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REVIEW ARTICLE

Childhood bullying experiences as a factor predisposing to mental problems in adulthood

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Abstract

Bullying is a complex social phenomenon involving both direct and indirect forms of aggression. The direct attack may be verbal, physical, or the bully destroys objects that have emotional or other value to the victimized individual. Indirect bullying refers to hidden manipulation through social relationships aimed at hurting or excluding the bullied person from peers (e.g. by gossiping). Bullying brings a variety of adverse consequences that are long-lasting and negatively affect both the victim and the bully. Victims of bullying are at a higher risk of developing mental problems in adulthood. Psychological consequences in adulthood may include problems with social functioning, internalization of constant anticipation of a threat or anxiety in interpersonal contacts. In vulnerable individuals, bullying may lead to depressive disorder, suicidal thoughts, eating disorders, personality disorder as well as psychotic disorders. Consequences to physical health are manifested by numerous psychosomatic symptoms.

Introduction

Bullying is defined as the use of force and aggression to cause anxiety or to dominate others (Olweus 1991). When exploring the history in adult psychiatric patients, bullying has often mentioned the problem. Therefore, a decision was made to carry out a review study that could contribute to better understanding of the impact of childhood bullying on the development and character of psychopathologies in adulthood. Using different variations of the keywords "bully", "health", "physical health", "mental health", "prevalence" and "intervention", the PsycINFO and MEDLINE databases were used to search the data. Peer-reviewed articles published in 1980–2014 were included in the review. Also, our clinical experiences were involved.

Bullying traditionally referred to physical aggression only; this, however, is just one of many strategies that children use to control and torment others. Aggression in bullying may be classified into direct and indirect aggression (Olweus 1991). Direct bullying is an overt expression of power. It may include physical (e.g. hitting or kicking) or verbal (e.g. insults, racial or sexual harassment or threats) aggression or attacks on objects that have emotional or other value to the victimized individual. Indirect bullying (or relational aggression) is covert manipulation through

social relations aimed at hurting or excluding the victimized person (e.g. by gossiping or spreading rumors). With the development of technology, cyber bullying has emerged in recent years. This is the use of the internet and mobile devices to harm others. Thus, bullying is a set of behaviors that may be characterized as (1) aggressive or meant to hurt, (2) occurring repeatedly over time, and (3) taking place when there is an imbalance of power in interpersonal relations (Olweus 1999).

To understand the complexity of bullying, two elements may be of crucial importance. Firstly, bullying is a form of aggressive behavior *imposed from a position of power*. The Children bully have more power than those who are bullied. This may stem from a physical (e.g. size or physical strength) or social advantage (e.g. a higher social status in a group of peers or credibility in their teachers' eyes) and may not be visible to adults. Secondly, bullying occurs repeatedly over time, and *each repeated incident increases the dominance of those who bully*. Victimized children become increasingly powerless and unable to resist this form of abuse. Sometimes, however, children refer to only a single case of the use of power or aggression as bullying (Smith & Levan 1995).

Bullying is not a new phenomenon. Nearly all adults remember childhood bullying. They either behaved aggressively or were bullied or witnessed bullying. Many of them, irrespective of their age, can recall the details of such events, such as the name of the school or class bully or the length of exposure to bullying. In their study, Crozier and Skliopidou (2002) showed that two-thirds of 220 adults asked to recall their time in primary school reported name-calling. These relational forms of aggression remain a major problem in schools throughout the world (Hawker & Boulton 2000). It has been reported that approximately 12% of children aged 8–13 years are exposed to some form of bullying (Hunter *et al* 2007). The risk factors for being bullied are low socioeconomic status, being a member of a minority group, overweight, being perceived as different (e.g. because of one's physical appearance), learning disabilities or limited social skills (e.g. provocative behavior or acts suggesting a vulnerability) (Salmon & West 2000; Lumeng *et al* 2010). A role is also played by feelings of loneliness (Hawker & Boulton 2000).

The scientific community started paying attention to the systematic research of bullying after three small Norwegian boys committed suicide shortly one after another, leaving messages that they had been victimized by peers (Stassen Berger 2007). Since then, there have been repeated reports of victims of bullying being at increased risk for the development of adverse consequences. They are more likely to develop psychiatric problems in both childhood and adulthood (Arseneault *et al* 2010). These include anxiety disorders, depression (Reijntjes *et al* 2010), self-harm (Fisher *et al* 2012; Lereya *et al* 2013), suicidal thoughts and attempts (Herba *et al* 2008; Brunstein *et al* 2010), psychoses (Fekkes *et al* 2006; Schreier *et al* 2009; Arseneault *et al* 2010, 2011; Mackie *et al* 2012; Copeland *et al* 2013), as well as physical health problems (Gini & Pozzoli 2009). Victims of bullying also tend to have poor school performance and may repeat a grade (Nakamoto & Schwartz 2010). Similarly, those who were bullied as well as those who acted as bullies themselves showed more suicidal tendencies (Winsper *et al* 2012). The main negative consequence for bullying aggressors is continued direct and indirect pressure on others in adulthood as well (Farrington *et al* 2011; Ttofi *et al* 2011).

Childhood bullying

Being bullied is a stressful experience that may have a chronic course and escalate over many years (Kumpulainen 2008). It is a complex phenomenon influenced by personality characteristics, an individual's behavioral traits, and ways of being raised as well as situational factors such as the frequency and type of bullying. Although some children are bullied as early as at pre-school age (Crick *et al* 1999), mutual abuse is most prevalent around the age of 12 years. In later adolescence, the prevalence decreases again (Kaufman *et al* 2000; Nansel *et al* 2001; Teicher *et al* 2010). There have also been neurobiological studies on bullying. Peer´s verbal abuse at the age of 11 to 14 years is predictive of maladjustment in early adulthood and is associated with corpus callosum abnormalities (Teicher *et al* 2010). Arseneault *et al* (2010) found that being a victim of bullying (1) is not a random phenomenon and can be predicted by individual characteristics and family factors; (2) is stable over a longer time span; (3) is linked with severe symptoms of mental health problems, including self-harm, violent behavior, and psychotic symptoms; (4) has long-lasting effects that may persist; and (5) contributes to the development of children's mental health problems, independent of other factors. Children experiencing bullying are different from those who were not bullied by the character of their family environment and mental functioning in childhood. Victims of bullying have been reported to be unassertive, introverted, easy to be emotionally upset, without adequate social and emotional understanding (Woods *et al* 2009); Bullies, on the other hand, tend to be aggressive, easy to get upset and often are bullied by their siblings (Arseneault *et al* 2010). Those who bullied and were victimized themselves tend to have only a few friends who would stand by them, assist or reinforce aggressors, and have most psychological problems (Juvonen *et al* 2003; Salmivalli 2010). Children with long-term conduct disorders, emotional or developmental problems are more likely to be involved in bullying others or play the role of both the bully and the victim (Van Cleave & Davis 2006). A study following children into adulthood (Klomek *et al* 2009) pointed to an increased risk for psychiatric hospitalization or depression 5 to 15 years later in frequent victims of bullying,, particularly in girls. Other studies, however, failed to show such differences between gen-

ders (Copeland *et al* 2013; Arseneault *et al* 2010; Anat Brunstein *et al* 2008). Males who were both bullies and victims tend to have more frequent suicidal ideations in early adulthood; in women, anxiety symptoms and agoraphobia are more common. Bullies are at a higher risk of developing antisocial personality disorder than children with conduct disorders or family problems.

Impact of bullying on the socioeconomic status

Bullying not only affects life in childhood but has long-term consequences in adulthood. According to a study by Takizawa *et al* (2014), its impact may be observed as late as 40 years after bullying was experienced. The development of its consequences in adulthood is not considerably influenced by either duration of bullying or time when it occurred (Sesar *et al* 2012). Thus, bullying may affect the functioning of an individual in society with numerous consequences. Childhood bullying was shown to have a negative impact on one's ability to integrate into the peer community and establish relationships in general (Takizawa *et al* 2014; Schafer *et al* 2004). Those who faced bullying at school are more likely to be bullied at the workplace (Smith *et al* 2003). Several studies have confirmed that bullying is associated with lower economic status (Takizawa *et al* 2014; Wolke *et al* 2013). This may be explicated by the already lower economic status of victims of bullying themselves, but the hypothesis was not confirmed in a study by Wolke *et al* (2013). Another possible interpretation of the results is that impaired social functioning negatively influences the ability for long-term education and work attendance that in turn decreases an individual's economic status. Another explanation for the lower status may be impaired cognitive function as seen in abused persons (Pears & Fisher 2005).

Childhood bullying and criminal/risky behavior in adulthood

Findings from studies on the impact of bullying on criminal behavior in adulthood are inconclusive. A recent meta-analysis supports the notion that bullying perpetration increases the risk of later offending (Ttofi *et al* 2011). Interestingly, the likelihood of developing antisocial personality disorder is not increased in those bullies who became victims. Moreover, victims of bullying were found to have lower self-esteem and a higher probability of extreme behavior such as breaking things (Gladstone *et al* 2006; Lund *et al* 2009; Schafer *et al* 2004). However, some studies failed to confirm maladaptive phenomena in adulthood if other risk factors in childhood and family were taken into consideration (Wolke *et al* 2013).

Another expected, but an unconfirmed consequence of bullying is alcohol abuse (Copeland *et al* 2013; Niemelä *et al* 2011). The explanation may be that problems with alcohol often originate in adolescence and are related to negative peer pressure, that is, something that victims of bullying are less exposed to due to their problems with peers. However, victims of bullying are at a higher risk of adult smoking (Niemelä *et al* 2011), the habit often learned by children from their peers.

Suicidality

Another interesting question is whether bullying affects suicidality not only directly in childhood but also years after it is stopped. Klomek *et al* (2008) confirmed such association in the study of the impact bullying had on Finnish males. A year later, they conducted regression analyses of data from 5,302 Finnish children from self-, parent and teacher reports, showing that the association between bullying at the age of 8 years and later suicide attempts and completed suicides varied by sex. In males, frequent bullying and victimization were associated with later suicide attempts and completed suicides, but not with the controlling for depression symptoms. In females, on the other hand, frequent victimization was associated with later suicide attempts and completed suicides irrespective of the effect of depression symptoms. Similarly, Roeger *et al* (2010) surveyed a sample of 2,907 adult Australians to focus on particularly traumatic school bullying. Total of 18.7 % of the respondents recalled the bullying by their peers. This subgroup was three times more likely to report suicidal ideation compared to those who had not experienced bullying. After controlling for other variables (depression and sociodemographic data), the likelihood of suicidal thoughts was as twice as high in the victims of bullying. The age of victims played no significant role in suicidal ideations.

Childhood bullying and physical problems in adulthood

Victims of childhood bullying (including those who bullied others) have a higher risk for poorer health in adulthood (Wolke *et al* 2013; Allison *et al* 2009). Bullying may contribute to premature aging, apparently related to other forms of psychotrauma and abuse (Shalev *et al* 2013; Tyrka *et al* 2010). In their secondary analysis of data from a cohort study, Mamun *et al* (2013) examined whether adolescent males and females who had been victims of bullying had a higher body mass index (BMI) and obesity in young adulthood. The sub-sample comprised 1,694 offsprings (a gender ratio of 1:1) who participated in the Mater-University of Queensland Study of Pregnancy (MUSP) and provided information about bullying for 14 years. Subsequently, the participants were physically assessed at 21 years. The authors found that male and female adolescents who had been bullied in the past were at a significantly higher risk of a higher BMI and obesity in young adulthood as compared with those who had not experienced bullying.

Childhood bullying and psychiatric disorders in adulthood

Many studies have concluded that children and adolescents bullied by their peers are at a significantly increased risk for numerous mental problems such as social anxiety, depression, low self-esteem, eating disorders or post-traumatic stress disorder (Brunstein Klomek *et al* 2007; Eisenberg & Neumark-Sztainer 2008; Hawker and Boulton 2000; Paquette and Underwood 1999; Prinstein *et al* 2001; Storch *et al* 2003; Sullivan *et al* 2006; Nylander *et al* 2009). Female bullies who were also victimized have a higher risk to develop depression, panic disorder, and agoraphobia. Males are at higher risk of suicidal. A group of bullies was shown to have a greater risk for the development of antisocial personality disorder (Copeland *et al* 2013).

Depression

Olweus (1993) was the first to study the long-term consequences of bullying. He showed that young males who had been bullied in their childhood had higher levels of depression and low self-esteem than the peers who had not been victimized. The finding was confirmed by many subsequent studies (Gladstone *et al* 2006; Lund *et al* 2009; Schafer et al; 2004, Klomek *et al* 2008; Sesar *et al* 2012). Interesting findings brought the study by Tunnard *et al* (2014) of female patients with treatment-resistant depression. After their admission, clinical, demographic data, and childhood adversity were obtained (physical, sexual or emotional abuse; bullying; traumatic events). The authors also investigated associations between childhood adversity, depressive symptoms and clinical course of the condition. Most patients had experienced childhood adversity (62%), mostly in the form of traumatic events (35%) or bullying (29%). Childhood adversity was associated with the poorer clinical course, earlier age of onset, persistence of episodes and recurrence of the disorder. Moreover, the difficulty was significantly associated with the psychotic symptoms and suicidal attempts.

Anxiety disorders

Anxiety disorders belong to the most frequent mental disorders. During the attacks, victims of bullying experience fear of their lives, fear of injury, and fear of ridicule and potential consequences. Similar characteristics may be ascribed to many patients suffering from anxiety disorders. Studies have shown that individuals experiencing childhood bullying have a higher level of anxiety in adulthood (Sesar *et al* 2012; Sourander *et al* 2007; Stapinski *et al* 2014). Particularly interesting is the effect of bullying on the development of individual anxiety disorders. In a study of adults suffering from social phobia or obsessive-compulsive disorder (OCD), childhood bullying was more frequently reported in the OCD subgroup than in the social phobia subgroup (Bejerot & Mörtberg 2009). It is a well-known fact that persons with autism spectrum disorder (ASD; i.e. Asperger syndrome, autism, and pervasive developmental disorder – not otherwise specified) are a frequent target of bullying. Bejerot and Mörtberg (2009) assessed the presence of autistic traits and experience with childhood bullying in adult patients with social phobia (n=63) or OCD (n=65). The authors observed a significant difference in the prevalence of bullying between patients with OCD (50%), social phobia (20%) and a reference group (27%). Autistic traits were more common in OCD than in social phobia. Autistic traits such as low social skills were shown to be potential predictors of school bullying. It is also likely that the high rate of bullying victims in persons who develop OCD later is related to the overlap between OCD and ASD.

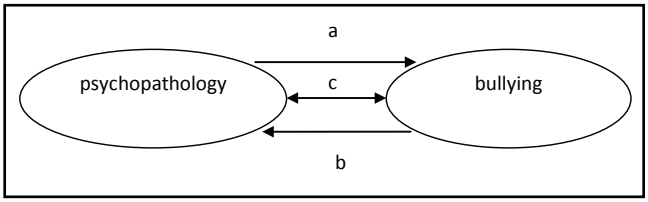

Fig. 1. Relationship between psychopathology and bullying.

Psychotic disorders

Wolke *et al* (2013b) studied the likelihood of the development of psychotic disorders in adulthood as an effect of bullying or being bullied at school. The study comprised 4,720 participants aged 18 years. The data analysis showed that the association between childhood bullying and psychotic experiences at 18 years was only partially mediated by psychotic or depression symptoms at the time of bullying. However, involvement in bullying as a victim, bully/victim or bully may increase the risk of developing psychotic experiences later.

Mechanisms of the impact of bullying on later mental health

Mechanisms contributing to the impact of bullying on later physical and mental health remain unclear. School bullying and psychopathologies may influence each other in various ways: (a) psychopathology may cause future bullying; (b) bullying may lead to future psychopathology; or (c) both a and b may be true in case of a chain of repeated mutual interactions in a vicious spiral that may start with either of the two (Figure 1).

There are studies supporting either of the two theories. According to a study by Kim *et al* (2006), psychopathology is a consequence rather than a cause of bullying. On the other hand, untreated symptoms of stress, leading to anxiety, social isolation or peculiar behavior may be early precursors of bullying (Salmon & West 2000; Lumeng *et al* 2010). Another potential mechanism of action may be based on the finding that bullying produces further abuse from peers or adults, creating the first stage in a vicious spiral that perpetu-

ates itself over time and across situations. Children exposed to violence also seem to be at a greater risk for revictimization of the same character and are also the target of various types of violence (Finkelhor *et al* 2007a, 2007b).

Both bullying and psychopathology may be also caused by another third factor such as movement skills. In their study, Bejerot and Humble (2013) assessed patients with attention deficit hyperactivity disorder or ASD. Their parents described the bullying of these victims to be more clumsy in comparison to their peers. The bullied individuals showed worse results in the gross motor skill assessment during both childhood and adulthood.

Thus, impaired gross motor skills may be an important and independent risk factor for childhood bullying by peers, irrespective of gender, pediatric psychiatric care and diagnosis. They may increase vulnerability to the development of the mental disorder in adulthood. An example is stuttering, potentially leading to social phobia and bullying that influence each other (Menzies *et al* 2009). Approximately, 50% of children who suffer from social phobia, problematic peer relationships, bullying, and a difficult developmental history could contribute to the development of the disorder in a significant way. For example, stereotypes in the general community could confirm in stuttering individuals by repeated their fears of negative evaluation by others. This may result in significant social and occupational avoidance and lower their quality of life.

What leads to emotional disturbance and suicidal behavior in individuals who were bullied? It is hypothesized that such consequences could be understood by altered physiological response to stress, an impact on telomere length or epigenetics, interaction with a genetic vulnerability to emotional disorders, or changed the cognitive response to threatening situations. Victimization has been found to change the activity of the hypothalamic-pituitary-adrenal axis (Ouellet-Morin *et al* 2011). Blunted cortisol response is associated with a greater risk of developing depression (Harkness *et al* 2011). Recently, a new marker for stress has been found promising, namely the erosion of telomeres of repetitive TTAGGG sequences located at the termini of linear chromosomes. Accelerated telomere erosion was observed in children exposed to violence such as bullying, domestic violence or physical maltreatment (Shalev *et al* 2013). In children exposed to bullying, the variation in the serotonin transporter (*5-HTT*) gene caused by gene-environment interaction was also demonstrated (Sugden *et al* 2010). And consistently with hypotheses derived from the biological theory of stress (Danese & McEwen 2012), childhood bullying has been shown to be linked with blunted cortisol reactivity (Ouellet-Morin *et al* 2011) and increased DNA methylation of serotonin transporter gene (Ouellet-Morin *et al* 2013). Such effects could represent other ways to the persistence of negative effects of bullying in the course of life.

The cognitive theory allows a better understanding of how the process of internalization of bullying events may contribute to potential consequences such as depression and anxiety. According to this theory, whatever determines the emotional response be the meaning ascribed to the event by the particular individual (Beck 1976). Prolonged increased use of ascribing of negative definitions and attributes is associated with a greater risk for the development of depression, anxiety and relationship problems (Beck *et al* 1985, 1979). Beck's (1976) story of a young male teased by his friends is an example of the effect that internal evaluation of an event may have on emotional response. In this example, Beck stated that objective meaning might be that his friends were merely joking with the boy. The boy's internal evaluation was that he was a "weakling" or "they do not like him". As these internal evaluations are often considered embarrassing, the individual is unlikely to share them with others. If others do not have an opportunity to challenge such thoughts, these negative perceptions may persist and continue to impact beliefs about the self. Children and adolescents who were bullied are more likely to be socially isolated (Olweus 1993; Boulton *et al* 1999; Espelage & Swearer 2003). Thus, it is less likely that bullied will disconfirm their negative perceptions about the self. In contrast, those with opportunities to establish social ties and skills are more likely to dispel their negative thoughts and attitudes to the self. New social experiences during adulthood that remind them of earlier negative experiences with peers may trigger negative social schemas and induce emotions, thoughts, images and behaviors associated with these earlier aversive situations. Victims of bullying may also develop learned helplessness (Besag 1989), a cognitive schema often observed in depressed individuals (Abramson *et al* 1978). Individuals having no opportunities for developing social skills are more prone to develop attitudes associated with learned helplessness. As victims, they may believe that they are unable to stop bullying and may also start to think that their effort to influence the outcomes of other situations will be ineffective (Roth *et al* 2002). If bullying persists for an extended period, victims may begin to generalize this sense of unskillfulness to other areas of their lives, which usually leads to low self-esteem and a greater probability of developing depression and anxiety during their years at university (Smokowski & Holland 2005).

Interventions in adult patients helping to cope with childhood bullying

Examination

The first step is to determine whether the individual was bullied as a child. People suffering from mental problems in adulthood are often unaware of the association with childhood bullying and health professionals often fail to ask them. It is important to ask straightforward in a direct way. The particular question for the

patient may be: "Try to remember your time in primary or secondary school. Do you recall another child or a group of children doing something that hurt you?" This would be followed by: "What happened? Did it happen again? Try to describe a particular event to me." Initially, it is important to clarify when it is advisable to start working on problems potentially related to childhood bullying.

If the therapist finds out that the patient was bullied in childhood or adolescence, it should be first ascertained what meaning the patient himself of herself attributes to this fact ("I deserved it. I am useless. I am of no value to others. People are mean." etc.). It is usually difficult to tell to what extent bullying is associated with current problems. However, the association may be assumed based on typical situations (in a group, with a dominant person) and typical cognitive processing ("I am sure he will laugh at me; they will use me, humiliate me; I do not belong to them." etc.). It is important to find out what the individual thought of himself or herself ("I am strange, different, weak." etc.) and of others ("They are mean, refusing the weak; they are insidious; the will never care for me ." etc.) at the time he or she experienced bullying, and whether similar attitudes to self or others do not occur in some current situations ("Everybody at work laughs at me, and the boss actually supports that!").

Timing

As this work may produce considerable stress, it is not advisable to process bullying-related experiences during periods of deep depression, acute psychotic decompensation or severe stressful problems. Until adequate symptom control is achieved, more rooted attitudes developed in association with bullying cannot be dealt with.

Cognitive restructuring of automatic thoughts

The primary step is processing of thoughts related to recollections of experiencing bullying and current events triggered by these thoughts. These are typically self-devaluating thoughts ("I am pathetic again! I have no chance!" etc.) and nasty thoughts concerning others ("They will ironically criticize me. They will embarrass me, humiliate me. "). After testing negative automatic thoughts and finding an alternative reaction, these thoughts occurring because of bullying should be linked with the patient's attitudes about the self ("I am useless!" etc.) and others ("People are mean" etc.). To cope with excessive concerns in interpersonal situations, it should be first clarified with the patient whether it was necessarily or if it is a rejection or disparagement of his or her incompetence, or whether his or her concerns are not contributed to excessive expectations or self-devaluation. This may be done through the cognitive restructuring of automatic thoughts. Regular records of automated thoughts and their testing teach the patient to evaluate interpersonal situations more adequately and to refrain from avoidance behavior (Table 1).

Working with cognitive schemas

Deep negative attitudes towards the self and other people have accompanied, to a certain extent, the patient for the entire life. Therefore, he or she has often tried to compensate for them by eagerness, thoroughness, helping others or similar compensatory behaviors. To reduce excessive concerns and negative self-assessment and to change compensatory behaviors, it is necessary to work with one's overall self-concept and view of others (Table 2).

Rescripting of traumatic events

If bullying experiences appear in reminiscences, dreams or flashbacks, they should be processed in imagery. Repeated imagery exposure may do this or rescript. The therapist helps the patient understand the relationship between current problems and traumatic events in childhood. Rescripting of traumatic events is usually initiated only after basic attitudes (core schemas) and conditional rules are cognitively processed. While rescripting, description of the original situation is followed by creating a new scenario in which another person protects the victim of bullying, or the patient uses imagery to handle the bullying himself or herself. This approach seems to reduce the patient's length of

Tab. 1. Example of testing an automatic thought.

SITUATION: I have to go to the job office.	
AUTOMATIC THOUGHT: „They will look at me like a useless idiot because I have not found a job myself!"	
ARGUMENTS FOR	ARGUMENTS AGAINST
I have no job.	There are no jobs available, and many people who are not useless are in the same situation.
It gets crowded every day.	I always worked well.
I have heard that the clerks behave dismissively.	I did not lose my job because I was useless but because the company went bankrupt.
	I am always far too pessimistic because I am ashamed of having no job.
I fear that and also am ashamed so that I will behave in a nervous way.	They treat them normally; many people have no job.
	Some clerks may behave curtly, but it is just their defense because they are unable to help rather than their considering a person useless.
RATIONAL EVALUATION OF THE SITUATION: I do not know in advance how the clerk will behave. However, even if she is curt or critical because of being overworked or other reasons, it does not mean that I am useless.	

Tab. 2. Working with the core schema related to bullying.

Automatic thought:	They will look at me like a useless idiot because I have not found a job myself!
Inductive question: What does that mean about me?	That I am unable to find a job, and everybody sees that.
What does it generally mean about me? What am I like?	**I am useless and unacceptable to others**.
What does the automatic thought mean about others?	On purpose, they will be meticulous about my case and will despise me.
What does it generally mean about others? What are they like?	Others are merciless and despise the disadvantaged.
How did this attitude develop?	At the beginning of my puberty, I was laughed at in school that I was fat, clumsy and dressed like a vagabond as my mom had no money to buy me branded clothing.
Do I have any arguments against the attitude towards myself? (from childhood until now)	I was doing well at school, had many hobbies, was admitted to a high school where everyone respected me, I could lose weight and find a wife. At work, I was always appraised for being careful and able to manage a lot. I found friends a long time ago that accept me, and so do my wife and my kids.
What do these arguments prove?	I am neither useless nor unacceptable for others. I just feel that way in some situations. Many people are sensitive and accepting.

Tab. 3. Imagery rescripting.

STEPS	CONTENTS
Psychoeducation	The therapist explains to the patient that they will recall unpleasant experiences with bullying and search for a way to cope with them at the present time so that they neither reappear in reminiscences nor influence experiencing and behavior in current situations related to the past experiences of bullying.
Handover of control and calming	The therapist hands over control of what will happen to the patient who has a chance to step out of the imagery. The therapist stresses that the patient will be in control of the pace and manner and that they may interrupt the imagery process at any time and relax.
Description of an event	The patient describes one particular painful situation related to bullying, including his or her experiencing, bullies' behavior, witnesses' reactions, and consequences.
Creating a protector	To find a protector who would have helped in the situation if he or she had been there; to create an imaginative idea of himself or herself as the protector.
Starting imagery	Imagery of the beginning of the bullying situation
Rescripting the event	Imagery of an ideal situation with the protector
Reflection	Discussing the experiences and strengthening imagery coping with the situation

treatment and suffering considerably, leading to a faster recovery than traditional exposure therapy (Table 3).

Communication skills training

The most important skills that usually need to be learned by people who experienced bullying are the ability to express one's needs and demands without fear of ridicule or rejection, withstand criticism and rejection, and say "no". Communication skills are trained through the role-playing. Naturally, each may have different problems using communication skills. For instance, people suffering from social phobia need to be trained in making conversation, whereas those with borderline personality disorder need training in constructive criticism and problem-solving.

Conclusions

Bullying is not just a harmless ritual or inevitable part of adolescence. Targets of bullying are at a higher risk for the development of mental problems and disorders in adulthood. Psychological consequences in adulthood may include problems with social functioning, internalization of constant anticipation of a threat or anxiety in interpersonal contacts. In vulnerable individuals, bullying may lead to depressive disorder, suicidal thoughts, eating disorders, personality disorder as well as psychotic disorders. Numerous psychosomatic symptoms manifest consequences to physical health. Therefore, efforts should be made to reduce the prevalence of bullying. Moreover, mechanisms contributing to the development of mental problems in young victims of bullying should be elucidated. According to current knowledge, school interventions aimed at regulating child behavior, improving prosocial skills of students and supporting their relationships with peers are suitable for those with no concurrent psychiatric symptoms. Students with symptoms of psychiatric disorders should be referred to psychiatric consultations and interventions.

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