leave, with more than one in four presenting with an ongoing history of victimisation. The victims of workplace bullying present with higher levels of health complaints, and we found that almost twice as many were on full-time sick leave, compared to patients not exposed to bullying. It is, however, important to note that most victims are motivated to stay in working life, but they do not wish to be at their current job. These findings have important implications for working with mental health patients and who provide treatment for these patients. Many of their patients may present with bullying experiences.

The results from paper 3 provide novel findings by indicating that MCT or CBT with work-focus can be beneficial for victims of workplace bullying even if not being tailor-made for this group of patients. The results showed that victims had a similar level of symptom reduction as patients who had not been exposed to workplace bullying. The results also indicated that treatment was beneficial for increasing workplace participation among patients on sick leave, but it was not as beneficial for victims of bullying as for the other patients. These findings highlight that it could be of value for clinicians to identify patients who are victims of workplace bullying during assessment in order to address this during treatment. One important issue is to address if the workplace bullying has reached a point where it is not possible or

advisable to return to one's original workplace. If so, the aim should be to help the sufferer move to a new workplace. The results of the present thesis indicate that victims of workplace bullying in the wait-list control group did not improve during the waiting period. Although the time period is limited the finding supports that if left untreated, such vulnerable individuals may suffer detrimental health consequences and have a greater risk of involuntarily being excluded from working life.

Another practical implication worth noting is that the victims of workplace bullying seem to benefit from approximately 10 therapy sessions which do not even need to be tailor-made for this vulnerable group. Such treatment requires less time and fewer resources, as compared to an inpatient clinic procedure where the patients are admitted for six to eight weeks (e.g., Schwickerath & Zapf, 2020). The current approach is a significant cost-saving option, especially if we take into account the societal cost of victims of bullying not receiving treatment and being at a high risk of sick leave and potentially involuntarily losing their foothold in working life.

Future research in this field should examine the effects of MCT or CBT with work-focus, using an RCT design, which is the gold standard when investigating effects. It is also of importance to examine whether the effects of treatment can withstand the passage of time in terms of symptom relief and increased work participation. It is plausible that some victims of workplace bullying may want to return to work but in a new workplace, and changing jobs is a time-consuming process. Thus, future research should examine the long-term effects of treatment with a longitudinal design. Future research in this field should also consider focus-group interviews to gain an insight into how treatment works by exploring patients' experiences in the aftermath of treatment.

4.7 Conclusion

The findings of the present thesis show the detrimental consequences of exposure to workplace bullying and provides an important insight into a vulnerable group of employees who are at risk of losing their foothold in working life. More than one in

four patients with CMD currently on or at risk of sick leave who seek mental healthcare have an on-going history of being a victim of workplace bullying. Being a victim of workplace bullying has been shown to result in poor health, as well as severe negative consequences for the victim's job satisfaction and work ability. It is also worth noting that even though resilience may strengthen RTW-SE for victims of workplace bullying, bullying is a detrimental stressor which seems to particularly affect individuals who present with relatively high levels of resilience when the outcome is RTW-SE. The results from the present thesis also support the benefits of MCT or CBT with work-focus when treating victims of workplace bullying. Thereby, indicating that this could be an effective treatment protocol for reducing symptoms and increasing workplace participation among victims of workplace bullying. It is worth noting, however, that significantly fewer victims of workplace bullying on sick leave were found to be able to fully return to work by the end of their treatment, compared to patients not exposed to workplace bullying. The present thesis also shows that the victims of workplace bullying did not improve over time without treatment, which underlines the importance of providing them with an efficacious treatment option to reduce their symptoms and help increase their workplace participation. If not treated, they are in great danger of losing their foothold in working life.

Thus, the present thesis adds to the existing literature by providing evidence that victims of workplace bullying seem to be overrepresented among patients seeking mental health care treatment who are currently on or at risk of sick leave compared to the general population. As well as indicating that exposure to bullying behaviours seems to also negatively affect individuals presenting with relatively high levels of protective factors. The thesis also contributes to existing literature by being one of the few studies to investigate treatments of CMD for patients that have experienced the detrimental consequences of workplace bullying.

However, there is a need for future research to investigate the effectiveness of the current treatment in an RCT and to evaluate the long-term effects of the treatment. It may also be of value for future studies to specifically implement a treatment element

targeting patients' return to work for victims of workplace bullying. In addition, future studies should consider using focus groups to gain greater insight into patients' experience of such treatment.

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I



Clinical Characteristics of Patients Seeking Treatment for Common Mental Disorders Presenting With Workplace Bullying Experiences

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Background: Targets of workplace bullying tend to develop severe mental health complaints, having increased risk of sick leave and expulsion from the workplace. Hence, these individuals are likely to be overrepresented among patients seeking treatment for common mental disorders (CMD). This study investigated the prevalence of exposure to workplace bullying in a patient group seeking treatment for CMD. Further we explored if exposed and non-exposed patients differed on clinical and work-related characteristics.

Methods: The sample comprised of 675 patients from an outpatient clinic in Norway and consisted of 70% women and had a mean age of 39 ($SD = 10.5$) years. The study had a cross-sectional design and differences between the patient groups were analysed using chi-square, Mann–Whitney U -tests and independent sample t -tests.

Results: The prevalence of exposure to bullying was 25.8%. The patients exposed to bullying reported significantly more major depressive disorders (MDDs) measured with the MINI psychiatric interview, higher levels of depressive symptoms, anxiety symptoms, subjective health complaints, alcohol use, and lower resilience as measured with questionnaires. Twice as many were on full-time sick leave, reported lower work ability, lower return to work self-efficacy, and lower job satisfaction. A majority preferred another job than the one they have today over returning to their current employment.

Conclusion: Victims of workplace bullying are a vulnerable group at risk of expulsion from working life, being overrepresented among patients seeking mental health treatment for CMD. One in four patients represented with such experience have higher levels of psychological symptoms and are more often diagnosed with depression as compared to other patients. Thus, this is a problem that should be addressed in clinical settings. If not addressed there is an increased risk of sick leave and permanent exclusion from working life.

Keywords: workplace bullying, common mental disorders, sick leave, health complaints, work

INTRODUCTION

Common mental disorders (CMD) represents one of the leading causes of long-term sick leave (Organization for Economic Co-operation and Development (OECD), 2015), accounting for roughly 20% of those on sick leave and one third of disability pensions in the Norwegian working population (Organization for Economic Co-operation and Development (OECD), 2015; Brage and Nossen, 2017). While such sick leave is caused by a range of factors on multiple levels, several studies have established a strong link between exposure to workplace bullying, mental health and absenteeism from work (Lahelma et al., 2012; Einarsen and Nielsen, 2014; Verkuil et al., 2015; Magee et al., 2017). Among possible psychosocial work-related factors, exposure to workplace bullying has been established as a major risk factor for sick leave (Slany et al., 2014; Nielsen et al., 2016), as well as of expulsion from the workplace, and potentially from working life itself (Berthelsen et al., 2011; Glambek et al., 2015). Based on previous research, individuals exposed to workplace bullying represent a group with seemingly high levels of mental health complaints. Moreover, if considering the increased risk of sick leave and expulsion from the workplace, one could postulate that these individuals would be highly represented among patients seeking treatment for CMD. Hence, it is important to study the prevalence of workplace bullying in this population of patients and to explore how these individuals may or may not differ from other patients with CMD. To the best of our knowledge, only one study Tatar and Yüksel (2019) has yet investigated prevalence rates of workplace bullying in a clinical sample consisting of patients with CMD. However, Tatar and Yüksel (2019) included patients who had experienced bullying or other forms of psychological trauma at the workplace, thus we still lack knowledge of the prevalence of workplace bullying in the population of patients on sick leave or at risk due to CMD.

Exposure to bullying is a prevalent problem in contemporary working life that can be found across all professions and industries with prevalence rates in the area of 5 to 20%, depending on country, operational definitions and estimation methods (e.g., Nielsen et al., 2010; Zapf et al., 2020). Workplace bullying can be described as a long-term process where the target is subjected to systematic and unwanted negative behaviours at work, be it from superiors or peers (Einarsen et al., 2011). The exposure to these negative and unwanted behaviours can vary in both intensity and duration as bullying typically escalates over time (Einarsen, 2005). The said behaviours may be direct or indirect, verbal or non-verbal and typically of an either work-related or person-related nature, often involving some degree of social exclusion. In addition, there is often a power imbalance in the bully-victim relationship leading targets to experience difficulties defending themselves (Einarsen and Skogstad, 1996; Harvey et al., 2009).

Exposure to workplace bullying has been established as a major source of distress and subsequently been identified as an important contributory factor to severe health problems in the working population (e.g., Kostev et al., 2014; Verkuil et al., 2015). A growing body of evidence has established that being exposed to such bullying tend to have a range of

detrimental effects on victims, hence also being a major work-related predictor of mental, psychosomatic and to some extent physical health problems (Vartia, 2001; Nielsen et al., 2012; Lever et al., 2019). Symptoms include negative health conditions such as, cardiovascular disease (Jacob and Kostev, 2017; Xu et al., 2018), musculoskeletal pain (Høgh et al., 2011; Kääriä et al., 2012; Buhaug et al., 2020), gastrointestinal symptoms (Lever et al., 2019), sleep difficulties (Hansen et al., 2014; Verkuil et al., 2015; Lever et al., 2019; Rodríguez-Muñoz et al., 2020), symptoms of post-traumatic stress (Mikkelsen and Einarsen, 2002; Tatar and Yüksel, 2019), and general stress (Vartia, 2001), in addition to being associated with an increase in CMD (Verkuil et al., 2015; Finstad et al., 2019; Lo Presti et al., 2019; Rodríguez-Muñoz et al., 2020).

Several longitudinal studies have shown that CMD, and other negative health outcomes, persist over time even long after ones exposure to workplace bullying (Lahelma et al., 2012; Nielsen and Einarsen, 2012). For instance, a study by Bonde et al. (2016) found that depressive disorders and sick leave resulting from exposure to bullying persisted over several years, regardless of whether the bullying had ceased or not. Considering these facts, it is very likely that individuals who have experienced bullying will need, seek, and receive treatment for their health problems. It is therefore of value to investigate what characterises these individuals and also to examine if their symptoms are of greater or lesser severity or differ from those patients without bullying experience. Such information should be of great value when assessing these patients' treatments needs, when designing treatment procedures and in helping them in order to be able to return to work and avoiding expulsion from work and working life.

The purpose of the present study was therefore to investigate the prevalence of exposure to workplace bullying in a group of patients on sick leave or at risk of being sick listed due to CMD receiving treatment at an out-patient mental health clinic. A secondary aim was to examine the characteristics of patients currently or previously exposed to bullying at the workplace to determine the extent to which they differ from other patients presenting with CMD. The following research questions (RQs) will be examined: RQ1: What is the prevalence of exposure to bullying in patients referred to an outpatient clinic due to CMD? RQ2: Will patients exposed to bullying present with more psychiatric disorders, or higher levels of depressive symptoms, anxiety symptoms, subjective health complaints, alcohol use and lower levels of resilience compared to the patients not exposed to bullying? RQ3: Will patients exposed to bullying report higher levels of sick leave, and lower levels of work ability, job satisfaction and job preference (wishing to stay at their current job, change jobs or not work at all) compared to the patients not exposed to bullying?

MATERIALS AND METHODS

Participants and Procedure

A total of 675 patients were included in the study. Data were collected in a naturalistic observational study in

the project “The Norwegian studies of psychological treatments and work (NOR-WORK)” in an outpatient clinic at Diakonhjemmet Hospital in Oslo, Norway. The clinic offers cognitive or metacognitive therapy with a work focus and is a treatment option specialised for individuals with anxiety and depression who are on sick leave or at risk of exclusion from working life (for description of the treatment programme see, Gjengedal et al., 2020).

All patients included in the study were referred to the clinic by GPs due to mild-to-moderate anxiety and/or depressive disorders and were above the age of 18. The patients also had to be on sick leave or at risk of sick leave to be included in the study and the said treatment programme. Exclusion criteria were having severe mental disorders (e.g., bipolar), a high risk of suicide or substance abuse (including alcohol abuse). Data was obtained from June 2017 through January 2019. A total of 998 potential patients were assessed for inclusion in the study. Of these, 675 fulfilled the study inclusion criteria and consented to be a part of the study.

Instruments

All participants completed a comprehensive paper-and-pencil questionnaire at intake including background variables in addition to a range of standardised instruments. Background variables included age, gender, education, and occupation.

Workplace Bullying

To measure exposure to bullying at the workplace we used the Short version of the Negative Acts Questionnaire (S-NAQ; Notelaers et al., 2019), which is a self-report measure consisting of nine items describing the most typical negative acts experienced by victims of bullying. Items are of a personal and social nature (e.g., ‘spreading gossip and rumours about you’), or a work-related nature (e.g., ‘persistent criticism of your work and effort’). The scale was scored on a scale from 1 (*never*) to 5 (*daily*) based on the last 6 months. The scale showed satisfactory reliability in the form of internal stability (Cronbach’s $\alpha = 0.88$).

In addition to the S-NAQ, two single questions measuring self-labelled victimisation from workplace bullying at the patients current and previous workplaces was used. Response categories are coded: “No,” “Yes, once or twice,” “Yes, now and then,” “Yes, about once a week” and “Yes, many times a week” (see also Nielsen et al., 2020).

Identified victims were then asked to complete the full version of the Negative Acts Questionnaire-Revised (NAQ-R; Einarsen et al., 2009) focussing on when their exposure was at its worst. This scale is the full version of the S-NAQ questionnaire. The NAQ-R consists of 22 items, where the items described negative acts directed at the individual (e.g., ‘being humiliated or ridiculed in connection with your work’) or at their work (e.g., ‘being withheld vital information’). The behaviour can be both direct (e.g., ‘openly attacking the victim verbally or physically’) and indirect (e.g., ‘social isolation’). Again, responses are given from 1 (*never*) to 5 (*daily*). The scale showed

satisfactory reliability in the form of internal stability (Cronbach’s $\alpha = 0.91$).

Psychiatric Disorders, Health, and Resilience

The Mini-International Neuropsychiatric interview (MINI; Sheehan et al., 1998) was used to identify psychiatric disorders in this population. MINI is a structured diagnostic interview assessing psychiatric disorders based on criteria of DSM-IV (American Psychiatric Association, 1994) and ICD-10 (World Health Organization, 1993). The interview is based on “yes” and “no” answers and covers 15 axis I disorders and 1 axis II disorder. This includes mood disorders (MDD and manic episodes), anxiety disorders (panic disorder, agoraphobia, social phobia, obsessive compulsive disorder, post-traumatic stress disorder, and generalised anxiety disorder), eating disorders (anorexia and bulimia), substance related disorders (alcohol and substances), psychotic disorders, and antisocial personality disorder. For the present study we used the Norwegian version of the MINI 6.0.0 (Leiknes et al., 2009).

The Beck Depression Inventory – II (BDI-II; Beck et al., 1996) was used as a self-reported measure of depressive symptoms. The scale consisted of 21 items measuring different affective and cognitive states, such as *sadness* and *guilt*, scored 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 2 weeks. Based on sum scores, 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 were used for descriptive purposes. The scale showed satisfactory reliability in the form of internal stability (Cronbach’s $\alpha = 0.86$).

The Beck Anxiety Inventory (BAI; Beck and Steer, 1990) was used as a self-reported measure of anxiety. The scale consisted of 21 items measuring anxiety symptoms scored 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. Based on sum scores, 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 $\alpha = 0.90$).

The Subjective Health Complaints scale measured subjective somatic and psychological complaints over the last 30 days (SHC; Eriksen et al., 1999). The scale consisted of 29 items describing different common health complaints (e.g., musculoskeletal pain) scored on a four-point scale ranging from 0 (no complaints) to 3 (serious complaints). The scale provided five sub-categories all with satisfactory internal stability as measured with Cronbach’s alpha; gastrointestinal complaints (7 items, Cronbach’s $\alpha = 0.71$), musculoskeletal complaints (8 items, Cronbach’s $\alpha = 0.77$), pseudoneurology (7 items, Cronbach’s $\alpha = 0.68$), allergy (5 items, Cronbach’s $\alpha = 0.52$), and flu (2 items, Cronbach’s $\alpha = 0.64$), in addition to a sum score for the total scale (29 items, Cronbach’s $\alpha = 0.84$).

The Alcohol Use Disorders Identification Test AUDIT was used to screen for excessive drinking and alcohol use disorder

(Saunders et al., 1993). This scale consisted of 10 items (e.g., “How often during the last year have you had a feeling of guilt or remorse after drinking”). Eight items were scored on a five-point scale and two items on a three-point scale. A score of eight or above indicated a strong possibility of harmful levels of alcohol consumption (Saunders et al., 1993). The scale showed satisfactory reliability in the form of internal stability (Cronbach's $\alpha = 0.80$).

To measure resilience the 33-item Resilience Scale for Adults (RSA; Hjemdal et al., 2001; Friberg et al., 2003, 2005) was used. Items (e.g., “My judgements and decisions”) were scored on a seven-point scale ranging from 1 (e.g., “I often doubt”) to 7 (e.g., “I trust completely”). The scale consists of six factors that in the current study was divided into two sub-dimensions: personal resilience (20 items, Cronbach's $\alpha = 0.82$) and interpersonal resilience (13 items, Cronbach's $\alpha = 0.86$), in addition to a sum score for the total scale (33 items, Cronbach's $\alpha = 0.86$).

Work

Employment status was measured using a single item with the options “work with no benefits,” “combined work and sick leave,” “full-time sick leave,” “unemployed,” “student,” “work assessment allowance,” “disability pension,” “neither work nor pension,” and “other.”

To measure work ability we used three items from the Work Ability Index (WAI; Tuomi et al., 1998). The first item was regarding sick leave the last 12 months with the options “no,” “0–2 months,” “3–6 months,” and “7–12 months.” Current work ability compared to life time best was scored on a scale from 1 (*no ability to work*) to 10 (*work ability at its best*), while work ability in relation to demands of the job, divided into physical demands and psychological demands, were scored on a scale from 1 (*very poor*) to 5 (*very good*).

Return to Work Self-Efficacy (RTW-SE; Lagerveld et al., 2010; Gjengedal et al., in press) was used as a self-reported measure of expectations concerning one's own ability to return to and function well when working fully (e.g., being able to set boundaries, perform one's work tasks, and being able to focus while at work). The scale consisted of 11 items (e.g., “I will be able to cope with setbacks”) scored on a six-point Likert scale from 1 (*totally disagree*) to 6 (*totally agree*). A higher score indicated a higher level of self-efficacy. The scale showed satisfactory reliability in the form of internal stability (Cronbach's $\alpha = 0.89$).

Job satisfaction was measured with one single question “Overall, how satisfied are you with your job?” scored on a five-point scale from 1 (*very satisfied*) to 5 (*very unsatisfied*).

Job preferences was measured with one single question “If you could choose to have any job, what would you prefer?” with three response categories “prefer not working at all,” “prefer a different job,” and “prefer the job I have today.”

Statistical Analysis

For descriptive purposes we calculated the severity of exposure to bullying among the self-labelled victims based on when the exposure had been at its worst measured using the NAQ-R (scores ranging from 22 to 110). This was calculated by using validated

cut-off scores of 33 for occasionally exposed to bullying and 45 for severely exposed to bullying (see Notelaers and Einarsen, 2013). Further, we calculated the prevalence of exposure to bullying by using the cut-off values for the S-NAQ (scores ranging from 9 to 45). These were calculated based on the cut-off values for the NAQ-R divided by number of items included in the NAQ-R before multiplying with number of items included in the S-NAQ. For our analysis we divided the patients into not exposed to bullying (S-NAQ score 13 or lower) and exposed to bullying. Patients exposed to bullying were defined as patients scoring above the cut-off score for occasionally exposed to bullying (S-NAQ score 14 or higher).

Responses to the open-ended item regarding occupation were categorised using the Norwegian standard classification of occupations (STYRK-08; Statistics Norway, 2011), which is based on the International Standard Classification of Occupations 2008 (ISCO-08; International Labour Office, 2008). We did not test for significant differences between the occupations for the two patient groups due to too few cases in some occupational groups.

Preliminary analyses showed that all the variables were normally distributed except for SHC and AUDIT who were positively skewed. Thus, to explore the characteristics of the patients exposed to bullying and to investigate if they differ from other patients with CMD we employed Mann-Whitney *U*-tests and independent sample *t*-test for the continuous variables, and Chi-square tests were used for categorical variables. Additionally, we tested mean difference and Cohen's *d* for the continuous variables. Statistical analyses were conducted with SPSS version 25.0 (IBM Corp, 2017). The significance level was set to $\alpha < 0.05$.

Ethical Considerations

The present 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

Background

The sample consisted of 70.5% women ($n = 476$) and had a mean age of 38.7 years ($SD = 10.5$; age ranged from 20 to 66 years). There was no significant difference between the patients exposed to bullying and the non-exposed patients for age or gender, nor for education or marital status (Table 1). Further, we found the largest difference in exposure to bullying among managers when investigating occupations with almost twice as many managers among those exposed to bullying.

Workplace Bullying

Many patients reported exposure to bullying, and one fourth of the sample (25.8%) could be classified as being subjected to systematic exposure to bullying – defined as scoring above the cut-off score for occasionally exposed to bullying using S-NAQ scores (Table 2). The prevalence using self-labelling for both current and previous workplace were lower than for the S-NAQ, which is to be expected. However, among targets

TABLE 1 | Background variables. Comparison between individuals exposed to bullying and non-targets tested with χ^2 tests for gender, marital status, and education, and descriptive statistics for occupation ($N = 634$).

	Exposed to bullying ($n = 174$)		Not bullied ($n = 460$)		χ^2	Effect size	p -value
	%	(n)	%	(n)			
Gender					1.32	0.05	0.250
Female	66.7	(116)	71.7	(330)			
Marital status					3.66	0.08	0.160
Single	32.0	(54)	31.7	(143)			
Married/cohabitating	58.6	(99)	63.0	(284)			
Separated/divorced	9.5	(16)	5.3	(24)			
Education					3.48	0.08	0.324
Primary school	1.8	(3)	2.0	(9)			
Upper secondary school	21.2	(36)	14.9	(68)			
Higher education 1–4 years	35.9	(61)	39.1	(178)			
Higher education > 4 years	41.2	(70)	44.0	(200)			
Occupation							
Managers	20.1	(35)	11.5	(53)			
Professionals	44.3	(77)	58.3	(267)			
Technicians and associate professionals	10.3	(18)	14.6	(61)			
Clerical support workers	7.5	(13)	2.6	(12)			
Service and sales workers	11.5	(20)	10.7	(48)			
Skilled agricultural, forestry and fishery workers	0.6	(1)	0.4	(2)			
Craft and related trade workers	3.4	(6)	1.1	(5)			
Plant and machine operators, and assemblers	0.6	(1)	0.2	(1)			
Elementary occupations	0.0	(0)	0.0	(0)			
Armed forces and unspecified	1.1	(2)	2.4	(11)			

For 2×2 tables phi coefficient is reported, while Cramer's V is reported for tables larger than 2×2 . Professionals include occupations such as engineering, health, and teaching professions.

identified by self-labelling at a current or previous workplace ($n = 193$), 33.7% could be classified as being severely exposed to workplace bullying.

Psychiatric Disorders, Health, and Resilience

Major depressive disorder and generalised anxiety disorder were the most common diagnosis among the targets of bullying. The prevalence of on-going MDD was significantly larger among patients exposed to bullying compared to the non-exposed patients (Table 3), while no significant differences between the patient's groups were seen for other psychiatric disorders evaluated with the MINI. These results from the MINI were also reflected in the scores for depressive and anxiety symptoms (measured with BDI-II and BAI). The patients exposed to bullying reported significantly more depressive and anxiety symptoms compared to the non-exposed patients (Table 4). According to predefined cut-off values for depressive symptoms as measured with BDI-II, 45.2% of the patients exposed to bullying reported severe levels of depressive symptoms (BDI-II score 29 or higher) in comparison to 34.7% of the non-exposed patients [$\chi^2(3) = 9.75$, $p = 0.021$, Cramer's $V = 0.13$]. Further, 7.6% among the patients exposed to bullying could be classified as having severe levels of anxiety symptoms measured with BAI (BAI score 36 or higher) compared to 4.9%

among the non-exposed patients [$\chi^2(2) = 11.51$, $p = 0.003$, Cramer's $V = 0.14$]. Additionally, patients exposed to bullying reported significantly lower resilience scores (Table 4), as well as reporting more subjective health complaints, and a higher alcohol consumption compared to the non-exposed patients (Table 5).

Work

There was a statistically significant difference in employment status between the non-bullied and bullied. Almost twice as many patients exposed to bullying were on full-time sick leave compensation compared to the non-exposed patients, while there was a larger percentage of the non-exposed patients who combined work and sick leave, that is being partially on sick leave (Table 6). No significant difference existed between the groups when examining their self-reported sick leave over the last 12 months. Over all, the patients exposed to bullying reported significantly poorer self-reported current work ability compared to life time best (scale from 1 to 10, $M = 3.99$, $SD = 2.67$) as compared to the non-exposed patients [$M = 5.15$, $SD = 2.46$; $t(621) = -5.07$, $p < 0.001$]. The magnitude of the differences in the means (mean difference = -1.15 , 95% CI: -1.60 to -0.71) was in the medium effect size range (Cohens $d = -0.46$). Regarding work ability, targets of bullying reported a significantly poorer ability to handle both the psychological and physiological demands of their job as compared to other patients.

TABLE 2 | Prevalence of exposure to bullying at the workplace measured with Short-Negative Acts Questionnaire (S-NAQ) and self-labelling. Severity of exposure to bullying measured with Negative Acts Questionnaire-Revised (NAQ-R) ($N = 661$).

	%	(n)	M	(SD)
S-NAQ (last 6 months)			12.8	(5.2)
Not bullied	68.1	(460)		
Occasionally exposed to bullying	14.5	(98)		
Severe exposure to bullying	11.3	(76)		
Self-labelling (current workplace)				
No	83.4	(563)		
Yes, once in a while	7.3	(49)		
Yes, sometimes	4.6	(31)		
Yes, once a week	0.9	(6)		
Yes, several times a week	1.3	(9)		
Self-labelling (previous workplace)				
No	83.4	(563)		
Yes, over a short time period	10.5	(71)		
Yes, over a long time period	4.0	(27)		
NAQ-R (exposure to bullying at its worst)			45.7	(14.7)
Not bullied	12.7	(21)		
Occasionally exposed to bullying	27.7	(46)		
Severe exposure to bullying	33.7	(56)		

Further, patients exposed to bullying reported significantly lower return to work self-efficacy (RTW-SE) (scale from 1 to 6, $M = 3.03$, $SD = 0.89$) than the non-exposed patients [$M = 3.32$, $SD = 0.98$; $t(629) = -3.42$, $p = 0.001$]. The magnitude of the differences in the means (mean difference = -0.29 , 95% CI: -0.46 to -0.12) was within the medium effect size range (Cohens $d = 0.30$).

Targets of bullying reported significantly lower job satisfaction, and a majority among them reported that they would prefer another job than the one they have today, a significant higher proportion than among the rest of the patients. However, very few reported not wanting to work at all.

DISCUSSION

The results from the present study indicate a high prevalence of exposure to bullying in patient populations with CMD seeking treatment. As many as one in four had been subjected to systematic exposure to bullying at work in the present sample. Although patients exposed to workplace bullying come from all kinds of professions and industries, descriptive analysis indicated that there were almost twice as many managers among the exposed patients as compared to non-exposed patients. Previous findings indicate that bullying is not more prevalent among managers (Skogstad et al., 2008). The present findings may thus indicate that when managers seek treatment for mental disorders, they are more likely to do so because of exposure to bullying. We should take note of the fact that patients seeking such treatment may be managers with a history of bullying. Further, the prevalence of major depressive disorders diagnosed with the psychiatric interview (MINI) were higher in the patients exposed to bullying than for the patients not exposed to bullying. Consistent with this, they also reported higher levels of depressive and anxiety symptoms, more subjective health complaints, and higher levels of alcohol consumption than patients not exposed to bullying. In addition to reporting lower job satisfaction and lower work ability, as many as 74% reported that they would prefer another job than the one they have today. Hence, for these patients, return to work after sick leave is more about returning to working life than about recovering into ones existing job, which probably means facing their predicament again.

The prevalence of systematic exposure to bullying in this patient sample is quite high compared to the general population, both when examining exposure to bullying and perceived victimisation from bullying (self-labelling). The prevalence in the Norwegian general population ranges from 4.6% (self-labelling) to 14.3% (exposure to at least one negative act a week) (Nielsen et al., 2009) compared to 14.1 and 25.8%, respectively in the present study. As prevalence of bullying is

TABLE 3 | Psychiatric disorders as measured with the Mini-International Neuropsychiatric Interview (MINI). Comparison between individuals exposed to bullying and non-targets tested with χ^2 tests ($N = 634$).

	Exposed to bullying ($n = 174$)		Not bullied ($n = 460$)		χ^2	p-value	Effect size
	%	(n)	%	(n)			
Diagnosis assessment (MINI)							
Major depressive disorder (on going)	70.7	(123)	60.0	(276)	5.73	0.017	0.10
Major depressive disorder (previous)	23.0	(40)	26.1	(120)	0.49	0.485	-0.03
Major depressive disorder (reoccurring)	14.4	(25)	15.2	(70)	0.02	0.789	-0.01
Agoraphobia	17.2	(30)	12.8	(59)	1.69	0.194	0.06
Generalised anxiety disorder	46.0	(80)	46.3	(213)	0.00	1.000	0.00
Panic disorder	23.0	(40)	23.9	(110)	0.02	0.889	-0.01
Post-traumatic stress disorder	2.3	(4)	2.8	(13)	0.01	0.927 ^a	-0.02
Social phobia	17.8	(31)	14.8	(68)	0.67	0.414	0.04

For 2×2 tables phi coefficient is reported as effect size. ^a One cell had an expected cell count less than 5. Exact p value (Fischer's exact test significance) was used.

TABLE 4 | Depression, anxiety, and resilience. Comparison between individuals exposed to bullying and non-targets tested with independent-*t*-tests (*N* = 634).

	Exposed to bullying (<i>n</i> = 174)		Not bullied (<i>n</i> = 460)		<i>t</i> -Value	<i>p</i> -value	Mean difference	95% Confidence interval of the difference		Cohen's <i>d</i>
	Mean	(SD)	Mean	(SD)				Lower	Upper	
Depressive symptoms (BDI-II), 0–63	28.84	(9.45)	25.17	(8.52)	4.59	< 0.001	3.67	2.10	5.24	0.42
Anxiety symptoms (BAI), 0–63	20.79	(10.17)	18.21	(9.67)	2.73	0.007	2.58	0.72	4.44	0.26
Resilience, 33–231	140.06	(23.76)	145.33	(24.00)	–2.29	0.023	–5.27	–9.79	–0.75	–0.22
Personal, 20–140	73.79	(15.93)	76.13	(16.84)	–1.54	0.124	–2.35	–5.34	0.65	–0.14
Interpersonal, 13–91	66.66	(13.03)	69.06	(12.66)	–2.02	0.044	–2.41	–4.74	–0.07	–0.19

TABLE 5 | Health and alcohol use. Comparison between individuals exposed to bullying and non-targets tested with Mann–Whitney *U*-tests (*N* = 634).

	Exposed to bullying (<i>n</i> = 174)		Not bullied (<i>n</i> = 460)		<i>U</i> -value	<i>z</i> -value	<i>p</i> -value	Effect size
	Median	(SD)	Median	(SD)				
Subjective health complaints, 0–87	25	(11.56)	21	(9.74)	22449.50	– 3.83	< 0.001	–0.17
Musculoskeletal, 0–24	7	(5.12)	6	(4.31)	31801.00	– 1.10	0.273	–0.05
Pseudoneurology, 0–21	10	(3.77)	10	(3.61)	32769.50	– 2.16	0.031	–0.09
Gastrointestinal, 0–21	4	(3.65)	3	(3.32)	27512.00	– 4.19	< 0.001	–0.17
Allergy, 0–15	2	(2.36)	1	(2.01)	33472.00	– 1.84	0.066	–0.07
Flu, 0–6	1	(1.40)	0	(1.26)	33215.00	– 2.55	0.011	–0.10
Alcohol use (AUDIT), 0–42	5	(5.00)	4	(3.91)	31952.50	– 2.04	0.042	–0.08

For Mann–Whitney *U*-tests *r* was reported as effect size.

generally low in Norway (see also Van de Vliert et al., 2013), even higher proportions may be found in other countries. This prevalence is also quite high compared to healthcare workers in Europe, a sector known for having high prevalence of bullying, where a systematic review by Lever et al. (2019) found a mean prevalence of 18.4%. In a sample of patients receiving psychiatric care for workplace traumas in out-patient clinics in Turkey, as many as 43.3% reported exposure to workplace bullying (Tatar and Yüksel, 2019). Prevalence rates estimated from measure of exposure to negative acts such as the NAQ-R or S-NAQ often varies between 10.0 and 17.0% in other countries (Zapf et al., 2020). It is also worth pointing out that 33.7% self-labelled as being or having been a victim of severe bullying in the present study's patients sample, while the same can only be said for about 6.8% in the Norwegian general population (Nielsen et al., 2009). Thus, these findings provide support to our presumptions that patients on risk for or on sick leave seeking treatment for CMD would have a high prevalence of exposure to bullying, both currently when seeking treatment as well as a part of their occupational history.

Patients exposed to bullying, reporting significantly more health complaints than other patients. As many as 70.7% presented with on-going MDD in accordance with criteria from DSM-IV. The prevalence was significantly higher compared to the non-exposed patients (60.0%). These results are similar to findings from a study performed on out-patient clinics in Turkey, where 78.5% of patients exposed to bullying could be

diagnosed with MDD in accordance with criteria from DSM-IV-TR (Tatar and Yüksel, 2019).

Furthermore, severity of symptoms of depression (measured with BDI-II) and anxiety (measured with BAI), as well as pseudoneurology related complaints (measured with SHC), were also significantly higher compared to the other non-exposed patients and to the general Norwegian population (Statistics Norway, 2012; Indregard et al., 2013; Kjærgaard et al., 2014). Considering the detrimental effects caused by being exposed to bullying found in previous studies (e.g., Lahelma et al., 2012; Kostev et al., 2014; Lo Presti et al., 2019), the high levels of depressive and anxiety symptoms among these patients are not surprising. These findings are in accordance with previous research where exposure to workplace bullying have been associated with an increase in both depressive and anxiety symptoms (e.g., Verkuil et al., 2015; Lo Presti et al., 2019). When it came to subjective health complaints the exposed group particularly reported higher levels of gastrointestinal complaints. The high comorbidity of health complaints may be explained in the framework of stress theories like The Cognitive Activation Theory of Stress (CATS; Ursin and Eriksen, 2004). It suggests that individuals who has been exposed to threatening behaviour with the experienced lack of coping, will develop an increased sensitisation due to repeated exposure to the stimulus (e.g., systematic exposure to bullying) (Ursin and Eriksen, 2010; Ursin, 2014). Due to attentional bias the individual's thoughts and information regarding the bullying will be prioritised, thereby causing a perseverative cognition,

TABLE 6 | Sick leave, work ability and job satisfaction. Comparison between individuals exposed to bullying and non-targets tested with χ^2 tests ($N = 634$).

	Exposed to bullying ($n = 174$)		Not bullied ($n = 460$)		χ^2	Effect size	p -value
	%	(n)	%	(n)			
Employment status					24.06	0.20	<0.001
Work with no benefits	40.0	(68)	49.6	(222)			
Combined work and sick leave	20.6	(35)	30.1	(135)			
Full-time sick leave	39.4	(67)	20.3	(91)			
Sick leave (last 12 months)					4.03	0.08	0.258
No	29.8	(48)	30.8	(131)			
0–2 months	46.6	(75)	46.6	(198)			
3–6 months	21.1	(34)	16.7	(71)			
7–12 months	2.5	(4)	5.9	(25)			
Job satisfaction					80.47	0.36	<0.001
Very satisfied	2.4	(4)	16.4	(73)			
Satisfied	20.7	(34)	41.4	(184)			
Neutral	30.5	(50)	24.5	(109)			
Unsatisfied	26.2	(43)	13.1	(58)			
Very unsatisfied	20.1	(33)	4.5	(20)			
Job preference					46.11	0.28	<0.001
Prefer not working at all	5.7	(9)	2.6	(11)			
Prefer a different job	73.9	(116)	45.7	(192)			
Prefer the job I have today	20.4	(32)	51.7	(217)			
Work ability in relation to job demands							
Psychological demands					40.10	0.25	< 0.001
Very good	4.7	(8)	4.9	(22)			
Good	5.8	(10)	19.0	(86)			
Moderate	29.2	(50)	40.8	(185)			
Poor	44.4	(76)	29.1	(132)			
Very poor	15.8	(27)	6.2	(28)			
Physiological demands					18.85	0.17	0.001
Very good	28.7	(49)	39.1	(176)			
Good	34.5	(59)	38.0	(171)			
Moderate	21.6	(37)	17.1	(77)			
Poor	12.9	(22)	4.7	(21)			
Very poor	2.3	(4)	1.1	(5)			

For 2×2 tables phi coefficient is reported, while Cramer's V is reported for tables larger than 2×2 .

manifested in rumination and worrying, which may further lead to a prolonged activation (Brosschot et al., 2006). This may again lead to somatic complaints and diseases by causing increased activation via the immune, endocrine, cardiovascular, and the autonomic nervous system (Brosschot et al., 2006). This line of argument is consistent with these patients scoring higher on gastrointestinal complaints, which could be explained by the enhanced activation of the autonomic nervous system causing strain on their internal organs, such as the gastrointestinal tract. While the increased flu symptoms could potentially be explained by the sustained activation having a negative effect on the immune system.

Based on CATS, having higher levels of resilience would help the individual cope when exposed to stressors (e.g., exposure to bullying) and protect against sustained activation. Yet, Zapf

and Einarsen (2005) argues strongly that exposure to ongoing bullying will eventually lead to loss of coping resources, as also shown empirically in a five year longitudinal study among nurses where those targeted over many years showed a significant reduction in the personality trait hardiness, a trait similar to the concept of resilience (Hamre et al., 2020). In the present data this may be reflected in our finding indicating that patients exposed to bullying have lower levels of resilience, which also is an explanation why the bullied display more health complaints than the other non-exposed patients.

Earlier studies has found that workplace bullying is associated with problematic levels of alcohol consumption (Nielsen et al., 2018), which may be caused by elevated negative work rumination, a mechanism found to relate to high consumption of alcohol (Frone, 2015). Our findings indicated that the

participants in this study did not have alcohol related problems although the exposed patients did score significantly higher than the non-exposed patients. It is thus not a level of concern in the current dataset, but it is still a difference that may be clinically useful to have in mind.

In accordance with previous studies the high prevalence of depression, anxiety, and subjective health complaints found for the patients exposed to bullying were considerable compared to the non-exposed patients, thus supporting our presumptions.

The exposed group evaluated their relation to work more negatively which also is in line with established consequences of workplace bullying (Nielsen and Einarsen, 2012), and may even be expected in a group exposed to such a severe stressor at their workplace. These patients, consistent with previous studies (Olsen et al., 2017), evaluate their own work ability as being low. The fact that these patients evaluate their own work ability and their ability to handle the psychological demands of their work poorer than other patients, could be part of the reason why there was almost twice as many on full-time sick leave among the patients exposed to bullying compared to the non-exposed patients. This is consistent with previous findings in both Norway (Nielsen et al., 2016) and other European countries (Niedhammer et al., 2012) where workplace bullying has been established as a major risk factor for sick leave. There were almost twice as many among the bullied patients on full-time sick leave compared to the other patients in the present study. The high proportion of bullied patients currently on full-time sick leave may indicate that sick leave is a way of coping with the adversity of the bullying limiting the contact with the bully and related adverse situations. However, the lack of difference between the patient groups when examining their sick leave over the last 12 months in the present study, may relate to other findings showing that employees exposed to bullying have higher sickness presenteeism than non-bullied employees (e.g., Hogh et al., 2011). This could be a plausible explanation for why there is not a difference in sick leave over time. They stay at work as long as possible and when they do not cope anymore, full-time sick leave is the only option. The high amount of these patients on full-time sick leave can also be reflected in their low RTW-SE scores, which measures the individuals perceived ability and confidence regarding their ability to handle expected demands when returning to work (Lagerveld et al., 2010).

Workplace bullying has consistently been associated with lowered job satisfaction (Arenas et al., 2015; Olsen et al., 2017), which is also in line with our findings. Thus, our findings support the notion that workplace bullying could be seen as a severe work stressor associated with high levels of psychological distress and reduced well-being at work. This is further exemplified by the fact that as many as 74% of the patients exposed to bullying said they preferred another job than the one they had. It is however important to note that only 5.7% of these patients preferred to not work at all. In comparison about half of the non-exposed patients preferred another job and the other half preferred to stay in their current job. All in all, this may indicate that the problems of these patients are actually rooted

in their job situation more than what is typical for other patients presenting with CMD.

Implications

The results from the present study highlights the role of workplace bullying in patients seeking treatment for mental disorders and who are at risk of exclusion from working life. First of all, many patients seeking mental health treatment will present with an on-going or a history of victimisation from workplace bullying. It is important to note, however, that these are generally motivated to stay in working life, but do not wish to stay at their current job. They also have higher levels of mental health complaints than non-exposed patients. Thus, it could be of value to identify patients exposed to bullying in outpatient clinics addressing these differences in the treatment. If not addressed there is a risk of sick leave for these patients and subsequently a risk of expulsion from the workplace and potentially working life itself. It seems to be central to both identify those that have been exposed to bullying among those that seek treatment for CMD, and also develop good procedures for altering their employment. Furthermore, when considering that as many as one out of four individuals on sick leave or at risk due to CMD seeking treatment are exposed to bullying, and that these individuals seem to have more severe symptoms and almost twice as many are on full-time sick leave when compared to the other patients, suggests that bullying can become a substantial cost for employers, and the society at large. It should therefore be a focus on implementing intervention programmes in organisations as a preventive measure for workplace bullying.

Strengths and Limitations

Some important strengths and limitations of the study must be addressed. In this respect it is worth mentioning that the study is compiled of a large number of well-established and psychometrically sound instruments. Furthermore, to measure mental health related complaints in this study we used a well-known clinical interview and frequently used self-report questionnaire to assess levels of symptoms (MINI, BDI-II, BAI, and SHC). Additionally, to measure the prevalence of exposure to workplace bullying we used both self-labelling as a victim of workplace bullying and self-report of exposure to bullying, in line with recent recommendations (Nielsen et al., 2020). However, it should be mentioned that self-reported measures are not considered to be as reliable as objective measures. Nevertheless, most studies investigating workplace bullying examines perceived exposure to bullying as one might argue that workplace bullying is a concept that is subjective in its very nature.

Due to multiple comparisons on a large number of outcome variables the results from the analyses comparing patients exposed to bullying and non-exposed patients should be interpreted with some caution. However, most of the differences in our results had a significance level of $p < 0.01$. Another possible limitation is the studies cross-sectional design, which does not account for causal relationships between the study variables. In addition, only one clinic was included in the study, which may limit the generalisability of the study results to outpatient clinics at large.

CONCLUSION

The results from the present study provide an important insight into a vulnerable group of patients who are at risk of losing their foothold in working life. While being exposed to bullying at the workplace may result in poor health, being exposed to this type of negative behaviours can also have severe negative consequences for the individuals work ability and job satisfaction. This study contributes to the literature by providing evidence that patients exposed to bullying seem to be overrepresented among patients with CMD and they seem to have more severe health complaints compared to other patients with CMD. This in addition to experiencing more negative work outcomes and almost twice as many being on full-time sick leave. Thus, this sheds a light on a problem that should be addressed in clinical settings to improve the treatment of these patients so to avoid potential detrimental outcomes for the individual when this issue is not addressed. Future studies should build on this by examining causal relationships and investigating if and to what extent psychological treatment have a similar curative effect on those that are exposed to bullying as compared to other patients.

DATA AVAILABILITY STATEMENT

The datasets presented in this article are not readily available because the participants have not consented to distribution of data outside the studies conducted at the clinic and its specific conditions regarding confidentiality, privacy protection and data handling approved by the Data Protection Office at Oslo University Hospital and described to the participants. Requests to access the datasets should be directed to SA, Sarah.Aarestad@uib.no.

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ETHICS STATEMENT

The studies involving human participants were reviewed and approved by The Data Protection Office at Oslo University Hospital (ref. nr.: 2015/15606). The patients/participants provided their written informed consent to participate in this study.

AUTHOR CONTRIBUTIONS

SHA, AH, SVE, and OH conceived and designed the study. RGHG, KO, MH, KS, MTB, and OH were responsible for data collection. SHA analysed the data. SHA, AH, SVE, OH, and KO contributed in the interpretation of results. SHA wrote the first original draft. AH, SVE, OH, RGHG, KO, KS, MTB, and MH were involved in reviewing, and editing of the manuscript. All authors read and approved the final manuscript.

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II

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 leave³ and even for expulsion from the workplace and potentially from working life itself⁴⁻⁶. 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 time⁷. 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 frequency⁸. 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 situations⁸⁻¹⁰.

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 workplace¹¹. 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 Nielsen¹⁸, 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 exposure¹⁹.

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 population²⁰. In the Norwegian working population, CMD accounts for roughly 20% of the sick leave and one third of the disability pensions²¹. 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 work²².

One factor that have been found to be an important predictor for RTW for individuals with CMD is self-efficacy²³⁻²⁵. 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 job²⁶. 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-SE²⁸.

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 qualities³⁰; including e.g. perception of self, planned future, structured style, and social competence³¹. 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 events³². In addition, having a structured personal style has been associated with better coping when dealing with trauma³³. 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 stressors³².

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 colleagues⁴¹ 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 Einarsen⁴⁴ 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 optimism⁴⁷, 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 colleagues⁴⁴ 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

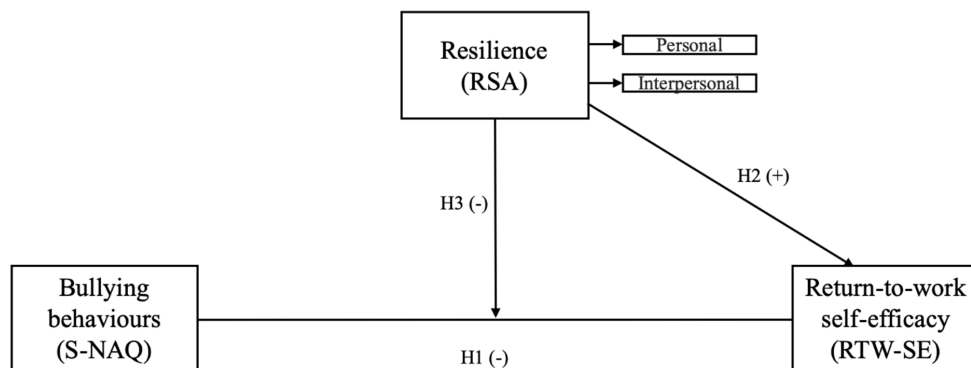


Fig. 1. Theoretical model showing the proposed relationships between exposure to bullying behaviours (S-NAQ) and return to work self-efficacy (RTW-SE), and resilience and RTW-SE. As well as, the proposed reversed buffering effect of resilience on the bullying-RTW-SE relationship.

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-10⁴⁸). 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 $\alpha=0.82$) and interpersonal resilience (13 items, Cronbach’s $\alpha=0.86$), in addition to a sum score for the total scale (33 items, Cronbach’s $\alpha=0.86$).

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 CMD²⁸. Thus, for patients working fully the questionnaire is likely to reflect an evaluation of their current work function²⁸. 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 low⁵². 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 $\alpha=0.89$).

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

The S-NAQ⁵³ 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 $\alpha=0.88$).

The Beck Depression Inventory-II (BDI-II)

BDI-II⁵⁴ 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 $\alpha=0.86$).

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 ≤ 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 $\alpha=0.90$).

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 \times 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 score⁵²). 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	<i>t</i>	R ²	ΔR^2	β	SE	<i>t</i>	R ²	ΔR^2	β	SE	<i>t</i>	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.
 * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

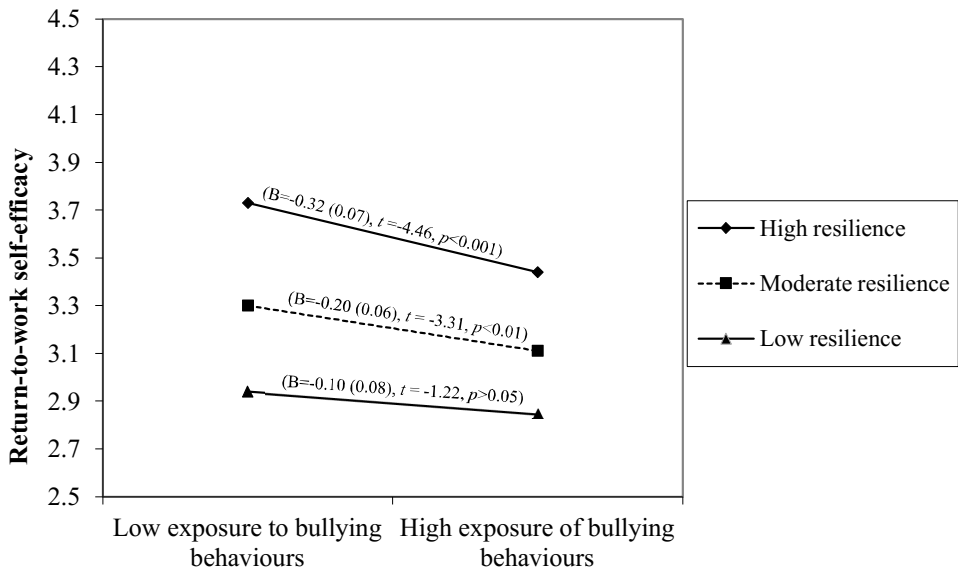


Fig. 2. Personal resilience as a moderator in the bullying-return to work self-efficacy relationship (N=645). The variables were mean centred prior to analysis.

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 colleagues⁵⁹ 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 sensitively⁶¹).

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 situations³⁰). 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 colleagues⁴⁶ 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 studies⁴⁴⁻⁴⁷), 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 model⁶⁴). 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 affect⁶⁵). 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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Healing the wounds of workplace bullying: evaluating mental health and workplace participation among victims seeking treatment for common mental disorders

(Language: British English)

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Abstract

Background: Victims of workplace bullying represent a group characterised by severe negative health complaints at risk of losing their foothold in working life. To date, very few studies have investigated the effect of psychological treatment of the health-related problems often facing victims of bullying.

Objective: The aim was to investigate if victims of workplace bullying suffering from common mental disorders (CMD) benefit from clinical treatment for their mental health problems at an outpatient clinic treating patients using Metacognitive or Cognitive Behavioural Therapy with work-focus. Criteria were symptom reduction and change in workplace participation. Comparisons were made between the victims of workplace bullying with CMD, a wait-list control group consisting of patients who had also been exposed to bullying yet now awaiting treatment, and other patients not exposed to bullying.

Methods: The sample comprised of 405 patients from an outpatient clinic in Norway. The study used a naturalistic observational design and data was collected pre-treatment and post-treatment.

Results: The results showed the treatment to be effective in symptom reduction for victims of bullying to a similar degree as patients otherwise not exposed to bullying. Even more, victims receiving treatment had a larger improvement compared to the wait-list control group ($p < .001$). Yet, among patients on sick leave pre-treatment, fewer victims of bullying were fully working by the end of treatment compared to the patients not exposed to workplace bullying.

Conclusion: The findings provide ground for optimism for this treatment as an efficient way of dealing with the aftermath of workplace bullying.

Keywords: Workplace bullying, work-focused therapy, common mental disorders, sick leave, return to work self-efficacy

1. Introduction

Over the last three decades, workplace bullying is firmly documented as a severe and even traumatic social stressor facing employees in all professions and industries all around the globe [1], and with devastating effects on the mental health and well-being of those targeted [2]. It comes in many forms and may be of a personal or a work-related nature. It may be verbal or non-verbal, direct or indirect. Yet, it is often of a subtle and indirect nature and often with elements of social exclusion. Workplace bullying is however mainly characterised by the systematic exposure to unwanted negative behaviour, often taking place over a prolonged period of time [3]. Bullying is generally a gradually escalating process, and the duration and intensity of these negative behaviours may therefore vary. Central in the concept is the imbalance of power involved, with the victim being in or gradually being moved into an inferior position, and consequently having difficulty in defending themselves in the actual situations [4, 5].

Hence, victims of ongoing and long-term workplace bullying represent a group characterised with severe negative health complaints, such as musculoskeletal complaints [6], common mental disorders (CMD) in the form of anxiety and depression [2, 7], and even symptoms of post-traumatic stress [8, 9]. The negative health effects may become long-lasting, and some longitudinal studies have confirmed that these negative outcomes may persist over several years [10, 11], and long after the bullying may have ceased [12].

In a recent study, we identified that almost 26% of patients seeking treatment for CMD reported to be victims of workplace bullying [13]. In Norway, where the study was conducted, studies have typically shown the prevalence of bullying in working life to be in the area of 4 to 12% depending on estimation method [14]. By comparison, patients who reported to be victims of bullying were twice as likely to be on full-time sick leave and reported significantly more severe health complaints than patients not exposed to bullying

[13]. Thus, these individuals represent a vulnerable group, in need of treatment and in danger of losing their foothold in working life [15]. Hence, the development and evaluation of possible clinical treatment procedures for the aftermath of exposure to bullying is of utmost importance [see also 16, 17]. In this regard, it is important to investigate whether they benefit from psychological therapy to the same extent as other patients with CMD. Alternatively, more specialised treatment procedures need to be developed to address this patient group [see 17, 18]. To date, very few studies have investigated the effect of psychological treatment on the health-related problems often facing victims of workplace bullying, as is the focus of the present study.

However, in Germany an inpatient clinic, dedicated to the treatment of victims of workplace bullying, was established over 20 years ago [16]. The treatment requires the patients to be admitted to the clinic for six to eight weeks and aims to reduce symptoms and help patients either secure or re-establish their work ability and their employee role [16]. The therapy offered is based on Cognitive Behavioural Therapy (CBT) and the treatment programme has been formulated in accordance with well-established, clinical concepts, and linked to findings from workplace bullying research. Thereby, creating a tailor-made therapy for this patient group. The therapy has been shown to have a good effect on this patient group in terms of helping reduce symptoms and increasing their rate of employability [16]. Thus, CBT appears to be effective for this patient group. Nevertheless, this treatment is very time consuming, expensive, and demanding, requiring a significant number of financial and clinical resources [16]. Knowledge of effective treatment programmes to be offered in outpatient clinics is therefore warranted for this patient group.

One of the most established therapies to treat CMD is CBT and is often considered best practise, when treating depression and anxiety [19, 20]. Metacognitive Therapy (MCT) is a more recent therapy, that has greatly benefited patients with CMD [21]. CBT focuses mainly

on challenging the validity and content of negative thoughts and attempts to change negative thoughts, and behavioural interventions [22, 23]. In contrast, MCT focuses on aspects of information processing based on the Self-Regulatory Executive Function (S-REF) model [24, 25]. This model postulates that for patients' metacognitions form the basis of a cognitive attentional syndrome (CAS) which involve thought processes like rumination, worry, threat monitoring as well as maladaptive coping strategies. Challenging the metacognitions and the CAS is the basis for change in MCT [21]. Both CBT and MCT have been proven to be effective when treating CMD, however, some comparative studies have indicated that MCT might be superior to CBT [26].

Although CBT has shown effects on symptom reduction, there have been mixed results when examining whether reduction of symptoms alone, can in turn, reduce the duration of sick leave [e.g., 27, 28]. When combining standard CBT and a work-focused component, several studies have found that this treatment appears to reduce sick leave for patients with CMD more efficiently than CBT alone [29, 30]. These findings have been supported by several meta-analyses, indicating that CBT with a work-focus can help reduce symptoms and the duration of patients' sick leave [e.g., 31]. Similar results have also been found in a study by Gjengedal et al. [32], with a similar patient population as the present study, when combining a work-focused component with MCT and CBT. The results indicated that the treatment was effective in terms of both symptom reduction and return to work among patients with CMD [32]. However, it is still unknown whether this treatment will be as effective for patients with CMD and a history of workplace bullying, as the mental health problems they are experiencing may be both an outcome of their work and a hinderance in holding onto an employee role. Thus, based on the promising results from combining MCT or CBT with a work-focus, there is a need for effectiveness studies of this approach for individuals struggling with the aftermath of workplace bullying. A vast amount of research

has documented exclusion from working life following sick leave to be a major risk for victims of bullying suffering mental health problems [e.g., 33]. Hence, treatment should also focus on this aspect. By focusing on the return to work process in combination with therapy for CMD, it is possible to enhance not only symptom recovery, but also functional recovery by increasing the patients self-efficacy [34]. Return to work self-efficacy (RTW-SE) has become a valuable concept in the return to work research and refers to the individuals' confidence in their own ability to function well at work, despite suffering from CMD [35]. The concept has been found to be a robust predictor of the capability to return to work among individuals with CMD [29, 36], with results suggesting that it can predict a full return to work at follow up three, six, and 12-months post-treatment [37]. In a recent study on a similar patient population to the present study, we found that patients exposed to workplace bullying pre-treatment had significantly lower RTW-SE scores, compared to patients who were not bullied [13].

Considering this and the detrimental effects resulting from the aftermath of workplace bullying, it is likely that victims of bullying will require treatment to help reduce the severe health problems they are experiencing including building a stronger RTW-SE to secure a firm foothold in working life. It is also worth noting that there is little known about age and gender differences in who seeks mental health care services among victims of workplace bullying. It is however well documented in the research literature that women are more likely than men to seek mental health care services in the general population [38-40], but it is less clear when it comes to age differences [39-41].

In the present study we investigate the effects of a MCT or CBT with a work-focus in terms of symptoms reduction and the patients' belief in their ability to return to work. In this regard a comparison was made between the victims of workplace bullying with CMD with the majority of patients who had not been exposed to bullying. Furthermore, we used a wait-

list control group consisting of patients who had also been exposed to bullying awaiting treatment. The following Research Questions (RQ) will be examined:

RQ 1a) Will victims of bullying have a decrease in depressive symptoms, symptoms of anxiety, and subjective health complaints, after MCT or CBT with work-focus, compared with a wait-list control group consisting of patients who had been exposed to bullying but were awaiting treatment? 1b) Will the victims of bullying have a similar change in symptoms as the patients not exposed to bullying after treatment?

RQ 2a) Will victims of bullying have an increase in RTW-SE, after MCT or CBT with work-focus, compared with a wait-list control group consisting of patients who had been exposed to bullying but were awaiting treatment? 2b) Will the victims of bullying have a similar change in RTW-SE as the patients not exposed to bullying after treatment?

In addition, we will investigate the effect of the treatment among the patients that were on sick leave during the intake process pre-treatment to see if there is a difference between the victims of bullying and patients not exposed to bullying regarding actual return to work. The following RQ will be examined:

RQ 3) Will MCT or CBT with work-focus be as effective among victims of bullying in respect to actual return to work after sick leave compared with patients not exposed to bullying?

2. Material and Methods

2.1 Participants

The sample consisted of 423 patients with all data obtained between May 2017 and June 2020 from a mental health outpatient clinic at Diakonhjemmet Hospital in Oslo, Norway. Out of the 423 patients 405 patients had completed the Short Negative Acts Questionnaire which was a requirement for being included in the analyses. The data used originated from a naturalistic observational study in the project “The Norwegian studies of psychological

treatments and work (NOR-WORK)” at the aforementioned clinic. The patients included, had been referred to the clinic by their general practitioner (GP) due to depression and/or anxiety disorders, and were all either on sick leave or at risk of sick leave, as determined by their GP. All patients were over the age of 18. Patients presenting with severe mental disorders (e.g., schizophrenia or bipolar), substance abuse or a high risk of suicide were not included and were instead referred to more appropriate treatment better suited to their needs.

2.2 Intervention

Participants received either MCT or CBT, both integrated with work-focused interventions. In doing so it was essential that work-related issues were addressed in the assessment and that the patient’s workplace was used actively through the course of treatment. This was accomplished by integrating work-related aspects and issues into the standard treatment content for MCT or CBT, thereby assuring that work-focused interventions were implemented in every treatment session. The treatment manuals were not designed to address bullying explicitly. Patients victimised by bullying received the same treatment procedure as all the included patients, however the work-interventions were flexibly tailored to each person. In this model it is central that treatment starts with a workplace analysis including an assessment of both benefits and problems of the patient’s workplace. If work related risk factors such as bullying were identified a permanent job change may be an important goal during treatment [42].

The patient’s work situation and their assumptions regarding sick leave, their own health, and work were examined in collaboration with the therapist, and the patients were provided with psychoeducation about mental health and work. A return to work plan was drafted and communicated to the patient’s GP, facilitating a gradual return or a job change over the course of the treatment. Further, barriers for return to work and the need for adjustments at work were explored. As many patients might fear that going back to work might worsen their

health condition this was meant to help enhance self-efficacy for the patient and to help them cope with setbacks that may arise during the return to work process. The patients were also encouraged to use their own workplace, or to roleplay work-related scenarios, to implement what they had learned during the intervention. Together with the therapist they reflected on what could be appropriate job-related context that have high feasibility and were relevant to the goals set during therapy. Examples may be related to worrying about work related situations. Some patients may worry about asking a question in a meeting, eating lunch with their colleagues or other kinds of situations. In MCT it is the worry process that maintains the disorder, not the situation in itself. The task would then be to postpone worries related to such a situation until after the work-related situation has taken place. Not engaging with the anticipatory worry process will change how the patient relates to their thinking process and thus break the mental strategy that maintains the disorder. The therapist encouraged patients to establish dialogue with the workplace by generating an information strategy. The therapist did not as part of the work-interventions have regular communication with the employer.

The therapists in the study were trained at addressing workplace issues. They received regular supervision in applying work interventions in parallel with MCT and CBT protocols. The supervision was conducted weekly in teams where psychologists specialised in work and rehabilitation secured a work-related focus. The treatment integrity was however not recorded as this study was a naturalistic observational study. Therapists were free to integrate the work interventions according to the patient's work situation and needs. For a more detailed explanation of the intervention please see Gjengedal et al. [32].

2.3 Procedure

The patients in the study completed the same set of questionnaires pre-treatment (during intake and before first session) and post-treatment. Prior to the statistical analyses, the patients were categorised into two groups: patients who reported being victims of bullying and

patients not exposed to workplace bullying. Patients categorised as victims of bullying, attended a mean of 10.8 sessions, while the patients not exposed to bullying attended a mean of 10.0 sessions. The victims of bullying were further divided into two groups, a treatment group and a wait-list control group. This to compare the changes during the treatment period in the treatment group to the changes during the waiting period in the wait-list control group. The treatment group had a delay 0-30 days after the intake assessment before their first treatment session, while the wait-list control group had waited for ≥ 60 days before receiving treatment. The reasoning behind using 60 days as a cut-off, was due to 10 sessions of therapy could be delivered within 60 days. The waiting time in the treatment group was, on average, 20 days from assessment to start of treatment, while the waiting time for the wait-list control group was 80 days on average. As this study constituted a naturalistic study design, a waiting time of 30 or less days from the intake assessment session to the start of treatment could be considered minimal or no delay.

2.4 Instruments

Background variables (age, gender, marital status, education, workplace participation, and psychiatric disorders), in addition to a range of standardised instruments were completed pre-treatment (during intake and before first session) and post-treatment.

2.4.1 Workplace Bullying

Exposure to workplace bullying was measured with the Short version of the Negative Acts Questionnaire (S-NAQ) [43]. This scale comprises nine items including typical negative acts experienced by victims of workplace bullying. These negative acts include acts of a work-related (e.g., “repeated reminders of errors or mistakes”) or a personal-related nature (e.g., “being ignored or excluded”) and were scored from 1 (*never*) to 5 (*daily*) based on the last six months that the individual had been at work. The cut-off values for the S-NAQ (sum scores ranging from 9-45) were calculated based on the validated cut-off values for the

Negative-Acts Questionnaire-Revised (NAQ-R) [44, 45]. The number of items in the NAQ-R were divided with itself and then multiplied by the number of items included in the S-NAQ. The patients were then categorised into two groups; victims of workplace bullying (S-NAQ score of ≥ 14) and patients not exposed to workplace bullying (S-NAQ score of ≤ 13). The scale showed satisfactory reliability in the form of internal stability (Cronbach's $\alpha = .87$).

2.4.2 Health

Depressive symptoms were self-reported using the Beck Depression Inventory – II (BDI-II) [46]. This is a scale comprising of 21 self-report items to measure various affective and cognitive symptoms (e.g., sadness, tiredness or fatigue) experienced by the patients over the last 14 days and scored on a scale from 0 to 3. The scale showed satisfactory reliability in the form of internal stability (Cronbach's $\alpha = .86$).

Symptoms of anxiety were measured with the Beck Anxiety Inventory (BAI) [47]. This scale comprises 21 items, using self-report to measure various symptoms of anxiety (e.g., nervousness, heart racing), experienced by the patients over the last seven days and was scored on a scale from 0 to 3. The scale showed satisfactory reliability in the form of internal stability (Cronbach's $\alpha = .90$).

Subjective somatic and psychological complaints, experienced over the last 30 days, were measured using the Subjective Health Complaints inventory (SHC) [48]. The inventory is a self-report measure comprising 29 items, with each item describing various common health complaints (e.g., headache) for the patients to score from 0 (no complaints) to 3 (serious complaints). The scale showed satisfactory reliability in the form of internal stability (Cronbach's $\alpha = .83$).

The Mini-International Neuropsychiatric interview (MINI) [49] is a structured diagnostic interview based on “yes/no” answers. It was used to assess psychiatric disorders based on criteria from DSM-IV [50] and ICD-10 [51] for all the patients in the present study. The

MINI covers 15 axis I disorders (e.g., mood disorders, anxiety disorders, eating disorders, substance related disorders, and psychotic disorders) and 1 axis II disorder (antisocial personality disorders). For the present study the Norwegian version of MINI 6.0.0 was used [52].

2.4.3 Workplace Participation and Return to Work

The validate Norwegian version [37] of the Return to Work Self-Efficacy scale (RTW-SE) [35] was used to measure expectations and perceived ability to function well at work. This scale was developed to measure work-related self-efficacy among individuals suffering from CMD, either as a return to work process, or to enable the patient to evaluate their current work function if they are currently working [35]. As this scale can be used for both patients on sick leave and for patients in a working role, we did not refer to the scale as RTW-SE, so as to not cause any confusion among the patients. The scale comprises 11 items (e.g., “I will be able to set my personal boundaries at work”) scored from 1 (totally disagree) to 6 (totally agree). A higher score would indicate the patient having a higher level of self-efficacy. The scale showed satisfactory reliability in the form of internal stability (Cronbach’s $\alpha = .89$).

Workplace participation was measured using a single self-report item, dividing the patients into “work with no benefits”, “combined work and sick leave”, and “full-time sick leave”.

2.5 Statistical Analysis

Statistical analyses were conducted using SPSS version 25.0 [53]. ANCOVAs were used to compare the change in symptoms with regard to depressive symptoms (BDI-II), symptoms of anxiety (BAI), subjective health complaints (SHC), and return to work self-efficacy (RTW-SE) between the victims in the treatment group (delay of 0-30 days before their first treatment session) and the wait-list control group (delay of ≥ 60 days), controlling for baseline scores on the respective scales, age, and gender. Paired sample *t*-tests were used to compare pre- and

post-scores within both groups. The same analyses were repeated to compare changes between victims of bullying and the patients not exposed to bullying.

A Fisher's exact test, using categorical variables, were used to measure change in workplace participation among the patients that were either on full sick leave or combined work and sick leave pre-treatment by comparing how many were fully working post-treatment among the victims of bullying and the patients not exposed to bullying.

To correct for missing values, total scores were calculated for S-NAQ, BDI-II, BAI, SHC, and RTW-SE where we allowed for up to 30% missing. The number of patients in each group might vary slightly in the different analyses, due to missing on single items needed to calculate the sum score on the different instruments.

2.6 Ethical considerations

The present 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). Patients provided written informed consent.

3. Results

3.1 Background

The sample consisted of 71.9% women ($n = 304$) and a mean age of 37.6 years ($SD = 10.6$; age ranging from 18 to 65 years). As many as 27.9% of the patients was classified as victims of bullying based on the scores on the S-NAQ. The most common diagnosis among the victims of bullying were major depressive disorder and generalised anxiety disorder (see Table 1 for patient characteristics).

[Insert Table 1 about here]

3.2 Treatment group compared to a wait-list control group among the victims

Paired-sample *t*-tests showed significant improvements in the treatment group for BDI-II, BAI, and SHC, and significant improvements in the wait-list control group for BDI-II and BAI. However, the observed improvement from intake to the first treatment session for the victims in the wait-list control group were minimal and of no clinical relevance. Results from ANCOVA analyses showed a significant difference between baseline and follow-up scores between the victims in the treatment group and the wait-list control group for BDI-II, BAI, and SHC, controlling for baseline scores on the respective scales, age, and gender, indicating that the victims in the treatment group had a significant larger decline in scores for all the three health outcomes, compared to the wait-list control group (Table 2; Figure 1). The covariates age and gender did not have a significant effect on any of the outcomes (BDI-II, BAI, and SHC).

Paired-sample *t*-tests showed significant improvement in RTW-SE scores in the treatment group, but not the wait-list control group. Results from the ANCOVA analysis showed a significant difference between baseline and follow-up scores between the victims in the treatment group and the wait-list control group, controlling for baseline, age, and gender, with the treatment group having a significant improvement in RTW-SE scores. The covariates age and gender did not have a significant effect on RTW-SE.

[Insert Table 2 and Figure 1 about here]

3.3 Victims of bullying compared to patients not exposed to workplace bullying

Paired sample *t*-tests showed that patients in both groups, achieved significant improvements in their BDI-II, BAI, and SHC scores from pre- to post-treatment. Results from ANCOVA analyses showed that there were no significant differences between pre- and post-treatment scores between the victims of bullying compared to the patients not exposed to

bullying for BDI-II, BAI, and SHC, controlling for baseline scores on the respective scales, age, and gender (Table 3; Figure 2). Thus, the treatment did not seem to affect the two groups differently as both benefitted equally. The covariates age and gender did not have a significant effect on any of the outcomes (BDI-II, BAI, and SHC).

Paired-sample *t*-tests showed significant improvement in RTW-SE scores from pre- to post-treatment in both groups (Table 3; Figure 2). Results from the ANCOVA analysis showed that there was no significant difference between pre- and post-treatment scores between the victims of bullying compared to the patients not exposed to bullying for RTW-SE, controlling for baseline, age, and gender. Gender did not have a significant effect on RTW-SE, while age was borderline ($p = .05$). A secondary analysis showed that there was a significant interaction effect between S-NAQ and age on RTW-SE ($F(1, 388) = 5.74, p < .05, \eta_p^2 = .02$). The results indicated that victims of bullying with a higher age reported a smaller change in RTW-SE scores from pre- to post-treatment compared to patients with a higher age who were not victims of bullying, while younger patients had the same change in RTW-SE scores regardless of being a victim of workplace bullying or not. Thus, suggesting that among victims of bullying, younger patients had a higher belief in their own ability to return to work after treatment than older patients.

[Insert Table 3 and Figure 2 about here]

3.4 Change in workplace participation

Among the patients that were either on full or combined sick leave pre-treatment, Fisher exact test revealed that there were significantly fewer patients that were fully working after treatment among the victims of bullying (45.7%, $n=21$) compared to the patients not exposed to bullying (66.0%, $n=66$), $X^2(1) = 4.61, p < .05, \phi = -.19$.

4. Discussion

Testing clinical treatment procedures for the mental health problems victims of workplace bullying tend to suffer from, and securing their safe return to work, is of utmost importance. The results of this study showed MCT or CBT with a work-related focus to be an effective treatment procedure when it comes to symptom reduction and facilitating return to work for victims of bullying. The victims of bullying showed a large improvement in depressive symptoms, symptom of anxiety, and subjective health complaints compared to the wait-list control group, with the wait-list control group still having high scores at the end of the waiting period. The same could be seen for RTW-SE with the victims in the treatment group showing large improvements compared to the wait-list control group showing little to no improvement. This indicates that the detrimental effects following workplace bullying do not disappear without treatment. The treatment did not seem to affect the victims of bullying differently from the patients not exposed to bullying. Furthermore, among the patients that were on sick leave pre-treatment, there were significantly fewer that were fully working post-treatment among the victims of bullying compared to the patients not exposed to bullying.

The symptom reduction found in this study is similar to findings reported by Schwickerath and Zapf [16], who also found a significant reduction in health symptoms, depressive moods, and psychosomatic complaints after treatment. Yet in the present study we were able to find this with far less use of resources by treating the patients in an outpatient clinic with an average of 10.8 sessions compared to being admitted for six to eight weeks for inpatient care. The results are in line with previous research showing a strong association between workplace bullying and both psychological and physiological health complaints [e.g., 7, 13]. In this respect it is noteworthy that patients who are victims of workplace bullying reported more mental health problems than the other patients not exposed to bullying in the present study sample. Several studies have also indicated that mental health complaints,

caused by workplace bullying, could withstand for years, even after the bullying have subsided [10]. This further highlights the importance of low-cost effective treatment programmes for this patient group.

The MCT or CBT with work-focus also showed a good effect on the victims' beliefs in their ability to return to work, when measured with the RTW-SE scale. Recent findings have indicated that having an RTW-SE score below 3.7 was associated with no return to work, a score between 3.7 and 4.6 was associated with partial return, and scoring above 4.6 was associated with a full return to work [37]. Our results indicated that the victims in the treatment group went from a score associated with no return to work (2.96) to a score associated with partial return to work (4.31) post-treatment, while the victims in the wait-list control group did not improve from a score associated with no return to work (2.95) during the waiting period (3.11). Thus, emphasising the great risk of exclusion from work and working life suffered by victims of workplace bullying not receiving proper treatment [15, 33]. Although there was no significant difference in the change in RTW-SE between the victims of workplace bullying and the patients not exposed to bullying, there was a significant interaction effect between workplace bullying and age. The results suggested that younger patients had a higher belief in their own ability to return to work after treatment regardless of being a victim of workplace bullying or not, while the older patients had a smaller improvement when being a victim of bullying. As it is often not an option for victims of bullying to return to their previous workplace many change their workplace to escape the situation [15]. However, it might be more challenging to find a new workplace for older workers [54], which could be a possible explanation for our findings. Nevertheless, it should be noted that these findings are based on secondary analysis and further studies are needed.

Among the patients on either full or combined sick leave pre-treatment, there were a significantly lower percentage among the victims of bullying fully working post-treatment

(45.7%) compared to the patients not exposed to bullying (66.0%). These results indicate that the victims of bullying improve during treatment, but not quite as well as those not exposed to bullying. Hence, treatment for mental health problems seem to be relatively easier to accomplish than actual return to work for this group.

A possible explanation for these results could be that the victims of bullying might be in need of more work-focus than the average patient in such clinics, and some may need a tailored component to their treatment plan to feel able to and to achieve actual return to work, perhaps addressing the actual bullying scenario to a greater extent or focusing even more on a change of workplace. The few studies that exist examining treatment of victims of workplace bullying have suggested that those who changed workplaces, thus not confronted with the bullies anymore, seemed to be the ones that benefited the most from treatment [16]. Thereby suggesting that even if the treatment is able to reduce symptoms significantly, it does not necessarily help if the patient is returning to the same untreated work situation. Alternatively, the present treatment procedure may have to be complemented with actual interventions at the workplace, e.g., in a collaboration with the employer and/or the organisations occupational health service. The treatment could potentially benefit from being combined with individual job support in line with the “Individual Placement and Support model” (IPS) since patients with bullying experience often needs support to identify a new appropriate job situation. However, changing workplace is often a long-lasting process which underscores the need for future studies with a long follow-up time.

4.1 Implications

Given the detrimental effects associated with workplace bullying, and the lack of research on this topic, the results from the present study provide novel findings indicating that MCT or CBT with work-focus can be an efficient treatment option for this patient group. The results showed symptom reduction that were close to the same level as other patients with CMD not

exposed to bullying, but if left untreated the symptoms will remain high. While the treatment also showed effective results regarding full return to work among patients on sick leave at baseline, the results were not quite as good as for the non-exposed patients. The results from the present study highlights that it might be of value for clinicians to try to identify patients exposed to workplace bullying early on in therapy, for example through the use of questionnaires. This to identify if it is an option for the patient to successfully return to their current working situation, or if the situation has reached a point where there is no chance of new beginnings and the aim should be returning to a new workplace as previously suggested by Schwickerath [55]. Thus, it is important to map this situation early on in the treatment process so this can be integrated and worked with through the whole return to work process.

Another implication of the present study is that the targets of bullying will benefit from a treatment procedure of approximately 10 sessions, even if it is not tailor-made to this group. This treatment requires less time and resources as compared to an inpatient clinic and will be a cost saving option, not at least compared to the societal cost if this group is left untreated with a high risk of them losing their foothold in working life completely.

4.2 Strengths and limitations

Some of the main strengths with the present study were the large sample size and its design where we were able to compare the effect of treatment for the patients that were victims of workplace bullying both to a similar group of patients not exposed to bullying and to a wait-list control group consisting of bullied patients awaiting treatment. Furthermore, the present study was implemented in a naturalistic health care setting, providing high ecological validity. Furthermore, to measure mental health related complaints we used a well-known clinical interview and frequently used self-report questionnaire to assess levels of symptoms (MINI, BDI-II, BAI, and SHC) and to assess victimisation from bullying (S-NAQ).

However, even though the study is implemented in a naturalistic health care setting the lack of a randomised control trial (RCT) design can still be seen as a limitation with the study, as RCT is regarded the gold standard for evaluating the effectiveness of interventions. Another possible limitation is the lack of information regarding the degree that the therapists adhere to the treatment protocols. Hence, we are not able to assess how frequently different components of the work-focused intervention was implemented during the course of treatment.

Further, workplace participation was measured using a single self-report item and could not control for if the patients changed job or had intention of changing jobs during the course of treatment, which is something that in particular may be important for the victim group. It is also worth noting that due to a large number of comparisons with a number of different outcome variables, the analyses should be interpreted with caution.

4.3 Conclusion

The present study provides support for the effectiveness of MCT or CBT with work-focus when treating patients exposed to workplace bullying and is one of very few studies to investigate the treatment of the mental health aftermath of workplace bullying. These findings provide grounds for optimism for MCT or CBT with work-focus as an efficient way of treating the detrimental effects following being victimised by workplace bullying. The results indicate that such a treatment protocol is effective in reducing symptoms and increasing the victims of bullying belief in their ability to being able to return to or hold on to work and increasing their workplace participation. The treatment increased RTW-SE among the victims of workplace bullying. Additionally, return to work among bullied patients on sick leave were increased, although not quite as efficiently as for patients not exposed to workplace bullying. There is little knowledge about the long-term effect of this treatment for patients that have experienced bullying. Thus, future studies should investigate this further to see if these effects

can withstand over time, and if maybe this patient group needs longer treatment in order to return to work to the same degree as patients not exposed to bullying. Future studies should also try to implement a component to the treatment targeting return to work explicitly among the bullied patients.

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Availability of data materials

The dataset from the present study is not available for public achieving or sharing. This because the participants have not consented to distribution of data outside the studies conducted at the clinic and its specific conditions regarding confidentiality, privacy protection and data handling approved by the Data Protection Office at Oslo University Hospital and described to the participants.

Conflict of Interest

The authors declare that they have no competing interests.

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Table 1. Patient characteristics for both groups at baseline.

	Victims of bullying (<i>n</i> = 118)				Not bullied (<i>n</i> = 287)			
	%	(n)	Mean	SD	%	(n)	Mean	SD
Age			39.8	10.9			36.5	10.2
Gender								
Female	66.1	(78)			75.6	(217)		
Marital status								
Living with partner	64.4	(76)			56.8	(163)		
Education								
Primary school	0.8	(1)			1.7	(5)		
Upper secondary school	18.6	(22)			13.9	(40)		
Higher education 1-4 years	32.2	(38)			38.3	(110)		
Higher education > 4 years	46.6	(55)			44.3	(127)		
Employment status								
Work with no benefits	47.5	(56)			58.5	(168)		
Combined work and sick leave	18.6	(22)			22.0	(63)		
Full sick leave	28.8	(34)			15.3	(44)		
Diagnosis assessment (MINI)								
Major depressive disorder (on going)	72.9	(86)			58.2	(167)		
Major depressive disorder (previous)	22.0	(26)			28.9	(83)		
Major depressive disorder (reoccurring)	18.6	(22)			13.9	(40)		
Agoraphobia	14.4	(17)			9.8	(28)		
Generalized anxiety disorder	44.1	(52)			47.4	(136)		
Panic disorder	22.0	(26)			20.6	(59)		
Post-traumatic stress disorder	2.5	(3)			4.2	(12)		
Social phobia	18.6	(22)			15.7	(45)		

Table 2. Descriptive results and comparisons for the BDI-II, BAI, SHC, and RTW-SE between and within the groups (victims of bullying; treatment period in the treatment group and the waiting period in the wait-list control group).

	Baseline		Follow-up		Within groups			Between groups	
	n	Mean	SD	Mean	SD	t	Cohens d	F	η_p^2
BDI-II score								59.94***	0.47
Treatment	38	32.89	11.40	12.39	10.24	10.79***	1.75		
Wait-list control	35	29.66	7.24	26.24	9.03	3.47**	0.59		
BAI score								43.20***	0.39
Treatment	38	20.25	13.45	7.32	8.60	8.63***	1.40		
Wait-list control	35	21.34	11.57	17.90	10.28	2.78**	0.47		
SHC score								32.21***	0.33
Treatment	37	25.79	13.03	13.10	9.83	7.85***	1.29		
Wait-list control	33	24.75	7.50	24.70	12.73	0.03	0.01		
RTW-SE score								33.18***	0.33
Treatment	38	2.96	1.07	4.31	0.99	-7.01***	-1.14		
Wait-list control	34	2.95	0.88	3.11	0.98	-1.57	-0.27		

Note. BDI-II = Beck Depression Inventory-II; BAI = Beck Anxiety Inventory; SHC = Subjective health complaints; RTW-SE = Return to work self-efficacy. Between group differences measured with ANCOVA controlling for baseline scores on the respective scales, age, and gender. Within group differences measured with paired sample *t*-tests. ****p* < 0.001, ***p* < 0.01.

Table 3. Descriptive results and comparisons for the BDI-II, BAI, SHC, and RTW-SE between and within the groups (victims of bullying, and patients not exposed to bullying).

	n	Pre-treatment		Post-treatment		Within groups			Between groups	
		Mean	SD	Mean	SD	t	Cohens d	F	η_p^2	
BDI-II score										0.00
Victims of bullying	117	30.02	9.27	12.20	10.23	18.00***	1.66			
Not bullied	278	24.86	8.18	9.80	8.45	26.72***	1.60			
BAI score										0.00
Victims of bullying	117	20.98	11.67	7.57	7.68	15.30***	1.41			
Not bullied	279	17.21	9.32	6.19	5.97	22.43***	1.34			
SHC score										0.00
Victims of bullying	112	25.85	10.96	14.46	10.50	13.30***	1.26			
Not bullied	280	22.05	9.51	12.61	8.33	18.55***	1.11			
RTW-SE score										0.01
Victims of bullying	114	3.03	0.95	4.34	1.08	-11.78***	-1.10			
Not bullied	281	3.32	0.93	4.65	0.90	-21.65***	-1.29			

Note. BDI-II = Beck Depression Inventory-II; BAI = Beck Anxiety Inventory; SHC = Subjective health complaints; RTW-SE = Return to work self-efficacy. Between group differences measured with ANCOVA controlling for baseline scores on the respective scales, age, and gender. Within group differences measured with paired sample *t*-tests. **p* <0.05; ****p* <0.001.

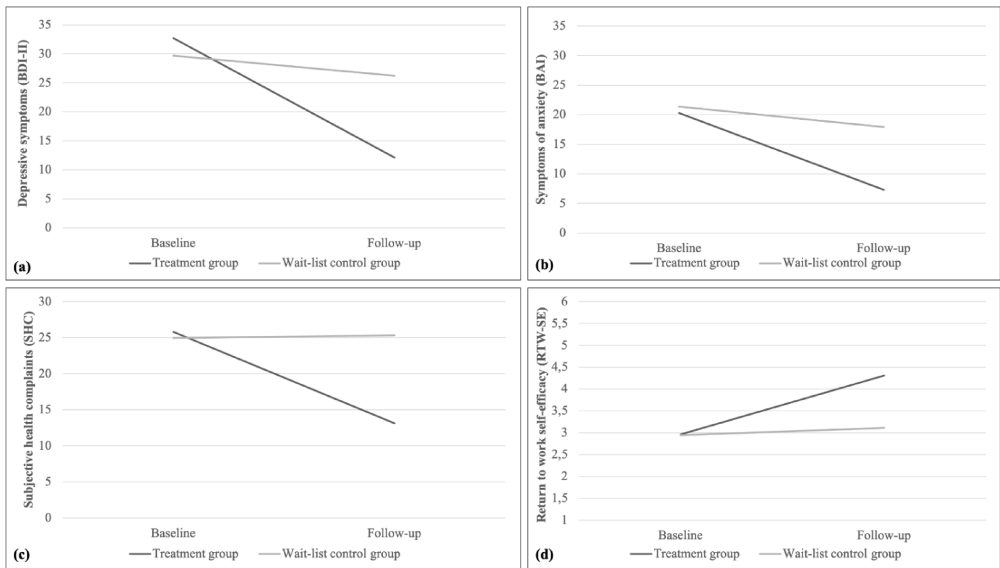


Figure 1. Differences in depressive symptoms (a), symptoms of anxiety (b), subjective health complaints (c), and return to work self-efficacy (d) from baseline to follow-up for the victims of bullying; treatment group compared to the wait-list control group.

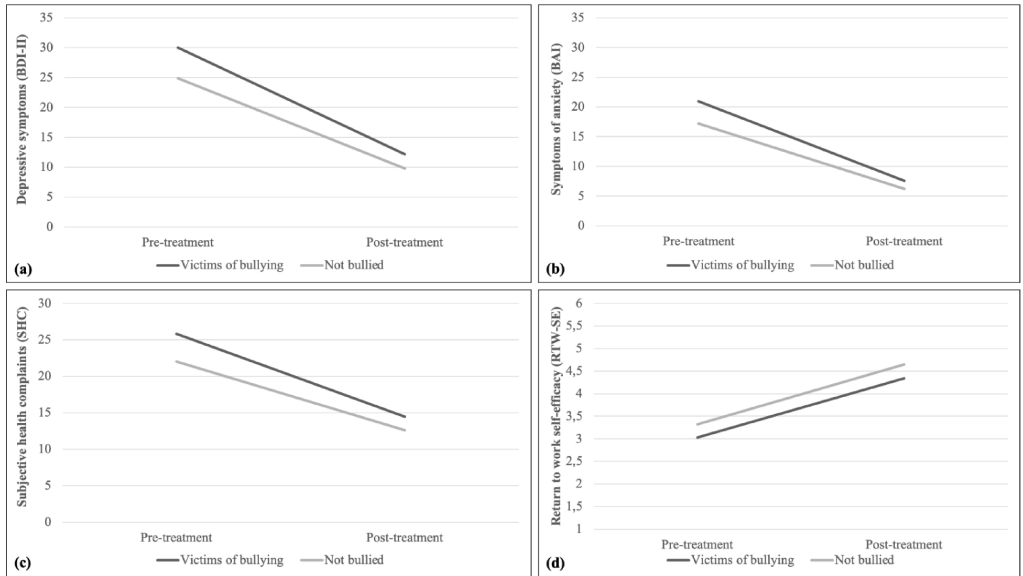


Figure 2. Differences in depressive symptoms (a), symptoms of anxiety (b), subjective health complaints (c), and return to work self-efficacy (d) from baseline to follow-up for the victims of bullying compared to the patients not exposed to bullying.

Doctoral Theses at The Faculty of Psychology,
University of Bergen

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1982	Svebak, Sven, Dr. philos.	The significance of motivation for task-induced tonic physiological changes.
1983	Myhre, Grete, Dr. philos.	The Biopsychology of behavior in captive Willow ptarmigan.
	Eide, Rolf, Dr. philos.	PSYCHOSOCIAL FACTORS AND INDICES OF HEALTH RISKS. The relationship of psychosocial conditions to subjective complaints, arterial blood pressure, serum cholesterol, serum triglycerides and urinary catecholamines in middle aged populations in Western Norway.
	Værnes, Ragnar J., Dr. philos.	Neuropsychological effects of diving.
1984	Kolstad, Arnulf, Dr. philos.	Til diskusjonen om sammenhengen mellom sosiale forhold og psykiske strukturer. En epidemiologisk undersøkelse blant barn og unge.
	Løberg, Tor, Dr. philos.	Neuropsychological assessment in alcohol dependence.
1985	Hellesnes, Tore, Dr. philos.	Læring og problemløsning. En studie av den perseptuelle analysens betydning for verbal læring.
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	Laberg, Jon C., Dr. philos.	Expectancy and classical conditioning in alcoholics' craving.
	Vollmer, Fred, Dr. philos.	Essays on explanation in psychology.
	Ellertsen, Bjørn, Dr. philos.	Migraine and tension headache: Psychophysiology, personality and therapy.
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	Havik, Odd E., Dr. philos.	After the myocardial infarction: A medical and psychological study with special emphasis on perceived illness.
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	Wold, Bente, Dr. psychol.	Lifestyles and physical activity. A theoretical and empirical analysis of socialization among children and adolescents.
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	Kraft, Pål, Dr. philos.	AIDS prevention in Norway. Empirical studies on diffusion of knowledge, public opinion, and sexual behaviour.
	Endresen, Inger M., Dr. philos.	Psychoimmunological stress markers in working life.
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1992	Dalen, Knut, Dr. philos.	Hemispheric asymmetry and the Dual-Task Paradigm: An experimental approach.
	Bø, Inge B., Dr. philos.	Ungdoms sosiale økologi. En undersøkelse av 14-16 åringers sosiale nettverk.
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	Eid, Jarle, Dr. psychol.	Early predictors of PTSD symptom reporting; The significance of contextual and individual factors.
2001 V	Skinstad, Anne Helene, Dr. philos.	Substance dependence and borderline personality disorders.
	Binder, Per-Einar, Dr. psychol.	Individet og den meningsbærende andre. En teoretisk undersøkelse av de mellommenneskelige forutsetningene for psykisk liv og utvikling med utgangspunkt i Donald Winnicotts teori.
	Roald, Ingvild K., Dr. philos.	Building of concepts. A study of Physics concepts of Norwegian deaf students.
H	Fekadu, Zelalem W., Dr. philos.	Predicting contraceptive use and intention among a sample of adolescent girls. An application of the theory of planned behaviour in Ethiopian context.
	Melesse, Fantu, Dr. philos.	The more intelligent and sensitive child (MISC) mediational intervention in an Ethiopian context: An evaluation study.
	Råheim, Målfrid, Dr. philos.	Kvinnerens kroppserfaring og livssammenheng. En fenomenologisk – hermeneutisk studie av friske kvinner og kvinner med kroniske muskelsmerter.
	Engelsen, Birthe Kari, Dr. psychol.	Measurement of the eating problem construct.
	Lau, Bjørn, Dr. philos.	Weight and eating concerns in adolescence.
2002 V	Ihlebak, Camilla, Dr. philos.	Epidemiological studies of subjective health complaints.
	Rosén, Gunnar O. R., Dr. philos.	The phantom limb experience. Models for understanding and treatment of pain with hypnosis.

	Høines, Marit Johnsen, Dr. philos.	Fleksible språkrom. Matematikk læring som tekstutvikling.
	Anthun, Roald Andor, Dr. philos.	School psychology service quality. Consumer appraisal, quality dimensions, and collaborative improvement potential
	Pallesen, Ståle, Dr. psychol.	Insomnia in the elderly. Epidemiology, psychological characteristics and treatment.
	Midthassel, Unni Vere, Dr. philos.	Teacher involvement in school development activity. A study of teachers in Norwegian compulsory schools
	Kallestad, Jan Helge, Dr. philos.	Teachers, schools and implementation of the Olweus Bullying Prevention Program.
H	Ofte, Sonja Helgesen, Dr. psychol.	Right-left discrimination in adults and children.
	Netland, Marit, Dr. psychol.	Exposure to political violence. The need to estimate our estimations.
	Diseth, Åge, Dr. psychol.	Approaches to learning: Validity and prediction of academic performance.
	Bjuland, Raymond, Dr. philos.	Problem solving in geometry. Reasoning processes of student teachers working in small groups: A dialogical approach.
2003 V	Arefjord, Kjersti, Dr. psychol.	After the myocardial infarction – the wives' view. Short- and long-term adjustment in wives of myocardial infarction patients.
	Ingjaldsson, Jón Þorvaldur, Dr. psychol.	Unconscious Processes and Vagal Activity in Alcohol Dependency.
	Holden, Børge, Dr. philos.	Følger av atferdsanalytiske forklaringer for atferdsanalysens tilnærming til utforming av behandling.
	Holsen, Ingrid, Dr. philos.	Depressed mood from adolescence to 'emerging adulthood'. Course and longitudinal influences of body image and parent-adolescent relationship.
	Hammar, Åsa Karin, Dr. psychol.	Major depression and cognitive dysfunction- An experimental study of the cognitive effort hypothesis.
	Sprugevica, Ieva, Dr. philos.	The impact of enabling skills on early reading acquisition.
	Gabrielsen, Egil, Dr. philos.	LESE FOR LIVET. Lesekompetansen i den norske voksenbefolkningen sett i lys av visjonen om en enhetsskole.
H	Hansen, Anita Lill, Dr. psychol.	The influence of heart rate variability in the regulation of attentional and memory processes.
	Dyregrov, Kari, Dr. philos.	The loss of child by suicide, SIDS, and accidents: Consequences, needs and provisions of help.
2004 V	Torsheim, Torbjørn, Dr. psychol.	Student role strain and subjective health complaints: Individual, contextual, and longitudinal perspectives.
	Haugland, Bente Storm Mowatt Dr. psychol.	Parental alcohol abuse. Family functioning and child adjustment.

	Milde, Anne Marita, Dr. psychol.	Ulcerative colitis and the role of stress. Animal studies of psychobiological factors in relationship to experimentally induced colitis.
	Stornes, Tor, Dr. philos.	Socio-moral behaviour in sport. An investigation of perceptions of sportspersonship in handball related to important factors of socio-moral influence.
	Mæhle, Magne, Dr. philos.	Re-inventing the child in family therapy: An investigation of the relevance and applicability of theory and research in child development for family therapy involving children.
	Kobbeltvedt, Therese, Dr. psychol.	Risk and feelings: A field approach.
2004	Thomsen, Tormod, Dr. psychol.	Localization of attention in the brain.
H	Løberg, Else-Marie, Dr. psychol.	Functional laterality and attention modulation in schizophrenia: Effects of clinical variables.
	Kyrkjebø, Jane Mikkelsen, Dr. philos.	Learning to improve: Integrating continuous quality improvement learning into nursing education.
	Laumann, Karin, Dr. psychol.	Restorative and stress-reducing effects of natural environments: Experiential, behavioural and cardiovascular indices.
	Holgersen, Helge, PhD	Mellom oss - Essay i relasjonell psykoanalyse.
2005	Hetland, Hilde, Dr. psychol.	Leading to the extraordinary? Antecedents and outcomes of transformational leadership.
V	Iversen, Anette Christine, Dr. philos.	Social differences in health behaviour: the motivational role of perceived control and coping.
2005	Mathisen, Gro Ellen, PhD	Climates for creativity and innovation: Definitions, measurement, predictors and consequences.
H	Sævi, Tone, Dr. philos.	Seeing disability pedagogically – The lived experience of disability in the pedagogical encounter.
	Wiium, Nora, PhD	Intrapersonal factors, family and school norms: combined and interactive influence on adolescent smoking behaviour.
	Kanagaratnam, Pushpa, PhD	Subjective and objective correlates of Posttraumatic Stress in immigrants/refugees exposed to political violence.
	Larsen, Torill M. B. , PhD	Evaluating principals` and teachers` implementation of Second Step. A case study of four Norwegian primary schools.
	Bancila, Delia, PhD	Psychosocial stress and distress among Romanian adolescents and adults.
2006	Hillestad, Torgeir Martin, Dr. philos.	Normalitet og avvik. Forutsetninger for et objektivt psykopatologisk avviksbegrep. En psykologisk, sosial, erkjennelsesteoretisk og teorihistorisk framstilling.
V	Nordanger, Dag Øystein, Dr. psychol.	Psychosocial discourses and responses to political violence in post-war Tigray, Ethiopia.

	Rimol, Lars Morten, PhD	Behavioral and fMRI studies of auditory laterality and speech sound processing.
	Krumsvik, Rune Johan, Dr. philos.	ICT in the school. ICT-initiated school development in lower secondary school.
	Norman, Elisabeth, Dr. psychol.	Gut feelings and unconscious thought: An exploration of fringe consciousness in implicit cognition.
	Israel, K Pravin, Dr. psychol.	Parent involvement in the mental health care of children and adolescents. Empirical studies from clinical care setting.
	Glasø, Lars, PhD	Affects and emotional regulation in leader-subordinate relationships.
	Knutsen, Ketil, Dr. philos.	HISTORIER UNGDOM LEVER – En studie av hvordan ungdommer bruker historie for å gjøre livet meningsfullt.
	Matthiesen, Stig Berge, PhD	Bullying at work. Antecedents and outcomes.
2006	Gramstad, Arne, PhD	Neuropsychological assessment of cognitive and emotional functioning in patients with epilepsy.
H	Bendixen, Mons, PhD	Antisocial behaviour in early adolescence: Methodological and substantive issues.
	Mrumbi, Khalifa Maulid, PhD	Parental illness and loss to HIV/AIDS as experienced by AIDS orphans aged between 12-17 years from Temeke District, Dar es Salaam, Tanzania: A study of the children's psychosocial health and coping responses.
	Hetland, Jørn, Dr. psychol.	The nature of subjective health complaints in adolescence: Dimensionality, stability, and psychosocial predictors
	Kakoko, Deodatus Conatus Vitalis, PhD	Voluntary HIV counselling and testing service uptake among primary school teachers in Mwanza, Tanzania: assessment of socio-demographic, psychosocial and socio-cognitive aspects
	Mykletun, Arnstein, Dr. psychol.	Mortality and work-related disability as long-term consequences of anxiety and depression: Historical cohort designs based on the HUNT-2 study
	Sivertsen, Børge, PhD	Insomnia in older adults. Consequences, assessment and treatment.
2007	Singhammer, John, Dr. philos.	Social conditions from before birth to early adulthood – the influence on health and health behaviour
V	Janvin, Carmen Ani Cristea, PhD	Cognitive impairment in patients with Parkinson's disease: profiles and implications for prognosis
	Braarud, Hanne Cecilie, Dr. psychol.	Infant regulation of distress: A longitudinal study of transactions between mothers and infants
	Tveito, Torill Helene, PhD	Sick Leave and Subjective Health Complaints
	Magnussen, Liv Heide, PhD	Returning disability pensioners with back pain to work

	Thuen, Elin Marie, Dr.philos.	Learning environment, students' coping styles and emotional and behavioural problems. A study of Norwegian secondary school students.
	Solberg, Ole Asbjørn, PhD	Peacekeeping warriors – A longitudinal study of Norwegian peacekeepers in Kosovo
2007	Søreide, Gunn Elisabeth, Dr.philos.	Narrative construction of teacher identity
H	Svensen, Erling, PhD	WORK & HEALTH. Cognitive Activation Theory of Stress applied in an organisational setting.
	Øverland, Simon Nygaard, PhD	Mental health and impairment in disability benefits. Studies applying linkages between health surveys and administrative registries.
	Eichele, Tom, PhD	Electrophysiological and Hemodynamic Correlates of Expectancy in Target Processing
	Børhaug, Kjetil, Dr.philos.	Oppseding til demokrati. Ein studie av politisk oppseding i norsk skule.
	Eikeland, Thorleif, Dr.philos.	Om å vokse opp på barnehjem og på sykehus. En undersøkelse av barnehjemsbarns opplevelser på barnehjem sammenholdt med sanatoriebarns beskrivelse av langvarige sykehusopphold – og et forsøk på forklaring.
	Wadel, Carl Cato, Dr.philos.	Medarbeidersamhandling og medarbeiderledelse i en lagbasert organisasjon
	Vinje, Hege Forbech, PhD	Thriving despite adversity: Job engagement and self-care among community nurses
	Noort, Maurits van den, PhD	Working memory capacity and foreign language acquisition
2008	Breivik, Kyrre, Dr.psychol.	The Adjustment of Children and Adolescents in Different Post-Divorce Family Structures. A Norwegian Study of Risks and Mechanisms.
V	Johnsen, Grethe E., PhD	Memory impairment in patients with posttraumatic stress disorder
	Sætrevik, Bjørn, PhD	Cognitive Control in Auditory Processing
	Carvalhosa, Susana Fonseca, PhD	Prevention of bullying in schools: an ecological model
2008	Brønnick, Kolbjørn Selvåg	Attentional dysfunction in dementia associated with Parkinson's disease.
H	Posserud, Maj-Britt Rocio	Epidemiology of autism spectrum disorders
	Haug, Ellen	Multilevel correlates of physical activity in the school setting
	Skjerve, Arvid	Assessing mild dementia – a study of brief cognitive tests.

	Kjønniksen, Lise	The association between adolescent experiences in physical activity and leisure time physical activity in adulthood: a ten year longitudinal study
	Gundersen, Hilde	The effects of alcohol and expectancy on brain function
	Omvik, Siri	Insomnia – a night and day problem
2009 V	Molde, Helge	Pathological gambling: prevalence, mechanisms and treatment outcome.
	Foss, Else	Den omsorgsfulle væremåte. En studie av voksnes væremåte i forhold til barn i barnehagen.
	Westrheim, Kariane	Education in a Political Context: A study of Knowledge Processes and Learning Sites in the PKK.
	Wehling, Eike	Cognitive and olfactory changes in aging
	Wangberg, Silje C.	Internet based interventions to support health behaviours: The role of self-efficacy.
	Nielsen, Morten B.	Methodological issues in research on workplace bullying. Operationalisations, measurements and samples.
	Sandu, Anca Larisa	MRI measures of brain volume and cortical complexity in clinical groups and during development.
	Guribye, Eugene	Refugees and mental health interventions
	Sørensen, Lin	Emotional problems in inattentive children – effects on cognitive control functions.
	Tjomsland, Hege E.	Health promotion with teachers. Evaluation of the Norwegian Network of Health Promoting Schools: Quantitative and qualitative analyses of predisposing, reinforcing and enabling conditions related to teacher participation and program sustainability.
	Helleve, Ingrid	Productive interactions in ICT supported communities of learners
2009 H	Skorpen, Aina Øye, Christine	Dagliglivet i en psykiatrisk institusjon: En analyse av miljøterapeutiske praksiser
	Andreassen, Cecilie Schou	WORKAHOLISM – Antecedents and Outcomes
	Stang, Ingun	Being in the same boat: An empowerment intervention in breast cancer self-help groups
	Sequeira, Sarah Dorothee Dos Santos	The effects of background noise on asymmetrical speech perception
	Kleiven, Jo, dr.philos.	The Lillehammer scales: Measuring common motives for vacation and leisure behavior
	Jónsdóttir, Guðrún	Dubito ergo sum? Ni jenter møter naturfaglig kunnskap.
	Hove, Oddbjørn	Mental health disorders in adults with intellectual disabilities - Methods of assessment and prevalence of mental health disorders and problem behaviour
	Wageningen, Heidi Karin van	The role of glutamate on brain function

	Bjørkvik, Jofrid	God nok? Selvaktelse og interpersonlig fungering hos pasienter innen psykisk helsevern: Forholdet til diagnoser, symptomer og behandlingsutbytte
	Andersson, Martin	A study of attention control in children and elderly using a forced-attention dichotic listening paradigm
	Almås, Aslaug Grov	Teachers in the Digital Network Society: Visions and Realities. A study of teachers' experiences with the use of ICT in teaching and learning.
	Ulvik, Marit	Lærerutdanning som danning? Tre stemmer i diskusjonen
2010	Skår, Randi	Læringsprosesser i sykepleieres profesjonsutøvelse. En studie av sykepleieres læringserfaringer.
V	Roald, Knut	Kvalitetsvurdering som organisasjonslæring mellom skole og skoleeigar
	Lunde, Linn-Heidi	Chronic pain in older adults. Consequences, assessment and treatment.
	Danielsen, Anne Grete	Perceived psychosocial support, students' self-reported academic initiative and perceived life satisfaction
	Hysing, Mari	Mental health in children with chronic illness
	Olsen, Olav Kjellevod	Are good leaders moral leaders? The relationship between effective military operational leadership and morals
	Riese, Hanne	Friendship and learning. Entrepreneurship education through mini-enterprises.
	Holthe, Asle	Evaluating the implementation of the Norwegian guidelines for healthy school meals: A case study involving three secondary schools
H	Hauge, Lars Johan	Environmental antecedents of workplace bullying: A multi-design approach
	Bjørkelo, Brita	Whistleblowing at work: Antecedents and consequences
	Reme, Silje Endresen	Common Complaints – Common Cure? Psychiatric comorbidity and predictors of treatment outcome in low back pain and irritable bowel syndrome
	Helland, Wenche Andersen	Communication difficulties in children identified with psychiatric problems
	Beneventi, Harald	Neuronal correlates of working memory in dyslexia
	Thygesen, Elin	Subjective health and coping in care-dependent old persons living at home
	Aanes, Mette Marthinussen	Poor social relationships as a threat to belongingness needs. Interpersonal stress and subjective health complaints: Mediating and moderating factors.
	Anker, Morten Gustav	Client directed outcome informed couple therapy

	Bull, Torill	Combining employment and child care: The subjective well-being of single women in Scandinavia and in Southern Europe
	Viig, Nina Grieg	Tilrettelegging for læreres deltakelse i helsefremmende arbeid. En kvalitativ og kvantitativ analyse av sammenhengen mellom organisatoriske forhold og læreres deltakelse i utvikling og implementering av Europeisk Nettverk av Helsefremmende Skoler i Norge
	Wolff, Katharina	To know or not to know? Attitudes towards receiving genetic information among patients and the general public.
	Ogden, Terje, dr.philos.	Familiebasert behandling av alvorlige atferdsproblemer blant barn og ungdom. Evaluering og implementering av evidensbaserte behandlingsprogrammer i Norge.
	Solberg, Mona Elin	Self-reported bullying and victimisation at school: Prevalence, overlap and psychosocial adjustment.
2011	Bye, Hege Høivik	Self-presentation in job interviews. Individual and cultural differences in applicant self-presentation during job interviews and hiring managers' evaluation
V	Notelaers, Guy	Workplace bullying. A risk control perspective.
	Moltu, Christian	Being a therapist in difficult therapeutic impasses. A hermeneutic phenomenological analysis of skilled psychotherapists' experiences, needs, and strategies in difficult therapies ending well.
	Myrseth, Helga	Pathological Gambling - Treatment and Personality Factors
	Schanche, Elisabeth	From self-criticism to self-compassion. An empirical investigation of hypothesized change processes in the Affect Phobia Treatment Model of short-term dynamic psychotherapy for patients with Cluster C personality disorders.
	Våpenstad, Eystein Victor, dr.philos.	Det tempererte nærvær. En teoretisk undersøkelse av psykoterapeutens subjektivitet i psykoanalyse og psykoanalytisk psykoterapi.
	Haukebø, Kristin	Cognitive, behavioral and neural correlates of dental and intra-oral injection phobia. Results from one treatment and one fMRI study of randomized, controlled design.
	Harris, Anette	Adaptation and health in extreme and isolated environments. From 78°N to 75°S.
	Bjørknes, Ragnhild	Parent Management Training-Oregon Model: intervention effects on maternal practice and child behavior in ethnic minority families
	Mamen, Asgeir	Aspects of using physical training in patients with substance dependence and additional mental distress
	Espevik, Roar	Expert teams: Do shared mental models of team members make a difference
	Haara, Frode Olav	Unveiling teachers' reasons for choosing practical activities in mathematics teaching

2011 H	Hauge, Hans Abraham	How can employee empowerment be made conducive to both employee health and organisation performance? An empirical investigation of a tailor-made approach to organisation learning in a municipal public service organisation.
	Melkevik, Ole Rogstad	Screen-based sedentary behaviours: pastimes for the poor, inactive and overweight? A cross-national survey of children and adolescents in 39 countries.
	Vøllestad, Jon	Mindfulness-based treatment for anxiety disorders. A quantitative review of the evidence, results from a randomized controlled trial, and a qualitative exploration of patient experiences.
	Tolo, Astrid	Hvordan blir lærerkompetanse konstruert? En kvalitativ studie av PPU-studenters kunnskapsutvikling.
	Saus, Evelyn-Rose	Training effectiveness: Situation awareness training in simulators
	Nordgreen, Tine	Internet-based self-help for social anxiety disorder and panic disorder. Factors associated with effect and use of self-help.
	Munkvold, Linda Helen	Oppositional Defiant Disorder: Informant discrepancies, gender differences, co-occurring mental health problems and neurocognitive function.
	Christiansen, Øivin	Når barn plasseres utenfor hjemmet: beslutninger, forløp og relasjoner. Under barnevernets (ved)tak.
	Brunborg, Geir Scott	Conditionability and Reinforcement Sensitivity in Gambling Behaviour
	Hystad, Sigurd William	Measuring Psychological Resiliency: Validation of an Adapted Norwegian Hardiness Scale
2012 V	Roness, Dag	Hvorfor bli lærer? Motivasjon for utdanning og utøving.
	Fjermestad, Krister Westlye	The therapeutic alliance in cognitive behavioural therapy for youth anxiety disorders
	Jenssen, Eirik Sørnes	Tilpasset opplæring i norsk skole: politikeres, skolelederes og læreres handlingsvalg
	Saksvik-Lehouillier, Ingvild	Shift work tolerance and adaptation to shift work among offshore workers and nurses
	Johansen, Venke Frederike	Når det intime blir offentlig. Om kvinners åpenhet om brystkreft og om markedsføring av brystkreftsaken.
	Herheim, Rune	Pupils collaborating in pairs at a computer in mathematics learning: investigating verbal communication patterns and qualities
	Vie, Tina Løkke	Cognitive appraisal, emotions and subjective health complaints among victims of workplace bullying: A stress-theoretical approach
	Jones, Lise Øen	Effects of reading skills, spelling skills and accompanying efficacy beliefs on participation in education. A study in Norwegian prisons.

2012 H	Danielsen, Yngvild Sørebo	Childhood obesity – characteristics and treatment. Psychological perspectives.
	Horverak, Jøri Gytre	Sense or sensibility in hiring processes. Interviewee and interviewer characteristics as antecedents of immigrant applicants' employment probabilities. An experimental approach.
	Jøsendal, Ola	Development and evaluation of BE smokeFREE, a school-based smoking prevention program
	Osnes, Berge	Temporal and Posterior Frontal Involvement in Auditory Speech Perception
	Drageset, Sigrunn	Psychological distress, coping and social support in the diagnostic and preoperative phase of breast cancer
	Aasland, Merethe Schanke	Destructive leadership: Conceptualization, measurement, prevalence and outcomes
	Bakibinga, Pauline	The experience of job engagement and self-care among Ugandan nurses and midwives
	Skogen, Jens Christoffer	Foetal and early origins of old age health. Linkage between birth records and the old age cohort of the Hordaland Health Study (HUSK)
	Leversen, Ingrid	Adolescents' leisure activity participation and their life satisfaction: The role of demographic characteristics and psychological processes
	Hanss, Daniel	Explaining sustainable consumption: Findings from cross-sectional and intervention approaches
Rød, Per Arne	Barn i klem mellom foreldrekonflikter og samfunnsmessig beskyttelse	
2013 V	Mentzoni, Rune Aune	Structural Characteristics in Gambling
	Knudsen, Ann Kristin	Long-term sickness absence and disability pension award as consequences of common mental disorders. Epidemiological studies using a population-based health survey and official ill health benefit registries.
	Strand, Mari	Emotional information processing in recurrent MDD
	Veseth, Marius	Recovery in bipolar disorder. A reflexive-collaborative exploration of the lived experiences of healing and growth when battling a severe mental illness
	Mæland, Silje	Sick leave for patients with severe subjective health complaints. Challenges in general practice.
	Mjaaland, Thera	At the frontiers of change? Women and girls' pursuit of education in north-western Tigray, Ethiopia
	Odéen, Magnus	Coping at work. The role of knowledge and coping expectancies in health and sick leave.
	Hynninen, Kia Minna Johanna	Anxiety, depression and sleep disturbance in chronic obstructive pulmonary disease (COPD). Associations, prevalence and effect of psychological treatment.
	Flo, Elisabeth	Sleep and health in shift working nurses

	Aasen, Elin Margrethe	From paternalism to patient participation? The older patients undergoing hemodialysis, their next of kin and the nurses: a discursive perspective on perception of patient participation in dialysis units
	Ekornås, Belinda	Emotional and Behavioural Problems in Children: Self-perception, peer relationships, and motor abilities
	Corbin, J. Hope	North-South Partnerships for Health: Key Factors for Partnership Success from the Perspective of the KIWAKKUKI
	Birkeland, Marianne Skogbrott	Development of global self-esteem: The transition from adolescence to adulthood
2013	Gianella-Malca, Camila	Challenges in Implementing the Colombian Constitutional Court's Health-Care System Ruling of 2008
H	Hovland, Anders	Panic disorder – Treatment outcomes and psychophysiological concomitants
	Mortensen, Øystein	The transition to parenthood – Couple relationships put to the test
	Årdal, Guro	Major Depressive Disorder – a Ten Year Follow-up Study. Inhibition, Information Processing and Health Related Quality of Life
	Johansen, Rino Bandlitz	The impact of military identity on performance in the Norwegian armed forces
	Bøe, Tormod	Socioeconomic Status and Mental Health in Children and Adolescents
2014	Nordmo, Ivar	Gjennom nåløyet – studenters læringserfaringer i psykologutdanningen
V	Dovran, Anders	Childhood Trauma and Mental Health Problems in Adult Life
	Hegelstad, Wenche ten Velden	Early Detection and Intervention in Psychosis: A Long-Term Perspective
	Urheim, Ragnar	Forståelse av pasientagresjon og forklaringer på nedgang i voldsrate ved Regional sikkerhetsavdeling, Sandviken sykehus
	Kinn, Liv Grethe	Round-Trips to Work. Qualitative studies of how persons with severe mental illness experience work integration.
	Rød, Anne Marie Kinn	Consequences of social defeat stress for behaviour and sleep. Short-term and long-term assessments in rats.
	Nygård, Merethe	Schizophrenia – Cognitive Function, Brain Abnormalities, and Cannabis Use
	Tjora, Tore	Smoking from adolescence through adulthood: the role of family, friends, depression and socioeconomic status. Predictors of smoking from age 13 to 30 in the "The Norwegian Longitudinal Health Behaviour Study" (NLHB)
	Vangsnes, Vigdis	The Dramaturgy and Didactics of Computer Gaming. A Study of a Medium in the Educational Context of Kindergartens.

	Nordahl, Kristin Berg	Early Father-Child Interaction in a Father-Friendly Context: Gender Differences, Child Outcomes, and Protective Factors related to Fathers' Parenting Behaviors with One-year-olds
2014	Sandvik, Asle Makoto	Psychopathy – the heterogeneity of the construct
H	Skotheim, Siv	Maternal emotional distress and early mother-infant interaction: Psychological, social and nutritional contributions
	Halleland, Helene Barone	Executive Functioning in adult Attention Deficit Hyperactivity Disorder (ADHD). From basic mechanisms to functional outcome.
	Halvorsen, Kirsti Vindal	Partnerskap i lærerutdanning, sett fra et økologisk perspektiv
	Solbue, Vibeke	Dialogen som visker ut kategorier. En studie av hvilke erfaringer innvandrerdommer og norskfødte med innvandrereforeldre har med videregående skole. Hva forteller ungdommenes erfaringer om videregående skoles håndtering av etniske ulikheter?
	Kvalevaag, Anne Lise	Fathers' mental health and child development. The predictive value of fathers' psychological distress during pregnancy for the social, emotional and behavioural development of their children
	Sandal, Ann Karin	Ungdom og utdanningsval. Om elevar sine opplevingar av val og overgangsprossessar.
	Haug, Thomas	Predictors and moderators of treatment outcome from high- and low-intensity cognitive behavioral therapy for anxiety disorders. Association between patient and process factors, and the outcome from guided self-help, stepped care, and face-to-face cognitive behavioral therapy.
	Sjølie, Hege	Experiences of Members of a Crisis Resolution Home Treatment Team. Personal history, professional role and emotional support in a CRHT team.
	Falkenberg, Liv Eggset	Neuronal underpinnings of healthy and dysfunctional cognitive control
	Mrdalj, Jelena	The early life condition. Importance for sleep, circadian rhythmicity, behaviour and response to later life challenges
	Hesjedal, Elisabeth	Tverrprofesjonelt samarbeid mellom skule og barnevern: Kva kan støtte utsette barn og unge?
2015	Hauken, May Aasebø	<i>«The cancer treatment was only half the work!»</i> A Mixed-Method Study of Rehabilitation among Young Adult Cancer Survivors
V	Ryland, Hilde Katrin	Social functioning and mental health in children: the influence of chronic illness and intellectual function
	Rønsen, Anne Kristin	Vurdering som profesjonskompetanse. Refleksjonsbasert utvikling av læreres kompetanse i formativ vurdering

	Hoff, Helge Andreas	Thinking about Symptoms of Psychopathy in Norway: Content Validation of the Comprehensive Assessment of Psychopathic Personality (CAPP) Model in a Norwegian Setting
	Schmid, Marit Therese	Executive Functioning in recurrent- and first episode Major Depressive Disorder. Longitudinal studies
	Sand, Liv	Body Image Distortion and Eating Disturbances in Children and Adolescents
	Matanda, Dennis Juma	Child physical growth and care practices in Kenya: Evidence from Demographic and Health Surveys
	Amugsi, Dickson Abanimi	Child care practices, resources for care, and nutritional outcomes in Ghana: Findings from Demographic and Health Surveys
	Jakobsen, Hilde	The good beating: Social norms supporting men's partner violence in Tanzania
	Sagoe, Dominic	Nonmedical anabolic-androgenic steroid use: Prevalence, attitudes, and social perception
	Eide, Helene Marie Kjærgård	Narrating the relationship between leadership and learning outcomes. A study of public narratives in the Norwegian educational sector.
2015	Wubs, Annegreet Gera	Intimate partner violence among adolescents in South Africa and Tanzania
H	Hjelmervik, Helene Susanne	Sex and sex-hormonal effects on brain organization of fronto-parietal networks
	Dahl, Berit Misund	The meaning of professional identity in public health nursing
	Røykenes, Kari	Testangst hos sykepleierstudenter: «Alternativ behandling»
	Bless, Josef Johann	The smartphone as a research tool in psychology. Assessment of language lateralization and training of auditory attention.
	Løvvik, Camilla Margrethe Sigvaldsen	Common mental disorders and work participation – the role of return-to-work expectations
	Lehmann, Stine	Mental Disorders in Foster Children: A Study of Prevalence, Comorbidity, and Risk Factors
	Knapstad, Marit	Psychological factors in long-term sickness absence: the role of shame and social support. Epidemiological studies based on the Health Assets Project.
2016	Kvestad, Ingrid	Biological risks and neurodevelopment in young North Indian children
V	Sælør, Knut Tore	Hinderløyper, halmstrå og hengende snører. En kvalitativ studie av håp innenfor psykisk helse- og rusfeltet.
	Mellingen, Sonja	Alkoholbruk, partilfredshet og samlivsstatus. Før, inn i, og etter svangerskapet – korrelerer eller konsekvenser?
	Thun, Eirunn	Shift work: negative consequences and protective factors

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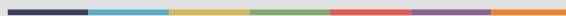
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