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Social Anxiety in Dutch Cluster 4 Schools:
Internalising and Externalising Behavioural Problems, Peer Status, and Classroom Climate.

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Abstract

Each year more adolescents attend cluster 4 schools. These schools provide special education and support for adolescents with extreme externalising and internalising behavioural problems. Previous research measured a higher level of social anxiety in these schools. Therefore, this study investigated three explanations for the occurrence of social anxiety in cluster 4 schools. This study focused on the degree of problem behaviour of peers, a negative peer status, and a negative classroom climate. In this study, 35 adolescents of cluster 4 schools for either internalising or externalising behavioural problems participated. The control group contained 10 participants. The results showed that students with externalising behaviours experience higher levels of social anxiety than students with internalising behavioural problems. A negative peer status and a negative classroom climate did not explain this result. The influence of the degree of problem behaviour of peers is not known. Thus, this study's variables do not explain the difference in social anxiety level. Future research can give insight into other individual, family, and school factors that possibly explain social anxiety.

Keywords: social anxiety; degree of problem behaviour of peers; peer status; classroom climate; cluster 4 schools.

A study requested by the Dutch government (de Greef, van Rijswijk, & van Berckelaer-Onnes, 2005) found that between 1992 and 2004 the number of adolescents participating in cluster 4 schools is doubled from 11.000 students in 1992 to more than 22.000 students in 2004. Cluster 4 schools provide special education and support for adolescents with severe behavioural disorders and/or psychiatric problems (landelijke vereniging cluster4, 2012). Up to 60% of the adolescents in Dutch cluster 4 schools are diagnosed with an autistic spectrum disorder (ASD), 5% are diagnosed with behavioural disorders (ODD and CD combined). It can be stated that more adolescents participate in Dutch cluster 4 schools each year (De Greef, van Rijswijk, & van Berckelaer-Onnes, 2005).

Social anxiety in classrooms

There is little research available on adolescents attending cluster 4 schools. However, Oosterwegel, Meij, Zijderlaan and van Aken (2011) found that adolescents attending a cluster 4 school reported a significant higher level of social anxiety than children attending an after school-centre or in the control group. The adolescents in cluster 4 schools in the study of Oosterwegel et al. (2011) showed a wide range of scores on social anxiety. These findings suggest that more adolescents who attend cluster 4 schools experience a high and even clinical level of social anxiety than adolescents attending other educational settings.

According to the American Psychiatric Association (APA) (2000), social anxiety disorder (SAD) is defined as “a marked and persistent fear of one or more social or performance situations in which the person is exposed to unfamiliar people or to possible scrutiny by others”. Social anxiety is associated with more functional impairment and lower quality of life (White, Oswald, Ollendich, Scahill, 2009). Beidel and Morris (1995) state that 60% of the socially distressing situations of children occur at school. Most of these situations involve peer interactions. Therefore, social anxiety interferes with the development and maintenance of peer relationships. According to Peleg (2011), experiencing social anxiety does not only lead to impaired social development, but also to impaired academic performances. These risk factors show the importance of research on social anxiety in a special educational setting.

In regard to the existence of social anxiety in a special educational setting, results by Peleg (2011) corroborate with the results of Oosterwegel et al. (2011). Peleg’s (2011) study confirmed part of above findings in a special educational setting for adolescents with learning disabilities (LD). The results showed that students with LD report higher levels of social anxiety than their non-LD peers. Moreover, adolescents with LD studying in a special education classroom reported higher levels of social anxiety than adolescents with LD in an

inclusive classroom. An inclusive classroom is defined as a classroom that includes adolescents with a LD in a general educational setting with typical developing peers. This is in contrast to a special education classroom, where all peers have LD, behavioural problems and/or a psychiatric disorder. The participants were 70 boys and girls between the age of 12 and 13; they were all born in Israel. Therefore, the results might not generalise to the Dutch setting. However, these results indicate that students with LD, especially those attending special education classes, suffer from high levels of social anxiety.

The co-morbidity of social anxiety with internalising and externalising disorders

It is important to find the risk factors that lead to the high levels of social anxiety in cluster 4 schools, because social anxiety is associated with more functional and academic impairment, lower quality of life, and impaired social development (White, Oswald, Ollendich, Scahill, 2009; Beidel & Morris, 1995; Peleg, 2011). In order to minimise those negative outcomes of social anxiety it is important to find out how social anxiety evolves in adolescents with internalising and externalising behavioural disorders. A distinction will be made between autism spectrum disorders (ASD) and the externalising behavioural disorders oppositional defiant disorder (ODD) and conduct disorder (CD).

Research that focused on the relationship between social anxiety and ASD found that social anxiety is often scored in the clinical range for adolescents with ASD (Bellini, 2004; Melfsen, Walitza, & Warnke, 2006). Furthermore, Burnette et al. (2005) found that adolescents with an ASD self-reported significantly more social anxiety. A review of 40 studies, all written between 1990 and 2008, showed that anxiety is a common co-morbid disorder among children and adolescents with ASD (White et al., 2009). Social anxiety is most often scored above the clinical range in comparison to other anxiety disorders.

The co-morbidity of anxiety is not found among children and adolescents with externalising behavioural disorders. Sterba et al. (2010) stated that ODD and CD do not correlate with social phobia. The only positive correlation between CD and social phobia was found in nine and ten year olds.

Aims of the study

The purpose of this study is to find out whether and why adolescents with internalising behavioural problems experience more often high social anxiety levels than adolescents with externalising behavioural problems. The aim is also to find out how social anxiety occurs at cluster 4 schools. Three explanations have been identified to explain how social anxiety evolves in children with internalising behavioural disorders like ASD and in children with externalising behavioural disorders.

Problem behaviour expressed by peers

The first explanation concerns problem behaviour expressed by peers. Adolescents attending cluster 4 schools are diagnosed with different disorders. These disorders are characterised by specific problem behaviour. The external problem behaviours of these adolescents are expressed towards their environment including peers. Most studies focus on the internal factors that lead to social anxiety (White et al., 2009; Mayes, Calhoun, Murray, & Zahid, 2011). However, not only internal factors are associated with social anxiety. Peer victimisation can lead to social anxiety, too (Card, 2008 as stated in Epkins & Heckler, 2011). The peer victimisation of children with CD might trigger social anxiety in their peers. Peer victimisation is defined as either direct/overt physical and verbal aggression or indirect/covert social and/or relational aggression. Both forms of peer victimisation are related to social anxiety. CD is characterised by aggression towards people and animals. This aggression can be both direct/overt and indirect/covert and is often expressed via bullying, threatening or intimidating other people (APA, 2000; Kokkinos & Panayiotou, 2004). A study of Kokkinos and Panayiotou (2004) found that ODD is a predictor for bullying as well as for victimisation. Consequently, ODD might also trigger social anxiety in peers. It is not known if there are other behavioural characteristics of adolescents with ASD, ODD, and CD, beside the overt and covert aggression, that could influence the experienced level of social anxiety.

These adolescents with different psychopathology spend a significant number of hours in each other's presence, by attending the same school environment. Within these hours a lot of interactions take place in which they influence each other in several ways. Therefore, it is important to study the potential influence of adolescents on each other's social anxiety level. The reciprocal influence of adolescents with internalising and externalising problem behaviour has not yet been investigated.

Peer status

Another explanation refers to peer status. A positive or negative peer sociometric status is defined as the likability of an adolescent (Lansu & Cillessen, 2012). An adolescent who is being liked by many peers has a positive peer status. An adolescent who is being disliked by his/her peers has a negative peer status. Peer status is important for the development of children and adolescents; children with a positive peer status have the opportunity to acquire social skills. It is also related to academic achievement. Children with a negative peer status are prone to several forms of social maladjustment (Cillessen & Mayeux, 2007; Coie & Cillessen, 1993). The influence of peer status on social anxiety in general educational settings is well defined. Inderbitzen, Walters, and Bukowski (1997) found that

students classified as rejected and neglected report more social anxiety than those classified as average, popular, or controversial. In this study, 973 students between grade 6 and 9 participated.

A study by Symes and Humphrey (2010) found that adolescents with ASD experience higher levels of rejection and lower levels of social support. They stated that adolescents with ASD may lack the basic social skills in order to maintain and acquire peer relationships. If they fail to maintain a relationship, the perceived peer rejection will increase. Children with ODD might be prone to peer rejection (Franklin, Harris & Allen-Meares, 2008). Ammerman and Hersen (1997) state that peer rejection is common among children with CD. According to Boivin et al. (2013) the peer rejection of children with externalising behavioural problems can be a result of their rude behaviour and their unpredictable responses towards peers. In sum, several studies show that peer rejection is common among children with internalising and externalising behavioural disorders. Furthermore, it is known that peer rejection is related to social anxiety. However, it is not known if these results also apply to adolescents attending cluster 4 schools. Therefore, this study will explore whether a negative peer status of adolescents attending cluster 4 schools occurs and in turn influences the social anxiety level.

Classroom climate

A final explanation for the occurrence of social anxiety in adolescents concerns classroom climate. Spangler, Gazelle, and Faldowski (2011) defined emotional classroom climate as “an evaluation of the affective tone of social interactions in a classroom”. A supportive classroom climate refers to an affective tone of social interactions. An unsupportive classroom climate refers to an unfriendly tone of social interactions. Classroom climate also refers to the pedagogical climate. This climate includes the motivation, enjoyment and involvement of the students (Donkers & Vermulst, 2011).

The study of Spangler et al. (2011) referred to emotional classroom climate, peer exclusion, and anxious solitary children. Children indicated by their peers as anxious solitary are significantly more likely to be diagnosed with social anxiety disorder than control children (Gazelle, Workman, Allen, 2010). This study found that a supportive emotional climate protects anxious solitary children against high levels of peer exclusion. An unsupportive emotional climate results in high levels of peer exclusion of anxious solitary children (Spangler et al., 2011). Previous research showed that peer exclusion results in social anxiety (Symes & Humphrey, 2010; Mayo-Dvir, 2010; Ammerman & Hersen, 1997). The study of Spangler et al. (2011) does not show the direct relationship between classroom climate and social anxiety. However it does show the negative influence of an unsupportive emotional

classroom climate on socially anxious children. The sample of this study consists of 688 children with a mean age of 8.66 years old. It is not known whether these results generalise to an adolescent population and to cluster 4 schools. However, it is possible that the classroom environment at cluster 4 schools is unsupportive. Although the school and teachers are focused on maintaining a supportive classroom climate, the adolescents in this context show a wide range of behaviours and needs. In order to create a supportive classroom environment it is important to create a balance between the needs of all the different students and the resources of the school. Despite these circumstances, it is possible that other factors lead to an unsupportive classroom climate. In order to decrease the negative outcomes of social anxiety, it is relevant to test whether an unsupportive classroom climate is present at cluster 4 schools and if it indeed influences the social anxiety level.

Research questions and predictions

To explore whether and why adolescents with ASD experience more social anxiety than adolescents with an externalising behavioural disorder, this study will try to replicate the finding of different levels of social anxiety in adolescents with ASD, ODD, and CD. Additionally, it will look at the three explanations for the occurrence of social anxiety in cluster 4 schools. These explanations concern the relationship between the problem behaviour of peers and the level of social anxiety of an individual, the relationship between the peer status of an individual and the level of social anxiety of that person, and the relationship between social anxiety and the experienced classroom climate at cluster 4 schools (figure 1).

It is expected at an individual level that the experienced level of social anxiety is higher among adolescents with ASD than among adolescents with ODD or CD. Secondly, it is expected that the peer victimisation by adolescents with ODD and CD influences the level of social anxiety experienced by their peers. Furthermore, it is expected that a negative peer status of individual adolescents will increase the experienced level of social anxiety. Moreover, at a classroom level it is expected that an unsupportive classroom climate will lead to a higher level of social anxiety for all adolescents in that classroom.

In conclusion, previous research flags several omissions in research on social anxiety and the social wellbeing of adolescents referred to cluster 4 schools. As a consequence, it is not known whether earlier findings generalise to cluster 4 schools. Given the increase of adolescents attending cluster 4 schools and their significant level of social anxiety, it should be clear that research should not only focus on general educational settings but also on cluster 4 schools. Therefore, this study will explore the influence of problem behaviour of peers, peer

status, and classroom climate on social anxiety in cluster 4 schools in comparison to a general educational setting.

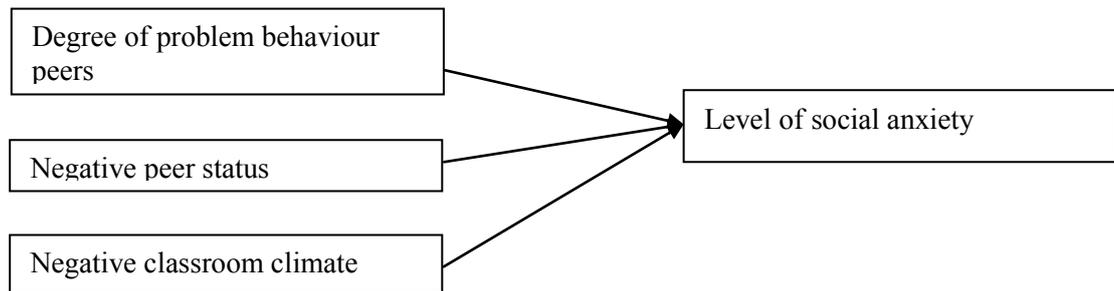


Figure 1. Influence of degree of problem behaviour of peers, peer status, and classroom climate on social anxiety.

Method

Participants

The aim of this study was to compare several cluster 4 schools with a control group attending a general educational setting. Cluster 4 schools can be divided in three types. One type is focused on internalising problem behaviours, primarily related to autism spectrum disorders (ASD) and the second type is focused on externalising problem behaviours, especially related to behavioural disorders (ODD and CD). A third type combines both internalising and externalising behaviours.

In total, six cluster 4 schools and six general educational settings were approached. Each educational setting contained 30-125 students. Only two cluster 4 schools and one general educational setting participated in this study. The first round of this study was held in those two cluster 4 settings. After this first round, a second round was planned in the same cluster 4 schools and in the general educational setting. Combined cluster 4 schools were approached. However, they were neither able to participate in the first round nor the second round, because of the timing of the study. Therefore, this study is based on two specified cluster 4 schools for internalising or externalising problem behaviours and on one general educational setting.

The data collection resulted in 35 participants, all attending a cluster 4 school for either internalising or externalising behavioural problems. Within the general educational setting, ten adolescents participated. The following paragraphs provide an overview of the participants by school type.

Cluster 4 school for externalising behaviour problems. The participants were 17 adolescents with a mean age of 15.06 (SD = 0.97), 14 boys and 3 girls participated. These adolescents attended the third grade of VMBO. The nationality of 25% of the fathers and 41.2% of the mothers was Dutch. The parent(s) and/or caregiver(s) received a questionnaire on the problem behaviour of the adolescent (Achenbach, 1991) and a consent form with a question on the adolescent's diagnosis (APA, 2000). The inquired information on the psychological disorder as stated in the Diagnostic Statistical Manual 4th ed. revised (DSM-IV-TR) (APA, 2000) was not handed in by 88.2% of the parents. The remainder two parents did not fill in the field or wrote a 'question mark'. Therefore, a DSM-IV-TR diagnosis was missing. This non-response also applied to the degree of problem behaviour (Achenbach, 1991). Only two forms were filled in. According to the school, a diagnosis for an externalising behavioural disorder is one of the entry requirements of the school.

Cluster 4 school for internalising behaviour problems. The participants were 18 adolescents with a mean age of 14.25 (SD = 0.76), 14 boys and 4 girls participated. These adolescents attended the second or third grade of VMBO. The nationality of 93.8 % of the fathers and 100 % of the mothers was Dutch. According to their parents, 100 % of these adolescents had an autism spectrum disorder assigned by the child's psychologist or psychiatrist (APA, 2000). Three adolescents (18.9%) had either ODD, multiple complex developmental disorder (MCDD) or an attention deficit and hyperactivity disorder (ADHD) as a co-morbid disorder. In 88.0 % of the cases the information on the degree of problem behaviour based on Achenbach (1991) was filled in.

Control group, general educational setting. The control group were ten adolescents; all attended the second grade of VMBO. In total, 5 boys and 5 girls participated, with a mean age of 13.30 (SD = 0.48). The nationality of 60 % of the fathers and 70% of the mothers was Dutch. According to the parents, none of these participants had a classification as stated in the DSM-IV-TR (APA, 2000). In 100% of the cases, the information on the degree of problem behaviour (Achenbach, 1991) was filled in.

Procedure

This study was part of a larger study on social-emotional development of adolescents at cluster 4 schools. For five days in a row the participants completed a panel of two till three questionnaires. Each panel of questionnaires took 15-20 minutes. This study's variables were scheduled on Wednesday, Thursday, and Friday. At first, this study planned one round to collect all the data. To optimise the test situation and to include the control group a second

round was held. Both rounds will be discussed.

First round, externalising behaviour problems. At the first cluster 4 school, specialised in externalising behavioural disorders, administration took place at school. Participants were each seated behind a computer to answer the questionnaires through a website especially designed for this purpose. The design of the website was highly structured and therefore easy to use for the participants. An advantage of the administration at school was that through the presence of a supervisor all children were controlled and stimulated to fill in the questionnaires. However, during this administration it showed that the students and the parents were not motivated to participate. Only two of the thirty consent forms were signed by the parents. It is possible that the parents did not understand the purpose and importance of this study. The school regulation stated that research in order to increase the student's well-being can be made mandatory. This regulation made it possible to administer the questionnaires to all participants assigned by the school.

A disadvantage of this testing situation was the administration in groups. It created a chaotic situation and even under supervision the students talked and yelled. Moreover, the honesty and privacy of participants was jeopardised because of the presence of other students. Furthermore, only a few parents spoke Dutch as their native language. This could explain the small response rate.

First round, internalising behavioural problems. The administration at the second cluster 4 school, for adolescents with internalising problems (ASD), took place at home. This school was not able to include the administering of the questionnaires in their daily schedule. Furthermore, they did not have enough computer facilities. Therefore, every day the participants received an e-mail with a link to that day's questionnaires. An advantage of this situation was that the participants were able to fill in the questionnaires when they had time and when they were motivated. A disadvantage was that the participants could not be stimulated or controlled by a supervisor. Forty participants were approached, only four students participated. It is possible that also these parents did not see the importance or did not understand the purpose of this study and therefore did not sign the consent form.

After the first round it can be concluded that it is not desirable to administer questionnaires collectively at school. Not only because of the chaotic situation, also because of the impact on the structured school schedules, and the unavailability of computer rooms. Furthermore, the data collection at school jeopardised the privacy of the children. In addition, administration via an especially designed website is recommended. A website is more organised and structured than several links in an e-mail. At last, the data collection in the first

round showed that it is important to inform and motivate the parents in order to increase the response rate and sample size. To include all these aspects it was decided to perform a second round of data-collection with a more uniform and optimal procedure. In the second round the control group was included.

Second round of the study. The same schools were re-approached. After the schools had given permission, the participants were informed in the classroom by a short presentation. After the introduction participants were given a consent form and a questionnaire about problem behaviour to bring home to their parents and/or caregivers. In order to increase the understanding and motivation in the second round, the instructions for parents, the schools and the students were simplified. When all signed consent forms and questionnaires of the parents were collected, this study's questionnaires could be filled in by the participants.

The administration of the questionnaires occurred during one week from Monday till Friday. The first round of this study showed less disadvantages when administration took place at home. Therefore, administering of the second round took place in the home environment. The participants and their parents received a letter and an e-mail with the procedure. Participants were asked to go to the website and to follow the instructions. The questionnaires were online for five days and went offline on Friday evening. The participants were allowed to fill in the questionnaires any time throughout the week. On Wednesday the classroom climate was planned and on Thursday social anxiety. On Friday the peer status was planned. Parents were informed and stimulated via the consent form and email to motivate their adolescent to participate.

To reward the adolescents a lottery was held among all participants within each school; one of the participants of each school could win 50 euro. Each participant got a lot number. These lot numbers made it possible to link the anonymous questionnaires filled in on the website. At the beginning of each questionnaire, the participants were able to fill in their personal lot number. The more questionnaires a participant filled in with their number, the more likely it was to win the money. Only the lot numbers of completed questionnaires counted. At the end of the week all the lot numbers that were filled in were collected. These numbers were put into a bowl; one winning ticket was pulled out with the lot number of one of the participants on it.

Instruments

Social anxiety. The Dutch 'sociale angstschaal' (SAS) (Willems, Tuender-De Haan, & Defares, 1973) was used to measure social anxiety. The SAS consists of 24 items, scored on a

five-point scale. These items result in one total sum score and measure various aspects of social anxiety. The SAS was (highly) reliable for the cluster 4 school for externalising problems ($\alpha = .80$), as well as for the school for internalising problems ($\alpha = .75$), and for the general educational setting ($\alpha = .90$).

Diagnosed disorder. Parents were asked to record the diagnosis indicated by their adolescent's psychologist or psychiatrist. These diagnoses correspond to the mental disorders as stated in the Diagnostic and Statistical Manual for Mental Disorders (DSM-IV-TR) (APA, 2000).

Problem behaviour expressed by peers. The Dutch version of the Child Behaviour Checklist (CBCL) (Achenbach, 1991) was used to find out if an area of problem behaviour correlates with social anxiety. The CBCL was filled in by the parents. The questionnaire consists of 113 items; each item describes a specific behaviour. Previous research showed that the CBCL does not only screen for emotional, attention and behavioural disorders, but also for autism spectrum disorders (Sikora et al., 2008). The following items are significantly related to ASD, 1, 25, 29, 42, 46, 66, 79, 84, and 111 (Ooi, Rescorla, Ang, Woo, & Fung, 2010). The reliability of the subscales has not been calculated, because of the low response rate of the parents.

Peer status. The sociometric procedure described by Cillessen and Mayeux (2007, p. 7-8) was used to determine peer status. *Best friends* ('which of your classmates are your best friends?'), *liked most* ("which classmates do you like most?"), *liked least* ("which of your classmates do you like least?"), *cooperation* (With whom do you like to work with?), *afraid of* ("for which classmates are you sometimes afraid?"). Four questions were reversed to measure not only the actual popularity but also the self-perceived popularity. *Liked most R* ('which of your classmates likes you most?'), *liked least R* ("which of your classmates likes you least?"), *Cooperation R* ("which of your classmates likes to work with you?"), *afraid of R* ("which of your classmates are afraid of you"). At last, participants had to answer *likeability* on a scale from one to ten ("How likeable do your classmates think you are?"). The two behavioural descriptions *afraid of* and *cooperation* correlate respectively with least liked and most liked peers. (Coie, Dodge, & Coppotelli, 1982).

Each participant received a list with the names of their classmates preceded with a number. The list was alphabetised by first name. Initials of the last name were shown if more than one adolescent had the same first name. Participants were instructed to read each sociometric question and nominate the classmates who fit the sociometric description most by checking the number corresponding to the classmate(s). Nominations were unlimited.

Participants were told that only the numbers were kept to assure confidentiality at all times (Cillessen & Mayeux, 2007, p. 7-8).

Classroom climate. Students indicated the prevailing pedagogical climate in their classroom on the Dutch 'klimaatschaal' (Donkers & Vermulst, 2011). This scale measures the wellbeing of adolescents of one class at school by inter-student relationships and classroom atmosphere. Both scales consist of 8 items all scored on a 4-point scale ranging from 'almost never' (bijna nooit) till 'often' (vaak). The inter-student relationship scale was highly reliable for all three groups with α -values between .84 and .94. The scale that measured classroom atmosphere was also (highly) reliable with α -values between .73 and .86.

Statistical analysis

Non parametric analyses were used, because of the small sample sizes of each group. First an independent samples Kruskal-Wallis test was used to examine differences between the groups for internalising and externalising behavioural problems, and the control group. SPSS does not produce values that correspond to the significant differences. It only indicated if the null hypothesis should be retained or rejected. The significant results were specified via a Mann-Whitney test (U) for each pair of groups. Only significant comparisons were reported.

Results

Preliminary

The results of the cluster 4 school for externalising behavioural problems were based on the data collection from the first round. During the final procedure this cluster 4 school, was not able to participate. The data in the first and second round of the adolescents with internalising behavioural problems were collected at the same cluster 4 school. A comparison with an independent samples Kruskal-Wallis test between this data showed no significant differences. Therefore, the results of the cluster 4 school for internalising behavioural problems were based on a combined sample of the data from the first and second round of this study.

This study planned to categorise the participants based on diagnoses of the DSM-IV-TR (APA, 2000). As stated in the participants section, most parents of externalising adolescents did not answer the question on diagnosed disorder. This resulted in an insufficient amount of official diagnoses and an unreliable categorisation based on a DSM-IV-TR (2000) classification. Therefore, the categorisation of all participants was based on the school the adolescent attended. Only adolescents with internalising problems, especially with a

diagnoses of an ASD, are accepted to the cluster 4 school specialised in internalising behaviour problems. This also applies for the cluster 4 school specialised in externalising behaviour problems. Only children with extreme behavioural problems, especially with a diagnoses of ODD or CD, are accepted. In general, adolescents attending general educational settings do not meet criteria for extreme behavioural problems. Severe behavioural problems would lead to a placement in a special educational setting.

Social anxiety

Table 1 shows the mean level and standard deviations of social anxiety by educational setting. The results show a significant difference in social anxiety between the two cluster 4 schools ($U = 63, p < 0.05$). Adolescents at the school for externalising behavioural problems experience a significant higher level of social anxiety than adolescents attending a cluster 4 school for internalising behavioural problems. No significant differences are found for both cluster 4 schools and the general educational setting.

Table 1. *Mean (M) and Standard deviations (SD) of social anxiety level by educational setting.*

Educational setting	<i>M</i>	<i>SD</i>
Cluster 4, externalising	62.94	16.91
Cluster 4, internalising	50.44	12.02
Control group	55.25	15.30

Degree of problem behaviour

As stated above in the method section, it was planned to use the Dutch version of the Child Behaviour Checklist (CBCL) (Achenbach, 1991) to obtain more knowledge about the degree of problem behaviour of peers. In total, 62.2% of the parents did hand in the questionnaire, only two of whom belonged to the cluster 4 school for externalising behavioural problems. The sample of participants with a completed questionnaire is not representative for the entire sample. Therefore, the degree of problem behaviour is not taken into account.

Peer status

The peer status was measured via sociometric questions about classmates. Because of the small sample, the participants came from a number of classes. This led to an insufficient amount of reciprocal results required in order to establish the actual sociometric status. Instead, the perceived peer status reported by the adolescent was used. It is taken into account that self-reports can be biased.

The classes varied between 10 till 29 students. To get an equal distribution, the nominations were first transformed into percentages. Table 2 shows the mean level and standard deviation of the perceived peer status for each of the five variables and by educational setting. The results indicate a significant difference between the schools for externalising behavioural problems and internalising behavioural problems ($U = 23.5, p < 0.05$). The cluster 4 school for internalising behavioural problems indicate more nominations on perceived cooperation in comparison to adolescents with externalising behavioural problems. Furthermore, the results show a significant difference between the cluster 4 school for internalising problems and the general educational setting ($U = 18.5, p < 0.05$). Adolescents with internalising behavioural problems perceive a higher rate of cooperation than their typical developing peers.

Table 2. Mean (M) and Standard Deviation (SD) of perceived peer status in percentages (%) divided by educational setting.

Variables	M	SD
Cluster 4, externalising		
Perceived, kind	62.94	16.91
Perceived, unkind	1.75	3.5
Perceived, afraid	1.00	2.65
Perceived, cooperation	23.78	27.89
Review own helpfulness	8.00	1.51
Cluster 4, internalising		
Perceived, kind	48.33	27.58
Perceived, unkind	1.67	3.89
Perceived, afraid	1.82	4.05
Perceived, cooperation	37.27	20.54
Review own helpfulness	6.91	1.22
Control group		
Perceived, kind	55.25	15.295
Perceived, unkind	46.75	27.84
Perceived, afraid	0	0
Perceived, cooperation	21.63	11.17
Review own helpfulness	7.38	.92

Classroom climate

Table 3 shows the mean level and standard deviation in percentiles of classroom atmosphere and inter-student relationships. Results are shown by educational setting. The results do not confirm the expected differences. They show a significant difference between the typical developing peers and adolescents with externalising behavioural problems ($U = 21.00, p < 0.05$). The externalising adolescents experience a better quality of inter-student relationships than the adolescents in the general educational setting.

Table 3. Mean (M) and Standard Deviation (SD) in percentiles of classroom climate (atmosphere and inter-student relationships) by educational setting.

Variables	M	SD
Cluster 4, externalising		
Classroom atmosphere	52.23	31.20
Inter-student relationships	73.38	22.56
Cluster 4, internalising		
Classroom atmosphere	48.56	27.89
Inter-student relationships	58.19	22.93
Control group		
Classroom atmosphere	31.33	22.18
Inter-student relationships	37.00	34.27

Discussion

The aim of the study was to examine whether and why adolescents with internalising behavioural problems experience more social anxiety than adolescents with externalising behavioural problems. Based on the literature review three explanations were drawn to explain the occurrence of social anxiety in adolescents attending cluster 4 schools. These explanations concerned the relationship between the degree of problem behaviour of peers and social anxiety, the relationship between a negative peer status and social anxiety, and between a negative classroom climate and social anxiety.

Social anxiety in the different groups

First of all, this study tried to replicate the findings of different levels of social anxiety in adolescents with internalising problem behaviours and externalising problem behaviours. It was expected that adolescents with internalising problems experience more social anxiety than adolescents with externalising problems (Bellini, 2004; Melfsen, Walitza, & Warnke, 2006; Burnette et al., 2005; Sterba et al., 2010). The results do not support this hypothesis.

They do indicate a significant difference in level of social anxiety. Adolescents with externalising behaviour problems reported higher levels of social anxiety than internalising adolescents.

Degree of problem behaviour

Secondly, this study examined three explanations for the existence of social anxiety in cluster 4 schools. The first explanation concerned the relationship between the degree of problem behaviour of peers and the level of social anxiety of an individual. It was expected that the peer victimisation and bullying behaviour of adolescents with externalising behavioural problems would increase the social anxiety level of peers; especially those with ASD (Card, 2008 as stated in Epkins & Heckler, 201; APA, 2000; Kokkinos & Panayiotou, 2004). An insufficient amount of behavioural questionnaires were filled in by the parents. As a result, it was not possible to obtain a reliable statistical analysis. Furthermore, no combined cluster 4 schools participated. The reciprocal influence of peers with internalising or externalising behavioural problems could not be measured. Therefore, a conclusion is missing.

Peer status

The second explanation concerned the relationship between the peer status of an individual and the level of social anxiety of that person. The small sample size of this study led to few reciprocal results. Therefore, an analysis based on the peer status nominated by classmates was not possible. Instead the perceived peer status was used. The results do not confirm the hypothesis that adolescents with a negative peer status experience a higher level of social anxiety (Inderbitzen, Walters, & Bukowski, 1997). A significant result was found for perceived cooperation. Adolescents with internalising behavioural problems perceived a higher rate of cooperation than adolescents with externalising behavioural problems. They also perceived a higher rate than adolescents of a general educational setting.

Classroom climate

Finally, the relationship between social anxiety and the experienced classroom climate was explored. It was expected that an unsupportive classroom climate would lead to a higher level of social anxiety (Spangler et al., 2011; Symes & Humphrey, 2010; Mayo-Dvir, 2010; Ammerman & Hersen, 1997). The results do not confirm this hypothesis. However, a significant result was found for the quality of inter-student relationships. Externalising adolescents experienced a higher quality of inter-student relationships than the control group, with typical developing peers.

Limitations

The main limitation concerns the small sample size. Not enough schools participated and there was not enough diversity in the participating schools. The sample is selective; this is even more reinforced by the absence of the combined cluster 4 school. As a result it is difficult to generalise this study's results to all three types of cluster 4 schools. Moreover, because of the selective sample, it is not known whether internalising adolescents and externalising adolescents attending the same classroom influence each other's level of social anxiety.

Furthermore, as a result of a small sample size and the response rate of the parents, important information of the individual adolescent is missing. This mainly concerns the specific behaviours (Achenbach, 1991) of the adolescent and the official DSM-IV-TR diagnosis (APA, 2000). Because of the missing information, this study is not based on the specific behavioural characteristics of each adolescent. It is based on the broad distinction between internalising and externalising behavioural problems.

Possible explanations of present findings

The above results show that adolescents with externalising behavioural problems experience a higher level of social anxiety as well as a higher quality of inter-student relationships. This is in contrast with the hypotheses of this study. An explanation for these results could be that the externalising adolescents show a consistent response pattern with high scores. This would show a bias and a trend for the externalising participants. However, this did not happen. With some variables, internalising adolescents scored higher or no significant differences were found.

This result shows that the explanation concerning a negative classroom climate, does not explain the social anxiety level of externalising adolescents. It is possible that this also accounts for the explanation concerning peer victimisation. With a high level of inter-student relationships the experienced level of peer victimisation might decrease and therefore its influence on social anxiety.

The hypothesis concerning a negative peer status is also not an explanation for the social anxiety level of externalising adolescents. No significant results were found for this group. This study's variables do not explain the significant higher level of social anxiety of externalising adolescents.

In contrast to the expectations of this study, the social anxiety level of internalising adolescents was lower than the level of externalising adolescents. In addition, this group scored higher on perceived cooperation in comparison to externalising adolescents and typical

developing adolescents. Cooperation is an element of a positive peer status. An explanation of this finding could be that a positive perceived peer status leads to a decrease in the level of social anxiety. Moreover, internalising adolescents did not experience a negative classroom climate. This result means that the pedagogical climate of the school and the well-being of the students are good. There is a balance between the needs of the students and the offer of the teachers. It is not known what resources are used to create this balance. This result possibly indicates a good fit between an individual and the school. In contrast to the externalising adolescents, this positive classroom climate could be responsible for the lower level of social anxiety of internalising adolescents.

Alternative explanations and recommendations for future research

As stated above, the explanations in this study do not explain the existence of social anxiety in cluster 4 schools. It is expected that other variables are responsible for the results in this study. These variables could relate to other school factors and/or to factors outside school, within the family or in the individual adolescent. Based on this study's limitations, possible factors might be co-morbid disorders, degree of problem behaviour of peers and/or the involvement of the parents.

On an individual level, co-morbid disorders possibly explain the experienced social anxiety level. Co-morbid disorders were not taken into account in this study. The form for the DSM-IV-TR diagnoses (APA, 2000) of the externalising adolescents was not filled in by the parents. Only the diagnoses of the adolescents with internalising problems were known. Therefore, it was not possible to control for co-morbid disorder. It is possible that co-morbid disorders explain a part of the results, especially when there is a co-morbidity between internalising and externalising disorders. A study on the influence of co-morbid disorders on the level of social anxiety of these adolescents would be complementary to this study. To control for co-morbid disorders, future research should take the official DSM-IV-TR diagnoses (APA, 2000) into account.

Not only individual factors can be an explanation for social anxiety. Factors within the peer context possibly play a role as well. Specific problem behaviour of peers can be a protective or a reinforcing factor of social anxiety. It is recommended to collect the problem behaviour not only based on parental reports, but also on reports of classroom teachers. The administration in different settings will give a broader view of the total degree of problem behaviour of an adolescent. Furthermore, an insight in the influence of problematic peer behaviour makes it possible to create a specific intervention to minimise the negative outcomes on classmates, including a decrease in their social anxiety level.

Within the family context, the understanding of parents can also be an explanation for the experienced level of social anxiety. It is expected that this understanding influences the involvement of the parents. A lack of understanding about the situation of the child might lead to less support in the home situation. Insufficient support within the family environment can make the social world unpredictable and lead to less social skills. These factors might lead to an increase in the level of social anxiety. For future research it is recommended to take the home situation into account, including the involvement of the parents.

A fourth recommendation for future research concerns the broader social context, including the school environment and the relationship between the school and the parents. This study shows the importance of motivation for the response rate of the parents and therefore of the adolescents. If participation can be made mandatory by the school, it is likely that the response rate will increase. Furthermore, to increase the motivation it is recommended to increase the understanding of the parents. The parents need to understand the aim and importance of the study. This study only approached the parents via an e-mail and a letter. An information meeting might increase the understanding, motivation and response rate.

The school context might also play a role in the social anxiety level. In this study there was only one measurement of social anxiety. By including a pre-test and post-test the social anxiety level can be measured at the moment the adolescents enter the school and a few years later when they finish and leave school. These measurements can investigate the influence of the total school context on social anxiety and can possibly lead to improvements in the school setting.

Finally, despite all the efforts, the two rounds of this study show the difficulties of collecting data on cluster 4 schools. These difficulties could explain the small number of studies in special educational settings. It is important to increase this number, because of the growing amount of adolescents attending special educational settings. Furthermore, it is important to obtain more research on the wellbeing of these students in order to improve and control it.

In conclusion, the results show that if they happen to attend separate schools, not adolescents with internalising behavioural problems but adolescents with externalising behavioural problems experience a higher level of social anxiety. It was expected that, peer victimisation, a negative peer status and a negative classroom climate would lead to a higher level of social anxiety. This study did not confirm these expectations. The data collection shows the difficulties of conducting research in a special educational setting. Furthermore,

this study flags many omissions in research on social anxiety and cluster 4 schools. Because of the increase of students attending cluster 4 schools, it is important to obtain more research within this educational setting. In order to improve the social wellbeing of these adolescents and their academic performances.

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