

Gunilla Klensmeden Fosse

Mental health of psychiatric outpatients bullied in childhood

Thesis for the degree of doctor medicinae

Trondheim, November 2006

Norwegian University of
Science and Technology
Faculty of Medicine
Department of Neuroscience



NTNU
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Näcken

*Kvällens guldmoln fästet kransa.
Älvorna på ängen dansa,
Och den bladbekrönta Näcken
Gigan rör i silverbäcken.*

*Liten pilt bland strandens pilar
I violens ånga vilar,
Klangen hör från källens vatten,
Ropar i den stilla natten:*

*"Arma Gubbe, varför spela?
Kan det smärtorna fördela?
Fritt du skog och mark må liva,
Skall Guds barn dock aldrig bliva!*

*Paradisets mänskensnätter,
Edens blomsterkrönta slätter,
Ljusets änglar i det höga -
Aldrig skådar dem ditt öga."*

*Tårar Gubbens anlet skölja,
Ned han dyker i sin bölja.
Gigan tystnar. Aldrig Näcken
Spelar mer i silverbäcken.*

(Erik Johan Stagnelius 1793 – 1823)

Trondheim, May 2006

Gunilla Klensmeden Fosse

Synopsis

Bullying hurts – even many years later

This thesis indicates that bullying by peers in school during childhood is associated with mental health problems in adulthood; almost 50 per cent of the 160 psychiatric outpatients reported bullying by peers.

As adults, those bullied in childhood demonstrated higher psychiatric symptom levels, lower self-esteem and more external locus of control. They also reported more bulimia nervosa. In addition, they were often singles, and, they had lower levels of education.

Bullying by peers was also associated with other types of maltreatment in childhood. Male outpatients bullied by peers in school often grew up without biological fathers. Victimized female outpatients bullied in school reported more childhood abuse and neglect. Overprotective fathers were more common in outpatients with bulimia nervosa, and long-term associations were found between overprotective mothers and poor self-esteem.

The findings in this thesis reveal that bullying in childhood is far from harmless and may have destructive long-term consequences.

List of abbreviations

SCL-90-R	Symptom Check List – 90 – Revised
GSI	Global Severity Index
PBI	Parental Bonding Instrument
CTQ	Childhood Trauma Questionnaire
5-PFa	5-Personality Factor – adjective
FFM	Five-Factor Model (Big Five)
EPQ	Eysenck Personality Questionnaire (Big Three)
MAO-A	Monoamine oxidase A
GHQ	General Health Questionnaire
PCS	The Physical Complaints Scale
GxE	Gene-environment interactions

List of papers

Paper I

Fosse, G. K., & Holen, A. Childhood environment of adult psychiatric outpatients in Norway having been bullied in school. *Child Abuse & Neglect*, 2002, 26, 129-137.

Paper II

Fosse, G. K., & Holen, A. Cohabitation, Education and Occupation of Psychiatric Outpatients bullied as Children. *Journal of Nervous and Mental Disease*, 2004, 192, 385-388.

Paper III

Fosse, G. K., & Holen, A. Reported maltreatment in childhood in relation to the personality features of Norwegian adult psychiatric outpatients. In press in *Journal of Nervous and Mental Disease*.

Paper IV

Fosse, G. K., & Holen, A. Childhood maltreatment in adult female psychiatric outpatients with eating disorders. In press in *Eating Behaviors*.

Paper V

Fosse, G. K., & Holen, A. Childhood Bullying and Adult Psychiatric Symptoms: Locus of Control and Self-Esteem. Submitted.

Introduction

Prelude

At the outset, this study was meant to explore the background of psychiatric manifestations in relation to childhood abuse, such as physical, sexual and bullying. The relative rates of sexual and physical abuse, however, were much smaller compared to bullying. Almost half the outpatients reported to have been bullied in school. At the beginning of this research, hardly any studies had linked bullying by peers in school to subsequent psychiatric symptoms later in life. Accordingly, we decided to focus on bullying.

Background

Systematic research on bullying was rather limited until Professor Dan Olweus in the 1970s started to study the nature and effects of bullying. In Norway, Olweus made a nationwide survey. He found that approximately nine per cent of the students in primary and junior high schools were victims of bullying. In contrast to bullies and well-adjusted boys, bullied boys tended to be pervasively anxious, to have low self-esteem, to be socially isolated, physically weak, and afraid to be assertive or aggressive, or even to defend themselves (Olweus, 1978).

Since then, several studies of school bullying have been carried out in many parts of the world. Most studies have cross-sectional designs. Rather few studies examine the long-

term consequences of bullying. To our knowledge, the research in this thesis is one of the first to explore some of the long-term influences of bullying by peers in school during childhood.

Bullying - Review of research

Definitions of bullying

The definitions of bullying seem to share three components (Bentley, & Li, 1995; Farrington, 1993; Olweus, 1993a; Smith, & Sharp, 1994):

1. Bullying consists of repeated actions, occurring over prolonged periods of time
2. There is an imbalance of power between the bullies and their victims
3. The negative verbal, psychological, and/or physical actions of bullying are unprovoked

The aim of bullying behavior is to inflict discomfort, pain or injury upon the victim (Olweus, 1993a), and also, to gratify the perpetrator (Rigby, 2002).

Types of bullying

Bullying may be divided into two major categories: direct and indirect bullying (Olweus, 1993a).

Direct bullying

Physical bullying: In most cases, direct bullying takes the form of hitting, tripping, or slapping. Often, the physical harm is not severe. Inflicting severe injury upon the victims might prove detrimental for the bully and generate sympathy toward the victim, and hostility or even punishment toward the perpetrator (Twemlow, 2000). Rather, the bully aims at humiliating the target in the presence of others. Dunking the head of a child in a toilet, putting obnoxious signs on the back, sexual grabbing, and other forms of touching or poking are examples of physical bullying. Defilement of cloths or of other personal items is also direct forms of such behavior.

Verbal bullying: Direct, verbal bullying includes humiliating name-calling, insults, "put-downs," racist remarks, or constant teasing in the presence of others (Olweus, 1993a; Twemlow, 2000). Cutting letters, sms and e-mails may also serve as direct verbal bullying.

Indirect bullying

Indirect bullying includes social exclusion, ostracism and hidden actions, such as gossiping and social manipulation aiming at cutting the victims off from their social relations (Crick, & Bigbee, 1998; Olweus, 1993a; Owens, Slee, & Shute, 2001).

Gender differences in bullying

Girls have been found to use more indirect, relational and/or social forms of bullying (Crick, & Grotpeter, 1995). They may include all kinds of psychological warfare, negative body language and facial expressions, and have by some researchers been called 'alternative aggressiveness' (Simmons, 2002).

Asking friends for help, or crying in a response to harassment is more frequently reported among girl victims. Girls also tend to be more empathic than boys, and they are often defenders of victims (Salmivalli et al., 1996; Sutton, & Smith, 1999). In adolescence, boys tend to demonstrate less empathy towards their victims (Olweus, & Endresen, 1998).

Occurrence of bullying

Bullying is well documented in Europe, Canada, Japan, Australia, and New Zealand.

In the United States, awareness of the problem is growing, especially after realizing that in two-thirds of the recent school shootings the attackers had been bullied in their past.

Norway

Olweus (1993a) conducted a nation-wide survey in the 1980s. Some 84,000 students, or 15 per cent of the students in the Norwegian primary and junior high school, were involved in bullying - as bullies or victims. On average, 10.8 per cent of the boys and 8.0 per cent of the girls were victims of bullying. Ten point eight per cent of the boys and 3.4 per cent of the girls reported having bullied others. In a more recent survey, (Olweus, 2001, personal communication) data from 11,000 children was collected. In total, 17 per cent of the children were involved in bullying, 12.7 per cent as victims and 5.2 per cent as bullies. The prevalence of such victimization decreased with grades, from 15.2 per cent in primary school to 8 per cent in secondary school (see figures 1 and 2).

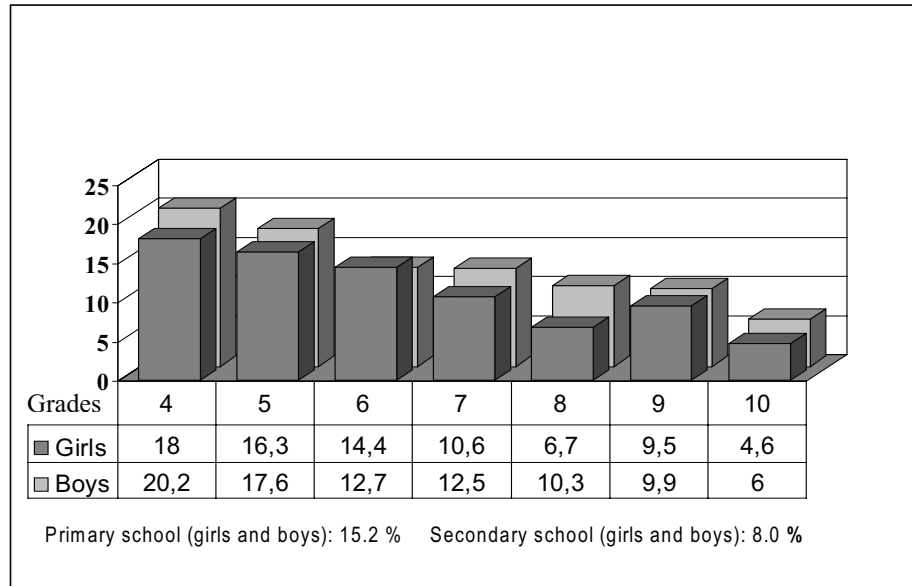


Figure 1. Prevalence of being bullied by grades in Norwegian schools (Olweus, 2001).

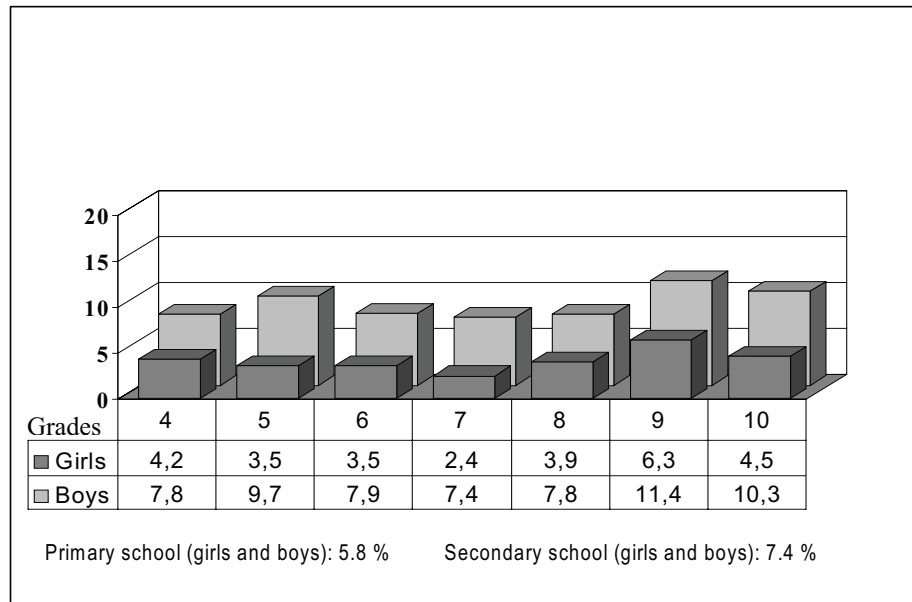


Figure 2. Prevalence of having bullied others by grades in Norwegian schools (Olweus, 2001).

Canada

Canadian studies in elementary schools indicate that up to 15 per cent of students report themselves stressed by bullying (Craig, & Pepler, 1997). In a survey of 4,000 Canadian children in the grades 1-8, 20 per cent reported that they had been involved in bullying more than once or twice during the term, either as bullies or as being bullied (Pepler et al., 1994; Zeigler, & Rosenstein-Manner, 1991).

Turkey

In Turkey, Alikasifoglu et al. (2004) studied over 4,000 students in grades 9 to 11, and 30 per cent of the students reported having being bullied at school during the last term. Nineteen per cent reported having bullied others.

Japan

In Japan, Morita et al. (2001) found 13 per cent of secondary school students aged 10 to 14 to report being victims of bullying.

United States

Nansel et al. (2001) studied over 15,000 students in grades 6 to 10. Self-reported data showed that 8.4 per cent reported being bullied weekly and 8.8 per cent reported bullying others.

Great Britain

Great Britain

A British study of over 6,700 students showed that more than a quarter (27%) of primary school students reported to have been bullied with some regularity; the figure was 10 per cent in secondary school students. With regard to bullying other students, the corresponding figures were 12 per cent for primary, and 6 per cent for secondary school students (Smith & Sharp, 1994).

Characteristics of individuals involved in bullying

Individuals involved in bullying may be divided into four groups: bullies, “bystanders”, “bully-victims” and victims. Characteristics of each group are presented below.

Characteristics of bullies

Studies from the 1970s, demonstrated that bullies were hyperactive, disruptive in class, extraverted, and behind their age in reading (Lowenstein, 1978). Olweus (1978) demonstrated that bullies were confident and tough and had positive attitudes towards themselves. In the 1980s, bullies were found to be physically strong and held positive attitudes towards aggression (Lagerspetz et al., 1982). In the beginning of the 1990s, bullies were “provocative” with externalizing, aggressive and inappropriate behaviors (Rubin, LeMare, & Lollis, 1990); they tended to be impulsive and unsuccessful in school (Farrington, 1993). Slee and Rigby (1993) found bullies to score higher on ‘psychoticism’ on Eysenck’s Junior EPQ personality measure (Big Three). Their findings suggest that bullies are impulsive, hostile and low in social sensitivity, and they are lacking cooperativeness.

More recent studies have shown bullies to be generally uncooperative; they do not appear to have much empathy for their victims (Rigby, & Slee, 1999). Some research also

suggests that bullies direct their aggressive behavior towards a variety of targets. They learn the reactions of their peers, their pool of victims becomes increasingly smaller, and their choice of victims more consistent (Harachi, Catalano, & Hawkins, 1999).

Bullies are more likely to use alcohol and smoke cigarettes than their victims (Nansel et al., 2001). They have also been found to have more depressive symptoms (Rigby, 1998a) than children not involved in bullying. Marsh et al. (2001) examined the self-concepts of school children and found that global self-esteem was negatively correlated with factors characterizing both bullies and victims.

Research conducted in England suggests that school children who can guess what other people are thinking (“Theory of mind”) are more likely to bully others (Sutton, Smith, & Swettenham, 1999). In an Australian study, Farley (1999) studied the relationship between social perception, social intelligence and empathy in students who bully others. In a visual “reading the mind in the eyes test” the respondents were asked to tell which of the following four mental states was depicted: happy, excited, kind, or thinking about something (Figure 3). Students who bullied others physically got significantly lower scores on this test than others. Similar results have been found in children with autism or Asperger Syndrome.

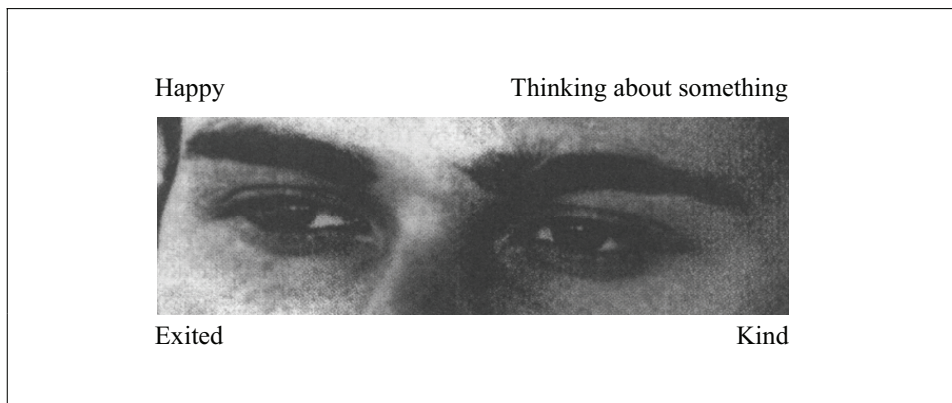


Figure 3. Reading the mind in the eyes test.

Without appropriate intervention, young bullies tend to remain bullies. Adolescent bullies tend to become adult bullies, and also they tend to have children who are bullies (Farrington, 1993). Approximately 60 per cent of boys who were characterized as bullies in Grades 6-9 had *at least* one conviction by the age of 24 (Olweus 1989).

Characteristics of bystanders

Eighty-five per cent of bullying takes place in front of other children (Atlas, & Pepler, 1998). Classmates are the most frequent bystanders. Bystanding provide the bully with an audience, and also, they may send a message of support to the bully (O'Connell, Pepler, & Craig, 1999; Salmivalli, et al., 1996; Smith, & Shu, 2000). The bystanders rarely get involved out of fear of being the bullies' next victim. In a Finnish study, bystanding children did not seem to understand the extent of their participation in bullying, and even seemed to think that they defended the victim (Salmivalli et al., 1996).

Characteristics of bully–victims

Approximately 6 per cent of bullied children admit both to bully and to being bullied (Ross, 1996). Often, they are called bully-victims or 'provocative victims'. They behave in ways, which may bring out irritation and tension around them (Olweus, 1993a; Schwartz, Proctor, & Chien, 2001). They also demonstrate poor social adjustments (Nansel et al., 2001), and frequently, they are rejected by peers (Warden, & Mackinnon, 2003). Moreover, they tend to be highly aggressive, and also have deficient or deviant interpretations of social situations. Frequently they exhibit conduct problems and neuro-developmental disorders such as

Attention-Deficit Hyperactivity Disorder (ADHD), learning disabilities or information-processing deficits (Kumpulainen, Rasanen, & Puura, 2001). A recent study showed children on medication for Attention-Deficit Hyperactivity Disorder (ADHD) to be more likely to bully others. In addition, they were at higher risks of being bullied (Unnever, & Cornell, 2003).

Characteristics of victims

Personality dimensions

On the Eysenck's Junior EPQ, Slee and Rigby (1993) showed victims of bullying in primary school to have low scores on extraversion and high scores on neuroticism. In a more recent study, schoolchildren were followed up nine years (Asendorpf, & van Aken, 2003). Social inhibition and aggressiveness were rated by teachers at age 4-6 and by parents at the age of 10. At age 12, the Five-Factor Model was assessed by parents and friends. Neuroticism (positively) and extraversion (negatively) were found to correlate with social inhibition. Ehrler, Evans, and McGhee (1999) found neuroticism to be associated with anxiety and depression in children aged from nine to 13. In 232 children aged eight to 10, Tani et al. (2003) found higher levels of neuroticism, and lower levels of agreeableness both in bullies and in victims. In addition, victims of bullying had low scores on conscientiousness.

Self-esteem

Children bullied at school have negative regards of themselves (Rigby, & Slee, 1993), low self-esteem (Balding et al., 1996; Boulton, & Smith, 1994; Olweus, 1993a; Salmon, James, &

Smith, 1998), low self worth (Egan, & Perry, 1998), and low scores on social and physical self-concepts (Salmivalli, 1998).

Locus of control

Balding et al. (1996) found associations between fears of being bullied and external locus of control. External locus of control was associated with poor academic achievements; while internal locus of control was associated with impulse control and delay of gratification (see Lynch et al, 2002).

Bullying and health outcomes

For the most part, studies of bullying in schools have concentrated upon short-term outcomes of children bullied by their peers. Studies of long-term association, however, are rare, and have been demonstrated in retrospective and longitudinal studies.

Short-term associations

Results from cross-sectional surveys suggest bullying by peers to be significantly related to lower levels of psychological well-being and social adjustment, and to high levels of psychological distress and adverse physical health symptoms (Rigby, 2003).

Low psychological well-being

The “Delighted - Terrible Faces test”, a 7-point scale devised by Andrews and Withey (1976) has been used to assess happiness among school children. Australian students who reported

being bullied in school tended more often to choose faces most like themselves – those that reflected greater unhappiness (Rigby 2002; Rigby, & Slee, 1993).

Poor social adjustments

Children who repeatedly are bullied in school dislike the school environment (Rigby, & Slee, 1993). Bullied children are likely to report more absenteeism than other children (Rigby, 1997). Bullying has been related to impoverished school work (Hugh-Jones, & Smith, 1999), and impaired concentration (Sharp, 1995). Björkquist, Ekman and Lagerspetz (1982) found bullied children to regard themselves as less intelligent, and also, as less attractive. Children in kindergartens being bullied were found to be lonelier at school, not liking school, and even avoiding school (Kochenderfer, & Ladd, 1996). Balding et al. (1996) collected data from more than 11,000 schoolchildren; the age ranged from 11-16. The study demonstrated clear relationships between fears of bullying, and reports of feeling uneasy when meeting someone for the first time of their own age and of the opposite gender.

Psychological distress

Numerous correlational studies have reported symptoms of chronic anxiety and fear to be associated with experiencing bullying by peers. A Swedish study of so-called “whipping boys” (e.g., boys frequently targeted by aggressive peers) reported that the children were significantly more anxious, insecure and physically weaker than others (Olweus, 1978). In more recent studies of bullying, Olweus (1993a) has shown that typical male victims are more anxious and insecure than students in general. Furthermore, these boys are often cautious, sensitive, and quiet. When attacked by other students, they commonly react by

crying. Among English secondary school students, bullied children tended to report feeling irritable, nervous, and panicky after episodes of bullying. Thirty-two per cent said they had recurring memories of bullying incidents, and 29 % said they found it hard to concentrate (Sharp, 1995). In a recent Swedish study, Engström et al. (2005) showed increased risks of unintentional injury among 10-15 year-olds, 1-15 minutes after having being bullied.

In a correlation study from Finland, the relationship between bullying by peers and psychiatric disorders were examined (Kumpulainen, Rasanen, & Puura, 2001). Fourteen per cent of bullied children had attention deficit disorders, 9.6 per cent had depressions, and 8.7 per cent had anxiety. Another Finnish study demonstrated associations between bullying by peers and concurrent eating disorders (Kaltiala-Heino, Rissanen, Rimpela, & Rantanen, 1999). Also, bullying is associated with concurrent suicidal ideation (Kaltiala-Heino, Rimpela, Marttunen, Rimpela, & Rantanen, 1999; Rigby, 1998b; Rigby, & Slee, 1999).

Physical discomfort and psychosomatic symptoms

Children bullied by peers seem to be at higher immediate risks of developing general health problems. In a Finnish study, Lagerspetz et al. (1982) found physical problems such as obesity and handicaps to be more prevalent among victims of bullying. In 2962 primary schoolchildren, Williams et al. (1996) found that those being bullied reported poorer sleep, bed wetting, sadness, headaches and tummy aches. In secondary school students, Sharp (1995) demonstrated that those bullied were more likely to report physical illness and sleeplessness. Wolke et al. (2001) showed victims of physical bullying to be more likely to have psychosomatic health problems. Balding et al. (1996) demonstrated significant associations between fear of being bullied and eczema, as well as breathing difficulties

during exercise and night cough. In a study of Australian secondary students, respondents were presented with a list of 21 health complaints (The Physical Complaints Scale, PCS). Both boys and girls who reported to have been bullied at least once a week, scored significantly higher. The biggest differences between victims and others were found in relations to headaches, mouth sores, and “thumping” in the chest (Rigby, 1998c).

Long-term associations

Findings from longitudinal childhood studies support the idea that being bullied will increase the likelihood of later problems and psychological distress. Ladd, Kochenderfer and Coleman (1997) demonstrated bullying by peers to be associated with school avoidance, both concurrently and predicatively. Rigby (1999a) found that being frequently bullied the first two years of secondary school predicted psychological distress. Stronger negative health effects in girls were evident. Similar findings have been reported in a larger prospective study of Australian students ($n = 2680$). They were surveyed twice in year 8 (at age 13 years) and once in year 9 (Bond et al., 2001). The researchers concluded that “a history of victimization is a strong predictor of the onset of self-reported symptoms of anxiety or depression and remains so after adjustment for other measures of social relations”. They also reported that the effects of bullying on mental health were most evident for girls. Rigby and Slee (1999) administered the Physical Complaints Scale to secondary school children on two occasions, and they found that having been bullied was associated with relatively poor physical health three years later.

Only a very few studies have examined the long-term consequences of bullying from childhood into adulthood. Olweus (1993b) followed 71 boys till the age 23. Fifteen of those

had been victims of bullying in sixth through ninth grade. He found that victims of bullying were more depressed, and, they had more negative views of themselves as adults. Gilmartin (1987) studied 300 love-shy and 200 non-shy “single-never-married” adult men. Love-shyness was defined as a degree of inhibition and reticence in relation to the opposite sex sufficiently severe to preclude participation in courtship, marriage and family roles. The “love-shys” ones reported more frequently to have been bullied in school. Rubin, LeMare and Lollis (1990) found that bullying by peers in school was associated with loneliness in adulthood. Bullying by peers was also associated with more dropping out of school (Boivin, Hymel, & Hodges, 2001; Limber et al., 1998).

Roots of bullying

The deviance hypothesis

In the 1970s, a popular view of bullying was the deviance hypothesis (Heinemann, 1972), which implied that victims were in some respect deviant.

The “bully/victim problem”

Studies in the 1980s demonstrated other factors to be more important. Olweus’ (1993a) gave a picture of how “bully/victim problem” may develop among boys: “Among the boys in the class, there are normally some conflicts and tensions of different kinds. Usually, there are also many slight aggressive interactions, partly for fun, as a form of self-assertion and for the testing out of strength relations among the boys. If there is a potential bully (or several) in such a group, this will influence the boys’ activities. The interactions will be rougher, more

vehement and violent. If there is also a potential passive whipping boy (victim) in the class – anxious, insecure, fearful of being assertive and aggressive, and often physically weak as well – he will soon be discovered by the bully. Gradually, the whipping boy becomes more and more isolated among the peers”.

Childhood psychosocial environment

In several studies, associations between negative parenting practices and bullying have been shown. Craig, Peters and Konarski (1998) used parent rating scales of family demographics, family functioning, and child behaviors. The respondents were parents of children aged four to eleven. Low socioeconomic status, unemployment, and being young parents were related to negative parenting practices and poor parent-child interactions; this was found both in bullied children and in children bullying others. Rigby and Slee (1999) demonstrated bullies to come from families characterized by low levels of love with criticizing and strictly controlling parents. Harachi, Catalano and Hawkins (1999) found higher rates of bullying among boys whose parents used physical punishment or violence. Junger-Tas and van Kesteren (1999a) showed that parents using beating and strict disciplines had children who bullied other children more often. Olweus (1993b) studied rejected-withdrawn schoolboys; he found bullying by peers to be related to overprotective mothers and critical and distant fathers. Rigby (1993) showed that bullied boys reported negative relations to their fathers, and bullied girls described negative relations to their mothers.

Continued bullying

Many children experience episodes of teasing and harassment in their early school years.

Continued harassment, however, is likely to occur only with those who fail to cope satisfactory and who fall into reinforcing negative cycles of poor coping, low self-esteem, lack of protective friendships, and vulnerability to further bullying (Smith, Shu, & Madsen, 2001). The success of coping strategies is influenced by internal and external resources available to the victims.

Internal resources may include various personality features and intelligence.

Available internal resources may be affected by the family childhood environment and gene-environment interactions (GxE), and also, by gender, age, physical strength and intelligence. Children maltreated by their parents or other adults have been found to have lower self-esteem and social competence, and less positive self-concepts than those who have not been subject to maltreatment (Bolger, Patterson, & Kupersmidt, 1998; Egeland, Sroufe, & Erickson, 1983; Kinard, 1999; Toth et al., 1997).

External resources may include friends, involvement of teachers and interference of bystanders. There are at least three factors that seem to moderate the risks of becoming a victim: numbers of friends, quality of friends (such as their peer status), and general standing in the peer group (Boulton, & Smith, 1994; Hodges, Malone, & Perry, 1997; Pelligrini, Bartini, & Brooks, 1999). Having a reciprocating best friend, especially one who could be trusted, may protect against bullying by peers (Boulton et al., 1999). In a recent Dutch study, almost half of the bullied children did not tell their teachers that they were being bullied, and when the teachers actually were told, the majority of the teachers did not talk to the bullies about their behavior (Fekkes, Pijperr, & Verloove-Vanhorick, 2005).

Bullying and mental health problems, possible mechanisms

Associations between childhood bullying and mental health problems may be due to combinations of bullying by peers in school, poor childhood psychosocial family environment, and gene-environment interactions.

Craig, Peters and Konarski (1998) found poor family functioning to be related to both bully-victim problems and mental health problems in children. Internalizing problems, such as anxiety, depressions, unhappiness and emotional difficulties, as well as externalizing (conduct disorder) were linked to bullying. Depressed and unhappy children with poor self-esteem may “invite” bullies (Egan, & Perry, 1998; Hodges, & Perry, 1999). Bullying has also been found to precede poor self-esteem (Kochenderfer, & Ladd, 1996) and depression (Bond et al., 2001). This may form a vicious circle (see Figure 4). Children maltreated at home or/and bullied by peers may develop ‘learned helplessness’ and establish external locus of control (Allen, & Tarnowski, 1989; Bolger, & Patterson, 2001). If a child believes that there is nothing he or she can do to counteract bullying then the child may not fight back or seek help from teachers or friends.

In the development of mental health problems, locus of control and self-esteem may serve as mediators (Bolger, & Patterson, 2001; DuBois et al., 1994). Neuroticism may also play a role in the prediction of mental health problems after bullying. High levels of neuroticism have been found to provide the best prediction of future episodes of depression (Horwood, & Fergusson, 1986; Duncan Jones et al., 1990). Moreover, mental health problems may be due to ‘Early Maladaptive Schemas’ (Young, 1999), i.e., self-defeating emotional and cognitive patterns beginning early in life and repeated throughout life. A

number of the schemas, e.g., “Social Isolation and Alienation”, may develop after having been bullied in school.

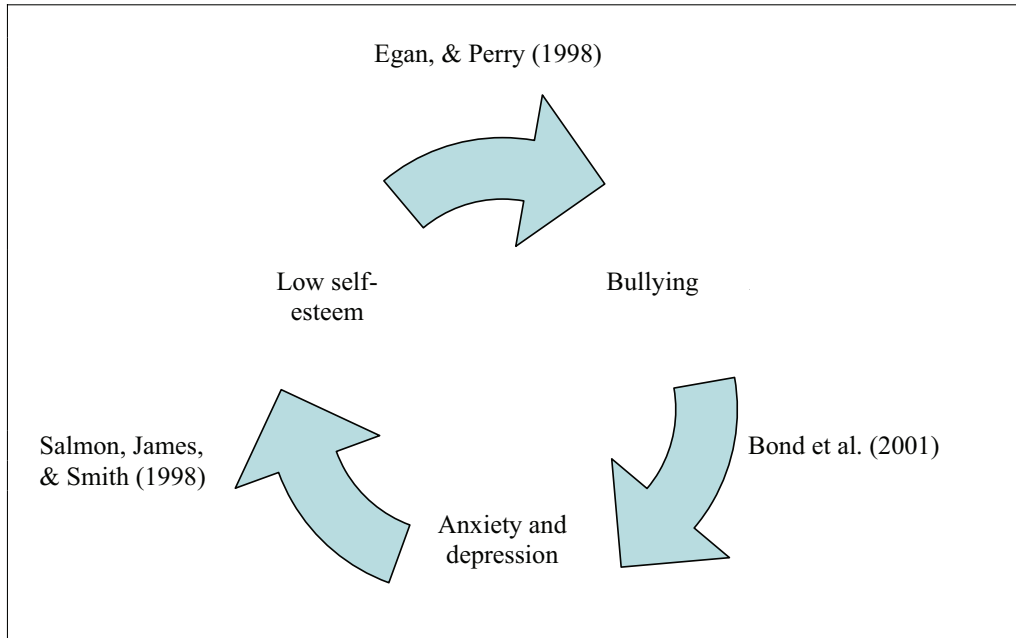


Figure 4. Potential viscous circle in children of bullying, depression and low self-esteem.

Long-term associations between child maltreatment and mental health problems in adulthood have been suggested in several studies (e.g., Olweus, 1993b; MacMillan et al., 2001; Rosenman, & Rodgers, in press), indicating that different types of child maltreatment, including bullying by peers, have long-term influences on mental health.

Present study

Aims of study

The general aim of the thesis is to explore the relationships between bullying by peers in childhood, and the manifestations of later mental health problems in adult psychiatric outpatients. The specific aims were:

- to contrast the psychosocial childhood environment of outpatients reporting to have been bullied at school with those who did not report any bullying (Paper I)
- to compare current socio-demographic variables in outpatients who reported having been bullied in childhood with those without such reports (Paper II)
- to explore long-term associations between maltreatment by adults and peers in childhood with personality features in adulthood (Paper III)
- to explore relations between reports on maltreatment in childhood, and subsequent eating disorders in adult life (Paper IV)
- to explore the relationships between bullying by peers in childhood, and later psychiatric symptoms (Paper V).

Methods

Design

Combined retrospective and concurrent case-control design was used. Psychiatric symptoms, personality features and socio-demographic information were concurrent data, while reports on childhood psychosocial environment and childhood maltreatment were retrospective data.

Ethics

The Regional committee for medical research ethics approved the project. All the participants gave their written, informed consent.

Setting

The psychiatric care system in the county of Sør-Trøndelag is organized in two geographic areas. The base population in this study consisted of the inhabitants (N = 99,000) in one of those areas, which included the residents in three city districts and five rural districts. The study took place at a psychiatric outpatient clinic. Most of the patients were referred by general practitioners. The distribution of diagnoses (ICD 9) in 1993 showed that 20 per cent of the patients had adjustment disorders, 17 per cent had personality disorders, 14 per cent had anxiety disorders, 10 per cent had dysthymic disorders, six per cent had eating disorders, and three per cent had posttraumatic stress. Another three per cent had bipolar depressive disorders and two per cent were given the diagnosis of schizophrenia.

Procedure

Eligible patients were recruited consecutively from the psychiatric outpatient clinic. By governmental law, all new referrals are to be evaluated within a month. As a part of my research and clinical work, I made all the incoming clinical assessment interviews. Data were collected from January to June and from August to December in 1997. July was avoided due to major changes in routines and clientele during times of vacation.

Inclusion criteria

All referrals with no prior records of psychiatric treatment were included to get a cohort design. To avoid possible confounders related to early or advanced age, only patients between 18 and 55 years were included.

Exclusion criteria

Excluded were patients with organic mental disorders and patients who did not speak any of the Scandinavian languages; the questionnaires were in Norwegian. Patients < 18 years and > 55 years were excluded.

Invitation

Outpatients who met the inclusion criteria were invited to participate in the study. The invitations were put in the same envelope as the appointment letter.

When the included outpatients came to the interviews, they were further informed about the study. Outpatients who wanted to participate gave their written consent and completed the self-administered questionnaires before the clinical assessment interviews.

Participants

In the study period, a total of 468 patients (mean age = 35.0, SD = 11.95) were referred to the outpatient clinic. Of those were 304 (65%) females (mean age = 35.0, SD = 12.61) and 164 (35%) were males (mean age = 34.9, SD = 10.64). Two-hundred and sixty-six patients did not meet the inclusion criteria and were excluded from the study. Of the remaining 202 outpatients, 21 (10.5%) never turned up, and 21 (10.5%) declined to participate. In total, 42 (21%) of included patients did not participate, 31 (74%) were females (mean age = 32.1, SD = 9.23) and 11 (26%) males (mean age = 32.4, SD = 9.10). Eventually, there were 160 patients left (mean age = 32.6, SD = 9.52). One hundred and seven (67%) were females (mean age = 32.0, SD = 9.73) and 53 (33%) were males (mean age = 33.8, SD = 9.05). Patients who declined did not differ from the remaining participants with respect to age and gender.

Number of subjects included in the analyses

In Paper I, II, III and V, all participants were included in the analyses. In Paper IV, only the females were included.

Measures

Concurrent data included socio-demographic information, psychiatric symptoms and disorders, and personality related features.

Retrospective data included psychosocial environment of the childhood, including information about childhood maltreatment committed by parents, other adults, or peers.

Socio-demographic information

Social-demographic data included gender, age, cohabitation status, level of education, work status, and occupation/profession.

Gender - was rated 1 for females and 0 for males.

Age - was rated as a continuous variable.

Cohabitation status - was classified as “single”, “married/cohabiting”, or “separated/divorced”.

Level of education - was divided into three levels: grade school/primary school, junior college/vocational training and postgraduate college/university training.

Work status - was divided into three groups: unemployed, employed/studying and social benefits/rehabilitation/disability pension.

Occupation – nine groups were represented: schoolteachers, chemist/physicist/engineer/geologist, nurse/nursing assistant, children’s nurse, student/research fellow, accountant/bookkeeper/banker/secretary, shop assistant/sales work, cleaner and other.

Psychiatric symptoms and disorders

GSI – Global Severity Index - Psychiatric symptom levels at the time of the study were measured by the Symptom Check List - 90 - Revised (SCL-90-R) (Derogatis, Lipman, &

Covi, 1973; Derogatis, & Cleary, 1977). This is a 90-item self-report inventory. The subjects were asked to rate each item on a 5-point scale of discomfort ranging from 0 (none) to 4 (extreme) on the basis of their experiences during the last week. From the 90 items, the mean value (GSI) was computed.

Anorexia Nervosa and Bulimia Nervosa. The occurrences of Anorexia Nervosa and Bulimia Nervosa were assessed by a self-administered inventory (see Appendix) based on the criteria of the DSM - IV (American Psychiatric Association, 1994). In the present study, 12 (11.2%) outpatients met the criteria for Bulimia Nervosa, and 9 (8.4%) for Anorexia Nervosa. Of outpatients with anorexia nervosa, six had a Body Mass Index (BMI) below 17.5 kg/m², and three had a mean BMI on 19.07 kg/m², but defined themselves as “very thin” in the gate question. Benders list of desirable weight of normal bodily constitution was used to determine if the patients met the criteria for being underweight (Bender, 1981).

Personality features

Four instruments detected features of the participants’ current personality:

Self-Esteem - The Rosenberg Self-Esteem Scale (Rosenberg, 1979) is a self-report inventory including ten statements. Five statements indicate low self-esteem and five reflect high self-esteem. The response alternatives to each item were 1 (strongly agree), 2 (agree), 3 (disagree) and 4 (strongly disagree). Self-esteem was turned into a global variable by using the mean of the ten items after reversing the negatively worded items. The internal consistency (alpha coefficient) of the 10-item scale was 0.88.

External Locus of Control - The Locus of Control of Behaviour Scale, LCB, (Craig et al., 1984) is a 17-item self-report instrument assessing Internality (7 items) and Externality

(10 items) of the subjects. Externality refers to the belief that one's life is determined by outside forces or by chance, fate or authority, while persons with high scores on Internality tend to exhibit more initiative in their attempts to achieve goals and to control their environment. Responses were rated on a 6-point Likert scale from 0 (strongly disagree) to 5 (strongly agree). To measure External Locus of Control, the seven items related to Internality were reversed, and the sum of the 17 items computed. In this study, the internal consistency (alpha coefficient) was 0.71.

The 5-PFa (Engvik, 1993, 1999a, 1999b) is a self-report personality instrument made to capture dimensions of the five factor personality model closely related to the Big Five. The Five-Factor Model (FFM) or Big Five approach (Digman, 1990; Goldberg, 1993; McCrae, & Costa, 1990, 1999; Wiggins, 1996) is well established as a descriptive system of adult personality. The primary dimensions of the FFM (Agreeableness, Extraversion, Conscientiousness, Neuroticism and Openness to Experience) have been factor analytically derived from trait-descriptive adjectives used to characterize human functioning in natural language and from analyses of comprehensive personality questionnaires.

In the FFM, extraversion involves positive emotionality and active engagement in the world through high approach and reward sensitivity. Individuals with high extraversion are outgoing, dominant, expressive, and energetic. In contrast, low extraversion, that is, introversion, implies tendencies to avoid social experiences and to restrict expression of intense affects. Such individuals are more inhibited, quiet, restrained, and sometimes passive. Neuroticism is the only measure directly related to psychopathology and tendencies toward experience of high negative emotionality. The world is experienced as threatening and distressing. Inhibition, avoidance, and punishment sensitivity are heightened.

Conscientiousness involves the extent of control over impulses and emotion, as well as the ability to direct attention and delay gratification in the service of more distant goals. Individuals high on conscientiousness are diligent, planful, persistent, reliable, and responsible. Agreeableness characterizes the extent to which a person displays warmth, compassion, and kindness versus interpersonal antagonism in social relations. Openness to experience involves intellectual curiosity, creativity, and insightfulness. The developmental precursors of this trait are unknown, but there is preliminary evidence for two possible temperamental bases. First, the tendency in early childhood to seek stimulation and to explore new environments actively predicts later academic achievement and IQ, and second, orienting sensitivity, which includes the tendency to be sensitive to internal and external sensory stimulation, is related to concurrent Openness to experience in adulthood (Rothbart, Ahadi, & Evans, 2000). In this study, the internal consistencies (alpha coefficient) of the 5-PFa were found to be 0.84 for Extroversion and Neuroticism, 0.85 for Conscientiousness and Agreeableness, and 0.76 for Openness to Experience.

Childhood psychosocial environment

The psychosocial environment of childhood was covered by questions such as: Did the patient grow up with biological parents, foster parents or adoptive parents? How many siblings were there? Furthermore, questions were asked about particular life events in childhood: Did the family ever move? Was the patient ever separated from his/her parents for some time when growing up? Did the parents split up their marriage? Did any of the parents, or both, suffer from mental illnesses? The questions were dichotomized into yes and no.

The Financial status of parents was rated as 1 (good), 2 (average) and 3 (poor).

Childhood maltreatment

Maltreatment by parents and other adults - Two inventories detected childhood abuse by adults, parental coldness and overprotection: CTQ and PBI.

CTQ - Traumatic events in childhood related to abuse or neglect were captured by the Childhood Trauma Questionnaire (Bernstein et al., 1994). The CTQ is a 70-item self-report questionnaire which provides a brief, reliable and valid assessment of a broad range of traumatic experiences in childhood. All items of the CTQ begin with the phrase, «When I was growing up,...», and are scored on a 5-point Likert-type scale indicating the frequency with which the experience occurred: 1 (never true), 2 (rarely true), 3 (sometimes true), 4 (often true), and 5 (very often true). The CTQ provides scores on four empirically derived factors: Physical and Emotional Abuse, Emotional Neglect, Physical Neglect, and Sexual Abuse. In the present study, a modified 21-item version of the CTQ was used. The internal consistencies of the four factors were 0.84 for Physical and Emotional Abuse, 0.89 for Emotional Neglect, 0.86 for Sexual Abuse and 0.40 for Physical Neglect. Because of its low internal consistency, Physical Neglect was excluded from the analyses in paper III and IV.

PBI - Parental dimensions of care and overprotection were measured by the Parental Bonding Instrument (Parker, Tupling, & Brown, 1979), also a self-report device. The attitudes and behaviors given by each item were rated for each of the two parents. The items were rated on a Likert scale ranging from 1 to 4: 1 (very like), 2 (moderately like), 3 (moderately unlike), and 4 (very unlike). Twelve care items reflect the dimension of affection and nurturance at one end versus emotional rejection and neglect at the other. Thirteen overprotection items assess the dimension of rigid control versus fostering autonomy. In

many studies, the PBI subscales demonstrate high internal consistencies and test-retest reliabilities (Lizardi, & Klein, 2005; Parker, 1989). In the present study, the internal consistencies were 0.95 on Father Care, 0.77 on Mother Care, 0.89 on Father Overprotection, and 0.91 on Mother Overprotection.

Maltreatment by peers – Bullying in school - Information about bullying by peers was collected by an inventory developed by Olweus (1991). The inventory consists of 27 items and has been widely used in schools in Scandinavia. Only four items address the types and frequencies of bullying at school. The four items were reworded into past tense and included into the present study. The first item measured the frequency of social isolation. The second item measured the frequency of bullying at school, and, the third item measured frequency of bullying on the way to and from school. The response alternatives were 0 (never), 1 (hardly ever), 2 (now and then), 3 (about once a week), and 4 (several times a week). The fourth item measured the type of bullying. The patients were asked to check off which type of bullying they had experienced, if any. To be considered bullied the responder had to report bullying “now and then” or more frequently on any of the three first items. The bullying data were used in two different ways:

- 1) Dichotomized into Bullied/Not Bullied - In Paper I and II, the outpatients were categorized into “Bullied” and “Not Bullied”. The aim was to contrast the childhood environment and to compare social-demographic variables.
- 2) Continuous measure of Bullying by peers - In Paper III, IV and V, the data analyses used a continuous variable. The *sum* of the three first items indicated the degree to which the patients had been bullied by peers. The lowest obtainable score was 0; the maximum 12.

Data analyses

SPSS for Windows was used in all papers. The level of significance was set at $p < 0.05$ in the statistical analyses. Frequencies were compared by the Chi-square (χ^2) in paper I and II.

One-way ANOVA compared bivariate means and standard deviations between the groups of Bullied and Not Bullied outpatients in paper I and II, and between groups of patients with and without Bulimia Nervosa in paper IV.

Logistic regression analyses were carried out with Bullied/Not Bullied as the dependent variable in paper II, and Bulimia Nervosa/Not Bulimia Nervosa in paper IV.

Linear regression analyses were conducted with GSI as the dependent variable in Paper V and with different personality features as the dependent variables in Paper III.

Bivariate correlation analyses were performed with bullying by peers, GSI, Self-Esteem and External Locus of Control in paper V.

In Paper V, the mediational role of External Locus of Control and Self-Esteem was examined by using procedures specified by Baron and Kenny (1986). According to the authors, the steps require: (1) the total effect of the independent variable on the dependent variable must be significant, (2) the path from the independent variable to the mediator must be significant, and (3) the path from the mediator to the dependent variable must be significant. If the independent variable no longer has any effect on the dependent variable when the mediator has been controlled for, complete mediation has occurred.

Scales from standardized questionnaires or inventories were checked for internal consistency by Chronbach's alpha.

Abstracts

Paper I

Objective: To contrast the psychosocial childhood environment of psychiatric outpatients reporting to have been bullied at school with those without such reports.

Method: One hundred and sixty consecutive adult outpatients from a psychiatric clinic in Norway completed self-administered questionnaires about the psychosocial environment of their childhood and adolescence. The frequency of being bullied was measured with an inventory used in schools. Also, the Parental Bonding Instrument (PBI) and the Childhood Trauma Questionnaire (CTQ) were used.

Results: Males bullied in childhood tended to grow up without biological fathers. Bullied females scored significantly lower on Father Care on the PBI and significantly higher on Emotional Neglect, Emotional and Physical Abuse and Physical Neglect on CTQ.

Conclusions: The findings suggest that to be bullied in school years is associated with characteristic psychosocial features in the environment of early childhood and adolescence.

Paper II

The aim of this study was to contrast the present social-demographic variables of psychiatric outpatients who reported bullying in childhood with those without such reports. One hundred and sixty consecutive adult patients from one psychiatric outpatient clinic completed self-administered questionnaires about their current cohabitation status, levels of education, work status and occupation. Bullying was measured by an inventory used in schools. The results showed psychiatric outpatients bullied in childhood were often to be singles, to have lower

levels of education, often to receive social benefits, and to hold jobs rather as shop assistants than as engineers and schoolteachers. Conclusion: Those bullied in childhood showed poorer psycho-social adjustments as adults.

Paper III

To explore long-term associations between reports of maltreatment in childhood and personality features in adulthood, 160 consecutive adult psychiatric outpatients completed self-administered questionnaires. Maltreatment was defined either as child abuse or neglect by parents or other adults, coldness and overprotection by parents, or bullying by peers. The Childhood Trauma Questionnaire was used to detect childhood abuse by parents or other adults, while dimensions of parental coldness and overprotection were captured by the Parental Bonding Instrument. Bullying by peers was measured by an inventory used in schools. Personality variables were covered by the 5-PFa related to the “Big Five”, The Rosenberg Self-Esteem Scale, and the Locus of Control of Behaviour Scale. Reports of bullying by peers were linked to poor self-esteem, and to external locus of control. Child maltreatment by parents or other adults were linked to the Big Five personality dimensions; bullying by peers was not.

Paper IV

To explore possible relations between maltreatment in childhood and subsequent eating disorders in adult life, 107 consecutive adult psychiatric female outpatients were screened for eating disorders. They also completed questionnaires about harassment by adults and bullying by peers in childhood. The Childhood Trauma Questionnaire measured childhood

abuse by parents or other adults, and the Parental Bonding Instrument captured parental coldness and overprotection. Bullying by peers was measured by an inventory used in schools. Outpatients who met the criteria for bulimia nervosa reported far more bullying by peers, more coldness and overprotection from fathers, and more emotional, physical and sexual abuse in childhood. The findings suggest associations between childhood maltreatment, especially bullying by peers, and bulimia nervosa.

Paper V

To explore the relationships between bullying by peers in childhood and the levels of psychiatric symptoms in adult psychiatric outpatients, 160 consecutive adult psychiatric outpatients completed self-administered questionnaires. Psychiatric symptoms were measured by the Global Severity Index of Symptom Check List - 90 - Revised. Three items addressed the frequencies of bullying by peers in childhood. Self-esteem was measured by the Rosenberg Self-Esteem Scale and External locus of control by The Locus of Control of Behaviour Scale. Results showed the degree of bullying by peers to be correlated with the Global Severity Index, poor self-esteem and external locus of control. Regression analyses demonstrated the effects of bullying by peers on psychiatric symptoms in adulthood to be mediated by external locus of control and by self-esteem.

Results

Forty-one per cent ($n = 44$) of the female and 57 per cent ($n = 30$) of the male adult psychiatric outpatients reported to have been bullied in school. As adults, “Bullied” outpatients were more often singles (43, 58.1% vs. 29, 34.1%; $p < 0.01$). Also, they had significantly lower levels of education: 16 (21.6%) of the Bullied outpatients versus 37 (43.5%) of the “Not Bullied” outpatients had post graduate college/university training ($p < 0.01$). Bullied outpatients often received social benefits, or they were more frequently involved in rehabilitation programs (15, 20.3% vs. 7, 8.2%; $p < 0.05$). Bullied outpatients held significantly more unskilled jobs, e.g., they worked as shop assistants etc. (8, 10.8%, vs. 2, 2.4%; $p < 0.05$). None of the Bullied held jobs as chemists, physicists, engineers or geologists (0 versus 6, 7.1%). Only one Bullied outpatient (1.4%) compared to nine (10.6%) Not Bullied outpatients worked as schoolteachers ($p < 0.05$).

Bullied males grew up more often without one or both biological parents (10, 9.4% vs. 2, 3.8%; $p < 0.05$). Bullied males grew up more often without their biological fathers (8, 15.1% vs. 1, 1.9%; $p < 0.05$). Bullied females scored significantly higher on Emotional Neglect ($M = 3.0$, $SD = 0.82$ vs. $M = 2.3$, $SD = 0.93$; $p < 0.01$), and on Emotional and Physical Abuse ($M = 2.2$, $SD = 0.74$ vs. $M = 1.8$, $SD = 0.78$; $p < 0.01$). The trend was in the same direction for males, but the differences did not reach statistical significance. Bullied females also scored significantly lower on Father Care ($M = 16.5$, $SD = 9.28$ vs. $M = 21.5$, $SD = 10.48$; $p < 0.05$). No significant differences were found between Bullied and Not Bullied patients with regard to the number of siblings, or low family income, mental problems, and divorce.

Female outpatients who met the criteria for Bulimia Nervosa were significantly more bullied by peers ($p < 0.001$; $d = 1.14$). Also, they scored higher on Father Overprotection ($p < 0.01$; $d = 0.85$) and lower on Father Care ($p < 0.05$; $d = 0.76$). Moreover, the bulimics scored higher on Emotional and Physical Abuse ($p < 0.05$; $d = 0.75$), and Sexual Abuse ($p < 0.05$; $d = 0.63$). In a logistic regression analyses, Bulimia Nervosa was significantly predicted by Bullying by peers ($p < 0.01$) and Father Overprotection ($p < 0.05$). For Anorexia Nervosa, no significant differences were found for any kind of abuse in childhood.

Associations were found between Bullying by peers and subsequent Self-Esteem and Locus of Control. Low Self-Esteem was significantly predicted by Bullying by peers, Mother Overprotection and Sexual Abuse ($F(3, 141) = 10.68$; $p < 0.001$). External Locus of Control was significantly predicted by Emotional Neglect and Bullying by peers ($F(2, 139) = 7.15$; $p < 0.001$).

Bullying by peers was positively correlated with psychiatric symptom levels as measured by the GSI ($p < 0.001$), negatively with Self-Esteem ($p < 0.001$), and positively with External Locus of Control ($p < 0.01$). Also, GSI, Self-Esteem and External Locus of Control were significantly associated with each other. The mediational roles of the External Locus of Control and Self-Esteem on the relationship between Bullying by peers and the GSI were examined in regression analyses. Bullying by peers significantly predicted the GSI. When External Locus of Control was added, the effect of Bullying by peers on the GSI decreased, and when Self-Esteem was added, Bullying by peers did not remain significantly associated with the GSI.

Discussion

General discussion

This study shows that male psychiatric outpatients who were bullied in childhood tended to grow up without biological fathers. Those female outpatients that were bullied scored lower on father care and higher on emotional neglect, emotional and physical abuse and physical neglect. The findings are in agreement with childhood studies. Negative relations with fathers may contribute toward poor father identifications. Physically and emotionally present fathers probably serve male models, teaching sons how to relate to other males, how to be more assertive, and how to protect themselves against bullies. Unsatisfactory relations with parents and maltreatment by adults may not only have negative effects on the mental and physical health of children, but may also be associated with being bullied in school (Rigby, 1999b).

The adult psychiatric outpatients who had been bullied in childhood were more often singles, had lower levels of education, lower occupational status. Often they received social benefits, and they rather worked as shop assistants than as engineers and schoolteachers. The findings are in keeping with childhood studies: bullied children are found to be lonely, to avoid school and to drop out of school (Boivin, Hymel, & Hodges, 2001; Limber et al., 1998). In adulthood, they seem to continue to avoid school: Of the psychiatric outpatients that were trained teachers; only one out of ten had been bullied during school years. The findings concur with the results of Nicolaides et al. (2002). They studied reports of bullying in childhood in 270 trainee teachers. They found that the trainees rather reported to have

bullied others than having been victims. Possibly, the teachers' involvement in bullying may affect their attitudes and ability to detect and prevent bullying.

This study also shows that reports of maltreatment in childhood are linked to the personality features of adult psychiatric outpatients. In addition to being shaped by parents, personality features may have been shaped by peers. The findings are in accordance with other studies showing relationships between early adverse environment and adult personality features. The findings are also in line with the study by Caspi et al. (2002) who found that maltreated boys - whose genotype conferred low levels of monoamine oxidase A (MAO-A) expression - developed more often antisocial personality than boys with high-activity MAO-A genotype. Our findings suggest child maltreatment to be a major risk factor toward poor self-esteem and external locus of control in adulthood. Contrary to expectations, our study did not show any relationships between bullying by peers in childhood and the FFM, which departs from the findings of other studies carried out in schools. The disparity may stem from differences in research designs, instruments and samples. Our study was conducted in an adult psychiatric outpatient population. The childhood maltreatment was measured retrospectively, while other studies were carried out in school populations, and used cross-sectional designs. Moreover, contrary to expectations, this study demonstrates reports of maltreatment exerted by adults to be positively linked to extraversion and openness to experience. Extraversion is typically associated with high levels of activity. However, high activity levels are also common in conduct disorders, and linked to childhood adversities (Foley et al., 2004). The developmental precursors of openness to experience are unknown, but hypothetically, childhood abuse may involve high levels of arousal and drive children actively to explore new environments and external sensory stimuli (see Caspi et al., 2005).

Moreover, this study demonstrates that adult female outpatients who fulfilled the criteria for bulimia nervosa reported more bullying by peers in childhood. The findings are in accordance with several childhood studies (Balding et al., 1996; Kaltiala-Heino et al., 1999), and the study by Jackson, Grilo and Masheb (2002). They found that bulimic patients, compared to patients with binge eating disorders, reported more often to have been teased about their weights and sizes. Having been teased was associated with low self-esteem. This study also demonstrates that bulimic outpatients report more father overprotection and less father care in childhood. The findings are in line with the works by Teri Pakier (2003). The author found eating disorders in adolescents to be positively correlated with parental overprotection, and negatively with parental care. In addition, our study shows that female outpatients with bulimia nervosa report more childhood physical and sexual abuse by parents or other adults. The findings concur with several studies on childhood abuse and eating disorders (McCallum et al., 1992; Rorty, Yager, & Rossotto, 1994; Schmidt et al., 1995; Wonderlich et al., 1997). Striegel-Moore et al. (2002) demonstrated females with binge eating disorders to report higher rates of sexual abuse, physical abuse and bullying by peers. The findings of this study suggest relationships between bulimia nervosa and bullying by peers, and between bulimia nervosa and father overprotection. There might be a link between father overprotection, bullying by peers and bulimia nervosa. For example, low scores on the self-concept correlates with negative relations to fathers (Wonderlich, Klein, & Council, 1996). Low self-concepts also correlate with experiences of teasing about weight and size (Jackson, Grilo, & Masheb, 2002) and with bullying at school (Boulton, & Smith, 1994; Olweus, 1993a). Striegel-Moore, Silberstein and Rodin (1993) showed patients with bulimia nervosa to be preoccupied not only with their physical presentation but also with their "social

self" in general. Overprotective fathers may focus too much on their daughters' weight and physical presentation, which may result in poor self-concept. Poor self-esteem may, in turn, contribute to victimization in school.

Finally, our study shows that the degree of bullying by peers in childhood was correlated with concurrent high level of psychiatric symptoms. These findings are in agreement with Olweus' (1993b) study, showing victims of bullying to have higher levels of depression in young adulthood and with childhood studies demonstrating relationships between bullying by peers and psychiatric symptoms and disorders. Moreover, the findings are comparable with studies showing relationships between child maltreatment by adults and psychopathology in adulthood in psychiatric populations (Bierer et al., 2003; Coverdale, & Turbott, 2000; Hammersley et al., 2003; Read et al., 2003) as well as in general populations (Briere, & Elliott, 2003; MacMillan et. al., 2001). In a recent cohort-study including more than 300,000 people, Spataro et al. (2004) found significantly increased risks of developing mood disorders, behavioral disorders, childhood psychiatric disorders, anxiety disorders and personality disorders in children who reported maltreatment.

The effects of bullying by peers on psychiatric symptoms were found to be mediated by external locus of control and self-esteem. The findings are in line with as other studies showing locus of control and self-esteem to mediate between stressful life events and psychological distress (Bolger, & Patterson, 2001; DuBois et al., 1994; Greiff, 2005).

Summing up

The findings of this study show relationships between child maltreatment exerted by adults and peers, and subsequent mental health problems. Bullied males had absent fathers and

bullied females had less caring fathers. Bullied females with bulimia nervosa had overprotective fathers. There were long-term associations between mother overprotection, bullying by peers and poor self-esteem. John Bowlby (1969) stressed the relevance of parental bonding and the unfortunate consequences upon the social and mental health of children if they did not enjoy the loving care of nurturing parents. Recently, however, the so-called “nurture assumption” has been disputed. Rigby (1999b) demonstrated that bullying by peers was related to poor mental health *after* taking into account low perceived parental care and also high levels of perceived parental overcontrol (see Figure 5).

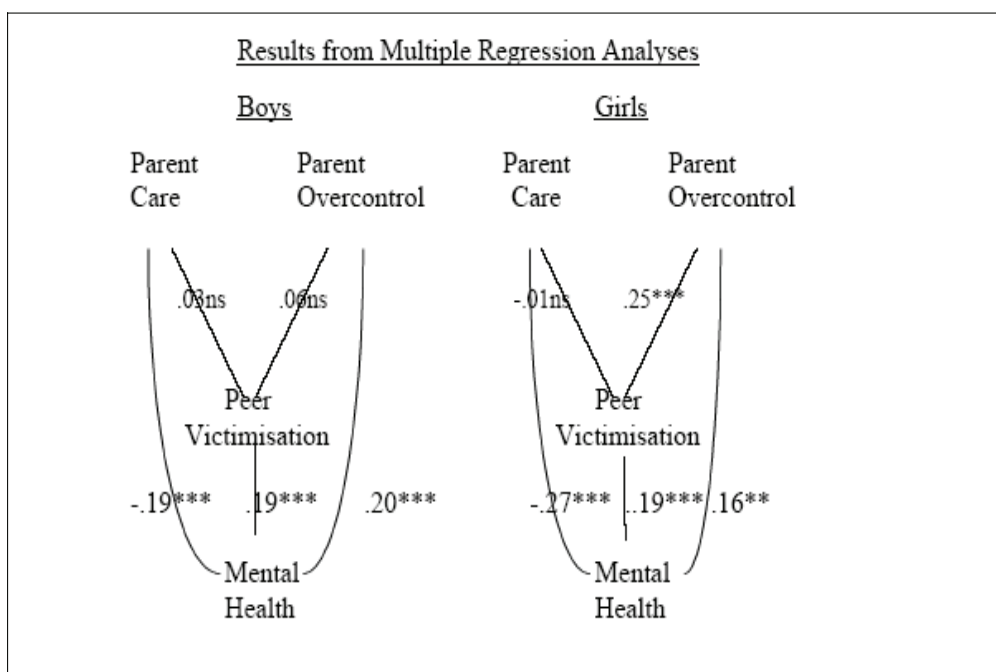


Figure 5. Relationships between parental bonding, bullying by peers and mental health (Rigby, 1999b).

The role of self-esteem and locus of control also seems important. Maltreated children have poorer self-esteem and external locus of control. Children with poor self-esteem are at risk of being bullied and of getting into reinforcement cycles of poor coping, low self-esteem, lack of protective friendships, and vulnerability to further bullying. Likewise, children neglected in their families tend to believe that they are unable to alter their environments in difficult situations. If bullied, they may not fight back or seek help from teachers and friends, which may reinforce negative cycles of powerlessness and vulnerability toward further bullying. In turn, this may have long-term impact on mental health. Self-esteem and locus of control may serve as mediators.

Methodological considerations

Design

In retrospective case-control designs, the goal is to draw inferences about some condition that has resulted in, or is associated with, the outcome. The design represents an effort to identify possible “risk factors” in relation to the subsequent outcome. Retrospective designs include measures designed to elaborate the past of the individuals. Among others, the limitations of case-control designs are that causal relations cannot directly be demonstrated (Kazdin, 2003).

The reliability of retrospective studies depends upon the people’s memories, which may be influenced and distorted by the respondents’ mood and inclination. Feeling sad or angry may give rise to unpleasant memories such as being bullied. This may result in spurious correlations between being bullied and suffering from depression (Mayer, McCormick, & Strong, 1995). A recent study, however, measuring the long-term stability of

parental representations in adult depressed outpatients, utilizing the PBI, showed recollections of parental bonding to be stable across changes in the depressed mood (Lizardi, & Klein, 2005).

Generalization

The data of this study were collected in an adult psychiatric outpatient population. The findings may not apply directly to the general population, but they may be seen as representative of psychiatric populations in Scandinavia and in countries of similar socio-economic infrastructures.

Conclusions

The findings of this study indicate relationships between bullying by peers in childhood and later mental health problems. The findings also indicate relationships between bullying by peers and child maltreatment exerted by parents and other adults. Our findings suggest that different types of maltreatment in childhood may interact and form vicious circles resulting in poor self-esteem, depression, loneliness and poor psychosocial adaptation.

Clinical implications and further research

This study emphasizes that bullying by peers in school may have detrimental, long-term consequences on mental health. In patient treatment, clinicians' may miss essential events shaping the destiny of psychiatric patients if bullying is overlooked. Information about bullying should be collected during the history taking. In psychotherapy, bullying by peers should be addressed in order to treat symptoms and problems related to the bullying. Of the different types of psychotherapies available, schema therapy may have certain advantages. In this kind of therapy (Young, 1999; Young, Klosko, & Weishaar, 2003), several schemas are related to bullying by peers, especially Social Isolation/Alienation, but also Defectiveness/Shame and Mistrust/Abuse.

Longitudinal prospective studies may provide the most clarifying evidence about the links between childhood bullying and subsequent mental health problems in adults. Future research aiming at exploring the repercussions of childhood abuse and maltreatment should probably include peer abuse such as bullying.

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Paper I



Pergamon

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Child Abuse
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Childhood environment of adult psychiatric outpatients in Norway having been bullied in school[☆]

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Abstract

Objective: The goal of this study was to contrast the childhood environment of adult psychiatric outpatients reporting to have been bullied at school with those who were not.

Method: One-hundred-sixty consecutive adult outpatients from a psychiatric clinic in Norway completed self-administered questionnaires about their psychosocial environment during childhood and adolescence. The frequency of being bullied was measured with an inventory used in schools. Also, the Parental Bonding Instrument (PBI) and the Childhood Trauma Questionnaire (CTQ) were used.

Results: Men who were bullied in childhood tended to grow up without biological fathers. Women who were bullied scored significantly lower on Father Care on the PBI and significantly higher on Emotional Neglect, Emotional and Physical Abuse and Physical Neglect on CTQ than those who weren't.

Conclusions: The findings suggest that to be bullied in school years is associated with characteristic psychosocial features in the environment of early childhood and adolescence. © 2002 Elsevier Science Ltd. All rights reserved.

Keywords: Bullying; Psychiatry; Life events; Child abuse and neglect

Introduction

In the last decades, victimization in schools has been subject to some systematic studies. A nation-wide survey in Norway found 84,000 or 15% of the students in primary school and junior

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high school involved in bullying. Males more often reported bullying, both as victims and bullies. Typical victims of males being bullied were anxious, insecure, and physically weak (Olweus, 1983). Schoolchildren being bullied have been found to show symptoms of anxiety, depression, and even suicidal ideation (Boulton & Underwood, 1992; Williams, Chambers, Logan, & Robinson, 1996; Salmon, James, & Smith, 1998; Rutter, Taylor, & Hershov, 1994).

In a recent study of Olweus (1993b), the child-rearing conditions of 127 rejected-withdrawn (passive) schoolboys were explored. Retrospective interviews with their mothers and fathers were conducted. Maternal overprotectiveness, father's negativism, and temperament of the boy were measured. Path analyses showed that victimization was related to overprotective mothers and critical and distant fathers.

Schwartz, Dodge, Pettit, and Bates (1997) conducted a longitudinal study on the development of children's aggressive behavior. The mothers of 304 boys were interviewed before they began kindergarten. The interview covered questions about the child's developmental history, socialization, and family background. The interviewer also administered the Conflict Tactics Scale, a self-report questionnaire assessing parental aggression toward child and dyadic marital aggression. During the home visit, the interviewer also rated the mother-child interaction. Maternal hostility and warmth were assessed. In the analyses, passive victims were compared with aggressive victims and normative boys. Passive male victims were found not to differ from normative boys on any of the home environment variables.

Rigby (1993) studied 1002 schoolchildren between the ages of 11 years and 16 years by questionnaires. Two sets of variables were used: family and parental relationships, and the children's relations with peers. Family and parental relationships included family functioning, family intactness, attitudes toward parents, and relationships with parents. Positive family and parental functioning included items such as "My family sympathizes and understands when I feel sad," while items addressing negative aspects of functioning included such as "My family doesn't trust me." For girls, the analyses showed that victimization was significantly related to negative family functioning. Furthermore, girls being bullied, who came from intact families, described negative relations to their mothers, while boys being bullied who came from nonintact families, that is, living with their mothers, reported negative relations to their (absent) fathers.

In our study, it was hypothesized that adult psychiatric outpatients who were bullied in school years would report poorer psychosocial functioning and environment in their childhood and adolescence.

To our knowledge, very few studies connect bullying in school years with the psychosocial environment of childhood and adult psychiatric problems later in life.

Methods

Participants and procedure

The participants were 160 consecutive patients from a general psychiatric outpatient clinic in Trondheim, Norway, with a catchment area of 99,000 persons and a typical distribution

in Scandinavia of people living in urban and rural districts. Most of the patients (85%) were referred from general practitioners. Included in the study were all referrals with no prior records of psychiatric treatment. To avoid possible confounders related to age, the included patients were 18 years to 55 years old. Excluded were patients with organic mental disorders and patients who did not speak any of the Scandinavian languages; the questionnaires were given in Norwegian. Patients who met the inclusion criteria ($n = 202$) were informed of the study by mail, before their first clinical appointment.

Data were collected from January to June and from August to December in 1997. July was avoided because of major changes in routines and clientele during vacation times. In the study period, a total of 468 patients ($mean$ age = 35.0, $SD = 11.95$) were referred to the outpatient clinic. Of those, 304 (65%) were females ($mean$ age = 35.0, $SD = 12.61$) and 164 (35%) males ($mean$ age = 34.9, $SD = 10.64$). Eighty-six percent of the clients referred were from the urban areas. Twenty-one (10.5%) patients did not keep their first appointment, and 21 (10.5%) declined to participate in the study. In total, 44 (21%) patients did not participate, and of those 30 (68%) were females ($mean$ age = 32.1, $SD = 9.23$) and 11 (32%) males ($mean$ age = 32.4, $SD = 9.10$).

Eventually, 160 patients ($mean$ age = 32.6, $SD = 9.52$) gave their written consent, attended the interview, and completed a booklet of self-administered questionnaires. One-hundred and seven (67%) were females ($mean$ age = 32.0, $SD = 9.73$) and 53 were males ($mean$ age = 33.8, $SD = 9.05$).

Measures

Topics regarding the psychosocial environment of childhood were covered by questions such as: Did the patient grow up with biological parents, foster parents, or adoptive parents? How many siblings were there? Was the patient eldest, between, or youngest of the children? Furthermore, questions were asked about particular life events in childhood: Did the family ever move? Was the patient ever separated from his or her parents for some time when growing up? Did the parents split up their marriage? Did any of the parents, or both, suffer from mental illness? The questions were dichotomized into yes and no. The financial status of the parents was rated as 1 (good), 2 (average), and 3 (poor).

Information about bullying in school was collected by an inventory developed by Olweus (1991) that consists of a total of 27 items. The inventory has been widely used in schools in Scandinavia. Only four items address types of bullying at school and its frequencies. These four items were reworded into past tense when included in our study. Two types of being bullied were measured: "Social Ostracism" and "Verbal-Physical Bullying." The response alternatives were 0 (never), 1 (hardly ever), 2 (now and then), 3 (about once a week), and 4 (several times a week). To be considered bullied, the patient had to report bullying now and then or more frequently, that is, two or above. Exposure to the different types of bullying overlapped considerably, and patients with a history of some type of bullying were generally classified as "Bullied," while the rest were designated as "Not Bullied."

Additional traumatic events in childhood related to abuse or neglect were measured by

the Childhood Trauma Questionnaire (CTQ, Bernstein et al., 1994). The CTQ is a 70-item self-report questionnaire that provides a brief, reliable, and valid assessment of a broad range of traumatic experiences in childhood. All items on the CTQ begin with the phrase “When I was growing up. . . ,” and are scored on a 5-point Likert-type scale indicating the frequency with which the experience in question occurred: 1 (never true), 2 (rarely true), 3 (sometimes true), 4 (often true), and 5 (very often true). The CTQ provides scores on four empirically-derived factors: Physical and Emotional Abuse, Emotional Neglect, Physical Neglect, and Sexual Abuse. In the present study, a modified 21-item version of the CTQ was used. The internal consistencies of the factors were .84 for Physical and Emotional Abuse, .89 for Emotional Neglect, .40 for Physical Neglect, and .86 for Sexual Abuse.

Parental dimensions of care and protection were measured by the Parental Bonding Instrument (PBI, Parker, Tupling, & Brown, 1979), a self-report device. The likeness of the attitudes and behaviors given in each item was rated for each of the two parents. The items were rated on a Likert scale ranging from 1 to 4: 1 (very like), 2 (moderately like), 3 (moderately unlike), and 4 (very unlike). Twelve care items reflect the dimension of affection and nurturance versus emotional rejection and neglect. Thirteen overprotection items assess the dimension of exercising rigid control versus fostering autonomy. Five negative items were reworded into positive statements. The PBI subscales have demonstrated high internal consistency and test-retest reliability (Parker, 1989). In the present study, the internal consistency was .95 on Father Care, .77 on Mother Care, .89 on Father Overprotection, and .91 on Mother Overprotection.

Statistical analysis

SPSS 8.0 for Windows was used. Frequencies were compared between “Bullied” and “Not Bullied” patients, using the χ^2 . One-way ANOVA compared means and standard deviations between groups of the Bullied and Not Bullied. The level of significance was set at $p < .05$ in all statistical analyses.

Results

In bullied males, the number of persons who had grown up with both biological parents or with their biological fathers was significantly lower than for males who had not been bullied (see Table 1). In total, 10 (9.4%) Bullied males had grown up without one or both biological parents. Of these, two (3.8%) had grown up with their mothers and stepfathers, two (3.8%) had grown up with their mothers only, two (3.8%) with adoptive parents, one (1.9%) with his father only, one (1.9%) with grandparents, and two (3.8%) had grown up with a different constellation of adults. Of the Not Bullied males, in total, two (3.8%) males had grown up without one or both biological parents: one (1.9%) had grown up with his mother and stepfather, and the other one (1.9%) had grown up with a different constellation of adults.

No significant differences were found between Bullied and Not Bullied patients with regard to the number of siblings or family problems such as poor economy, mental problems,

Table 1
Frequency (*f*) and percent (%) of family members during childhood and adolescence as reported by bullied and not bullied adult psychiatric outpatients

	Not bullied		Bullied	
	<i>f</i>	%	<i>f</i>	%
Females (<i>n</i> = 107)				
Biological parents				
With both	52	(48.6)	32	(29.9)
Without one or both	10	(9.4)	12	(11.2)
Biological father				
With	53	(49.5)	35	(32.7)
Without	9	(8.4)	9	(8.4)
Biological mother				
With	55	(51.4)	38	(35.5)
Without	7	(6.5)	6	(5.6)
Siblings				
With	53	(49.5)	35	(32.7)
Without	9	(8.4)	9	(8.4)
Males (<i>n</i> = 53)				
Biological parents				
With both	21	(39.6)	20	(37.7)
Without one or both	2	(3.8)	10*	(18.9)
Biological father				
With	22	(41.5)	22	(41.5)
Without	1	(1.9)	8*	(15.1)
Biological mother				
With	23	(43.4)	26	(49.1)
Without	0	(0)	4	(7.5)
Siblings				
With	53	(49.5)	35	(32.7)
Without	9	(8.4)	9	(8.4)

* $p < .05$ when analyzed with Pearson χ^2 .

or divorce. In the same vein, no differences in frequencies were found between the two groups with regard to life events such as family relocations and extended separations from the parents (Table 2).

Bullied females scored significantly lower on Father Care on the PBI and significantly higher on Emotional Neglect, Emotional and Physical Abuse, and Physical Neglect on the CTQ, compared with Not Bullied females (Table 3). The trend was in the same direction for males but the differences did not reach statistical significance.

Discussion

This study showed that adult psychiatric male outpatients with a history of being bullied in childhood more often had grown up without their biological parents or their biological fathers. These findings are in accordance with Rigby (1993), who demonstrated that bullied boys of nonintact families, that is, living with their mothers only, described negative relations

Table 2

The financial status of parents, and the occurrence of moves, separation from parents, divorce, death of parents or mental problems of parents in frequency (*f*) and percent (%) as reported by Bullied and Not Bullied adult psychiatric outpatients

Variable	Not bullied		Bullied	
	<i>f</i>	%	<i>f</i>	%
Females (<i>n</i> = 107)				
Financial status of parents				
Poor	10	(9.3)	12	(11.2)
Good, moderate	51	(47.7)	30	(28.0)
Family ever moved				
Yes	36	(33.6)	26	(24.3)
No	26	(24.3)	17	(15.9)
Ever separated from parents				
Yes	20	(18.7)	20	(18.7)
No	40	(37.4)	20	(18.7)
Parents divorced				
Yes	14	(13.1)	10	(9.3)
No	48	(44.9)	33	(30.1)
One of the parents died				
Yes	2	(1.9)	4	(3.7)
No	59	(55.1)	40	(37.4)
One or both parents mental problems				
Yes	35	(32.7)	33	(30.1)
No	16	(15.0)	8	(7.5)
Males (<i>n</i> = 53)				
Financial status of parents				
Poor	1	(1.9)	3	(5.7)
Good, moderate	22	(41.5)	27	(50.9)
Family ever moved				
Yes	10	(18.9)	19	(35.8)
No	13	(24.5)	10	(18.9)
Ever separated from parents				
Yes	3	(5.7)	10	(18.9)
No	19	(35.8)	20	(37.7)
Parents divorced				
Yes	3	(5.7)	6	(37.7)
No	20	(37.7)	24	(45.3)
One of the parents died				
Yes	2	(3.8)	2	(3.8)
No	21	(39.6)	27	(50.9)
One or both parents mental problems				
Yes	9	(17.0)	13	(24.5)
No	8	(15.1)	10	(18.9)

**p* < .05 when analyzed with Pearson χ^2 .

to their (absent) fathers. Our findings are also in keeping with Olweus' (1993b) study of bullied boys. He found that victimization was related to present, yet critical and distant, fathers.

Negative relations with fathers may contribute to poor identification with the father on the part of the boy. Physically and emotionally present fathers probably serve as male models, teaching sons how to relate to other males and how to protect themselves against bullies.

Table 3
Parental bonding instrument and childhood trauma questionnaire compared in bullied and not bullied adult psychiatric outpatients. Mean (*M*) and standard deviation (*SD*)

Variable	Not bullied		Bullied	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Females (<i>n</i> = 107)				
Parental bonding instrument				
Father care	21.5	10.48	16.5*	9.28
Father overprotection	14.8	8.33	13.8	7.86
Mother care	24.6	8.37	21.2	9.71
Mother overprotection	14.6	7.74	15.7	9.19
Childhood trauma questionnaire				
Emotional neglect	2.3	0.93	3.0**	0.82
Physical and emotional abuse	1.8	0.78	2.2**	0.74
Physical neglect	1.0	0.12	1.2*	0.32
Sexual abuse	1.2	0.66	1.5	0.98
Males (<i>n</i> = 53)				
Parental bonding instrument				
Father care	22.3	7.21	18.2	9.16
Father overprotection	11.7	5.29	14.4	7.75
Mother care	24.7	5.93	25.0	6.77
Mother overprotection	13.0	5.92	14.4	8.02
Childhood trauma questionnaire				
Emotional neglect	2.5	0.69	2.8	0.98
Physical and emotional abuse	1.6	0.56	1.9	0.83
Physical neglect	1.1	0.21	1.2	0.37
Sexual abuse	1.0	0.07	1.1	0.43

* $p < .05$; ** $p < .01$ when analyzed with One-Way ANOVA.

Bullied male victims have been found to show negative attitudes towards violence, and they tend to be afraid of asserting themselves (Olweus, 1993a). Contrary to victims of bullying, bullies are not likely to be anxious, but confident and tough (Olweus, 1993a), and that gives them advantages over their victims. The tendency of victims not to defend themselves may provoke bullies and “justify” harassment (Roland, 1983).

The present study also showed that adult psychiatric female patients who had been bullied at school also frequently reported parental abuse and neglect within their family environment in childhood. The results agree with the findings of Rigby (1993), who found that bullied girls often had negative family functioning, indicative of poor psychological health in their families.

Contrary to expectations, no associations were found between victimization and mother overprotection as described by Olweus (1993b). Furthermore, no associations were found between poor economy in the family and bullying at school, as shown by Roff, Sells, and Golden (1972).

Our study is based on retrospective data, collected in a psychiatric outpatient population. The findings may not apply directly to the population in general, yet they may be representative of psychiatric populations in Scandinavia and countries of similar infrastructures. To our knowledge, this is the first study of bullying conducted in an adult psychiatric setting. Further studies are required to confirm and explore the ramifications of these findings in other

populations in Norway, such as general populations and random samples. More research on bullying seems warranted, including research with patients undergoing psychiatric treatment in other settings. Longitudinal prospective studies of bullying would provide us with the best answers and would add to our knowledge of the possible links between bullying in childhood and later mental health problems in adult life.

Our findings may imply that school-related bullying deserves more attention both in everyday life as well as within the educational system. Bullied children may need extra support in school, especially those that are neglected and abused at home.

Conclusion

The findings suggest that to be bullied in school years is associated with characteristic psychosocial features in the environment of early childhood and adolescence.

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Résumé

Objectif: Mettre en contraste l'environnement durant l'enfance de patients en consultation externe de psychiatrie qui rapportaient avoir été brimés à l'école avec celui de ceux qui ne l'avaient pas été.

Méthode: 160 patients d'une consultation externe de psychiatrie en Norvège ont rempli un questionnaire auto-administré concernant leur environnement psycho-social durant l'enfance et l'adolescence. La fréquence des brimades fut mesurée à l'aide d'un inventaire utilisé dans les écoles. On a également utilisé le "Parental Bonding Instrument" (PBI) et le "Childhood Trauma Questionnaire" (CTQ).

Résultats: Les hommes qui avaient été brimés semblaient avoir vécu sans leur père biologique. Les femmes brimées ont eu des scores significativement inférieurs concernant les soins paternels au PBI et significativement plus élevés aux items Négligence affective, sévices psychologiques et physiques et négligence physique au CTQ.

Conclusions: Les résultats suggèrent que le fait de subir des brimades à l'école est associé avec des particularités psychosociales de l'environnement durant l'enfance et l'adolescence.

Resumen

Objetivo: Comparar el ambiente infantil de pacientes externos psiquiátricos que notifican haber sido víctimas de agresiones por iguales (bullying) en la escuela con los que no notifican.

Método: Un total de 160 pacientes externos adultos que son atendidos en orden consecutivo en una clínica psiquiátrica en Noruega completaron cuestionarios autoadministrados acerca de el ambiente psicosocial durante la infancia y la adolescencia. La frecuencia de haber sido víctima de agresiones por iguales en la escuela (bullying) fue medida con un inventario utilizado en la escuela. También se utilizaron el Parental Bonding Instrument (PBI) y el Childhood Trauma Questionnaire (CTQ).

Resultados: Los varones que fueron agredidos por iguales en la escuela durante la infancia tendieron a crecer en ambientes sin padres biológicos. Aquellas mujeres que fueron agredidas puntuaron significativamente más bajo en la dimensión "Cuidado del Padre" del PBI y significativamente más alto en "Abandono Emocional," "Maltrato Físico," "Maltrato Emocional," y "Abandono Físico" del CTQ.

Conclusiones: Los hallazgos sugieren que el ser agredido en la escuela por iguales (bullying) está asociado con las características psicosociales ocurridas en el ambiente de la temprana infancia y la adolescencia.

Paper II

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Paper III

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Paper IV



Childhood maltreatment in adult female psychiatric outpatients with eating disorders

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Abstract

To explore possible relations between maltreatment in childhood and subsequent eating disorders in adult life, 107 consecutive adult psychiatric female outpatients were screened for eating disorders. They also completed questionnaires about harassment by adults and bullying by peers in childhood. The Childhood Trauma Questionnaire measured childhood abuse by parents or other adults, and the Parental Bonding Instrument captured parental coldness and overprotection. Bullying by peers was measured by an inventory used in schools. Outpatients who met the criteria for bulimia nervosa reported far more bullying by peers, more coldness and overprotection from fathers, and more childhood emotional, physical and sexual abuse. The findings suggest associations between childhood maltreatment, especially bullying by peers, and bulimia nervosa.

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Keywords: Abuse; Harassment; Peer rejection; Victimization; Bulimia; Anorexia; Bullying

1. Introduction

The impact of physical, sexual and psychological abuse on eating disorders has been examined in several studies. The focus has mostly been on abusive experiences exerted by adults. Rorty, Yager, and Rossotto (1994) examined parental abuse in childhood as experienced by 80 women with a lifetime history of bulimia nervosa and by 40 healthy controls. The bulimics reported more physical and psychological abuse by their parents. McCallum, Lock, Kulla, Rorty, and Wetzel (1992) explored dissociative symptoms in 38 patients with eating disorders. The majority (71%) met the criteria for bulimia nervosa. A history of childhood trauma such as physical or sexual abuse by adults was reported by 66% of the patients. In a comprehensive review, Wonderlich, Brewerton, Jolic, Dansky, and Abbott (1997) concluded that childhood sexual abuse is an unspecific risk factor for bulimia nervosa, and the relationship seems to be stronger than the association with anorexia nervosa. Kent, Waller, and Dagnan (1999) studied a broader range of abusive childhood experiences. A sample of 236 adult women completed self-report measures on physical abuse, sexual abuse, emotional abuse and neglect, as well as unhealthy eating attitudes. In multiple regression analyses only reports of emotional abuse predicted unhealthy eating attitudes.

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The Parental Bonding Instrument, PBI, captures dimensions of care and overprotection between parent and child. Sordelli, Fossati, Devoti, and La Viola (1996) administered the PBI to 42 patients with anorexia and 26 patients with bulimia. The bulimic patients viewed their parents as being both caring and overwhelming, while anorectic patients viewed their parents as caring. In a non-clinical study (Romans, Gendall, Martin, & Mullen, 2001), a two-stage random community sampling strategy was used to identify women having been sexually abused as children. A comparison group of women reported no abuse. Higher paternal overcontrol coincided with eating disorders in women who had experienced child sexual abuse.

Only a few studies have explored the bearing on eating disorders of peer relations in childhood and adolescence. The School Health Promotion Study in Finland (Kaltiala-Heino, Rimpelae, Rantanen, & Rimpelae, 2000) included 4453 adolescent school girls. In total, 1.8% of the adolescents met the criteria for bulimia, and 0.7% for anorexia. Bulimics often had been bullied by peers. No similar findings were made in relation to anorexia. In a more recent study, Striegel-Moore, Dohm, Pike, Wilfley, and Fairburn (2002) examined possible associations between sexual abuse, physical abuse, bullying by peers, ethnicity-based discrimination in relation to risks of binge eating disorders. A community sample was interviewed about risk factors. The sample consisted of 162 women with binge eating disorders, 251 healthy females and 107 psychiatric comparison subjects. Subjects with binge eating disorders reported significantly higher rates of sexual abuse, physical abuse and bullying by peers. In a study of 11,000 school children, Balding, Regis, Wise, Bish, and Muirden (1996) explored relations between fear of bullying and dietary problems. They found positive relations between bullying by peers and the consumption of low-calorie drinks, chips, nuts, pizzas, and sausage rolls. The authors suggested that 'snacking' may be characteristic of those who fear bullying.

The aims of the present study were to explore possible relationships between maltreatment in childhood and subsequent eating disorders in adult life. The role of childhood maltreatment in the development of eating disorders has generally focused on abusive experiences exerted by adults. In this paper, we will explore the relative importance of bullying by peers. The hypothesis was that adult female outpatients who fulfill the criteria for bulimia nervosa would report more parental overprotection and bullying by peers in childhood.

2. Method

2.1. Participants and procedures

The subjects comprised of 107 consecutive female patients at a general psychiatric outpatient clinic in Trondheim, Norway. The catchment area consisted of 99,000 persons with a typical distribution in Scandinavia of people living in urban and rural districts. Most patients (85%) were referred from general practitioners. Included in the study were all patients in the age range of 18–55 with no prior records of psychiatric treatment. Excluded were patients with organic mental disorders and those who did not speak any of the Scandinavian languages.

Data were collected from January to June and from August to December in 1997. July was avoided due to major changes in routines and clientele of this vacation month. In the study period, a total of 304 females (mean age=35.0, SD=12.61) were referred to the outpatient clinic. Patients who met the inclusion criteria ($n=137$) were informed of the study by mail, before the first clinical appointment. Thirty patients (22%) declined (mean age=32.1, SD=9.23). Eventually, 107 female patients (mean age=32.0, SD=9.73) gave their written consent and came to the screening interview and subsequently completed a booklet of self-administered questionnaires.

2.2. Measures

2.2.1. Anorexia nervosa and bulimia nervosa

The occurrence of anorexia nervosa and bulimia nervosa were assessed by a self-administered inventory (see Appendix) based on the criteria of the DSM-IV (American Psychiatric Association, 1994). In the present study, twelve (11.2%) outpatients met the criteria for bulimia nervosa and 9 (8.4%) for anorexia nervosa. Of outpatients with anorexia nervosa, six had a Body Mass Index (BMI) below 17.5 kg/m², and three had a mean BMI on 19.07 kg/m² but defined themselves as "very thin" in the gate question. Benders list for desirable weight for normal bodily constitution was used to determine if the patients met the criteria for being underweight (Bender, 1981).

Childhood maltreatment covered reports on bullying by peers in school, physical and sexual abuse or neglect by parents or other adults, and also, parental coldness and overprotection.

2.2.2. Bullying by peers

Olweus' (1991) inventory for school children were reworded into past tense. Three items measured the occurrence of bullying by peers. The response alternatives were 0 (*never*), 1 (*hardly ever*), 2 (*now and then*), 3 (*about once a week*), and 4 (*several times a week*). The sum of the three items indicated the degree to which the outpatients had been bullied by peers in childhood. The lowest obtainable score is 0 and the maximum is 12.

2.2.3. Childhood Trauma Questionnaire, CTQ

Traumatic events in childhood related to parental abuse or neglect were detected by the Childhood Trauma Questionnaire (Bernstein et al., 1994). In the present study, a modified 21-item version was used. All items began with the phrase, «When I was growing up,...», and they were scored on a 5-point Likert-type scale indicating the frequency with which the various experiences in question were true: 1 (*never true*), 2 (*rarely true*), 3 (*sometimes true*), 4 (*often true*), and 5 (*very often true*). The CTQ provided scores on four empirically derived factors: physical and emotional abuse, emotional neglect, physical neglect, and sexual abuse. The internal consistencies of the factors found in this study were 0.83 for physical and emotional abuse, 0.88 for emotional neglect, 0.25 for physical neglect and 0.88 for sexual abuse. Because of low internal consistency, physical neglect was excluded from the analyses. The full CTQ is a 70-item self-report inventory and provides a brief, reliable and valid assessment of a broad range of traumatic experiences from childhood.

2.2.4. Parental Bonding Instrument, PBI

Parental dimensions of care and protection until age 16 were measured by the Parental Bonding Instrument (Parker, Tupling, & Brown, 1979), a self-report device. The attitudes and behaviors given in each item were scored for each of the two parents. The items were rated on a Likert scale ranging from 1 to 4: 1 (*very like*), 2 (*moderately like*), 3 (*moderately unlike*), and 4 (*very unlike*). Twelve care items reflected the dimension of affection and nurturing versus emotional rejection and neglect. Thirteen overprotection items assessed the dimension of rigid control versus the fostering of autonomy. Five negative items were reworded into positive statements. The PBI subscales have often demonstrated high internal consistencies and test–retest reliabilities (Parker, 1989). In the present study, the internal consistencies were 0.95 both on Father care and Mother care, 0.89 on Father overprotection, and 0.91 on Mother overprotection.

2.3. Statistical analysis

SPSS 11.0 for Windows was used. By using one-way ANOVA, means were compared between groups of patients with and without bulimia nervosa, and with and without anorexia nervosa. A logistic regression analyses was

Table 1
Means (*M*), standard deviations (*SD*), *F* values (*F*) and effect sizes (*d*) for bullying by peers, parental overprotection and care by PBI and childhood trauma by CTQ in adult female psychiatric outpatients (*N*=107) with and without bulimia nervosa (BN)

Childhood abuse variables	No BN (<i>n</i> =95)		BN (<i>n</i> =12)		<i>F</i>	<i>d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Bullying by peers	3.4	3.70	7.9***	4.30	15.67	1.14
<i>PBI:</i>						
Father care	20.1	10.03	12.2*	10.98	5.55	0.76
Father overprotection	13.7	7.94	20.6**	7.02	7.68	0.85
Mother care	22.8	9.06	24.4	10.48	0.32	0.18
Mother overprotection	14.9	8.47	16.4	7.31	0.34	0.18
<i>CTQ:</i>						
Emotional neglect	2.6	0.94	2.8	0.93	0.91	0.29
Emotional and physical abuse	1.9	0.77	2.5*	0.81	6.07	0.75
Sexual abuse	1.3	0.76	1.8*	1.05	4.32	0.63

PBI: Parental Bonding Instrument, and CTQ: Childhood Trauma Questionnaire.

p*<0.05. *p*<0.01. ****p*<0.001. When analyzed by One-Way ANOVA.

Table 2

Logistic regression analysis (forward stepwise) of bullying by peers, father care, father overprotection, emotional and physical abuse and sexual abuse in relation to the dependent variable bulimia nervosa (BN) for adult female psychiatric outpatients ($N=107$)

	<i>B</i>	S.E.	Wald	Cox and Snell R^2
<i>Step 1</i>				0.10
Bullying by peers	0.26**	0.09	9.29	
<i>Step 2</i>				0.16
Bullying by peers	0.28**	0.09	8.77	
PBI, Father overprotection	0.12*	0.05	5.91	

PBI: Parental Bonding Instrument.

* $p<0.05$. ** $p<0.01$.

conducted with bulimia nervosa as the dependent variable and bullying by peers, father care, father overprotection, emotional and physical abuse and sexual abuse as predictors. The level of significance was set at $p<0.05$ in all statistical analyses. Internal consistency was measured by using Cronbach alpha.

3. Results

Women who met the criteria for bulimia nervosa had significantly higher scores on reports of bullying by peers ($p<0.001$; $d=1.14$). Also, they scored higher on Father overprotection ($p<0.01$; $d=0.85$) and lower on Father care ($p<0.05$; $d=0.76$) on the Parental Bonding Instrument. Moreover, the bulimics scored higher on emotional and physical abuse ($p<0.05$; $d=0.75$), and sexual abuse ($p<0.05$; $d=0.63$) on the Childhood Trauma Questionnaire (see Table 1). For anorexia nervosa, no significant differences were found for any kind of abuse in childhood.

In the logistic regression analyses, bullying by peers was entered on step 1 (Omnibus test of model coefficients $p<0.001$) and Father overprotection on step 2 (Omnibus test of model coefficients $p<0.001$). On the first step, bulimia nervosa was significantly predicted by reports on bullying by peers ($p<0.01$). On the second step, bulimia nervosa was significantly predicted by Father overprotection ($p<0.05$) and bullying by peers ($p<0.01$). The Cox and Snell R^2 was 0.10 on step 1 and 0.16 on step 2 (see Table 2).

4. Discussion

This study shows that adult female outpatients who fulfilled the criteria for bulimia nervosa reported more bullying by peers in childhood. These findings are in accordance with the study by Kaltiala-Heino, Rissanen, Rimpela, and Rantanen (1999) and the studies by Balding et al. (1996) and Striegel-Moore et al. (2002). Moreover, the findings are in accordance with Jackson, Grilo, and Masheb (2002). They found that bulimic patients, compared to patients with binge eating disorders, more often reported to have been teased about their weights and sizes. Having been teased was associated with low self-esteem.

Our study also shows that female outpatients with bulimia nervosa report more childhood physical and sexual abuse by parents or other adults. The findings concur with several studies on childhood abuse and eating disorders (McCallum et al., 1992; Rorty et al., 1994; Schmidt, Evans, Tiller, & Treasure, 1995; Striegel-Moore et al., 2002; Wonderlich et al., 1997).

Moreover, our study demonstrates that bulimic outpatients report more father overprotection and less father care in childhood. These findings are in line with the works by Teri Pakier (2003). The author found eating disorders in adolescents to be positively correlated with parental overprotection, and negatively with parental care.

The findings of our study suggest relationships between bulimia nervosa and bullying by peers, and between bulimia nervosa and father overprotection. There might be a link between father overprotection, bullying by peers and bulimia nervosa. For example, low scores on the self-concept correlates with negative relations to fathers (Wonderlich, Klein, & Council, 1996). Low self-concept also correlates with experiences of teasing about weight and size (Jackson et al., 2002) and with bullying at school (Boulton & Smith, 1994; Olweus, 1993). Striegel-Moore, Silberstein, and Rodin (1993) showed patients with bulimia nervosa to be preoccupied not only with their physical presentation but also with their “social self” in general. Overprotective fathers may focus too much on their daughters’ weight and physical

presentation, which may result in poor self-concept. Poor self-esteem may, in turn, contribute to victimization in school (Egan & Perry, 1998).

One of the limitations of this study has been that the diagnoses of anorexia and bulimia were based on screening instruments. The information about the current state is contemporary. However, the childhood data were collected retrospectively. The validity of retrospective studies depends to some extent upon the reliability of people's memories, which may be swayed and distorted by the respondent's current mood and mind set: feeling sad or angry may give rise to such unpleasant memories as being bullied or harassed in other ways and may result in a spurious correlations between being victimized and suffering from depression (Mayer, McCormick, & Strong, 1995). In a recent study, however, measuring the long-term stability of parental representations in adult depressed outpatients, utilizing the Parental Bonding Instrument, it was found that recollections of parental bonding were stable across levels of depressed mood (Lizardi & Klein, 2005).

In the future, more research on the impact of bullying by peers and father overprotection on bulimia nervosa is warranted, both in the general population and in populations of psychiatric in- and outpatients.

5. Conclusion

Peer relationships may have been underestimated as a determinant for eating disorders. Also, father overprotection may have long-term influences on the development of bulimia nervosa.

Acknowledgements

We thank all participating patients. The study was supported by a research grant from the Norwegian Council for Mental Health.

Appendix A. The eating disorder inventory based on the DSM-IV criteria

Have you ever been very thin or lost lots of weight (signs of anorexia)?	Yes	No
If yes,		
A. 1. How old were you when you were very thin?	_____ years old	
2. How tall were you when you were very thin?	_____ cm	
3. What was your weight when you were at your thinnest?	_____ kg	
4. What was your weight when you were at your heaviest?	_____ kg	
B. When you were very thin, were you rather scared to gain weight or be too fat?	Yes	No
C. When you were very thin,		
1. Did you believe that you were fat or overweight?	Yes	No
2. Were your self-evaluations excessively influenced by your body shape and weight?	Yes	No
3. Did you not understand how serious it was to be so thin?	Yes	No
D. When you were very thin, did you miss your period, three times in a row (not pregnant or breastfeeding)?	Yes	No
Have you ever had recurrent episodes of binge eating?	Yes	No
If yes,		
A. 1. How old were you when it started?	_____ years old	
2. Did you eat more in a few hours that the most of people would eat in the same period?	Yes	No
3. Did you find that you had no control over what, or how much you ate?	Yes	No
B. Have you repeatedly tried to prevent weight gain, by, e.g., vomiting, uses of laxatives or diuretics, fasting or excessive exercise?	Yes	No
C. Did you binge eat, and, used one of the methods mentioned above (under B) at the same time and at least twice a week for three months or more?	Yes	No
D. Were your self-evaluations excessively influenced by your body shape and weight?	Yes	No
E. Did you only have episodes of binge eating when you were very thin or had signs of anorexia?	Yes	No

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Paper V

Paper V is not included due to copyright.

Appendix

Appendix

Have you ever been very thin or lost lots of weight (signs of anorexia)?	Yes	No
<u>If yes,</u>		
A. 1. How old were you when you were very thin?	_____ years old	
2. How tall were you when you were very thin?	_____ cm	
3. What was your weight when you were at your thinnest?	_____ kg	
4. What was your weight when you were at your heaviest?	_____ kg	
B. When you were very thin, were you rather scared to gain weight or be too fat?	Yes	No
C. When you were very thin,		
1. Did you believe that you were fat or overweight?	Yes	No
2. Were your self-evaluations excessively influenced by your body shape and weight?	Yes	No
3. Did you not understand how serious it was to be so thin?	Yes	No
D. When you were very thin, did you miss your period, three times in a row (not pregnant or breastfeeding)?	Yes	No
	Yes	No
Have you ever had recurrent episodes of binge eating?		
<u>If yes,</u>		
A. 1. How old were you when it started?	_____ years old	
2. Did you eat more in a few hours that the most of people would eat in the same period?	Yes	No
3. Did you find that you had no control over what, or how much you ate?	Yes	No
B. Have you repeatedly tried to prevent weight gain, by, e.g., vomiting, uses of laxatives or diuretics, fasting or excessive exercise?	Yes	No
C. Did you binge eat, and, used one of the methods mentioned above (under B) at the same time and at least twice a week for three months or more?	Yes	No
D. Were your self-evaluations excessively influenced by your body shape and weight?	Yes	No
E. Did you only have episodes of binge eating when you were very thin or had signs of anorexia?	Yes	No

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