

Exposure to bullying behaviors at work and subsequent symptoms of anxiety: the moderating role of individual coping style

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Abstract: The aim of the present study was to investigate if bullied nurses have a more negative coping style when facing stressful events than do non-bullied nurses, and to determine if coping style moderates the well-established bullying-anxiety relationship. Cohort data were gathered in 2008/2009 and 2010 with a time lag of approximately one year for all respondents. At T1 2059 Norwegian nurses participated, whereof 1582 also responded at T2. A t-test and a hierarchical regression analysis were conducted to obtain results for the hypothesized relationships. The results show that bullied nurses use an active goal-oriented coping style less often compared to non-bullied nurses. Furthermore, active goal-oriented coping seems beneficial only when exposure to bullying behaviors is very low. This effect diminishes however as the bullying behavior intensifies. Hence, victims of bullying seem to cope more negatively with stressful events than do others. On the other hand, high exposure to bullying behaviors has negative consequences for the subsequent level of anxiety for those affected, regardless of their general coping style.

Key words: Workplace bullying, Coping, Active goal-oriented coping, Mental health, Symptoms of anxiety

Introduction

Workplace bullying is an occupational stressor shown to have particular detrimental health outcomes for those targeted^{1,2}, who are victimized by exposure to repeated and enduring negative acts in a situation where there is an actual or perceived power imbalance between the target and the perpetrator(s)^{3,4}. Stress theory predicts that when a person is exposed to such a potentially stressful situation at work he or she will first evaluate whether the situation is

threatening or not (primary appraisal) before evaluating his or her resources to deal with it (secondary appraisal)⁵. The power imbalance involved in bullying between the target and the perpetrator(s) make it difficult for targets to avoid or stop the negative acts directed towards them⁶, resulting in decreased health and well-being probably via sustained and long-term activation⁷. Although it may be difficult to withstand on-going bullying behaviors, different coping strategies used by targets have been described in the literature ranging from confronting the bully, seeking help, doing nothing, or to ignore the offender(s)^{8,9}. However, previous studies on workplace bullying and coping show equivocal results regarding preferred coping styles among targets. Also, research on how the bullying-mental health

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relationship may be affected by individual coping style is scarce. Hence, the aim of the present study is to determine if the general coping style of victims differ from that of non-victims, as suggested in earlier studies on behavioral reactions to perceived bullying⁸⁾, and whether individual coping style in any way moderates the longitudinal relationship between exposure to bullying behaviors and subsequent symptoms of anxiety, employing a prospective design with a one-year time lag between measurements.

Theoretical background

There are many ways to define coping, depending on whether it is regarded as a trait or a process. Regarding the latter Lazarus and Folkman define coping as; “constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person”^{10 p. 40).} Based on their cognitive theory of stress and coping, Lazarus and Folkman¹⁰⁾ hold that a stressor’s impact on health is dependent on the target’s cognitive appraisal of the specific situation and the evaluation of whether he or she is able to cope with the situation. They divide coping into two different forms. The first one is problem-focused coping which includes efforts to solve the problem at hand. This type of coping is commonly used when the situation may be altered. The other form of coping is emotion-focused which includes efforts to minimize negative emotions through avoiding the stressor, and is commonly used when the person appraises that nothing can be done to eliminate the stressor¹¹⁾. Hence, if a situation seems difficult to change people may choose to adapt to the stressor or to disengage from it as emotion oriented coping styles often offer the best opportunity for well-being in unchangeable situations¹²⁾. As passive and indirect behaviors are highly prevalent in bullying¹³⁾, one may therefore expect to find more passive forms of coping among targets of bullying as compared to workers in general.

Although Lazarus and Folkman’s theory¹⁰⁾ regards coping as a dynamic process that may fluctuate somewhat over time in response to changing demands and appraisals of the situation coping may also be seen as a trait or a disposition, where person-based factors underlie habitual coping efforts which are used across situations and time^{14, 15)}. This is how coping is conceptualized in the Cognitive Activation Theory of Stress (CATS)⁷⁾, where coping is defined as a positive response outcome expectancy. CATS also holds that stressors evaluated as threatening by those targeted may lead to sustained cognitive activation, often in the form of worrying ^{see also 16)}, for instance in relation to

being exposed to bullying behaviors while at work. The process of sustained cognitive activation may further lead to sustained physiological activation with impaired health as a likely result¹⁷⁾. Furthermore, this theory states that coping strategies are selected based on previous learning experiences as well as expectations of the outcome, where successful responses are generalized across time and situations. Hence, the real concern is sustained arousal occurring as a result of not having a positive outcome expectancy¹⁸⁾. If one generally has a positive outcome expectancy one will anticipate that it is possible to cope well with the situation. On the other hand, if a given situation is perceived as uncontrollable one may develop a feeling that one’s actions do not have any consequences for the outcome (helplessness) or that one’s actions will decrease the chance of a positive outcome (hopelessness). Regarding the latter, one typically does not expect any relationship between actions and the potential outcome, also referred to as no response outcome expectancy, or that one’s actions have a negative result, also referred to as a negative response outcome expectancy¹⁷⁾. Hence, according to CATS successful coping is defined as a positive outcome expectancy, which means that the person feels that he or she is able to handle the situation with a positive result (i.e. control or perceive control), regardless of the nature of the specific behavior¹⁹⁾. The inability to cope is therefore due to the failure of gaining control, which then will lead to increased stress levels²⁰⁾. From this we may expect that targets of workplace bullying may generally have a negative outcome expectancy based on a series of experiences where coping efforts have failed.

Coping style as measured by IMOC

In line with previous research within the CATS framework²¹⁾, we measure coping style using an Instrumental Mastery Oriented Coping factor (IMOC) calculated from items in the Utrecht Coping list^{22, 23)}. A high score on this factor reflects an active goal-oriented coping style, by scoring high on active problem solving in combination with low scores on passive and avoidance behaviors²²⁾. Hence, individuals with high scores are not overwhelmed by the problem or do not avoid difficult situations, but are optimistic about the future and their ability to cope with stressful situations¹⁹⁾. It has been noted that IMOC covers both instrumental behavior and a positive outcome expectation of the chosen strategy²³⁾, an essential element in the relationship between coping and health²⁰⁾. This way of measuring coping has not previously been used in the bullying literature, but a high score on an active goal-oriented

coping style, as measured by IMOC, has been shown to be associated with positive health and low numbers of sick leave episodes^{21, 24}.

Theoretically, one could argue that an active coping style is the better one in managing stressful situations, since active coping strategies, where people try to alter the situation at hand, have generally been related to good health²⁴. Hence, a goal-oriented coping style, as measured by the IMOC, may be perceived as a potential moderator on the bullying-anxiety relationship by acting as a buffer which decreases the negative effects of bullying on later symptoms of anxiety. However, as bullying is defined as a no-control situation the lack of control and power in the situation is likely to render this otherwise successful coping style impotent. This may in fact increase the anxiety level among targets with a history of successful coping with stressful situations, because situations characterized by high uncertainty and low predictability make them feel helpless¹⁷. Hence, the target's perceived probability of success is assumed to influence the level of arousal¹⁸. Targets with a passive coping style may however experience stress even under low exposure, because negative expectancies have been related to persistent negative thoughts (rumination) and increased baseline cortisol levels^{25, 26}.

Previous research on workplace bullying, coping, & health

The aforementioned theory based hypothesized relationship also has some empirical support. Even though active coping is regarded as positive when it comes to coping with stressful events, Zapf and Gross¹² claim in their study of victims of bullying that active strategies like talking to the perpetrator are unlikely to be a successful resolution to bullying situations. The results in their study indicated that under conditions of low control, the best strategy for the victims was to distance themselves from the perpetrator or leave the organization ^{see also 27}. This was supported in a study of employees in health care settings, where 18 out of 20 victims of bullying in the end decided to leave the organization, after having tried more constructive active strategies²⁸. Hence, active coping in terms of confronting the perpetrator is claimed to be rather difficult and useless when the targets lack control and power in the situation. Having a positive outcome expectancy, which in CATS is normally thought to act as a stress reducing factor, may in a no-control situation therefore increase the target's anxiety level due to a feeling of helplessness.

Previous studies have in fact indicated that the most common coping strategy by targets of bullying is passive or so-called avoidance coping. For instance, in a study

by Ólafsson and Jóhannsdóttir²⁹, conducted among store and office workers as well as bank-employees, bullying at work predicted avoidance behaviors (taking sick-leave or quitting the job) and doing nothing (ignoring the problem, or wait and hope the negative behavior stops). In a study by Djurkovic and colleagues⁸ the results also indicated that avoidance reactions were common among victims of workplace bullying. In Hogh and Dofradottir's³⁰ study of a randomized sample of adult Danish citizens, employees exposed to bullying behaviors at work reported use of active problem solving less often than did a non-exposed group. On the other hand, the exposed group reported resignation and avoidance behavior more often than those not exposed to such negative acts. According to Hogh and Dofradottir³⁰ these results reflect the person's lack of control and that he or she is caught in a unescapable situation. Similar results have been found in previous coping studies indicating that control is an important factor when it comes to coping with the situation in an efficient way³¹, with lack of control being a definitional characteristics of bullying¹³.

Even though some previous studies indicate that people exposed to bullying tend to use passive strategies, it is quite another issue to what extent different ways of coping with bullying actual help in reducing the potential negative impact of bullying on the target, e.g. in terms of reduced mental health and well-being. Previous studies have mainly focused on the moderating role of personal dispositions in the bullying-health relationship, rather than on a specific coping style as discussed in the present article. For instance, self-efficacy has been found to moderate the relationship between bullying and post-traumatic stress symptoms among nurses³², as well as the relationship between bullying and psychological health complaints in a sample of white- and blue-collar employees³³. Also, sense of coherence has been shown to act as a moderator on the bullying-health relationship among targets of bullying, but the protective benefit of this personal disposition was only noticeable in cases of low bullying exposure³⁴.

Even though previous studies have demonstrated the importance of personal dispositions as a mechanism regarding the bullying-health relationship, there is little research on how individual coping styles affect this relationship. One exception is Dehue and colleagues⁶ study among randomly assigned employees in the Netherlands, where denial, compensation, and active positive attitude, respectively, moderated the relationship between bullying and health in that denial and compensation increased the targets' health problems. In relation to the active positive attitude coping strategy, Dehue and colleagues⁶ found

that the relationship between bullying and depression was weaker among employees with low scores on active coping compared to persons with high scores on active coping. This result supports the assumption in the present study that also active coping strategies may in fact increase the level of emotional strain and ill-health because the attempt to decrease the bullying through active or confronting behaviors may be effortless and even in some cases counterproductive^{see also 35)}, hence potentially increasing the target's level of anxiety. Allen, Holland and Reynolds³⁶⁾ proposed that psychological detachment could act as a buffer on the relationship between bullying and burnout among nurses. However, their hypothesis was not supported, suggesting a need for more studies on possible moderators on the bullying-health relationship.

Aims of the present study

Previous research and stress theories have indicated that there are individual differences in how people cope with stressful events. Yet, previous studies on workplace bullying and coping show equivocal results, as coping have been assessed in a variety of ways. Based on theory and empirical evidence, we propose the hypothesis (H1) that victims of bullying will generally report a lower score on an active goal-oriented coping style (IMOC) compared to non-victims, hence tending to use a more negative coping style.

Secondly, it is well-known in the literature that bullying has a negative effect on people's mental and psychosomatic health^{1, 37–41)}, including being related to increased anxiety. In a previous study, we found that exposure to bullying behaviors at baseline predicted subsequent symptoms of anxiety one year later employing a sample of young and healthy Norwegian nurses⁴⁰⁾. The mechanisms of individual coping style as a potential moderator of the relationship between bullying and symptoms of anxiety are however not clear in the literature, although studies indicate that personal resource do not tend to buffer the individual level outcomes of bullying as one may expect from theory³⁴⁾. In the present study we will therefore test the hypothesis that coping style at T1 (as measured by IMOC) moderates the relationship between exposure to bullying behaviors at T1 and subsequent symptoms of anxiety at T2, in the sense that the prospective bullying-anxiety relationship is stronger when the target has an active goal-oriented coping style (high IMOC score) as opposed to having a more passive style (low IMOC score) (H2).

Methods

Design

The present study is based on data from the SURvey of Shift work, Sleep and Health (SUSSH) that examines the health status and work situation of members of the Norwegian Nurses Organization (NNO)^{40, 42)}. The respondents received an information letter at start explaining the purpose of the study, and a recommendation letter of the study from NNO. Questionnaires and a prepaid envelope for return were sent to all participants' home address. The respondents were informed that participation was voluntary, that they were allowed to resign from the study at any time, and had to provide informed consent in written form before being included in the study. Moreover, the study was approved by the Regional Committee for Medical and Health Research Ethics, Health Region West (REK-Vest, case number 088.08). The time lag between the first measurement in 2008/2009 (T1) and the second measurement in 2010 (T2) was approximately one year for all respondents. Identical questions on exposure to bullying behaviors and symptoms of anxiety were administered to the participants at both measurements. Questions regarding coping style were however only administered at T1.

Sample

An invitation to participate in the present study was received by 5,400 Norwegian nurses. At T1 2059 respondents participated (38.1%), of whom 1582 (76.8%) also responded at T2. For participants at T1 the mean age at baseline was 33.1 years (SD=8.17), with 1857 (90.2%) participants being females. The corresponding numbers for those participating at both T1 and T2 were 33.2 (SD=8.25) and 1430 (90.4%).

Measures

Exposure to bullying behaviors. The short version of the Negative Acts Questionnaire (NAQ-9)⁴³⁾ was used to measure exposure to bullying behaviors at work. This instrument consists of nine items measuring negative behaviors of both personal and work related nature, and acts as well as a measure of social exclusion and isolation, which may be perceived as bullying if repeated over time (e.g. spreading of gossip and rumors about you, someone withholding information which affects your performance, being ignored or excluded). Respondents were asked how often, during the last six months, they had been exposed to such negative behaviors at their workplace. Responses were scored on a 5-point scale, 1 = "Never" to 5 = "Daily". Only the T1

measure of this scale was used where the Cronbach's alpha value was .75.

The study also included a measure of self-labeled bullying where the following description of bullying was presented to the respondents; "Bullying (like harassment, torment, exclusion or hurtful teasing and insults) is a problem in some workplaces and for some workers. We would like to know how it is in your workplace. To call something bullying, the behavior must be repeated over a period of time, and the targets must have difficulty defending themselves. We are not talking about bullying if two people of equal strength are in conflict or if it only concerns a single episode". The respondents were then asked; "*Have you been subjected to bullying in the workplace during the past 6 months?*" with response alternatives: 1="No", 2="Occasionally", 3="Now and then", 4="Weekly", 5="Several times a week"^{3, 44}. Subjects endorsing alternatives 2 to 5 were regarded as victims of bullying. Both the T1 and the T2 measures of this scale were used in the present study.

Symptoms of anxiety. The anxiety subscale of the Hospital Anxiety and Depression Scale (HADS-A)⁴⁵ was used to measure symptoms of anxiety. This scale is a self-report instrument measuring non-vegetative symptoms of anxiety (7 items), e.g.; "*I can sit at ease and feel relaxed*" on a 4-point scale, ranging from 0–3 ^{see also 46}. A composite score of the seven items was used in this study, where a high score indicates high levels of anxiety. Measures from both measurement points were used, and the Cronbach's alpha values for this scale were .82 at T1 and .83 at T2.

Coping style. In research, coping styles are generally assessed by self-report of which the Utrecht Coping List (UCL) is often used. This list consists of 47 items measuring seven different coping styles used to manage stressful events, by asking how often the respondents act in a specific manner when facing problems or unpleasant situations²². A short version of this scale consists of 22 items and was used in the present study²³, comprising the following three subscales: a) active problem solving (7 items) with items such as "*considering problems as a challenge*", b) depressive reaction pattern (7 items) with items such as "*being pessimistic about the outcome*", and c) avoidance and passive expectancy (8 items) with items such as "*complying to avoid problematic situations*". All subscales were scored on a 4 point scale; 1="Seldom or never" to 4="Very often".

Based on a factor analysis with the aim to establish a reduced coping battery, the 22 items from UCL have been summarized into one Instrumental Mastery Oriented Coping factor (IMOC) reflecting an active goal-oriented cop-

ing style²³. In order to facilitate comparison with previous research on coping the polarity of this scale was reversed, meaning that a high score reflects an active goal-oriented coping style as well as equally less passive expectancy and depressive reaction patterns. This scale was only administered at T1 and the Cronbach's alpha value for this scale was .73.

Statistics

Data were analyzed by IBM SPSS Statistics, version 20.0. Drop-out analyses, comparing respondents at T1 only and respondents taking part at both T1 and T2, were conducted with independent sample t-tests and chi-square tests. An independent sample t-test was also used to compare the mean score on the Instrumental Mastery Oriented Coping factor (IMOC) between targets and non-targets at T1, defined by the self-labeling bullying measure. Moreover, following Baron and Kenny's recommendations⁴⁷, a hierarchical regression analysis was utilized to investigate the moderating effect of coping on the prospective bullying-anxiety relationship. In this analysis the T1 scores of the NAQ-9 and the IMOC were used in predicting symptoms of anxiety at T2, adjusting for symptoms of anxiety at T1. In case of a significant interaction effect, the results will be graphically displayed following Dawson's recommendations (for instructions see www.jeremydawson.co.uk/slopes.htm).

Results

Table 1 shows mean characteristics for participants at T1, participants at T1 and T2, and drop-outs at T2. Drop-out analyses showed no significant differences regarding the included variables at T1 for those participating at both T1 and T2, compared to those who only participated at T1 (Table 1).

Differences in coping style among self-labeled bullied and non-bullied nurses

In line with the first hypothesis (H1) the aim was to determine whether bullied and non-bullied nurses differ in their use of coping style, by using the self-labeling measure of bullying. The results showed that victims of bullying had a lower mean score ($M=2.95$) on the Instrumental Mastery Oriented Coping factor (IMOC) compared to non-victims ($M=3.03$) at T1 (Table 2). H1 was therefore supported. The difference between the groups in terms of effect size was small to moderate (Cohen's $d=.31$). Additionally, at T1 those being bullied had a higher mean score

Table 1. Baseline characteristics for respondents at T1, respondents at both T1 and T2, and drop-outs (respondents at T1 only) (M=Mean, SD=Standard Deviation)

Variables at T1	Respondents at T1 (N=2059)				Respondents at T1 and T2 (N=1582)				Drop-outs (respondents at T1 only) (N=477)				<i>p</i> ^b
	<i>n</i>	%	<i>M</i>	<i>SD</i>	<i>n</i>	%	<i>M</i>	<i>SD</i>	<i>n</i>	%	<i>M</i>	<i>SD</i>	
Age			33.1	8.17			33.2	8.25			32.6	7.88	.15 ^d
Gender													.59 ^c
Male	192	9.30			144	9.10			48	10.10			
Female	1,857	90.20			1,430	90.40			427	89.50			
Missing	10	0.50			8	0.50			2	0.40			
Self-labeled bullying													.84 ^c
Bullied	127	6.20			99	6.30			28	5.90			
Not bullied	1,926	93.50			1,478	93.40			448	93.90			
Missing	6	0.30			5	0.30			1	0.20			
Exposure to bullying behaviors ^a			10.71	2.40			10.68	2.34			10.78	2.60	.44 ^d
Symptoms of anxiety			4.67	3.52			4.61	3.50			4.87	3.59	.17 ^d
Instrumental Mastery Oriented Coping factor			3.02	0.25			3.02	0.25			3.03	0.24	.56 ^d

^a Measured by 9 items from the Negative Acts Questionnaire^b Comparing respondents at T1 only versus respondents at both T1 and T2^c Chi-square test^d Independent sample t-test (Bonferroni adjustment)**Table 2. Mean differences between self-labeled bullied and non-bullied nurses at T1 and T2**

Variable	Bullied		Non-bullied		<i>t</i> (df)	<i>p</i>	95% CI		Cohen's <i>d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			LL	UL	
T1									
Instrumental Mastery Oriented Coping factor	2.95	0.27	3.03	0.24	3.25 (139.47)	<.001	0.03	0.13	0.31
Symptoms of anxiety	6.64	3.80	4.53	3.47	-6.57 (2022)	<.001	-2.74	-1.48	0.58
T2									
Symptoms of anxiety	6.69	3.79	4.31	3.45	-6.80 (1549)	<.001	-3.06	-1.69	0.66

Note. CI=Confidence interval; LL=lower limit; UL=upper limit.

($M=6.64$) on symptoms of anxiety compared to those not being bullied ($M=4.53$). The same tendency was found at T2, where there also was a difference between those bullied ($M=6.69$) and those not bullied ($M=4.31$) regarding symptoms of anxiety. The effect size difference between the groups was moderate to strong at T1 (Cohen's $d=.58$) and T2 (Cohen's $d=.66$), respectively.

Coping as a moderator of the bullying-anxiety relationship

According to the second hypothesis (H2) the aim was to determine whether individual coping style measured at T1 moderates the longitudinal relationship between exposure to bullying behaviors at T1 (measured by NAQ-9) and symptoms of anxiety at T2. A correlation analysis revealed moderate relationships between the variables (Table 3).

For the linear prospective effects both exposure to bullying behaviors ($\beta=.04$, $p=.023$) and the Instrumental Mastery Oriented Coping factor (IMOC) at T1 yielded

weak but significant contributions on subsequent symptoms of anxiety at T2 ($\beta=-.05$, $p=.009$), after controlling for symptoms of anxiety at T1 (Table 4). Furthermore, the interaction term of exposure to bullying behaviors and coping on symptoms of anxiety was significant ($\beta=.04$, $p=.042$). We therefore found support for H2 in the sense that the IMOC factor moderated the relationship between exposure to bullying behaviors at T1 and later symptoms of anxiety at T2.

The interaction effect is graphically displayed in Fig. 1. According to simple slope tests^{48,49} the effect of bullying on anxiety was significant for persons with a high score on the Instrumental Mastery Oriented Coping factor (IMOC) (i.e. 1 SD above the mean), reflecting an active goal-oriented coping style ($\beta=.09$, $p=.003$), but not for persons with a low score (i.e. 1 SD below the mean) ($\beta=.02$, $p=.336$), reflecting a more passive coping style. Hence, for the group with a low score on the Instrumental Mastery

Table 3. Summary of intercorrelations for scores on symptoms of anxiety, bullying and coping (Cronbach's alpha)

Variables	1.	2.	3.	4.
1. Symptoms of anxiety T1	(.82)			
2. Symptoms of anxiety T2	.67**	(.83)		
3. Exposure to bullying behaviors T1 ^a	.26**	.23**	(.75)	
4. Instrumental Mastery Oriented Coping factor T1	-.38**	-.30**	-.14**	(.73)

Note. ** $p < .01$.

^a Measured by 9 items from the Negative Acts Questionnaire

Table 4. Hierarchical linear regression analysis for the interaction between exposure to bullying behaviors (NAQ-9) and coping (IMOC) at T1 on symptoms of anxiety at T2 (HADS-A)

Variables at T1	ΔR^2	β
Block 1	.452	
Symptoms of anxiety		.67**
Block 2	.005	
Symptoms of anxiety		.64**
Exposure to bullying behaviors		.04*
Instrumental Mastery Oriented Coping factor		-.05**
Block 3	.001	
Symptoms of anxiety		.64**
Exposure to bullying behaviors ^a		.06**
Instrumental Mastery Oriented Coping factor		-.05**
Exposure to bullying behaviors ^a * Instrumental Mastery Oriented Coping factor		.04*
Total R^2	.458*	
N	1528	

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

^a Measured by 9 items from the Negative Acts Questionnaire

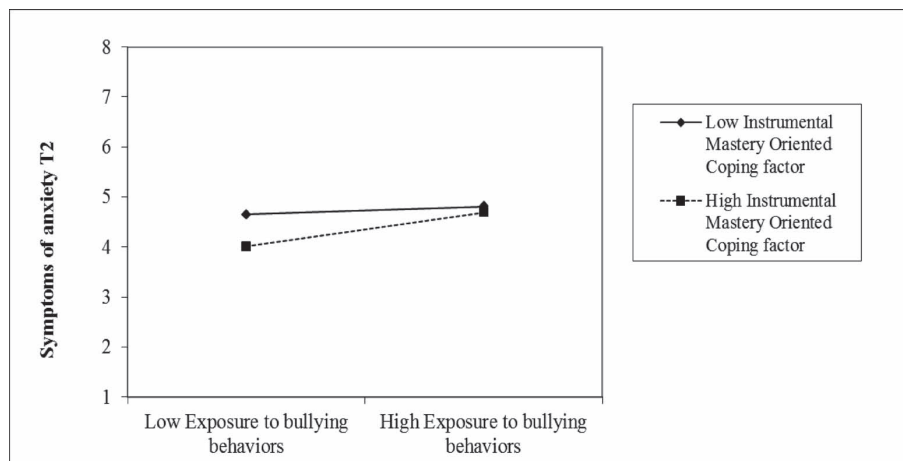


Fig. 1. The interaction between exposure to bullying behaviors (NAQ-9) and Instrumental Mastery Oriented Coping factor (IMOC) at T1 on subsequent symptoms of anxiety (HADS-A) at T2. Low = 1 standard deviation below the mean, High = 1 standard deviation above the mean.

Oriented Coping factor (IMOC), and hence a presumptive negative coping style, the anxiety level remained the same regardless of the intensity of the bullying behavior. For those with a high score on the Instrumental Mastery Ori-

ented Coping factor (IMOC) and low exposure to bullying, the anxiety level was overall less severe compared to the other groups. Thus, predominantly an active goal-oriented coping style seems to be beneficial only in cases of no or

only low exposure to bullying behaviors. When the bullying became gradually more intense, targets with an active goal-oriented coping style, reported relatively more symptoms of anxiety.

Discussion

The results in the present study indicate that victims of bullying tend to cope more negatively with stressful events than do non-victims in the sense that they have a lower score on the Instrumental Mastery Coping factor (IMOC), a result in support of H1. Furthermore, when using longitudinal data with a time lag of one year, coping style does influence the targets' subsequent level of anxiety. In support of our second hypothesis coping style as measured by the IMOC, was found to moderate the relationship between exposure to bullying behaviors at T1 and subsequent symptoms of anxiety at T2.

Different coping styles among victims and non-victims

Studies of how victims of bullying generally cope with stressful events are scarce. In the present study victims of bullying report a lower score on the Instrumental Mastery Oriented Coping factor (IMOC) compared to non-victims, hence indicating a more negative coping style. This result is in line with previous research looking at other yet related aspects of coping among targets of bullying. For instance, in the study by Hogg and Doherty³⁰⁾ targets used avoidance and resignation more often, and active coping less often, than did non-targets. Zapf and Gross¹²⁾ also reported that victims of bullying used conflict avoidance more often than a control group.

Furthermore, a study by Rayner⁹⁾ among part-time students, investigated what non-victims anticipated they would do as a response to being bullied as compared to what victims actually do when facing bullying. Non-victims anticipated having a more proactive reaction if bullied as compared to what respondents being bullied actually did when bullied. Victims of bullying on the other hand choose to do nothing or to leave the organization to a much higher degree compared to what non-bullied respondents anticipated that they would do if ever being bullied. Hence, the more passive coping style observed among targets may be dependent on actual experiences and learned lessons when facing bullying, even to the degree that it may change their general coping style. Unfortunately we did not have the possibility to measure any change in coping style in the present study, but future research should take this aspect into account when studying the bullying-coping relation-

ship.

Stress theory states that the purpose of coping is to make attempts to master the environment, or to minimize, avoid, tolerate, or accept the stressful conditions¹⁰⁾. If the target evaluates the situation as controllable he or she will likely use an active coping style due to a positive response outcome expectancy⁷⁾. If the situation is perceived to exceed his or her control and the expectancy is not met the target may change his or her future expectations to the outcome, and a passive coping style may then be evaluated as more suitable. The targets lack of control may therefore be one reason why avoidance coping is common among targets of bullying. This reflects the assumption in CATS that with little control over the situation, people may feel helpless and thereby anticipate that there is nothing they can do to improve the situation; thereby having a no response outcome expectancy⁷⁾.

A defining element in the concept of bullying is that targets find it difficult to escape from or to defend themselves in the actual situation. If the target evaluates the situation as being outside her or his immediate control it can be easy to turn to a coping style where one avoids the perpetrator or ignores the problem, first and foremost to protect oneself against the stressor but also in order to save energy. In a study by Salin, Tenhiälä, Roberge and Berdahl⁵⁰⁾ among employees at a North-American research university, those exposed to workplace mistreatment reported a high tendency to engage in passive forms of responses or seeking social support. If they had had the opportunity to change their response, however, they wished they had been more assertive, in terms of confronting the perpetrator or letting the perpetrator know how they were affected by the behavior. Hence, there was a discrepancy between their actual and ideal responses, in which fear of retaliation was the most common reason for their more passive responses⁵⁰⁾. Retaliation has shown to increase with low status or exposure to frequent mistreatment⁵¹⁾. Illustrative of this, both hierarchical status differences and power kept those mistreated by superiors silent, a situation that was caused by a general feeling of hopelessness⁵⁰⁾. One of the most important factors when it comes to coping is control³¹⁾, and it may therefore be more effective to distance oneself from the perpetrator or leave the organization when the feeling of control is absent¹²⁾. Even if this behavior may give the target a sense of control over her or his actions, research has shown that denial and avoidance behavior are neither suitable to move, nor get rid of, the actual stressor and will thereby not improve the situation⁶⁾.

Coping as a moderator of the bullying-anxiety relationship

The results showed that an Instrumental Mastery Oriented Coping factor (IMOC) moderated the longitudinal relationship between exposure to bullying behaviors and symptoms of anxiety one year later. However, simple slope test indicated that the bullying-anxiety relationship was only significant for those reporting high scores on this coping style, reflecting an active goal-oriented coping style. Hence, as bullying escalates anxiety develops first and foremost among those who tend to have an optimistic, active and instrumental coping style, while bullying is not related to anxiety among those scoring low on this coping style. Although this may seem counter-intuitive at first, it may in fact be possible to have an active goal-oriented coping style but at the same time have a negative outcome expectancy⁷⁾. This may be related to situations where a positive outcome expectancy is not met, like in a no-control situation as bullying, where the target develops symptoms of anxiety as a consequence of feeling helpless in the situation (e.g. "there is nothing I can do to alter the situation").

The result is also in line with the findings in Nielsen and colleagues' study³⁴⁾ looking at the potential moderating effect of sense of coherence on the bullying-health relationship, where scoring high on this trait did predict low scores on post-traumatic stress symptoms, yet only under low exposure. Under high exposure to bullying behaviors, those with a positive score on sense of coherence were not better off. No bullying-health relationship existed for those scoring low on sense of coherence, hence describing oneself as a person with a low ability to master stressful events. This parallels our findings, where constructive coping efforts seem to be of little advantage in cases of high exposure to bullying behaviors. At least, the advantage of this coping style under normal circumstances does not hold when exposed to increasingly more harsh bullying behaviors by one's colleagues and/or superiors.

To our knowledge only two prior studies have investigated the interaction effect between bullying and individual coping on health. Allen, Holland and Reynolds³⁶⁾ proposed that psychological detachment acted as a possible buffer on the bullying-burnout relationship, but this hypothesis gained no support. However, Dehue and colleagues⁶⁾ in a cross-section study, found that compensation and denial increased the targets' health problems. However, contrary to the researchers' expectations, active coping did also have a negative effect on health when being bullied. Even though active problem solving has been shown to improve health in general²¹⁾, and reduce the number of long epi-

sodes of sickness absence⁵²⁾, previous studies have indicated that active problem solving strategies actually seem to increase the targeting of the victim^{12, 53)}. Furthermore, the present study, as well as the study by Dehue and colleagues⁶⁾, indicates that the potential protective effect of an active goal-oriented coping style diminishes as bullying intensifies. This parallels Zapf and Einarsen's⁵⁴⁾ theoretical postulation that bullying is a no-control situation, characterized by a series of failed conflict management attempts, in which active and constructive coping strategies do not provide the expected effect but rather make things worse, with increased anxiety as a likely outcome. Hence, conflict avoidance seems to be the only real alternative for those exposed.

Methodological considerations

In terms of coping it should be noted that the respondents answered questions about how they coped generally, and not specifically how they coped with being bullied. Hence, we do not know how victims of bullying think they would react or actually reacted to this specific behavior. However, their general response tendencies would probably reflect how they would respond to being bullied. A strength of this study is therefore the possibility to compare the general coping style of bullied and non-bullied employees.

The present study uses longitudinal data with two measurements when testing the relationship between exposure to bullying behaviors, coping, and symptoms of anxiety. Hence, we may start to draw inferences about possible causal relationship between the variables. Longitudinal studies with three or more waves are, however, and according to Willet, Singer and Martin⁵⁵⁾, needed in order to address change and the order of events' occurrence across time. Even if the use of longitudinal data is a strength, the use of self-reported questionnaire data may elevate the risk of common method variance⁵⁶⁾. When examining sensitive variables like workplace bullying and symptoms of anxiety there is also a possibility that people will underreport negative experiences. Also, the present study was carried out among Norwegian nurses, mainly female (90.4%), which may limit the possibility to generalize the findings to other occupations as well as to a male population.

The low mean scores on exposure to bullying behaviors and symptoms of anxiety indicate that the sample in general does not experience high levels of neither mistreatment at work nor of any mental health problems related to anxiety. This may reflect a "healthy worker effect", where healthier workers are more likely to stay in the workforce

than those who are sick⁵⁷⁾. In the present study the response rate was somewhat low at T1 (38.1%), which may also indicate an increased chance for anxious employees and those exposed to bullying behaviors to not participate in the study. On the other hand the response rate was high at T2 (76.8%) making a strong longitudinal sample. Drop out analyses, comparing participants at T1 only and participants at both T1 and T2, neither revealed any differences in the frequency of bullying or in the level of anxiety between the two measurement points. Hence, even if it might be that targets of bullying and people with high levels of anxiety had a higher probability of not participating at T1, there was not a tendency towards participants exposed to bullying at work, or with high levels of anxiety, to drop out of the study between the measurements.

Implications

More focus on, and information about, how to prevent bullying to occur in the workplace, for instance through anti-bullying campaigns, should be prioritized in order to generate good psychosocial work environments with zero tolerance for bullying as all members of the work-force seem to suffer when highly exposed to bullying. Also, theoretical models should account for the targets' tendency to cope in ways that do not improve their stressful situation, and that coping styles normally regarded as positive do not seem to have the expected effect under intense exposure to workplace bullying. Managers' awareness of the fact that irrespective of how well people cope in general, high intensity exposure to bullying behaviors is related to increased health problems for the victims, can help them to be more proactive and focus on good strategies to intervene when detecting bullying in their organization.

In terms of methodological implications, this study is the first to investigate the longitudinal relationship between bullying, individual coping, and symptoms of anxiety. Exposure to bullying behaviors and individual coping style was measured at T1, leaving us with information about how people's reactions to stressful events, in this case bullying, affect their anxiety level one year later. On the other hand we are unable to say anything about any change in individual coping style across time, or how a possible change between active and passive coping would affect the target's health. To do so, repetitive measures of individual coping are needed in addition to a longitudinal design with more than two measurement points.

Conclusion

Bullying is a workplace stressor with detrimental conse-

quences for those targeted. The result in the present study supports the notion that when exposed to such negative acts, there is little the target can do to affect the stressor's impact on health. In a no-control situation, as is a defining element of bullying, the use of an active goal-oriented coping style seems in fact to increase the target's anxiety level one year later probably due to a feeling of helplessness. Hence, even if a high score on an active goal-oriented coping style turns out to be beneficial in cases of low or no bullying exposure, intense and persistent exposure to bullying behaviors seems to have negative consequences for those affected regardless of how well they generally cope with stressful events. This has important theoretical as well as practical implications which can be applied in order to generate good psychosocial work environments. Knowledge of targets' reaction to stressful events is important in order to choose the right intervention strategies when bullying is present at work. Specifically, early interventions are important as bullying is a no-control situation where those targeted are left with few coping possibilities. For the targets, knowledge about common reactions to exposure to bullying behaviors may be helpful in itself, both by normalizing the reactions in question, and, possibly, by facilitating help-seeking behavior. Also, when developing tools to prevent the occurrence of bullying at work, it is important to acknowledge the fact that bullying is a situation which may affect the well-being of all workers exposed to these negative behaviors, regardless of their personal strength and coping resources.

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