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Navigating the social world: The role of social competence, peer victimisation and friendship quality in the development of social anxiety in childhood

Hannah Pickard[a,*], Francesca Happé[a,1], William Mandy[b,1]

[a] Medical Research Council (MRC) Social, Genetic and Developmental Psychiatry (SGDP) Centre, King's College London, Denmark Hill, London, SE5 8AF, UK
[b] Research Department of Clinical, Educational and Health Psychology, University College London, Torrington Place, London, WC1E 6BT, UK

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ABSTRACT

Social and communication (SC) difficulties predict increased social anxiety (SA) symptoms in childhood. Peer victimisation and friendship quality are commonly associated with both SC difficulties and SA. Based on this, we tested for a cascade effect of early SC difficulties, peer victimisation and friendship quality on SA in late childhood, using a population-based sample of 8028 children from the Avon Longitudinal Study of Parents and Children (ALSPAC) cohort. Parent-reported data were collected on SC difficulties at age 7 and SA at age 7, 10 and 13. Child-reported data on peer victimisation and friendship quality were collected at age 8. Our results revealed that SC difficulties predict increased negative friendship qualities and peer victimisation. Relational victimisation predicted increased SA symptoms at 13 years old. Neither overt nor relational victimisation mediated the developmental relationship between SC difficulties and SA. Furthermore, friendship quality did not moderate the developmental relationship between SC difficulties and SA. In addition, no sex differences were observed. The evidence demonstrates that peer victimisation and friendship quality do not explain why some children with SC difficulties go on to develop SA. Future research clarifying the complex etiological pathways contributing towards the development of SA in childhood and adolescence is warranted.

1. Introduction

Social anxiety (SA) is a common experience, which lies on a continuum of severity in the general population (Knappe et al., 2011; Rapee & Spence, 2004). Severe symptoms of SA include a persistent intense fear of social situations in which a person may be scrutinised or negatively evaluated by others (American Psychiatric Association, 2013). SA is the third most common psychiatric disorder, with lifetime prevalence between 7–13% (Kessler, Petukhova, Sampson, Zaslavsky, & Wittchen, 2012). Although the typical age of onset occurs during early adolescence (Grant et al., 2005), clinically anxious pre-adolescent children are frequently diagnosed with social anxiety disorder (SAD; Costello, Egger, & Angold, 2005). Without effective treatment, childhood SA typically runs a chronic course, with a reduced likelihood of total remission and the risk of developing additional psychiatric disorders in adolescence (Bittner et al., 2007). Given the chronicity of SA and the impact on functioning and wellbeing across the life span, there is a need for longitudinal research to investigate mechanisms that underlie the development of SA across childhood, which will inform the development of targeted interventions to decrease a child's risk of developing SAD.

Etiological models of SA in childhood and adolescence have implicated the role of several risk factors, including social skill deficits and negative peer relationships, among others (Spence & Rapee, 2016). One risk factor suggested to underpin the development of SA is social and communication (SC) difficulties. SC ability is considered to be a continuously distributed trait that is expressed to varying degrees in the general population, with some individuals exhibiting no SC difficulties and others at the extreme end exhibiting severe SC difficulties (Ronald & Hoekstra, 2011), often resulting in a diagnosis of autism spectrum disorder (ASD), which is also characterised by restricted and repetitive interests and behaviours. The prevalence of SA disorder is elevated amongst children with ASD and those with high autistic traits (Hallett et al., 2013; Salazar et al., 2015), which is indicative of a developmental link between SC difficulties and SA. This link has been supported by both cross-sectional and recent longitudinal research.

* Corresponding author at: MRC Social, Genetic and Developmental Psychiatry (SGDP) Centre, King's College London, Denmark Hill, London, SE5 8AF, UK.
E-mail address: hannah.pickard@kcl.ac.uk (H. Pickard).
[1] Professor Happé and Dr Mandy are joint senior authors.

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Cross-sectional research shows that children diagnosed with SAD exhibit more SC difficulties, as reported by observer, parent and self-ratings, compared to non-anxious children (Beidel, Turner, & Morris, 1999; Spence, Donovan, & Brechman-Toussaint, 1999) and children with other anxiety disorders (Halls, Cooper, & Creswell, 2015). Although the universality of SC difficulties in SA is debatable (Cartwright-Hatton, Tschernitz, & Gomersall, 2005), the evidence implies that for some children, SC difficulties are a risk factor for SA. Research in population-based samples characterised by a degree of SC difficulties has also provided consistent support. Using parent-report measures, Hallett and colleagues (2013) found that more ASD-like SC difficulties were associated with greater SA symptoms and higher IQ, implying that these relationships are consistent at a trait-wise level (Hallett et al., 2013). Limited by cross-sectional research designs, the question of whether SC difficulties contribute towards SA, or are a consequence of SA remains unanswered. Extending cross-sectional findings, a recent longitudinal study using a population-based sample of children (age 7–13 years) found a directional and specific relationship between SC difficulties and SA, with earlier SC difficulties modestly predicting later SA symptoms (Pickard, Rijsdijk, Happé, & Mandy, 2017). Importantly, the reverse relationship was not observed. These findings highlight that SC difficulties are a risk factor for SA in childhood. Further research identifying mechanisms that influence this developmental pathway to SA, such as negative peer relationships, is required to inform preventative interventions that aim to decrease a child with SC difficulties risk of developing later SA.

Peer victimisation and poor friendship quality, are proposed to play a role in the development of SA. Peer victimisation is a multifaceted phenomenon, which encompasses both overt (e.g. hitting, kicking) and relational victimisation (e.g. spreading rumours). Children who experience both subthreshold and clinical SC difficulties, including young people with ASD, often experience high rates of victimisation and peers problems (Cappadocia, Weiss, & Pepler, 2012; Erath, Flanagan, & Bierman, 2007; Skuse et al., 2009). In line with cross-sectional research, prospective research indicates that social skill problems predict both later peer victimisation and social isolation in typically developing children (Fox & Boulton, 2006). Several cross-sectional and prospective studies have reported associations between peer victimisation (Hawker & Boulton, 2000), in particular relational victimisation, and SA across childhood and adolescence (Dempsey, Sulkowski, Nichols, & Storch, 2009; La Greca & Harrison, 2005; Siegel, La Greca, & Harrison, 2009). Sex differences in the relationship between relational and overt victimisation and SA symptoms have frequently been reported. In adolescent girls, relational victimisation, but not overt victimisation, has been seen to predict an increase in later SA symptoms (Siegel et al., 2009). Of note, SA symptoms contributed towards increased relational victimisation for both boys and girls. A longitudinal study using a large sample of adolescents (age 15–17 years) found a bi-directional relationship between overt victimisation and SA symptoms in males, however, among females, only relational victimisation contributed towards later SA symptoms (Ranta, Kaltiala-Heino, Fröjd, & Marttunen, 2013). Mixed findings with regards to sex differences have often been reported. To date, limited research has examined the role of relational and overt victimisation, as well as sex differences, in predicting SA in pre-adolescent children. Developmental differences in the relationship between relational and overt victimisation and anxiety have been reported (Casper & Card, 2017), highlighting the need for research to elucidate the prospective relationships between peer victimisation and SA during earlier time points in development. In addition, as SC difficulties and victimisation are linked to the development of SA, further prospective longitudinal research using large population-based samples is warranted to explore the combined effect of SC difficulties and victimisation on SA throughout childhood.

Friendships are important experiences for developing social and cognitive skills across childhood and adolescence (Bagwell, Newcomb, & Bukowski, 1998). Experiencing SC difficulties during childhood can create barriers to forming positive friendships (Erath et al., 2007). Specifically, in anxious and non-anxious children (age 8–14), social skill problems have been linked to having a smaller number of best-friends and poor friendship qualities, which often refers to the quality of support and companionship experienced amongst peers (Crawford & Manassis, 2011; Fox & Boulton, 2006). Similar findings are observed amongst adolescents with severe SC difficulties, including individuals with ASD, who report both poor friendship qualities and lower social network status (Locke, Ishijima, Kasari, & London, 2010). In addition, experiencing negative friendships (e.g. poor quality, small number of friends/best-friend) is proposed to contribute towards the development of SA in childhood. Research indicates that youths with higher SA symptoms often have fewer friends, feel less accepted and liked by their peers, experience more negative friendship quality and more negative peer interactions (Blöte & Westenberg, 2007; Erath et al., 2007; La Greca & Lopez, 1998). Additionally, children with anxiety disorders who have higher symptoms of SA show lower peer liking, acceptance and more negative interactions with friends (Ginsburg, La Greca, & Silverman, 1998; Verduin & Kendall, 2008). To date, research supports the link between negative friendships and SA symptoms in childhood; however, no longitudinal research has explored the prospective relationships between friendship quality and SA in pre-adolescent children. Furthermore, to the author's knowledge, no prospective research using population-based samples has explored whether friendship quality exacerbates the developmental relationship between SC difficulties and SA in childhood.

Etiological models of SA in normative development and neurodevelopmental disorders propose that, when experienced together, SC difficulties and negative peer relationships will exacerbate a youth's risk of experiencing SA (Bellini, 2006; Spence & Rapee, 2016). For example, a child with SC difficulties may struggle to form stable friendships and as a consequence may be subjected to peer victimisation, which combined could act to reinforce withdrawal behaviours and lead to increased feelings of SA. Exploring these developmental pathways using longitudinal research designs may help us to clarify why some children with SC difficulties go on to develop SA, while others do not. To date, no longitudinal research has investigated whether peer victimisation and friendship quality influence the developmental pathway from SC difficulties to SA in childhood. This research will enhance our understanding of the risk factors that contribute towards the development of SA in childhood and will inform early target-specific preventative interventions for SA.

In the present longitudinal study, we aim to examine whether negative friendship qualities, and overt and relational victimisation influence the developmental relationship between SC difficulties and SA symptoms using a population-based sample of children (see Fig. 1). In light of research signifying sex differences, the present study also aims to explore sex differences in our following hypotheses. We aim to test the following research questions: 1) Do SC difficulties lead to increased peer victimisation/negative friendship quality over middle/late childhood? 2) Does negative friendship quality/peer victimisation predict SA symptoms? 3) Does overt and/or relational victimisation mediate the relationship between SC difficulties and SA symptoms? 4) Does friendship quality moderate the relationship between SC difficulties and SA symptoms?

2. Method

2.1. Participants

The Avon Longitudinal Study of Parents and Children (ALSPAC) is a population-based cohort of children born in Bristol, UK, between 1991 and 1992. At one years old 13,988 children were alive and formed the original cohort (Boyd et al., 2013). Beginning in the first trimester of pregnancy parents completed postal questionnaires every year about themselves and their child's development and health. In addition,