# Early adolescents' understanding of different forms of psychopathology and its implications for peer relationships: A mixed-methods approach

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## ABSTRACT

**Early adolescents' understanding of different forms of psychopathology and its implications for peer relationships: A mixed-methods approach**

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The aim of this project was to extend prior research on youth's understanding of, and responses to, peers with mental health problems. The two present studies were designed to examine causal beliefs, attitudes and behavioural intentions towards hypothetical peers displaying symptoms of four common forms of childhood psychopathology (i.e., depression, anxiety, attention-deficit hyperactivity disorder and conduct disorder) in a sample of 272 early adolescents in Montreal, Quebec. A mixed-methods design was implemented consisting of ratings and open-ended questions in response to behavioural vignettes. Using analysis of variance and factor analysis, results from both studies supported our main hypothesis that beliefs, levels of liking and intended behaviours would vary as a function of the type of problem depicted and show consistent differences between internalizing and externalizing problems. Specifically, results from Study 1 on causal beliefs show that conduct problems were most viewed as within the peer's control and attributed to lack of effort, in line with previous findings on beliefs about peers' personal responsibility for aggressive behaviour. As expected, results from Study 2 provide evidence that liking, friendship and helping intentions were higher towards peers with internalizing difficulties (i.e., anxiety and depression) than towards those displaying acting-out behaviours, with the most negative responses observed for the

peer with conduct problems. Using content analysis, the open-ended question eliciting ways to help a peer revealed a wide range of help strategies proposed by early adolescents, including peer involvement and professional help, again with variations by problem. Taken together, qualitative findings provide evidence for the ability of 10- to 12-year-olds to offer a range of explanations (internal and external) for mental health problems and to suggest general and problem-specific help strategies, thus enhancing our limited knowledge of mental health literacy in this age group. Overall, results confirm and extend findings on youth's tendency to stigmatize peers displaying aggressive behaviour, as evidenced by attributions of controllability, negative attitudes and social distance, with implications for peer rejection experienced by such youth. By shedding light on responses to peers with psychological problems in early adolescence, this work informs our understanding of the development of mental health stigma.

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*Chapter 1: General Introduction*

Throughout history and in practically every culture, the mentally ill have been stigmatized (Burns, 2006; Hinshaw, 2007). Stigma is socially defined in that there is variation across time and cultures about what marks are stigmatizing (Phelan, 2009); however, some marks appear to be universal, as is the case with mental illness (Dovidio, Major, & Crocker, 2000; Stangor & Crandall, 2000). The process of stigmatization involves the recognition of difference based on a distinguishing characteristic or "mark" and the consequent devaluation of the person (Arboleda-Flórez, 2002; Dovidio et al., 2000). In his seminal examination of stigma and the "management of spoiled identity", sociologist Goffman (1963) identified different types of stigmas, among which "blemishes of individual character" as in the case of mental disorder, addiction, homosexuality, imprisonment or unemployment (p.73). According to a widely accepted model by Link and Phelan (2001), stigmatization has four key components: (1) labelling, in which personal characteristics are signalled as conveying an important difference, (2) stereotyping: the linkage of these differences to undesirable characteristics, (3) separating: the categorical distinction between the labelled group and the mainstream group as fundamentally different in some way, and finally (4) status loss and discrimination: devaluing, rejecting and excluding the labeled group.

Over the past decade, a consensus has formed among researchers, clinical experts, policy and political leaders that mental disorders are highly stigmatized, with far-reaching consequences (Hinshaw, 2007). According to the World Health Organization's (2001)

report on mental health, published more than a decade ago yet still highly current, "the single most important barrier to overcome in the community is the stigma and discrimination towards persons suffering from mental and behavioural disorders" (p. 108). Moreover, clear evidence for the significant economic impact of mental illnesses in Canada, due to both direct and indirect costs (i.e., productivity) (Mental Health Commission of Canada [MHCC], 2013), has led to increased interest in better understanding the nature and impact of stigma in order to reduce this societal problem. In short, stigma is viewed as one of the main burdens of mental illness (Corrigan, 1998; Corrigan & Watson, 2002; Hinshaw, 2007) and stigmatization is personally, interpersonally and socially costly (Dovidio et al., 2000).

*Components and Dimensions of Stigma*

Research on stigma, both with adults and children, has borrowed heavily from basic social psychological research that explains the prejudice and discrimination experienced by minority groups, particularly ethnic and racial groups (Corrigan & Watson, 2002, 2007; Hinshaw, 2007). Also of interest to stigma researchers are the insights of the social cognitive approach to understand how people construct categories and link these categories to stereotyped beliefs (Crocker, Major, & Steele, 1998; Link & Phelan, 2001). The social cognitive approach to stigma frames the phenomenon in terms of knowledge structures; in this way, stigmas are viewed as representations of the public's largely negative perceptions about individuals with mental illness (Corrigan, 2000). There is consensus amongst researchers in the area of mental health stigma (e.g., Corrigan & Watson, 2002; Hinshaw, 2007; Thornicroft, 2007) that stigma is comprised of three important components: stereotype, prejudice and discrimination. Stereotypes

have been defined as cognitive structures that contain our knowledge, beliefs and expectations about a social group (Hamilton & Sherman, 1994), exaggerated beliefs associated with a category (Allport, 1954), as well as a problem of knowledge due to ignorance or misinformation (Thornicroft, 2007). At the same time, stereotypes have been recognized as an especially efficient means of categorizing information about social groups (Hamilton & Sherman, 1994; Kunda, 2002). In the affective domain, there is the problem of negative attitudes, also known as prejudice. Prejudice is the agreement with the belief (or stereotype) and the corresponding negative affective reaction, such as fear or anger (Corrigan & Watson, 2002). Lastly, there is the problem of rejecting and avoidant behaviour, or discrimination (Thornicroft, 2007). Discrimination is the behavioural response to prejudice, for example withholding help or social avoidance (Corrigan & Watson, 2002). Indeed, it has been shown that people not only evaluate stigmatized persons unfavourably but also behave differently toward them (Leary, 1995). In sum, stigma is comprised of problems of knowledge, attitudes and behaviour (Thornicroft, 2007) and is often measured in terms of social distance, the degree to which people are willing or not to interact socially with the "marked" individual (Corrigan & Penn, 1999; Corrigan, Watson, & Ottati , 2003; Lauber, Nordt, Falcato, & Rössler, 2004; Mann & Himelein, 2004; Phelan, Link, Stueve, & Pescolido, 2000).

In addition to the components of stigma described above, it has been proposed that stigmatized conditions vary across dimensions, each of which predicts the response of social perceivers to the marked trait or attribute (Jones et al., 1984). The analysis by Jones and colleagues, still widely used today (e.g., Link, 2011), identified six dimensions underlying stigmatized conditions: (1) concealability or visibility – whether a condition

can be hidden from others; (2) course or chronicity – the way the condition changes over time and its ultimate outcome; (3) disruptiveness or strain on interpersonal relationships – how much the condition disrupts or interferes with social interactions; (4) aesthetic qualities – how much the attribute makes the individual ugly or repellent to others; (5) origin – how the stigmatizing condition was acquired and who is responsible; and (6) threat or peril – the kind and degree of danger that the condition poses to others. Some of these dimensions are believed to be key elements of the processes underlying stigma; research suggests that the most central are the controllability of the stigma (tied to its origin) and its perceived danger or threat (e.g., Deaux, Reid, Mizrahi, & Ethier, 1995; Frable, 1993). In this way, stigma is likely to be fueled by traits and conditions that are believed to be stable, controllable and threatening, attributes often ascribed to mental disorder (Hinshaw, 2005). It appears then that the way in which disorders are understood and evaluated along various dimensions, such as danger and controllability, may guide attitudes toward sufferers and have implications for social responses.

*Approaches to the Study of Laypeople's Understanding of Mental Illness*

Over the years, there have been several approaches to the study of laypeople's understanding of a specific form of deviance, psychological "abnormality" or mental illness. These include the sociological/epidemiological, attributional and folk psychiatry approaches. To begin, the tradition rooted in sociology and epidemiology has largely consisted of community surveys of public beliefs about, and attitudes towards, mental disorder and those affected (e.g., Angermeyer & Matschinger, 1999; Link, Phelan, Bresnahan, Stueve, & Pescolido, 1999) leading to quantitative descriptions of lay conceptions and how they compare to contemporary psychiatric knowledge. Survey

research of the general population of Western cultures has documented common negative stereotypical views amongst adults, for instance that mental illness is incurable and that mentally ill individuals are dangerous or weak of character (Corrigan, 1998; Corrigan & Watson, 2002). According to a 2008 survey by the Canadian Medical Association, nearly half of Canadians believe that the term "mental illness" is used as an excuse for bad behaviour and only half would tell their friends or coworkers that they have a family member living with a mental disorder. Overall, this research has shown that stigmas associated with mental illness are widely endorsed by the general public in the West and that individuals with mental illness, particularly those afflicted with more serious forms (e.g., schizophrenia), are unquestionably highly stigmatized (Corrigan & Watson, 2002; Dozois, 2008; Hinshaw & Ciccheti, 2000; Link et al., 1999; Phelan et al., 2000).

*The Folk Psychiatry Model*

What does the public actually believe underlies mental illness? People's perceptions are filtered through and guided by their lay theories (see Levy, Chiu, & Hong, 2006 for review). According to the "folk psychiatry" approach (Haslam, 2003; Haslam, Ban, & Kaufmann, 2007), stemming from cognitive psychological research known as "folk" or "naïve psychology", mentally disordered behaviours are understood along four underlying dimensions, namely of (1) pathologizing (judgments of deviance or abnormality and social norm violations), (2) moralizing (perceptions of ethical violations, weak personal will or intentional control), (3) medicalizing (essentialist beliefs that the abnormality is the result of disease or deficiency and therefore unintentional and uncontrollable), and (4) psychologizing (views that deviant behaviour is tied to psychological dysfunction and rooted in life history, but not the direct result of overtly

medical causes). An important point from this model is that a form of behaviour cannot be conceptualized as a mental disorder unless it is judged to be deviant or abnormal (i.e., recognized as a violation of normative expectations) (Haslam, 2003). In short, the perspectives outlined in folk psychiatry are likely to predict differential responses to mentally disturbed behaviour; however, this theoretical model is new and relatively untested to date (Haslam et al., 2007; Hinshaw & Stier, 2008).

*Attributional Models and Perceived Controllability*

Attribution theory (Heider, 1958; Kelley, 1973; Weiner, 1985; 1986) deals with questions of social perception, in particular those concerned with the causes of observed behaviour. Research on the role of attributions in stigma has roots in the work of Weiner and colleagues (Weiner, 1993; Weiner, Perry, & Magnusson, 1988). In Weiner's earlier work on achievement (e.g., 1985), he proposed that perceived causes of success and failure share three common attributions, namely controllability, stability and locus of causality (i.e., as either internal or external to the self). For instance, someone may fail a test because of lack of effort (i.e., a controllable, internal cause) or because of a headache (i.e., a not controllable, internal cause). From its initial focus on achievement strivings (i.e., success versus failure), this framework has since been applied to the study of perceptions of the self and others, including lay beliefs about the causes of mental disorder (e.g., Corrigan, 2000; Weiner et al, 1988; Weiner, 1993). For instance, a study of college students showed experimentally that symptoms of mental disorders are typically viewed as volitional (i.e., intentional) and controllable (Weiner et al., 1988).

According to this model, causal explanations for mental and physical illness, especially in terms of controllability and responsibility, will affect our attitudes towards

individuals with disorders. A stigmatizing condition is controllable when a stigmatized person is deemed responsible for the condition, in other words, when the condition results from or could be eliminated by the behaviour of the stigmatized individual (Weiner et al., 1988). A useful distinction has been made between responsibility for the problem (i.e., onset) and responsibility for the solution to the problem (i.e., offset) (Brickman et al., 1982; Corrigan, 2000; Crocker et al., 1998; Dovidio et al., 2000). In the case of mental illness, one may be given responsibility for treatment (i.e., for getting better) but not be blamed for the illness (Hinshaw, 2007). This theory proposes that the perceived cause and controllability of a stigma are important as they shape reactions in fundamental ways: cognitively (e.g., amount of blame), emotionally (e.g., respond with anger or sympathy) and behaviourally (e.g., choosing to help) (Weiner, 1986; Weiner et al., 1988). In other words, attribution theory posits that causal beliefs matter as they result in an emotional and behavioural response. Specifically, this theory predicts that when undesirable or negative behaviour of an actor is ascribed to personal control, volition or failure of will (i.e., to a controllable cause), harsh responses, including blame and anger, are expected from observers (Weiner et al., 1988). In contrast, the ascription to non-controllable causes is expected to foster responses of compassion, pity and benevolence.

*Limitations of Attribution Theory*

According to Hinshaw and Stier (2008, p. 379), "the implications for mental illness stigma are seemingly clear: When the public accepts biomedical or genetic theories of causation…then the denigration of mental disorders will substantially recede". Medical models have been in ascendancy in recent decades and, not surprisingly, anti-stigma campaigns commonly seize on the hypothesis that stigma is minimized when mental illness is attributed to biological causes, which are generally considered to be

uncontrollable (Haslam, 2003). Indeed, a central premise of mental health advocacy groups and anti-stigma campaigns is that mental illness is a "brain disease" or a "disease like any other", with the assumption that public acceptance of this fact will reduce blame and stigma (Corrigan & Watson, 2004). However, there actually is little evidence for the claim that the brain disorder view, and its ascription to uncontrollable causes, reduces stigmatization (Corrigan & Watson, 2004; Hinshaw & Ciccheti, 2000). The predictions of attribution theory and the importance of perceived controllability in particular have been questioned and critiqued by mental health stigma researchers (e.g., Haslam et al., 2007; Hinshaw & Stier, 2008), as exemplified in the following points.

First, it has been argued that forms of mentally disturbed behaviour that threaten observers are likely to be feared and rejected prior to any attributional analysis, in other words to lead to social distancing and strong dislike reflexively (Hinshaw & Stier, 2008). In this way, attributions may not always matter (Haslam, 2000). Second, biogenetic accounts can be associated with a sense of chronicity and hopelessness regarding mental disturbance, therefore more likely to produce attitudes that the underlying disorder is unchangeable and hopeless. Indeed, biomedical explanations have been shown to increase pessimism about improvement (i.e., prognosis) (Farina, Fisher, Getter, & Fischer, 1978). Also, while the "mental illness as brain disease" approach reduces blame for mental illness, it may unintentionally exacerbate other components of stigma, particularly the dangerousness stigma (Corrigan & Watson, 2004; Walker & Read, 2002). Haslam (2003) proposes that viewing mental illness as biologically based may evoke fears that the affected person is unpredictable – at the mercy of an "untamed nature". In line with these points of contention, a substantial body of evidence now indicates that

biomedical explanations may promote rather than reduce stigma (Hinshaw, 2007; Phelan, Cruz-Rojas, & Reiff, 2002; Read, 2007). Overall, even though biomedical attributions of disorders may reduce expressed blame towards a person with mental illness (Mehta & Farina, 1997), the desire for social distance may increase (Dietrich et al., 2004; Phelan et al., 2002), along with harsher and more punitive treatment (Mehta & Farina, 1997). In light of this body of evidence, many stigma researchers have expressed concern over the oversimplification of mental illness as "brain disorder".

In summary, biogenetic models of the causation of mental illness are now widespread; however, contrary to predictions from attribution theory that ascriptions of deviant behaviour to uncontrollable biogenetic causes will automatically decrease stigma, such reductionistic attributions may actually increase social distance and punitive responses toward persons with mental illness (Hinshaw & Stier, 2008). These findings indicate the double-edged sword nature of current biomedical conceptualizations of mental illness (Lebowitz, 2013) and point to attribution theory's limited ability to account for the complexity of the public's responses to mental illness (Hinshaw & Stier, 2008). Despite these limitations, existing research on how children perceive and respond to peers with psychological difficulties has been largely grounded in the attribution framework described here; therefore, this model will be revisited in both present studies.

*Summary of the Empirical Literature on Mental Health Stigma*

Taken as a whole, the body of evidence from these various research traditions provides clear evidence that the stigmatization of individuals with mental illness remains pervasive (e.g., Angermeyer, Holzinger, & Matschinger, 2010; Corrigan et al., 2000; Link et al., 1999; Martin, Pescolido, & Tuch, 2000; Pescosolido, 2013; Phelan et al.,

2000; Stier & Hinshaw, 2007; Stuart, 2005). This reality is problematic for several reasons; for instance, for fear of social avoidance, rejection and discrimination, persons may be reluctant to disclose mental health problems or to seek treatment (e.g., Corrigan & Watson, 2002; McNair, Highet, Hickie, & Davenport, 2002). Although it is clear that developmental considerations have been lacking from research on stigma and mental illness, which to date has emphasized the study of adults (Hinshaw, 2005, 2006; Hinshaw & Stier, 2008; Wahl, 2002), interest in this phenomenon amongst youth has grown steadily over the past decade (e.g., Coleman, Walker, Lee, Friesen, & Squire, 2009; Corrigan & Watson, 2007; Hennessy, Swords, & Heary, 2008; Swords, Heary, & Hennessy 2011; Watson, Miller, & Lyons, 2005).

*Rationale for Examining Mental Health Stigma in Youth*

The recent development of anti-stigma campaigns around the world has seen a movement to study stigma in selected groups so as to match intervention strategies to the needs of particular segments of the population (Stuart, Arboleda-Flórez, & Sartorius, 2012). In Canada, the Mental Health Commission's anti-stigma campaign launched in 2008 targeted two groups, one of which was youth (aged 12 to 18) (MHCC, 2008). Youth are a group of particular interest for study so as to gain a better understanding of when stigmatizing attitudes towards mental illness first develop (Corrigan & Watson, 2007; Hinshaw, 2005). As reviewed by Wahl (2002), it is unlikely that the problem of mental illness stigma, consistently found in studies, emerges full-blown in adulthood. Rather, such beliefs and attitudes are likely acquired gradually over time and originate in childhood (Hinshaw, 2005; Penn et al., 2005; Poster, 1992), hence the importance of studying beliefs and attitudes regarding mental health in younger samples.

Another important reason to study youth's views of mental illness is that a significant minority of them is personally affected by mental illness. According to recent statistics, in 2011, approximately one million (1.04) Canadian children and adolescents between 9 and 19 years of age were living with some form of mental illness (MHCC, 2013; Smetanin et al., 2011). This represents 23.4% or nearly one in four individuals in this age group. Adolescence is important from a mental health perspective because an estimated 70% of mental disorders have their onset in childhood and adolescence (Evans & Seligman, 2005; Hinshaw & Cicchetti, 2000) and adolescents are at greater risk of certain mental health problems (e.g., depressive disorders) than are younger children (Costello, Mustillo, Erkanli, Keeler, & Angold, 2003; Ford, Goodman, & Meltzer, 2003). The fear of labels and the anticipation of stigma have been identified as barriers preventing youth from seeking help and accessing mental health services (Boldero & Fallon, 1995; Jorm, Wright, & Morgan, 2007; Moses, 2009). The reluctance to seek treatment has important prognostic implications for youth (Penn et al., 2005); without help, youth who are facing a mental illness may not end up developing the skills, self-competence and independence that is required to live a healthy and fulfilling life (Public Health Agency of Canada, 2006).

In sum, it has been argued that investigating mental health stigma in youth is essential for two primary reasons: first, stigma has an adverse effect on the course of mental illness once the person is diagnosed and second, concerns about stigma may delay help-seeking (Penn et al., 2005). In addition, it is clear that the emergence of mental health problems in childhood and adolescence may be problematic for their social development (Hinshaw, 2005; Masten & Curtis, 2000). Research examining the impact of

mental health problems on children's peer relations, as well as the effects of peer difficulties on adjustment, is reviewed next.

*The Bidirectional Association of Social Functioning and Psychopathology*

There is widespread consensus that satisfactory peer relationships are an essential part of children's adjustment and socialization (Bukowski, 2001; Harris, 1995; Hay, Payne & Chadwick, 2004; Rubin, Bukowski, & Parker, 2006; Sullivan, 1953; Vandell, 2000). Once in school, children spend a substantial proportion of their time interacting with peers and, beginning in childhood, getting along with peers is widely recognized as a key developmental task (Ladd, 1999; Masten, 2005). Considerable evidence has shown that peer group status and experiences, including "being liked" by other children, are associated with a number of developmental outcomes, including self-esteem, social competence and academic achievement (DeRosier, Kupersmidt, & Patterson, 1994; Hartup, 1996; Ladd, 1999), internalizing problems such as depression and loneliness (Burks, Dodge, & Price, 1995; Coie & Dodge, 1988) and externalizing problems (Ollendick, Weist, Borden, & Greene, 1992; Parker & Asher, 1987).

Research on children's competence or adaptational success in expected developmental tasks has shown that rule abiding versus rule-breaking behaviour is valued as a salient developmental task in children and associated with social competence (Masten & Coatsworth, 1995; 1998; Masten & Curtis, 2000). Moreover, many social adjustment problems in childhood can be classified along an internalizing-externalizing dimension. Indeed, children's behaviour patterns are often defined in terms of "turning inward" or "acting out" (Giles & Heyman, 2004). It has been proposed that peer systems may function in many ways to mediate and moderate processes that lead toward, and

away from, psychopathology (Bukowski & Adams, 2005). A number of studies have shown that broad indicators of psychopathology (e.g., scores on externalizing and internalizing behaviour scales) are related within and across time to assessments of competence in key developmental tasks, including positive peer relations and academic achievement (see Masten & Curtis, 2000 for review). Indeed, an extensive literature on peer relationships has shown consistent associations within and across time between peer acceptance or rejection and mental health symptoms (e.g., Bukowski, Brendgen, & Vitaro, 2007; Cicchetti & Bukowski, 1995; Rubin et al., 2006). In addition, there is substantial evidence that children who have emotional and/or behavioural problems are more likely to encounter problems in their interactions with peers and to be excluded or rejected in response to the symptoms of their conditions (Deater-Deckard, 2001; Erhardt & Hinshaw, 1994; Hay et al., 2004; Newcomb, Bukowski, & Pattee, 1993). In particular, this has been extensively researched and demonstrated in children with externalizing problems, such as attention deficits or aggressive behaviour (Asher & Parker, 1989; Coie, Dodge, & Kupersmidt, 1990; Lebowitz, 2013; Masten & Curtis, 2000; Parker & Asher, 1987; Safran, 1995; Spitzer & Cameron, 1995).

Thus, children with psychological problems experience a double disadvantage – first, because of the nature of their difficulties and second, due to the impact of peer rejection and exclusion on normal socialization (Hennessy et al., 2008). Adolescents may be especially vulnerable to stigmatizing responses from peers because they spend increasingly more time with peers than in previous years (Larson & Richards, 1991) and as identity development and social acceptance are of central importance during this period (Hinshaw, 2002; 2005; Leavey, 2005; Moses, 2009; Wisdom, Clarke, & Green,

2006). In sum, peer relations are more likely to be impaired in children with mental health problems and, in turn, peer difficulties can exacerbate existing symptoms. Evidence for this double disadvantage underscores the need to gain a better understanding of youth's typically negative responses to peers with mental health difficulties, as a step towards promoting more positive views and, in turn, greater acceptance towards affected youth.

*The Present Studies: Rationale and Aims*

In the current context of a worldwide anti-stigma movement, the relevance of examining personal beliefs and attitudes that may develop and, in turn, perpetuate stereotypes around mental health is evident. Indeed, making sense of understandings of psychological problems has great practical importance. For instance, it is laypeople's beliefs rather than professional conceptions of mental disorder that guide attitudes toward sufferers, influence whether help is offered and determine whether professional help is sought when they or their loved ones experience problems (Haslam, 2003; 2007). As reviewed by Hennessy and colleagues (2008), while there has been much research on the sociometric status, social functioning and cognitions of children with psychological problems (e.g., Brendgen, Vitaro, Bukowski, Doyle, & Markiewicz, 2001; Brendgen, Vitaro, Turgeon, & Poulin, 2002; Hymel, Bowker, & Woody, 1993; Kennedy, Spence, & Hensley, 1989), a smaller body of literature has developed investigating children's understanding of psychological problems and why they respond in negative ways to peers who experience these problems.

Therefore, the objective of this project was to extend prior research on youth's understanding of, and responses to, peers with mental health problems. While the

importance of examining beliefs and attitudes in youth that may perpetuate stereotypes around mental health is now well established (Hennessy et al., 2008; Hinshaw & Stier, 2008; Penn et al., 2005), some gaps in research remain to be filled. Hinshaw (2005) identified the following two areas as worthy of investigation; children's and adolescents' conceptions of mental illness and the relation of such views to youth's tendency to avoid or exclude peers with deviant behaviour. There has also been a call for more research allowing the examination, in open-ended fashion, of the public's beliefs regarding the causation and treatment of mental illness (Hinshaw & Stier, 2008). The two current studies aim to address these gaps by examining beliefs regarding the causes of various forms of psychopathology (Study 1), as well as attitudes and behavioural intentions towards hypothetical peers exhibiting symptoms (Study 2), using a mixed-methods approach. In recent years, there has been growing interest in "mental health literacy", the knowledge, attitudes and beliefs about mental illness and disorders, which then lead to their prevention, recognition and management (Jorm et al., 1997a; Jorm, 2000). The aims of the current research are in line with two central components of mental health literacy, namely knowledge and beliefs about causes (Study 1) and knowledge and beliefs about self-help interventions and professional help available (Study 2).

In light of research showing marked differences in both knowledge, attitudes and reactions towards different forms of mental illness (e.g., Crisp, Gelder, Rix, Meltzer, & Rowland, 2000; Link et al., 1999), it has been recommended that the stigma toward mental illness be examined specifically, (i.e., by disorder), rather than in general (Hinshaw, 2007; Hinshaw & Stier, 2008; Lebowitz, 2013). This differential response by disorder has led researchers interested in children's views of mental illness (e.g.,

Hinshaw, 2005) to recommend further investigation of how peers respond to different kinds of mental disturbance, including the understudied less severe forms of mental illness (Hinshaw & Stier, 2008). For this reason, the current studies assessed beliefs, attitudes and behavioural intentions towards four forms of childhood psychopathology, namely depression, anxiety, attention-deficit hyperactivity disorder and conduct disorder. Prevalence rates indicate that these four conditions are the most common mental health disorders among Canadian children and youth aged 0 to 19 years (Waddell, Offord, Shepherd, Hua, & McEwan, 2002).

The objective of the first study was to assess early adolescents' understanding of psychological problems in peers, particularly their beliefs (i.e., attributions) regarding the causes of psychological problems. An open-ended question was included so as to increase our insight into participants' spontaneous explanations for common childhood mental health problems. The second study set out to assess early adolescents' reported levels of liking, friendship and helping towards hypothetical peers exhibiting symptoms of various forms of psychopathology. The qualitative component aimed to elicit ideas about how peers with mental health problems might be helped. In sum, the overarching aim of this project was to integrate research on youth's understanding of psychopathology, their perceptions of others and peer relationships and, in this way, to investigate the possible emergence of mental health stigma in early adolescence.

## Chapter 2: Study 1 - Early adolescents' beliefs about the causes of psychological problems displayed by hypothetical peers

Over the course of their childhood and adolescence, many youth will interact with a peer or sibling with a mental health problem. The presence of youth with emotional and/or behavioural difficulties in mainstream classrooms has raised important questions from educational, psychological and policy perspectives regarding the acceptance and adjustment of children with mental illness in regular classrooms (Magiati, Dockrell, & Logotheti, 2002; Spitzer & Cameron, 1995, p. 399). Two key questions are: (1) What do "healthy" children (i.e., typical mainstream peers) know and think about mental health and illness? and (2) How do healthy children respond to peers affected by psychological problems? It has been argued that learning about youth's beliefs regarding mental health may help us understand why children with problems are more likely to be excluded from their peer group (Hennessy et al., 2008). The current project set out to examine these questions by investigating children's knowledge and beliefs regarding psychological problems in peers. The overall aim of this study was to extend prior research on youth's understanding of psychopathology in peers, specifically with regards to etiology. Before reviewing the existing literature on children's understanding of mental health and of peers with difficulties, I first provide a brief overview of (a) adults' views of mental illness and (b) of children's views of physical illness.

### *Adults' Views of Mental Illness*

Attribution theorists (e.g., Kelley, 1973; Weiner, 1985) argue that people have a need to understand and make sense of the behaviours of others and that they attribute these behaviours or events to a combination of causes (Giles, 2003). As reviewed earlier, a particular focus of research on attribution theory has been the impact of attributions of

controllable versus uncontrollable causes and the dimension of controllability is central to Weiner's attribution theory (1986). His work (e.g., 1993; 1995) has shown that people tend to judge the behaviour of others on the basis of perceived responsibility and an individual is held responsible or not for a behaviour on the basis of whether or not he or she could have controlled the behaviour. Unlike physical disabilities, persons with mental illness are perceived by the public to be in control of their disabilities and to be responsible for causing them (Corrigan et al., 2000; Weiner et al., 1988). This is in line with evidence whereby, in the West, mental illness is typically perceived to be caused by psychosocial or environmental factors, while biochemical and genetic influences, though recognized as causal factors, are generally not considered as important (Jorm, 1997b; Jorm, 2000; Link et al., 1999). In fact, Walker and Read (2002) cite several studies showing that the public rejects a medical model of mental illness, preferring causal explanations related to environmental stressors or traumatic childhood events.

Studies of stigma and mental illness commonly use a vignette method first developed by Star (1955) to learn about the public's ideas about mental illness. Indeed, much of research on public knowledge and beliefs about mental disorders amongst adults in the West involves the presentation of a vignette describing a person with symptoms of a major mental illness using DSM-IV or ICD-10 diagnostic criteria (Canadian Alliance for Mental Illness and Mental Health, 2007). Although research on youth's views of mental health has lagged well behind research with adults (Hinshaw, 2006; Wahl, 2002), this vignette-based method has been used to investigate children's understanding of physical illness and, in recent years, been increasingly adopted for studies of children's understanding of mental health and illness.

*Children's Explanations of Physical Illness*

Since the late 1970s, several theoretical frameworks have been proposed to explain the development of children's understanding of physical health and illness (see Bearison, 1998 for review). An abundance of research, largely from pediatric nursing and medicine, emerged in the 1980s on the development of children's schemas for physical conditions, such as colds, cancer and AIDS (Banks, 1990; Bibace & Walsh, 1980; Perrin & Gerrity, 1981; Sigelman & Begley, 1987). This research, largely using a Piagetian perspective, examined developmental differences in children's perceptions of medical illness. In general, these studies have demonstrated that global changes in cognitive abilities allow children to provide explanations of illness of increasing complexity with age (i.e., older children show a greater understanding of the nature and causes of illnesses).

Other studies have compared children's views of physical and mental illness. These studies have consistently shown that children have a better understanding of the etiology, prognosis and treatment of physical illness than of mental illness (Roberts, Beidleman, & Wurtele, 1981; Roberts, Johnson, & Beidleman, 1984). For instance, Magiati and colleagues (2002) found that, by age eight, children possess a knowledge base regarding non-typical development with differentiated views of disabilities. Their findings indicated that children had a more limited knowledge and understanding of behavioural problems (e.g., hyperactivity) and developmental problems (e.g., autism), than of physical disabilities and sensory deficits (e.g., blindness, deafness). The authors observed that children attributed conditions that were externally visible (i.e., evident through a physical indicator) to accidental external causes, whereas less perceptually

salient or more abstract disabilities (e.g., cognitive disabilities, hyperactivity) were attributed to "birth" internal causes (Magiati et al., 2002, p. 425). In this way, external markers seemed to "map onto" processes of cognitive development in this study. This finding was linked to research demonstrating that categories with clear discrete boundaries (e.g., "physical" disabilities) are developed more quickly and efficiently than those with fuzzy boundaries ("psychological" disabilities) (Braisby & Dockrell, 1999).

In comparison to research on children's schemas for physical conditions, the issue of children's views of mental illness has received less attention (Armstrong, Hill, & Secker, 2000; Spitzer & Cameron, 1995). Nevertheless, interest in this topic has grown steadily in recent years, as may be observed in the following review of the literature.

*Children's Understanding of Mental Illness*

In a review of research on children's views of mental illness since 1980, Wahl (2002) summarized evidence that younger children (e.g., first and second graders) do not have clear knowledge of what mental illness is and this understanding becomes more sophisticated with increasing age and grade. Findings indicated that younger children were unable to describe specific traits and tended to confuse mental illness with physical illness and mental retardation. In contrast, late elementary and high school students were better able to understand mental illnesses as disturbances of thoughts and emotions rather than solely behaviour and showed a broader conception of causes and treatments.

In addition to research on children's views of mental health and illness in general (e.g., Bailey, 1999; Secker, Armstrong, & Hill, 1999), studies have also examined children's views of adults with problems (e.g., Adler & Wahl, 1998; Fox, Buchanan-Barrow, & Barrett, 2008) and of child peers (i.e. age-mates) with problems (e.g.,

Hennessy & Heary, 2009; Roberts et al., 1981; Spitzer & Cameron, 1995; Whalen, Henker, Dotemoto, & Hinshaw, 1983). Studies aiming to understand children's beliefs and reactions to peers with problems have typically provided vignettes depicting different forms of psychopathology. Others have focused their investigation on children with disorders themselves and their perceptions of their condition (e.g., Kaidar, Weiner, & Tannock, 2003; McMenamy, Perrin, & Wiser, 2005). Most relevant to the present study is research examining children's views of peers with difficulties. In a review of children's understanding of psychological problems in peers, Hennessy and colleagues (2008) concluded that from a young age (i.e., from early elementary years), children are able to identify peers whose behaviour deviates from the norm and to suggest causes for the behaviour of peers with psychological problems. A closer examination of findings pertaining to children's (1) identification of and (2) explanations for mental health problems in peers follows.

*Children's Identification of Psychological Problems in Peers*

Research on sociometric status has consistently shown that most children are at least implicitly aware of psychological problems experienced by their peers and that they tend to respond to these difficulties by excluding them (Deater-Deckard, 2001; Hay, Payne, & Chadwick, 2004). Hennessy and colleagues (2008) reviewed evidence that children are also explicitly aware of problems experienced by their peers, for instance by labelling peers as deviant. A number of early studies focused on whether children could explicitly identify disordered behaviour in their peers. These studies showed that children are able to distinguish between deviant and normal behaviour from a young age (i.e., pre-school years on) (Chassin & Coughlin, 1983; Coie & Pennington, 1976; Juvonen, 1991;

Poster, 1992; Spitzer & Cameron, 1995; Whalen et al., 1983). Moreover, studies that carried out a developmental analysis have consistently found age-related differences in responses (for reviews see Hennessy et al., 2008; Wahl, 2002). The bulk of research in this area has focused on children's conceptualization of aggression and withdrawal. In a series of studies, Younger and colleagues (Younger & Boyko, 1987; Younger & Piccinin, 1989; Younger, Schwartzman, & Ledingham, 1985) reported that, while children as young as seven years are able to differentiate aggression from other behaviors, a social schema for withdrawn behaviour is not evident until late childhood or early adolescence. Developmental changes are also evident in children's identification of behaviours other than aggression and withdrawal. Studies have reported that, as children got older, they were more likely to identify a range of behaviours as deviant or attributable to mental illness, ranging from school phobia (Chassin & Coughlin, 1983), antisocial behaviour and psychosis (Marsden & Kalter, 1976) and depressed or extremely anxious behavior (Poster, 1992).

However, not all studies with a developmental perspective have reported increases in the identification of deviance with increasing age; in effect, a handful of studies have failed to find developmental differences (Hoffman, Marsden, & Kalter, 1977; Spitzer & Cameron, 1995; Whalen et al., 1983). These results should be interpreted with caution however, because, as point out Hennessy and colleagues (2008), all three studies have methodological limitations, such as the depiction of male characters only and small sample sizes. Taken as a whole, there is substantial evidence that children are able to distinguish between normal and deviant behaviour and to identify peers with problems.

*Children's Explanations for Psychological Problems in Peers*

Another component of children's understanding of mental health pertains to their beliefs about the causes of psychological problems. This question is the focus of the present study and therefore warrants a thorough review of the empirical literature. As will be reviewed below, the focus of this research has typically been to investigate (1) the range and types of causal explanations endorsed or proposed by youth, (2) developmental changes in causal explanations, (i.e., findings by age) and (3) differences by condition (i.e., variation by type of problem).

There is evidence that, from an early age (i.e., as young as 7 or 8), children hold beliefs about the causes of psychological problems (see Hennessy et al., 2008 for review). In the case of aggression, research suggests that, as early as preschool, children have general patterns of beliefs about the stability of antisocial behaviour (Giles & Heyman, 2003). Experimental evidence using descriptions of hypothetical peers with elementary school-aged children of varying ages has shown that the ability to reason causally about stigmatizing conditions is already present by the time children enter elementary school (e.g., Maas, Marecek, & Travers, 1978; Sigelman & Begley, 1987). Likewise, qualitative studies have shown that young primary school children are able to provide a range of explanations for disordered peer behaviour (Hennessy & Heary, 2009; Spitzer & Cameron, 1995).

In terms of the range of causal explanations, using the vignette format, researchers have found that children as young as seven years old endorse a variety of explanations for psychological and behavioural problems in peers. These range from inappropriate parenting, in the case of school phobia (Chassin & Coughlin, 1983), physiological

problems (e.g., genetics or brain damage) in the case of paranoid schizophrenia (Norman & Malla, 1983) and emotional instability, in the case of aggression (Boxer & Tisak, 2003). In a study by Spitzer and Cameron (1995), the youngest children in their sample (first graders) suggested that problematic (i.e., antisocial or psychotic) peer behaviour was caused by children seeking acceptance from others or as a consequence of imitating the behaviour of others, while older children (fourth and seventh graders) emphasized causal explanations pertaining to physical or biological changes and, most of all, traumatic events occurring in childhood.

Evidence for developmental changes in children's understanding of causes is mixed. Indeed, although findings from several studies indicate a developmental progression in the explanations children offer for psychological problems, there is a lack of consensus as to whether growth in an emphasis on internal or external causes occurs with increasing age (Hennessy & Heary, 2009). Early studies (Chassin & Coughlin, 1983; Maas et al., 1978) found that younger children were more likely to explain problem behaviour with reference to internal causes (e.g. "born that way"). In contrast, older children, especially adolescents, were more likely to refer to external family and/or to environmental causes, in other words, "to locate roots of emotional disturbance in the external environment, particularly in interactions of the disturbed individual with peers and family" (Maas et al., 1978, p. 152). Other studies have also reported a trend toward external-causal thinking about disturbed behaviour with age, for example, that older children were more likely than younger children to attribute aggressive behaviour to parenting practices (e.g., Chassin & Coughlin, 1983; Sigelman & Begley, 1987). Likewise, Kalter and Marsden (1977) found that 12-year-olds were significantly more

likely than 10-year-olds to attribute school phobia to inappropriate parenting. A study of conceptions of aggression and withdrawal in preschoolers and 7-8 year olds showed that the younger participants engaged in essentialist reasoning about aggression (i.e., attributed stable, internal causes) more than the older children (Giles & Heyman, 2004). Likewise, Hennessy and Heary (2003) found that younger children were more likely to focus on the individual as the root problem in conduct disorder. Recently, Hennessy and Heary (2009) found that the 14-year-olds in their study were more likely to endorse external explanations for problem behaviour, although they were not less likely to endorse internal explanations, thus extending the findings of earlier studies regarding developmental changes in children's understanding and causal beliefs. Taken together, these studies indicate that older children are more likely to provide explanations of psychological problems that are external to the individual.

In contrast, in a cross-sectional study using a more detailed questionnaire on causality, Boxer and Tisak (2003) observed an increase from childhood up to late adolescence in the tendency to endorse internal factors as a cause of aggression in a peer. This is not the only study to have reported such a developmental trend. Dollinger and colleagues (1980) asked young people to list the kinds of problems that might involve consulting a psychologist and found that older children were more likely than younger children to refer to emotional and cognitive problems (i.e. internal to the individual). Poster (1992) observed that fifth and sixth graders attributed peer's problematic behaviour to internal causes more so than third and fourth grade participants. Lastly, Spitzer and Cameron (1995) found that children of different ages (first, fourth and seventh graders) cited both psychological and biological (e.g., head trauma) explanations

of mental illness; however, with age, they emphasized psychological etiologies more, such as past traumatic events. According to a review (Hennessy et al., 2008), these contrasting findings may be explained to some extent by differences in methodology (i.e., open- versus closed-ended questions) and in the type of problem presented. For instance, Boxer and Tisak's (2003) sample was older compared with other studies as they included a sample of college students. In sum, there is currently a lack of consensus on the nature of the developmental progression in children's explanations for psychological problems.

Finally, relatively few studies have compared youth's explanations across different types of psychological problems; however, evidence to date suggests that causal explanations vary according to problem type (Hennessy & Heary, 2009). An array of symptoms and problems have been featured in vignettes, including social withdrawal and antisocial behaviour (Maas et al, 1978), acting-out behaviour and "strange" behaviour (Roberts et al., 1981), school phobia and passive-aggressive behaviour (Chassin & Coughlin, 1983), paranoid schizophrenia and schizotypal personality disorder (Norman & Malla, 1983), depression, anxiety and schizophrenia (Poster, 1992), as well as antisocial and psychotic behaviour (Spitzer & Cameron, 1995). Recent studies have used vignettes describing peers with ADHD, depression and/or conduct disorder (Coleman et al., 2009; Hennessy & Heary, 2003; 2009; McMenamy et al., 2005). A pattern of findings across several studies appears to be the attribution of internal causes to withdrawn or internalizing problems and of external causes to "acting out" or externalizing problems. For instance, social withdrawal was more likely to be explained by internal factors than was antisocial behaviour (Maas et al., 1978), whereas acting-out behaviour was explained as due to family problems (Roberts et al., 1981). In another study (Chassin & Coughlin,

1983), school phobia was attributed to internal psychological causes, while passive-aggressive behaviour was attributed to peer factors and physical causes. Similarly, Poster (1992) found, across grades, that children were more likely to attribute schizophrenia to external causes and depressive symptoms to internal causes or the fault of the depressed person. In a recent qualitative study, Hennessy and Heary (2009) examined 8, 11.5 and 14 year olds' views of the likely causes of ADHD, conduct disorder and depression in peers. Explanations were found to vary systematically with the nature of the behaviour described and to include causes both internal to the individual (e.g., attention seeking) and external (e.g., parenting practices). Lastly, a handful of vignette studies have examined the impact of severity on causal explanations, such as a study of high school students' attitudes towards mental illness, which showed the perceived severity of mental illness to be positively associated with attributions to physical causes, rather than psychosocial causes (Norman & Malla, 1983).

To summarize, research on youth's understanding of the nature and causes of mental illness has shown that children of different ages are able to formulate different reasons for psychological problems. However, across studies, findings are mixed with regards to the causal beliefs (or attributions) endorsed for specific problems. A number of studies have found significant grade and age differences, though with a lack of consensus regarding the nature of the developmental progression observed. While causal explanations appear to vary across different types of psychological problems, to date there has been limited analysis or interpretation of these differences. Taken as a whole then, despite the existing body of research, youth's knowledge of mental health problems is still not well researched or understood (Hennessy et al., 2008).

*The Present Study: Rationale and Overview of Objectives*

Overall, youth's views of mental health and illness have received less research attention than the views of adults (Hinshaw, 2006; Wahl, 2002; Watson et al., 2005) or than children's schemas for physical conditions (e.g., Bibace & Walsh, 1980) and human psychological traits (e.g., Heyman & Gelman, 2000). There has also been less research on the development of bias and stigma regarding mental illness than the development of racial or ethnic bias (e.g., Aboud, 2003). Despite a growing interest in children's understanding of mental health, there remains a need for further investigation of this issue of clear public health relevance. Youth's belief systems have important implications for the way they interpret and respond to their own behaviour and that of their peers (Heyman & Gelman, 2000). It is already known that children experiencing psychological and/or behavioural difficulties are likely to be rejected by their peers (Hay et al., 2004). Therefore, learning about youth's knowledge and beliefs about the causes of mental health problems can help us to understand the development of attitudes and behaviours towards individuals experiencing such problems who may be in need of help (Hennessy & Heary, 2009; Karafantis & Levy, 2004). Lastly, examining youth's conceptions of mental illness may contribute to our understanding of the origins of discrimination and how to reduce it (Levy, 1999).

The aim of this study was to extend prior research on youth's understanding of psychopathology in peers, specifically with regards to etiology. To do so, a normative sample of early adolescents aged 10 to 12 was assessed for their explanations of several psychological problems displayed by hypothetical peers, thus allowing a comparison across different types of problems. Previous studies have found that children as young as

five are able to provide clear, logical answers to questions about mental illness (Fox et al., 2008; Hennessy et al., 2008). Although studies of children's self-views and potential self-stigma with regards to a psychological condition, as is common in the case of ADHD (e.g., Kaidar et al., 2003; McIntyre & Hennessy, 2011; McMenamy et al., 2005), are certainly worthy of research attention, normative samples can inform beliefs and attitudes on a broader level (i.e., public stigma). In addition, asking all children (i.e., entire classrooms) for their views has the advantage of reducing the emphasis on psychological problems as located exclusively within individuals affected. Studies in this area have typically assessed children's views regarding etiology by using an interview format or by asking open-ended questions (e.g., Armstrong et al., 2000; Hennessy & Heary, 2009; Spitzer & Cameron, 1995), with fewer quantitative investigations. The present study set out to address this limitation by using both rating scales and open-ended questions.

As reviewed, prior studies have asked children about the etiology of a variety of conditions, as a stand-alone or in varying combinations, including ADHD (e.g. Kaidar et al., 2003; Law, Sinclair, & Fraser, 2007; McMenamy et al., 2005), depression and/or conduct disorder (e.g., Hennessy & Heary, 2003; 2009; Walker, Coleman, Lee, Squire, & Friesen, 2008). To our knowledge, the only vignette study to have investigated perceptions of an anxious peer did not include a comparison with externalizing problems (Poster, 1992). Also, the majority of studies of children's views, including those cited above, examined only one or two different types of psychological problems. For these reasons, the present mixed-method study set out to assess beliefs towards four common forms of childhood psychopathology, (i.e., depression, anxiety, ADHD and conduct disorder), in other words two internalizing and two externalizing problems.

A vignette approach, consisting of presenting participants with behavioural descriptions outlining symptoms without naming or identifying the disorder in question, was used. It has been argued that vignettes have the advantage of allowing subjects to react in comparable format to concrete situational behaviour under circumstances that allow a great measure of experimental control (Brockman, D'Arcy, & Edmonds, 1979). Another advantage of this common methodology is that it avoids the use of potentially unfamiliar psychological terms or labels, as well as the obvious ethical concerns of asking children about actual peers with problems (Hennessy et al., 2008; Hennessy & Heary, 2009). Past studies that have presented young participants with labels or medical terms, such as "autism" or "hyperactive" (e.g., Magiati et al., 2002), have been critiqued for this methodological choice. Not surprisingly then, most researchers in this area have opted to use vignettes or descriptions of behaviour of hypothetical peers.

In this study, participants were presented with boy or girl forms of the identical four vignettes (i.e., sex of the hypothetical peer was counterbalanced). This counter balancing is important, as the majority of studies to date have used vignettes with exclusively a male or female character. Indeed, an analysis of the literature (Hennessy et al., 2008) revealed a bias towards the study of problem behaviour in boys and identified a dozen studies that included descriptions of male characters with problems but not girls (e.g., Graham & Hoehn, 1995; Juvonen, 1991; Spitzer & Cameron, 1995; Walker et al., 2008; Whalen et al., 1983). Other studies have matched the gender of hypothetical peer to the gender of participant (e.g., Boxer & Tisak, 2003) or used gender-neutral character names (e.g., Law et al., 2007; Roberts et al., 1981). These practices have limited our understanding of children's perceptions of girls with psychological problems and of

differences in peers' perceptions of boys and girls with similar problems.

The current study aims to address these limitations to build upon prior research on early adolescents' understanding of psychopathology in peers, particularly their causal beliefs. There were three main objectives to this study, namely:

1) To examine whether early adolescents' causal explanations of deviant behaviour displayed by hypothetical peers would vary as a function of the type of disorder. We hypothesized that participants' explanations for internalizing and externalizing problems in hypothetical peers would differ, particularly with regards to lack of effort and inability to control.
2) To assess potential grade and sex differences in early adolescents' causal explanations. In other words, we wanted to examine (a) whether fifth and sixth graders would differ in their ratings of the causes of disorder, (b) whether boys and girls would differ in their ratings of the causes of disorders and (c) whether participants would rate the causes of disorders differently depending on whether the peer described in the vignette was a boy or a girl.
3) Lastly, an open-ended question was included to learn about other beliefs early adolescents may hold regarding the causes of common childhood mental health problems. In this way, qualitative data for participants' spontaneous causal explanations were used to generate causal themes, as well as to confirm the validity of the list of proposed causal explanations. This question was exploratory and therefore no specific hypotheses were proposed.

## Method

### *Participants*

The total sample consisted of 279 fifth and sixth graders from thirteen classes in three English-speaking public elementary schools of the greater Montreal region, in Quebec, Canada. Analyses were conducted on a subsample of 272 participants (97%) who had near complete data on all of the study variables. Only seven participants with more than 10% of missing data on the variables of interest were not included in the analyses (i.e., deletion was listwise). The seven participants removed had incomplete data consisting of entire sections of the questionnaire left unanswered. The resulting subsample consisted of 139 boys and 132 girls in fifth (116) and sixth (155) grade. The mean age of participants was 10.62 years with a range between 9 and 12 years old ($SD$ = .57). Information regarding socioeconomic status was not available for individual participants as we were unable to obtain parental report of education level or household income. However, based on available information at the school-level, the three participating schools were socioeconomically diverse, covering a range of lower to higher SES. The data for this study were collected over the course of two separate school years in two data collections. The combined dataset was used for the quantitative analyses of this study, whereas the qualitative portion (i.e., the open-ended question) was based exclusively on the second data set ($N$ = 180).

Recruitment for the study took place as follows: after permission from the relevant school board and school principals was obtained, the research team met with the potential participants in the fall to give a ten-minute information session intended to brief the children about the nature and implications of the study. At that time, letters of

information and parental consent forms were distributed and sent home (see Appendix A and B). In addition to parental consent, participant assent to take part in the study was obtained prior to any data collection (see Appendix C). Participants were informed that they were free to stop their participation in the study at any time. Each child received an honorarium of school supplies and a t-shirt for his or her participation in the study.

*Procedure*

Data for this study were taken from a larger project examining peer relationships and well-being that received approval by the University Human Research Ethics Committee. Only measures relevant to the present investigation will be described. Participants were assessed using a questionnaire designed to be completed in a one-hour session during class time using a group administration procedure. The data collection sessions in the classrooms were led by graduate students with the help of undergraduate students and research assistants all affiliated with the laboratory running the research project. The participants were asked (1) to read a set of vignettes describing hypothetical peers exhibiting symptoms of different psychological disorders and (2) to complete a paper and pencil measure designed to assess their beliefs regarding the etiology of the forms of psychopathology described in the vignettes.

*Measures*

*Vignette condition.* Following a set of general instructions (see Appendix D), participants were presented with vignettes describing hypothetical girls or boys their age displaying symptoms of four different forms of childhood psychopathology: depression, anxiety, attention-deficit hyperactivity disorder (ADHD) and conduct disorder. The vignettes used in the study were adapted from or developed based on published work by

previous researchers. The depression and conduct disorder vignettes were taken from work by Hennessy and Heary (2003), which were initially adapted from Carr (1999), whereas the ADHD vignette was based on that initially developed by McMenamy, Perrin and Wiser (2005). The anxiety vignette was developed by the authors for the present study according to the symptomatology associated with this diagnostic category in the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR, American Psychiatric Association, 2000). As may be observed in Appendix E and in the sample below, each vignette consisted of a behavioural description outlining symptoms displayed by the hypothetical peer, without naming or identifying the disorder in question.

Sample vignette: Depression – Girl

> Although Clara usually does ok in school, she sometimes thinks that she is stupid and no good at anything. Clara doesn't smile much and she doesn't enjoy things as much as she used to. She spends a lot of time feeling sad and is rarely happy. She has little energy and often feels tired during the day.

The order of presentation of vignettes and sex of the hypothetical peer were counterbalanced (i.e., the only difference between corresponding boy and girl vignettes was the peer's name and gendered pronouns). Therefore, half of the participants read descriptions about hypothetical boys or girls.

*Causal explanations - Quantitative.* Following each vignette, a list of 18 reasons that might explain why an age-mate would display these symptoms was presented (see Appendix E). This list included, amongst others, reasons pertaining to family experiences (e.g., "because her family has problems"), peer experiences (e.g., "because she has no friends") and biological conditions (e.g., "because she was born like this"). Participants rated how much each reason could explain why the person described in the vignette would have this disorder using a three-point Likert scale ("1 = No", "2 = Maybe", "3 =

Yes"). In this way, we aimed to assess differences in early adolescents' beliefs about the relative importance of potential etiological explanations of specific psychological problems (i.e., ADHD, depression, anxiety and conduct disorder).

The majority of reasons items used in this study were taken from work by Hennessy and colleagues (Hennessy et al., 2007; Swords et al., 2008) and used verbatim or slightly reworded. An innovative feature of this study was the inclusion of several reasons pertaining to lack of effort and to the inability to control. These items were developed in line with attribution theory (Weiner, 1985), specifically the controllability dimension of attributions (i.e., whether the person has any control over the cause). In sum, the reasons used in the quantitative section of the present study were guided by past research and theory.

*Causal explanations – Qualitative.* Following each vignette and rating of the list of reasons provided, an open-ended question was posed to capture perceptions of other possible causes of the behaviour ("What other reasons could explain why Clara is like this?") (see Appendix E). This question was included in the study so as to learn more about early adolescents' beliefs regarding the causes of psychological problems with the aim of complementing the quantitative findings and confirming the comprehensiveness of the list of proposed causal explanations.

*Data Analyses*

Descriptive statistics (mean, range, standard deviation) were initially calculated for all study variables. Next, to assess the factor structure of the reasons, a principal components analysis (PCA) with varimax rotation was conducted on the responses to the questionnaire items. The goal of this analysis was to identify the structural organization

underlying the list of reasons. Separate factor analyses were performed for each of the four disorder conditions. Each of the factors of interest was then transformed into a single variable by averaging the scores of the individual items of this factor. The reliability index omega (McDonald, 1999) was then calculated in Mplus for each of the factors of interest. All other analyses were conducted using PASW Statistics version 18.0.

Using data from all vignettes in a single analysis, a multivariate repeated measures analysis of variance (ANOVA) was then performed to test whether the four conditions described in the vignettes (depression, anxiety, ADHD and conduct disorder) were associated with different means for the type of cause. Particular attention was given to the controllability and effort causal factors. Mean scores were computed for the two causal factors for each of the four disorders and then analyzed using a 2 (sex of participant) by 2 (sex of hypothetical peer) by 2 (grade) by 4 (disorder) by 2 (type of cause) mixed-model ANOVA.

As for the analysis of the open-ended question regarding other possible causal explanations, the first step was to calculate the frequency of responses left blank or indicated "I don't know", both overall and by disorder. Next, examination of the written responses provided by participants in this study was conducted using the dimensions used in previous research, specifically the categorization proposed by Hennessy and Heary (2009) in their qualitative study of children's understanding of psychological problems. Key sections of text exemplifying the different causal categories were then identified, as recommended by Robson (2002).

# Results

*Descriptives*

Means and standard deviations for the variables that were used in this study appear in Table 1. As may be observed in the table, one of the 18 original items (item 5) was found to have a low mean across all four vignettes (i.e., floor effect). Consequently, this item ("because of some things she eats or drinks") was not retained for subsequent analyses.

*Organization of Reasons*

The following factor analyses results are presented for each vignette condition separately first and, then, for the conditions overall. First, factor analysis on the remaining 17 items revealed a five-factor solution with eigenvalues greater than 1.0 for ADHD, which accounted for 59.50% of the total variance. The varimax rotation revealed four factors: "Inability to control", "Interpersonal factors", "Lack of effort", and "Life stress." A fifth factor did not appear to have any clear or homogeneous content. See Table 2 for each item's loadings on one of the five components for the ADHD condition.

Similarly, the factor analysis revealed a five-factor solution with eigenvalues greater than 1.0 for depression, which accounted for 53.85% of the total variance. The varimax rotation revealed four factors: "Inability to control", "Interpersonal factors", "Lack of effort", and "Life stress." A fifth factor did not appear to have any clear or homogeneous content. See Table 3 for each item's loadings on one of the five components for the depression condition.

As for the anxiety condition, a five-factor solution with eigenvalues greater than 1.0 was obtained, which accounted for 57.88% of the total variance. The varimax

rotation revealed four factors: “Interpersonal factors”, “Inability to control”, “Life stress”, and “Lack of effort”. A fifth factor did not appear to have any clear or homogeneous content. See Table 4 for each item’s loadings on one of the five components for the anxiety condition.

A five-factor solution with eigenvalues greater than 1.0 was also observed for the conduct disorder condition. This solution accounted for 54.60% of the total variance. The varimax rotation revealed four factors: “Lack of effort”, “Inability to control”, “Interpersonal factors”, and “Life stress”. A fifth factor did not appear to have any clear or homogeneous content. It is worth noting that the items loading on the “Interpersonal factors” component all pertained to family influence, rather than both family and peer influences as observed for the other disorder conditions. See Table 5 for each item’s loadings on one of the five components for conduct disorder.

Lastly, the factor analysis revealed a four-factor solution with eigenvalues greater than 1.0 for the disorders overall. This solution accounted for 57.34% of the total variance. The varimax rotation revealed four factors: “Interpersonal factors”, “Inability to control”, “Lack of effort”, and “Life stress”. See Table 6 for item’s loadings on one of the four components for the four disorders overall. Kaiser-Meyer-Olkin (KMO) indices for the above factor analyses ranged between .76 and .84 indicating an internal structural organization of the data.

Table 1. *Descriptive Statistics of Causal Explanation Items for each Vignette Condition.*

| Item | **Depression** | | **Anxiety** | | **ADHD** | | **CD** | | **Overall** | |
|---|---|---|---|---|---|---|---|---|---|---|
| | *M* | *SD* | *M* | *SD* | *M* | *SD* | *M* | *SD* | *M* | *SD* |
| 1. because her family has problems | 2.01 | .74 | 1.74 | .65 | 1.67 | .67 | 2.31 | .68 | 1.93 | .41 |
| 2. because she gets bad grades | 1.64 | .67 | 1.50 | .67 | 1.68 | .72 | 2.01 | .75 | 1.71 | .40 |
| 3. because she was born like this | 1.34 | .61 | 1.59 | .69 | 1.88 | .75 | 1.53 | .69 | 1.58 | .45 |
| 4. because she has no friends | 2.05 | .64 | 1.63 | .61 | 1.76 | .67 | 2.26 | .67 | 1.93 | .38 |
| 5. because of some things she eats or drinks | 1.40 | .64 | 1.38 | .58 | 1.46 | .64 | 1.28 | .55 | 1.38 | .44 |
| 6. because she thinks other children are better than her | 2.26 | .74 | 2.02 | .70 | 1.68 | .69 | 1.99 | .77 | 1.99 | .44 |
| 7. because she can't control how she feels | 1.69 | .69 | 2.12 | .74 | 2.02 | .76 | 2.01 | .77 | 1.96 | .43 |
| 8. because she copies or imitates other children | 1.33 | .55 | 1.34 | .55 | 1.54 | .64 | 1.64 | .73 | 1.47 | .40 |
| 9. because of how her parents brought her up | 1.61 | .65 | 1.65 | .66 | 1.67 | .69 | 2.01 | .75 | 1.73 | .47 |
| 10. because there is something wrong with her brain | 1.50 | .64 | 1.56 | .66 | 1.81 | .71 | 1.62 | .70 | 1.62 | .47 |
| 11. because she is teased, bullied or mistreated by other children | 2.15 | .68 | 1.89 | .70 | 1.91 | .69 | 1.86 | .79 | 1.96 | .43 |
| 12. because there is nothing she can do about it | 1.54 | .68 | 1.73 | .75 | 1.85 | .78 | 1.52 | .68 | 1.66 | .48 |
| 13. because she thinks it's cool to be this way | 1.31 | .56 | 1.25 | .50 | 1.53 | .69 | 2.41 | .69 | 1.62 | .36 |
| 14. because she doesn't make enough of an effort to be different than this | 1.79 | .73 | 1.68 | .68 | 1.89 | .75 | 2.19 | .72 | 1.89 | .48 |
| 15. because she wants attention from other children | 1.56 | .68 | 1.55 | .67 | 1.94 | .80 | 2.36 | .73 | 1.86 | .46 |
| 16. because she can't control how she acts | 1.64 | .70 | 1.86 | .73 | 2.03 | .76 | 1.85 | .77 | 1.85 | .48 |
| 17. because she copies other people in her family | 1.46 | .58 | 1.43 | .60 | 1.53 | .64 | 1.84 | .73 | 1.57 | .44 |

| Item | Depression | | Anxiety | | ADHD | | CD | | Overall | |
|---|---|---|---|---|---|---|---|---|---|---|
| | *M* | *SD* | *M* | *SD* | *M* | *SD* | *M* | *SD* | *M* | *SD* |
| 18. because she doesn't try hard enough to:<br>- be happy? *(depression)*<br>- be calm? *(anxiety)*<br>- pay attention and focus? *(ADHD)*<br>- stay out of trouble? *(conduct disorder)* | 2.09 | .77 | 2.01 | .73 | 2.24 | .74 | 2.26 | .77 | 2.15 | .53 |

Valid overall *N* listwise = 271

Table 2. *Principal Component Loadings for 17 Reasons – ADHD*

| Item Content | Control | Inter-personal | Effort | Life stress | Factor 5 |
|---|---|---|---|---|---|
| 16. because she can't control how she acts | .79 | | | | |
| 12. because there is nothing she can do about it | .71 | | | | |
| 3. because she was born like this | .67 | | | | |
| 10. because there is something wrong with her brain | .66 | | | | |
| 7. because she can't control how she feels | .64 | | | | |
| 17. because she copies other people in her family | | .76 | | | |
| 8. because she copies or imitates other children | | .74 | | | |
| 9. because of how her parents brought her up | | .63 | | | |
| 18. because she doesn't try hard enough to pay attention and focus | | | .75 | | |
| 14. because she doesn't make enough of an effort to be different than this | | | .72 | | |
| 15. because she wants attention from other children | | | .60 | | |
| 13. because she thinks it's cool to be this way | | | .56 | | |
| 6. because she thinks other children are better than her | | | | .70 | |
| 4. because she has no friends | | | | .65 | |
| 2. because she gets bad grades | | | | .51 | |
| 1. because her family has problems | | | | | .74 |
| 11. because she is teased, bullied or mistreated by other children | | | | | .56 |

*N* = 272

Table 3. *Principal Component Loadings for 17 Reasons – Depression*

| Item Content | Control | Inter-personal | Effort | Life stress | Factor 5 |
|---|---|---|---|---|---|
| 3. because she was born like this | .75 | | | | |
| 16. because she can't control how she acts | .70 | | | | |
| 10. because there is something wrong with her brain | .64 | | | | |
| 12. because there is nothing she can do about it | .63 | | | | |
| 7. because she can't control how she feels | .54 | | | | |
| 9. because of how her parents brought her up | .44 | .38 | | | |
| 13. because she thinks it's cool to be this way | | .76 | | | |
| 15. because she wants attention from other children | | .72 | | | |
| 17. because she copies other people in her family | | .71 | | | |
| 8. because she copies or imitates other children | | .48 | | | |
| 18. because she doesn't try hard enough to pay attention and focus | | | .74 | | |
| 14. because she doesn't make enough of an effort to be different than this | | | .69 | | |
| 6. because she thinks other children are better than her | | | .55 | | |
| 4. because she has no friends | | | | .76 | |
| 11. because she is teased, bullied or mistreated by other children | | | | .66 | |
| 1. because her family has problems | | | | .57 | |
| 2. because she gets bad grades | | | | | .76 |

*N* = 272

Table 4. *Principal Component Loadings for 17 Reasons – Anxiety*

| Item Content | Inter-personal | Control | Life stress | Effort | Factor 5 |
|---|---|---|---|---|---|
| 13. because she thinks it's cool to be this way | .76 | | | | |
| 17. because she copies other people in her family | .72 | | | | |
| 15. because she wants attention from other children | .70 | | | | |
| 8. because she copies or imitates other children | .69 | | | | |
| 9. because of how her parents brought her up | .46 | | | | |
| 16. because she can't control how she acts | | .81 | | | |
| 7. because she can't control how she feels | | .78 | | | |
| 12. because there is nothing she can do about it | | .69 | | | |
| 3. because she was born like this | | .64 | | | |
| 10. because there is something wrong with her brain | | .46 | | | |
| 1. because her family has problems | | | .71 | | |
| 11. because she is teased, bullied or mistreated by other children | | | .69 | | |
| 4. because she has no friends | | | .64 | | |
| 2. because she gets bad grades | | | | .69 | |
| 18. because she doesn't try hard enough to pay attention and focus | | | | .60 | |
| 14. because she doesn't make enough of an effort to be different than this? | | | | .60 | |
| 6. because she thinks other children are better than her | | | | | .74 |

*N* = 272

Table 5. *Principal Component Loadings for 17 Reasons – Conduct Disorder*

| Item Content | Effort | Control | Inter-personal | Life stress | Factor 5 |
|---|---|---|---|---|---|
| 15. because she wants attention from other children | .74 | | | | |
| 13. because she thinks it's cool to be this way | .73 | | | | |
| 18. because she doesn't try hard enough to pay attention and focus | .60 | | | | |
| 14. because she doesn't make enough of an effort to be different than this | .56 | | | | |
| 2. because she gets bad grades | .38 | | | | |
| 3. because she was born like this | | .69 | | | |
| 10. because there is something wrong with her brain | | .68 | | | |
| 12. because there is nothing she can do about it | | .64 | | | |
| 16. because she can't control how she acts | | .58 | | | |
| 9. because of how her parents brought her up | | | .83 | | |
| 17. because she copies other people in her family | | | .74 | | |
| 1. because her family has problems | | | .48 | | |
| 6. because she thinks other children are better than her | | | | .73 | |
| 4. because she has no friends | | | | .66 | |
| 7. because she can't control how she feels | | .43 | | .55 | |
| 11. because she is teased, bullied or mistreated by other children | | | | | .67 |
| 8. because she copies or imitates other children | | | | | .58 |

*N* = 272

Table 6. *Principal Component Loadings for 17 Reasons – Across Disorders*

| Item Content | Interpersonal | Control | Effort | Life stress |
|---|---|---|---|---|
| 13. because she thinks it's cool to be this way | .77 | | | |
| 17. because she copies other people in her family | .76 | | | |
| 8. because she copies or imitates other children | .73 | | | |
| 15. because she wants attention from other children | .68 | | | |
| 9. because of how her parents brought her up | .47 | | | .43 |
| 3. because she was born like this | | .79 | | |
| 16. because she can't control how she acts | | .77 | | |
| 12. because there is nothing she can do about it | | .71 | | |
| 10. because there is something wrong with her brain | | .65 | | |
| 7. because she can't control how she feels | | .57 | .49 | |
| 18. because she doesn't try hard enough to pay attention and focus | | | .81 | |
| 14. because she doesn't make enough of an effort to be different than this? | | | .70 | |
| 6. because she thinks other children are better than her | | | .47 | .46 |
| 4. because she has no friends | | | | .71 |
| 11. because she is teased, bullied or mistreated by other children | | | | .67 |
| 1. because her family has problems | | | | .61 |
| 2. because she gets bad grades | | | .39 | .41 |

*N* = 272

In summary, factor analyses for the four disorders and overall revealed some variations in the factor structure, for instance, in the number of factors and strength of components; however, similar item loadings for the different factors across disorders. Highly similar across disorders were the lack of effort and inability to control factors. An illustrative item from the "Inability to control" factor reads: "because she can't control how she acts", whereas an illustrative item from the "Lack of effort" factor is: "because she doesn't try hard enough…" These two factors were of particular interest seeing as attribution theory is the dominant theoretical framework in this research area. Accordingly, the focus of the remaining data analyses examined the dimensionality of reasons pertaining to control and effort.

Reliability analysis revealed omega coefficients ranging from .85 to .92 for the control factor and from .72 to .94 for the effort factor (see Table 7), values considered acceptable to excellent by widely accepted standards. In sum, exploratory factor analyses provided evidence that, for each disorder, control and effort represented distinct factors.

*Mean Comparisons*

Analysis of variance results indicated both main and interactive effects. Main effects were observed for type of disorder ($F (3, 260) = 94.02$, $p < .001$, $\eta_p^2 = .52$) and for type of cause ($F (1, 262) = 38.40$, $p < .001$, $\eta_p^2 = .13$). The main effect for type of cause observed indicates that participants' responses (i.e., agreement with explanations) across vignette conditions varied according to the type of cause (e.g., effort and control). An interaction between type of cause and type of disorder was also observed ($F (3, 260) = 68.81$, $p < .001$, $\eta_p^2 = .44$), accounting for 44% of the variance. This interaction was clarified by performing a series of ANOVAs by disorder.

The decomposition of these effects (see Figure 1) revealed several noteworthy findings. Lack of effort was rated most highly in response to the hypothetical peer with conduct disorder ($M = 2.30$), followed by ADHD ($M = 1.90$), depression ($M = 1.69$) and anxiety ($M = 1.62$). In contrast, inability to control was rated the highest as a reason explaining the symptoms of ADHD ($M = 1.92$), followed by anxiety ($M = 1.77$), conduct disorder ($M = 1.7$) and depression ($M = 1.54$). Means for effort and control for each disorder may be observed in Figure 1. The most striking results were observed for the conduct disorder vignette. Indeed, the elevated ratings for lack of effort ($M = 2.30$) observed in response to the peer with conduct disorder were 50% higher than the ratings for inability to control ($M = 1.7$). A paired samples t-test showed that the difference between the effort and control ratings for the conduct disorder condition was significant: $t(271) = -16.18$, $p < .001$. In sum, early adolescents' causal explanations were found to vary as a function of the type of psychological problem displayed by hypothetical peers.

Table 7. *Reliability Index of Control and Effort Factors*

| | Omega | | | |
|---|---|---|---|---|
| | Depression | Anxiety | ADHD | Conduct disorder |
| **Causal factors** | | | | |
| Control | .85 | .90 | .92 | .89 |
| Effort | .72 | .82 | .94 | .93 |

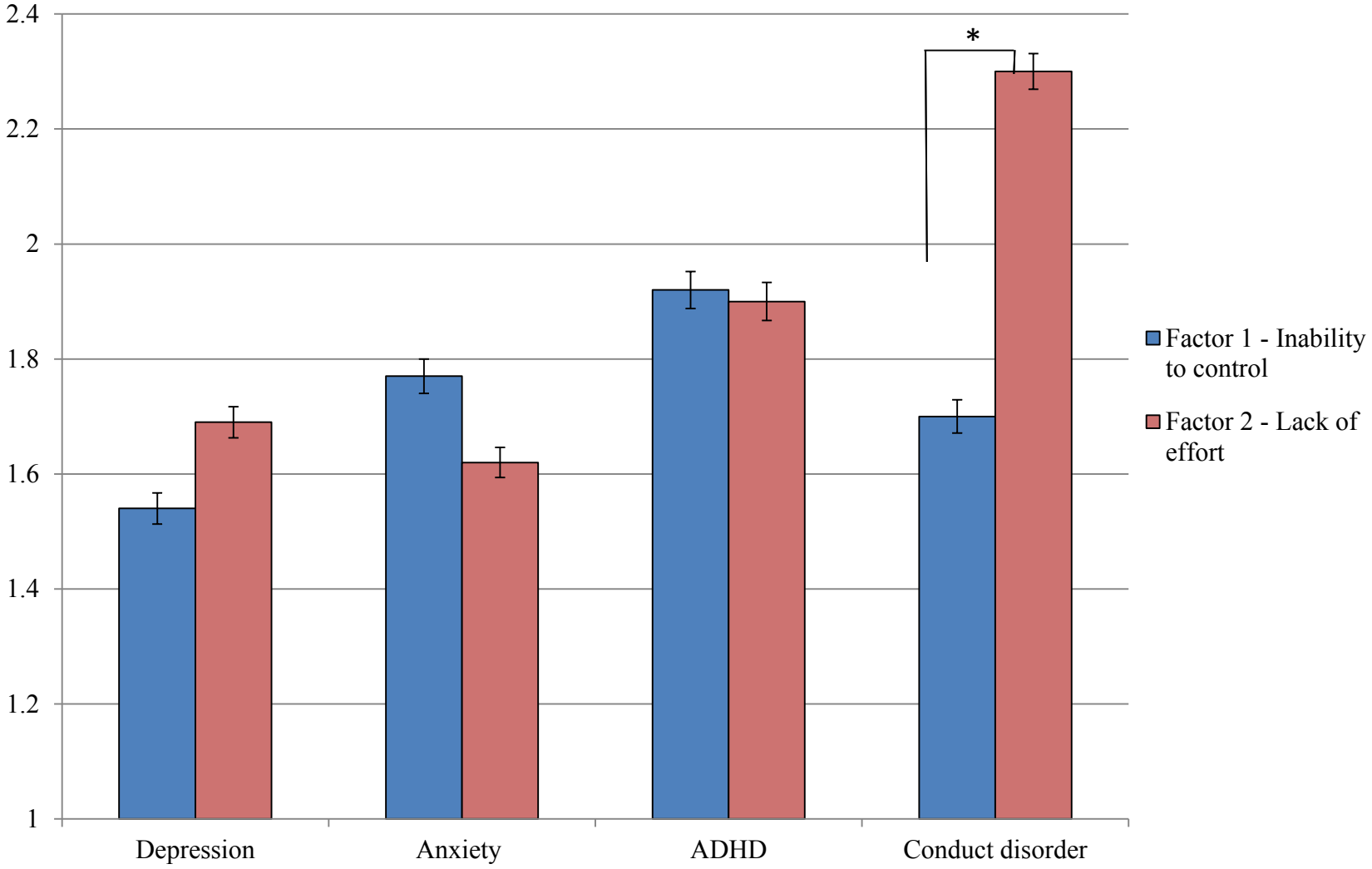


*Figure 1.* Ratings for lack of effort and inability to control for each vignette condition.
*Note.* Error bars represent mean standard errors. There was a statistically significant difference between the effort and control ratings for conduct disorder. * $p < .05$.

*Qualitative Observations*

Qualitative data were used to gain further insight into children's understanding of psychological problems and to generate causal themes. After rating the 18 causal explanations proposed, participants were asked the following open-ended question: "What other reasons could explain why Clara is like this?".

First, some participants indicated that they could not think of additional reasons. This is not surprising considering the nature of the question and the fact that it followed a list of causal explanations provided (i.e., items to be rated). Some examples of such a response:

> *They were all explained in the survey so I don't have any more reasons.* (girl, anxiety, girl vignette)
>
> *I do not know other good reasons because most of the ones I thought that makes her like this were there: because of her family, how she was raised etc.* (boy, conduct disorder, girl vignette)
>
> *Well like it said in the question 8 because he copies or imitates other people, well he wants to be "respected" and he wants to be "cool".* (girl, conduct disorder, boy vignette)

Specifically, 23.7% of responses were blanks, "I don't know" or equivalent (e.g., that's it, not sure, nothing, no, ? or X). No differences were observed by vignette type; in other words, blank or "I don't know" responses were evenly distributed across vignette type. However, some differences were found between the eight classrooms with the percentage of blank/DK responses ranging from 5% to 39%.

Taken as a whole, participants proposed a wide range of explanations for the behaviour of the vignette characters. Examples of participants' responses and the main categories are presented in Table 8. This table presents both novel reasons offered by

participants (e.g., family death) and repetition of causal explanations proposed in the first part of the questionnaire, such as comparison with others (item 6).

Hennessy and Heary (2009)'s categorization of causal explanations was used to guide the examination of responses provided by participants. They defined internal causes as explanations offered that had their origins inside the individual such as those tied to physiology (e.g., sleep and eating habits, brain damage following an accident) or as a result of will (i.e., by choice) (p.44-45). Conversely, external causes, explanations offered that had their origins outside the individual, were identified in both the home environment (family) and school environment (peers). These included difficulties in the parents' relationship (e.g., constant fighting, separation or divorce), parenting deficiencies and bullying. A handful of categories were added to the eleven initially proposed by Hennessy and Heary in order to capture other recurrent explanations provided by participants, namely personality/temperament (internal cause), as well as financial situation, negative life events and loss (external causes).

Moreover, a number of responses featured multiple causal explanations, thus acknowledging the complexity of the etiology of psychological and behavioural problems. For instance:

> *Maybe because she is negative. Clara probably has family problems. She is probably influenced by the other kids who are telling her she is stupid. She probably doesn't have any friends.* (girl, depression, girl vignette)
>
> *She probably has a lot of relationship issues but probably has various other reasons.* (boy, conduct disorder, girl vignette)
>
> *Because she is not happy? Because she has brain damage? Because she does not like school? Because she has no friends?* (boy, depression, girl vignette)

Table 8. *Sample Responses Illustrating Causal Explanations Proposed by Participants.*

| Category | Example |
|---|---|
| **Internal cause** | |
| Physiological | *I think that it is because he eats or drinks something and it excites him.* (girl, ADHD, boy vignette) |
| Comparison with others | - *Maybe because he sees what others do and it is probably different from him so he thinks he's no good.* (boy, depression, boy vignette) |
| | - *He thinks that everybody is better than him and he is sad about it.* (boy, depression, boy vignette) |
| Attitude to school | *Because she doesn't like school.* (boy, ADHD, girl vignette) |
| Emotional reaction | *Because she has things that happened in her life that make her angry or sad so she releases her feelings on people that have happy lives, because she's jealous.* (girl, conduct disorder, girl vignette) |
| Wilful | - *Because he decide to be like that.* (girl, conduct disorder, boy vignette) |
| | - *He wants too, he thinks it's cool and because maybe he likes bullying or thinks he's the best.* (boy, conduct disorder, boy vignette) |
| | - *Because she doesn't want to change.* (boy, depression, girl vignette) |
| Attention seeking | *I think she wants attention and doesn't know how to get it.* (girl, conduct disorder, girl vignette) |
| Personality/temperament[1] | *She may just be a worry person.* (girl, anxiety, girl vignette) |

| | |
|---|---|
| **External cause** | |
| Parents' relationship | *Maybe Bruce had parents that got divorced and it maybe affected him somehow.* (boy, conduct disorder, boy vignette) |
| Parenting | - *Maybe Clara is sad because her parents do not take good care of her.* (boy, depression, girl vignette)<br>- *Because his parents beat him up maybe.* (boy, anxiety, boy vignette)<br>- *Her parents don't support her.* (girl, ADHD, girl vignette) |
| Family death | *Maybe because someone he loved died therefore making him depressed.* (boy, depression, boy vignette) |
| Loss[1] | *Because he lost somebody close to him. Because he lost all his friends.* (girl, depression, boy vignette) |
| Bullying in school | *Because she got bullied before and now wants to make pain for people to see how she felt.* (girl, conduct disorder, girl vignette) |
| Bad example/poor role models | *Maybe her parents are mean to her and she thinks it's the way to act.* (girl, conduct disorder, girl vignette) |
| Financial situation[1] | *Because her parents don't have enough money*. (girl, depression, girl vignette) |
| Negative life events[1] | - *Maybe something bad happened to him.* (boy, depression, boy vignette)<br>- *He had tragic events happen in his life.* (girl, conduct disorder, boy vignette) |

*Note:* [1] = Novel categories. All other categories taken from Hennessy and Heary (2009). Only the relevant text segment of a response is displayed here (i.e., the segment that received the code).

The examples above also illustrate that some participants were tentative in their responses, by indicating “maybe”, “probably” or by framing their answer as a question. This may be viewed as another way in which participants communicated the complexity of the phenomenon or the difficulty of the question posed.

While some responses were observed to be common to all four conditions (e.g., divorce), others were observed to be more problem-specific. Indeed, as expected, differences were observed by disorder in the causal explanations proposed by participants. First, physiological causes pertaining to the consumption of food, drink or use of drugs/medication were provided more often in response to the ADHD vignette. Wilful (i.e., volitional) responses were observed most often in response to the conduct disorder and ADHD vignettes. In other words, more participants reported believing that the externalizing behaviour exhibited by the hypothetical peer with ADHD or conduct disorder was wilful or done from choice. Another common cause of conduct disorder proposed by participants pertained to being bullied at school or home. As for the causal themes of loss and death, they were predominantly offered in response to the depression vignette. Lastly, responses indicating the vignette character’s personality or temperament as cause were observed almost exclusively in response to the anxious peer.

Of particular interest to this study were responses offered by participants pertaining to uncontrollability and lack of effort. In contrast with wilful responses, which indicate intention (i.e., done by choice), some responses offered by participants referred to a lack of control on the part of the peer with a problem. Responses referring to the uncontrollability of the problem, less frequent than wilful responses, were observed exclusively for ADHD and anxiety. This pattern of findings is consistent with

quantitative results reported above indicating higher ratings for inability to control for ADHD and anxiety.

> *Maybe he can't help it.* (girl, ADHD, boy vignette)
>
> *Maybe he has problems – he is born like that – we can't do nothing about it – he can't control how he acts.* (girl, anxiety, boy vignette)
>
> *It is probably because she has a mental problem that we can't change.* (girl, ADHD, girl vignette)

Next, although participants were not asked to name or identify the problems described in the vignettes, spontaneous identification of specific disorders was observed. This occurred almost exclusively in the case of ADHD and depression. Responses featuring a diagnosis were sometimes accompanied by a reference to psychotropic medication (e.g., Ritalin).

> *After this description, I think Clara is going through depression.* (girl, depression, girl vignette)
>
> *She suffers from attention dificit and probably needs reatalin.* (boy, ADHD, girl vignette)
>
> *The reason that sums Amy's problem is that she has an Attention Deffisit Disorder.* (boy, ADHD, girl vignette)

Whereas in the above responses the diagnosis seems to be provided as the causal explanation, other participants went a step further and seemed to provide a causal explanation for the disorder identified.

> *She may be depressed. It is probably caused by a recent event or a string of events.* (boy, depression, girl vignette)
>
> *Frank may have ADD, because he was born with it.* (boy, ADHD, boy vignette)

Participants generally accurately identified the disorder described in the vignette, as in the above examples; however, there were some exceptions, for instance:

*He is maybe skitsafrenike.* (boy, ADHD, boy vignette)
Note: Atypical response.

In the case of anxiety only, a learning disorder or ADHD was sometimes identified as the cause.

*I think maybe Lina has a learning disorder. In the description, it says that she finds it hard to concentrate on schoolwork and this can be a symptom or sign of ADD.* (girl, anxiety, girl vignette)

*Mateo has a different kind of ADD.* (boy, anxiety, boy vignette)

Lastly, the identification of a general mental health problem was also observed across vignette type. Indeed, participants used terms such as "mental problem, mental illness, emotional problem, problem in head, mind problems" to explain the hypothetical peer's difficulties across all four vignettes, though most often in the case of ADHD.

In summary, early adolescents offered a range of explanations for problem behaviour in their peers (physiological, psychological, interpersonal, environmental etc.), with some repetition of the 18 reasons provided in the quantitative portion of the questionnaire. Participants endorsed and proposed explanations that were internal to the peer depicted in the vignette and others that were external, as well as attributions tied to controllability or lack thereof. Some responses were common to all four disorders (e.g. divorce), while others were found to be more disorder-specific (e.g., loss as a cause of depression and temperament as a cause of anxiety). Lastly, spontaneous diagnosis of the problem was observed, particularly in response to ADHD and depression.

## Discussion

The objective of this study was to investigate early adolescents' explanations of the etiology of different forms of psychopathology. Participants were asked to report on their beliefs regarding the causes for mental health conditions in which biological, psychological and environmental factors can contribute to the nature and manifestation of symptoms. The present quantitative and qualitative findings are consistent with those of several studies (e.g., Armstrong et al., 2000; Hennessy & Heary, 2009; Spitzer & Cameron, 1995) showing youth's ability to suggest a range of explanations for emotional and behavioural difficulties in peers. Key quantitative and qualitative findings for each of the main research questions are discussed below.

### *Key Quantitative Findings*

1) First, factor analyses and analyses of variance showed that participants rated the possible causes differently depending on the condition described, thus supporting the claim that causal beliefs would vary as a function of the type of disorder. It is noteworthy that both analyses revealed an internal structure of the data and interactions between variables leading to a main effect of disorder. As expected, explanations for internalizing (i.e., anxiety and depression) and externalizing problems (i.e., ADHD and conduct disorder) in hypothetical peers differed. This finding is consistent with work by Hennessy and Heary (2003) showing clear differences in the causes identified for depression and conduct disorder. In the present study, early adolescents emphasized lack of effort more for conduct disorder and, to a lesser extent, ADHD than for the two internalizing disorders. The most striking findings were observed in response to conduct disorder, a form of behaviour that is easily observable and the most potentially threatening of the

vignettes featured in the study; indeed, unlike the other three conditions, conduct problems were attributed to lack of effort and perceived to be within the peer's control.

To our knowledge, no examination of youth's understanding of mental health in their peers to date has directly measured lack of effort as a causal explanation. However, the present findings for the peer with conduct disorder are consistent with a body of research showing children's tendency to conceive of aggression as both stable over time and due to intrinsic factors (for review see Giles, 2003). Indeed, a number of studies have indicated that children of various ages use evidence of a person's aggressive behaviour as a tool for making inferences about that person's most fundamental characteristics (e.g., Boxer & Tisak, 2003; Graham & Hoehn, 1995; Hennessy & Heary, 2003; Younger & Daniels, 1992). Maas and colleagues (1978) found that the imaginary peer with antisocial behaviour was viewed as wanting to act as he/she did (i.e., wilful behaviour). Taken together, studies of peer perceptions of child aggression (both real and hypothetical) suggest that aggressive behaviour tends to receive internal, controllable attributions (i.e. thought to be due to deliberate actions) (Boxer & Tisak, 2003; Giles, 2003). Our finding that conduct problems were viewed as controllable is also consistent with studies on beliefs about peers' personal responsibility for aggressive behaviour (e.g., Goossens, Bokhorst, Bruinsma, & van Boxtel, 2002; Graham & Hoehn, 1995; Juvonen, 1991).

Findings pertaining to controllability showed that ADHD received the highest ratings for inability to control, while the lowest scores were in response to the depression vignette. In other words, ADHD was perceived as least within the control of the hypothetical peer, whereas depression was perceived as most within the control of the individual. This is consistent with research on self-views of children with ADHD

showing that they view their problem behaviours as outside of their control (e.g., Bowen et al., 1991; Cohen & Thompson, 1982; Kaidar et al., 2003). Moreover, a recent national survey of children and adolescents found depression to elicit more negative causal attributions (e.g., "is lazier") and to be more stigmatized than ADHD (Walker et al., 2008). Likewise, a vignette study by Coleman and colleagues (2009) found that youth endorsed more stigmatizing causal beliefs, including lack of effort, for depression than ADHD. The finding that early adolescents in this study viewed depression as the most controllable form of disorder points to a widespread misconception, which has been the target of anti-stigma campaigns aimed at beliefs and attitudes towards depression, for instance in the workplace, such as the Elephant in the Room campaign (Mood Disorders Society of Canada, 2011).

Taken as a whole, participants' differing etiological explanations and views regarding the intentionality and controllability of internalizing and externalizing problems is consistent with adult research demonstrating that the public reacts quite differently to people with different mental disorders (Angermeyer et al., 2010; Crisp et al., 2000; Hinshaw, 2007; Martin et al., 2000; Phelan et al., 2000; Sadler, Meagor, & Kaye, 2012). The current dearth of scientific understanding regarding the actual intentionality or controllability of psychological symptoms and disorders highlights the challenging nature of the questions posed to early adolescents in this study regarding the etiology of mental health problems. Indeed, to date, there has been little empirical research measuring the extent of intentionality of various psychiatric conditions (Miresco & Kirmayer, 2006) and therefore, for many stigmatizing conditions including most mental disorders, it is not known who or what is responsible for the condition, or how

controllable it is (Crocker et al., 1998). Nonetheless, lack of effort appears to have been overemphasized as a cause of problematic behaviour by participants in this study, which suggests that topics pertaining to effort, intentionality and control may be worthy targets for initiatives promoting mental health knowledge and awareness with this age group.

2) Next, findings indicated that grade (i.e., age) and sex (both rater and target) were not significant factors in participants' causal explanations; no main or interactive effects of sex or grade on type of reason were observed. These findings indicate that (1) boys and girls in this study, along with fifth and sixth graders, did not differ in their ratings of the causes of disorders and that (2) participants did not rate the causes of disorders differently depending on whether the child described in the vignette was a boy or a girl. The absence of differences by sex or grade observed in the present study holds significant implications, for instance, for the development of educational programs or interventions targeting causal beliefs and mental health. Indeed, these findings suggest that such a program could be designed in the same way for boys and girls.

Few studies to date have examined differences in peers' perceptions and causal explanations of boys and girls with similar problems (i.e., of male and female targets) (Hennessy et al, 2008). In one of the few studies, Spitzer and Cameron (1995) examined rater sex differences and found sex to be a significant factor; boys were better able to identify deviant behaviour than girls. Therefore, there is a current lack of knowledge on this topic and the need for additional research on gender in the study of psychopathology and peer relationships has been noted (Deater-Deckard, 2001; Wahl, 2002). Next, we did not find grade differences; however, we may have been limited in our ability to examine developmental differences, as our sample was limited to only two grades (or years). In

contrast, some researchers have found differences, such as Hennessy and Heary (2009), in a study of youth aged between 8 and 14 years old, who reported that spontaneous explanations for ADHD, conduct disorder and depression varied systematically with age. As reviewed earlier, a number of studies have found significant grade and age differences in youth's causal beliefs; however, there is conflicting evidence regarding the nature of the developmental progression observed.

*Key Qualitative Findings*

3) The qualitative findings of the present study are consistent with those of several investigations showing that youth are able to suggest a range of explanations for the emotional and behavioural difficulties of hypothetical peers (e.g., Armstrong et al., 2000; Hennessy & Heary, 2009; Spitzer & Cameron, 1995) and for mental illness in general (e.g., Bailey, 1999). In line with the present quantitative results, the causes proposed by participants varied across the four problems described in the vignettes (i.e., ADHD, conduct disorder, depression and anxiety).

Consistent with findings from past studies cited above, proposed causal explanations included suggestions pertaining to the individual, his or her peer group and family. Hennessy and Heary (2009) explored children's spontaneous explanations for ADHD, conduct disorder and depression and found that explanations included causes both internal to the individual (e.g. attention seeking) and external (e.g. parenting practices) and varied according to the nature of the behaviour described. In a qualitative study of the attitudes and perceptions towards mental health and illness of youth aged 12 to 14, Armstrong and colleagues (2000) found that relationships with family and friends emerged as particularly significant for all young people when asked about factors that

contributed to feeling unhealthy. Specifically, parental problems, bereavement, peer rejection and bullying were identified as likely to create mental health problems, highly similar to the interpersonal causes proposed in the present study. Moreover, all of the causal themes identified by participants of different ages in a qualitative study by Spitzer and Cameron (1995) were also proposed as possible causes by the early adolescents in the present study (e.g., wanting to be accepted by others, modelling, traumatic events during childhood and biological changes).

In terms of accuracy, it is worth noting that overall participants' views were consistent with the literature on the etiology of mental illness; indeed, the majority of causal explanations offered by participants in their written responses correspond to those recognized as potential causal factors by experts in the field. For instance, forms of loss or separation (e.g., death, parental separation or divorce, loss of friendships etc.) and traumatic events (e.g., abuse, violence, accidents etc.), present in a number of written responses provided, are recognized risk factors in the development of mental health difficulties (e.g., Gazelle & Ladd, 2003; Hankin & Abela, 2005).

In addition, some participants offered multiple explanatory causes in response to the emotional and/or behavioural problems described in a vignette. Similarly, Bailey (1999) asked 11 to 17 year olds questions such as "What causes mental illness?" and found that respondents provided an average of three causes. Common causes included relationship problems, physical trauma, environment and psychological problems. This finding is consistent with survey data according to which the adult public holds multidimensional views of the causation of mental illness, blending life stresses and biological markers as risk factors (Wright, Gronfein, & Owens, 2000 in Hinshaw & Stier,

2008). This finding also echoes current widely accepted and strongly supported transactional models of the development of psychopathology, which highlight the role of both vulnerability factors and stressful life events, including interpersonal adversity (e.g., peer exclusion) (e.g., see Gazelle & Ladd's 2003 diathesis-stress model of childhood depression; Hankin & Abela, 2005). In this way, early adolescent participants demonstrated a degree of accuracy in the range of causes provided and showed an appreciation of multicausality.

An unexpected finding of this study was the spontaneous recognition of the different mental health problems described in the vignettes, given that participants were not asked to identify or provide labels for the symptoms and behaviours depicted. Responses featuring a diagnosis showed a degree of awareness of medical terms and labels, and, in some cases, familiarity with the role of psychotropic medication, particularly those associated with ADHD (i.e., psychostimulants such as Ritalin). The ability to recognize specific mental health disorders or types of psychological distress is considered one of the main components of mental health literacy (Jorm et al., 1997a; Jorm, 2000). It is worth noting that the empirical literature on recognition and awareness amongst laypeople suggests most adults are unable to accurately identify mental disorders (Jorm, 2000; Lauber et al., 2003a). Of the four conditions depicted, ADHD and depression were the most spontaneously identified and labelled by participants. Greater awareness of these two conditions may be attributable to visibility or exposure in the school context or in the media, though this is mere speculation. In contrast, less identification and labelling were observed for anxiety and conduct disorder, suggesting less familiarity with these terms or perhaps an alternative view of these difficulties. The

content of responses provides hints as to how participants may have perceived these two problems. For instance, anxiety was described as a normal experience or personality trait (e.g., "just worry", "nervous"), while conduct disorder was referred to as "bullying" by a number of participants.

*Summary and Implications*

The present study set out to investigate youth's beliefs about the causes of psychological problems displayed by hypothetical peers. Taken together, findings suggest that early adolescents' beliefs about the causes of problems are multidimensional (i.e., they incorporate individual and environmental factors) and ascribe particular importance to lack of effort in explaining aggressive behaviour (i.e., conduct disorder) in a peer. The qualitative findings shed additional light on early adolescents' understanding of causality and mental health and indicate that the explanations proposed by youth (i.e., their lay theories) were generally in line with current professional or expert theories.

What are the implications of causal beliefs for youth themselves and their interactions with peers? As proposed by Coleman and colleagues (2009, p. 950), findings from attribution-informed studies, such as the present investigation, have implications for education and stigma reduction efforts. According to the present findings, early adolescents showed an appreciation of multicausality, as well as some misconceptions with regards to the controllability of symptoms and the role of effort. In addition, it has been proposed that children's lack of personal experience with certain behaviours (e.g., aggressive behaviour) may lead them to view the symptoms of psychological disorders as under the control of the character in the vignette (McMenamy et al., 2005). This lends support to the relevance of targeting the dimensions of controllability and effort in

education about the causes of mental illness. For instance, McMenamy and colleagues (2005) recommended that educational programs in schools help children to understand that fellow students with behavioural problems (e.g., ADHD) feel as if they unable to control their symptoms. This recommendation stems from research on the self-views of youth with problems which has shown, for instance, that children with ADHD view their problematic behaviours as less within their control than children without ADHD (Kaidar et al., 2003) and that children with a diagnosis of depression or ADHD are less likely to endorse low effort as a causal attribution (e.g., Coleman et al., 2009). Based on the tenets of attribution theory (e.g., Juvonen, 1991; Weiner, 1993), promoting an uncontrollable view may facilitate more positive and empathetic interactions between children with and without conditions. However, as reviewed earlier, there is much debate as to which approach and message about causation and mental illness will lead to more positive views, particularly regarding how much emphasis to place on biological explanations.

*Strengths, Limitations and Future Directions*

A possible limitation of the present study is that an earlier section of the questionnaire (not included here) asked participants to provide their own definitions of mental health and mental illness (see Appendix D). This initial open-ended question, which required participants to reflect on the concepts of mental health and illness, may have influenced responses in the latter qualitative portion. For instance, a "priming" effect could have increased the likelihood of viewing difficulties depicted in vignettes as mental illness or facilitate the recognition of specific mental health-related problems (see Srull & Wyer, 2005).

A limitation of the current study was the use of exclusively clinical vignettes (i.e., descriptions of problematic symptoms), in other words, the lack of a control vignette depicting "normal" or positive behaviour. Comparable studies with control vignettes have depicted, for instance, good social skills, musical ability or academic ability (e.g., Hennessy & Heary, 2009) or the behaviour of a well-adjusted individual (e.g., Norman & Malla, 1983; Spitzer & Cameron, 1995). Also, the rating system adopted in this study did not allow participants to rank the causal explanations provided in order of importance (e.g., from 1 to 18) to indicate which reasons they viewed as most important. Lastly, while the inclusion of reasons tapping into effort and control was a novelty and strength of this study, a more comprehensive assessment guided by an attribution framework could also include causal explanations pertaining to luck (i.e., bad luck) and intentionality or volition.

Strengths of this vignette study of children's understanding of mental health and perceptions of peers include its combination of quantitative and qualitative methods and careful randomization and counterbalancing. Novel aspects of the study include the use of a vignette depicting an anxious peer, as well as a set of reasons to be rated pertaining to effort and control. The use of four different vignettes allowed the comparison of various types of psychological problems, including both internalizing and externalizing conditions. Moreover, presenting participants with identical vignettes depicting male or female characters for each problem type avoided a confound between problem type and gender, a limitation of several past studies (e.g., Hennessy & Heary, 2009).

The current study has focused on the content of early adolescents' causal beliefs, rather than on how these beliefs developed. Nonetheless, previous research may shed

light on the development and function of the beliefs systems and attributions observed. Research by Jorm and colleagues on the cognitive organization of mental health literacy (1997b, 2000, 2000a, 2000b) suggests that knowledge and beliefs about mental health and illness may emerge from general pre-existing belief systems about health and health interventions. For example, the belief that physical health problems are caused by lifestyle factors may lead to similar beliefs regarding the cause and, in turn, appropriate treatment for mental health problems. Furthermore, research on lay theories provides evidence that the tendency to hold individuals responsible for their situation by attributing their situations to controllable factors underlies system-justifying ideologies (Crandall, 2000), such as the "belief in a just world", the view that people generally get what they deserve (Crocker et al., 1998; Levy et al., 2006). An intriguing avenue for future research would be to investigate whether a lay theory such as the belief in a just world is also observed in children and adolescents and, if so, how it might influence their perceptions of others, including peers in a classroom or school setting. In the context of the present study, it is possible that such a belief played a role in participants' causal explanations, particularly, the observed tendency to attribute the behaviour of a peer with conduct disorder to a lack of effort.

In conclusion, mental health understanding, although alone insufficient to change attitudes and behaviours, plays an important role in shaping subsequent belief structures and patterns of behaviour (Magiati et al., 2002, p. 411). In fact, a key reason to investigate children's understanding of their peers' psychological problems lies in the relationships between their beliefs, attitudes and behaviour (Hennessy et al., 2008).

## Transition to Study 2

In terms of impact, it has been proposed that lay conceptions, including causal beliefs, guide public attitudes toward sufferers (Haslam, 2003) and may alter patterns of help-seeking and response to treatment (Jorm, 2000). According to research on the role of attributions in stigmatization (Weiner et al., 1988; Weiner, 1993), explanations for mental and physical illness, especially in terms of controllability and responsibility, will affect attitudes towards individuals afflicted with these conditions. Likewise, developmental research within the framework of attribution theory suggests that children's beliefs are meaningfully related to their attitudes to peers with such problems (e.g., Goossens et al., 2002; Graham & Hoehn, 1995; Juvonen, 1991; Peterson, Mullins, & Ridley-Johnson, 1985; Sigelman & Begley, 1987). In particular, beliefs about peers' personal responsibility for psychological problems have been shown to have an impact on attitudes and behavioural intentions (Hennessy et al., 2008). Moreover, it follows that children's beliefs about mental health may impact their judgments of, and behaviour towards, individuals in need of help (Karafantis & Levy, 2004; Levy & Dweck, 1999).

Having examined the beliefs regarding psychological problems in peers in the first study, the next step was to move into the interpersonal domain and investigate responses to these peers. Therefore, the second study set out to examine attitudes and behavioural intentions towards peers displaying symptoms of psychological problems with the aim of gaining a better understanding of the reasons for peer exclusion. To do so, reported levels of liking, friendship and helping towards the hypothetical peers depicted in the vignettes were assessed in the same sample of early adolescents.

## Chapter 3: Study 2 - Early adolescents' attitudes and behavioural intentions towards hypothetical peers displaying symptoms of psychological problems

*Youth's Attitudes towards Mental Illness*

From early ages, children appear to hold negative attitudes about both the constituent behaviours and labels signifying mental illness (Hinshaw, 2005, p. 714). There is evidence suggesting that even if young children do not know the exact definitions or characteristics of people with mental illness, they seem to know that they are undesirable and to be avoided (Adler & Wahl, 1998). In a review of research on children's views of mental illness since 1980, Wahl (2002) summarized findings that children as young as seven to nine years of age attribute negative qualities to behaviours that receive a label of mental illness (e.g., Spitzer & Cameron, 1995), while negative attitudes towards persons with mental illness can be observed as early as in third grade. In other words, children appear to acquire stigmatizing views of peers with mental illness and mental illness labels at least as early as in middle childhood (Hinshaw & Stier, 2008).

Research comparing children's attitudes towards various forms of disabilities has shown that they perceived people with mental illness as less attractive than those with other kinds of disabilities, described them less positively and sought social distance from those identified as "crazy" (Wahl, 2002, p. 147). For instance, Weiss conducted a series of studies (1985, 1986, 1994) examining children's attitudes towards mental illness, including one of the few longitudinal studies in existence. Weiss (1986) observed that "crazy*"* people were perceived as a threat and regarded with the same fear, distrust, and dislike by children (young and older) and adults alike. Moreover, similar to findings in the adult literature, individuals with mental illness are viewed more negatively by children and with more fear than those with physical disabilities (Wahl, 2002). In a study

of perceptions of 20 different disabilities amongst students of five different age groups, ranging from third graders to college students and including sixth graders, participants rated disabilities in terms of visibility, severity, acceptability and familiarity (Royal & Roberts, 1987). Mental illness and mental retardation were rated as the least acceptable, based on participants' response to the item: "How much would you like to have this person as a friend?". This study also showed that students were more accepting of disabilities with age, with the exception of mental illness; third graders were more accepting of mental illness than the ninth graders or college students, suggesting that students were less accepting of mental illness as they matured.

Indeed, in terms of developmental progression, there is evidence that unfavourable attitudes toward mental illness increase with age, suggesting a longitudinal process whereby negative stereotypes become increasingly ingrained and, in turn, lead to potentially discriminatory behaviour in adulthood (Penn et al., 2005; Wahl, 2002). In Weiss' (1994) longitudinal study, the desire for social distance from a "crazy person" increased from childhood through adolescence, such that by eighth grade, the crazy person label had replaced "convict" as the least acceptable category. Furthermore, a random telephone survey of adolescents and young adults revealed that, although general knowledge of four different disorders (i.e., depression, bipolar disorder, schizophrenia and eating disorders) was high, stereotypes were present; in particular, propensities toward violence and low academic performance were ascribed to each condition (Penn et al., 2005). In sum, it appears that even younger children view people with mental illness more negatively than other groups, thus providing some evidence for the development of stigma in childhood (Hinshaw, 2005; Wahl, 2002). By adolescence, stigmatizing attitudes

regarding mental illness appear to have solidified and adolescents seem to hold the same stereotypes and prejudices as adults (Hinshaw & Stier, 2008).

*Relationship between Attitudes and Behaviour: Understanding Peer Exclusion*

It is well established that children have a strong inclination to form ingroups and outgroups (Hinshaw, 2005). Evidence indicates cognitive developmental processes whereby knowledge of group differences unfolds during the preschool years and knowledge of stigma-related processes is present by middle childhood (Hinshaw & Stier, 2008, p. 381). In the case of racial status, research has shown that these tendencies develop by the preschool years (Aboud, 2003). It is already known that children who experience emotional and/or behavioural difficulties are likely to be rejected by their peers (Hay et al., 2004). One may wonder then about the impact of attitudes on interactions with peers displaying such difficulties. As a matter of fact, research on children's understanding of their peers' psychological problems has taken an interest in the relationships between understanding (i.e., beliefs), attitudes and behaviour, in an effort to shed light on the phenomenon of peer exclusion (Hennessy et al., 2008). Two main theories of social cognition have been used to explain the relationship between children's (1) perceptions of their peers' behaviour and (2) their own attitudes and behaviours towards these peers (see Hennessy et al., 2008 for review).

The first of these is attribution theory (Weiner, 1993), which proposes that perceived controllability and responsibility for an observed deviant or problematic behaviour is meaningfully related to personal feelings and behaviours towards the peer (i.e., actor) (see general introduction for a more detailed overview of attribution theory). Existing research on how children perceive and respond to peers with psychological

difficulties has been largely grounded in this attribution framework (e.g., Weiner, 1993). Below are reviewed studies that have investigated these links in an effort to understand why children respond negatively to peers who display these problems (for reviews see Hennessy et al., 2008; Juvonen & Weiner, 1993; Safran, 1995; Wahl, 2002).

In a series of three studies, Juvonen (1991) investigated the relationship between judgments of personal responsibility for deviant behaviours (e.g., rule breaking and high activity level) and negative peer reactions. Juvonen found that early adolescents judged hypothetical peers described as aggressive as more responsible for their deviant behaviour than peers described as shy or having a physical disability. According to these studies, the more children were perceived to be responsible for their behaviour, the more negative affect they elicited and, in turn, the more likely they were to be rejected by their peers. Juvonen's study is particularly important because it is one of the few that has compared children's responses to real and hypothetical peers.

Similar findings were obtained by Graham and Hoehn (1995) who examined young children's perceptions of aggressive or withdrawn children using fictional scenarios. They found that a child who was described as behaving aggressively was judged as being personally responsible for his/her actions, which resulted in a feeling of anger, and, in turn, led to social rejection. These findings were replicated in a study by Goossens and colleagues (2002), also of first and second graders. These authors found that aggressive children were perceived as more responsible for their behaviour and elicited more feelings of anger; in contrast, withdrawn children elicited more feelings of pity and were more likely to be chosen as a friend.

Further evidence supporting a link between attributions of responsibility and

social exclusion comes from experimental studies involving the manipulation of causal information about a hypothetical peer's problem. First, Peterson and colleagues found that primary school children rated a depressed child who had experienced recent life stress as more likeable and attractive than a similarly depressed child who had not (Peterson et al., 1985). In another study, a hypothetical male peer, described as aggressive, was significantly less well liked when he was described as being responsible for his behaviour (Sigelman & Begley, 1987). Similarly, in a study by Corrigan and colleagues (2005), adolescents' stigma towards peers diminished when they learned that their peers' mental illness was reportedly caused by a brain tumour. In contrast, when adolescents viewed their peers as being responsible for having a mental illness (i.e., not caused by a physical issue), the adolescents reported more anger and less pity toward them. Finally, perceived responsibility has been measured in several recent studies (e.g., Swords et al., 2011; O'Driscoll, Heary, Hennessy, & McKeague, 2012) and findings point consistently to a negative association with acceptance.

Psychological essentialism is a second theory that has been used to guide and explain research in this area. Beliefs about the extent to which behaviours reflect deep and enduring characteristics of an individual appear to be an important dimension of reasoning about social behaviour (Giles, 2003). There is extensive evidence that essentialist beliefs are associated with prejudiced attitudes amongst adults towards a variety of social groups (e.g., Bastian & Haslam, 2006; Keller, 2005). It has been proposed that such beliefs guide children's interpretation of social information and have predictable consequences in terms of their behaviour towards others (Giles, 2003; Giles & Heyman, 2004). Moreover, research suggests that children are particularly likely to

reason about aggression in essentialist ways (i.e., to believe that aggression is stable over time) and that such reasoning about aggression is more common among younger rather than older children (Giles & Heyman, 2003; 2004). Giles (2003) also argues that essentialist reasoning about aggression can be influenced by situational factors (e.g., the severity of the aggression), as well as other factors, including the intentions of the perpetrator (i.e., deliberate actions are more likely to be attributed to a stable trait).

As evidenced in this review, a number of studies of attributions and essentialist views have focused on responses to aggression in an effort to make sense of the body of evidence that aggressive children elicit negative responses (e.g., Hayes, Gershman, & Halteman, 1996; Juvonen, 1991; Sigelman & Begley, 1987). Virtually all of these studies concur that peers hold negative views of externalizing behaviour problems and that interaction patterns with perceived aggressive students are likely to be more negative. As conclude Hennessy and colleagues (2008, p. 7), attribution theory and psychological essentialism both provide a rationale to further investigate youth's understanding of problem behaviour as such knowledge has the potential to shed light on the phenomenon of peer exclusion. Taken as a whole, research on children as social perceivers of disordered behaviour in peers has shown that reactions to deviant characteristics are linked to negative social consequences, such as rejection (Hinshaw, 2005; Juvonen, 1991). In the following section, further behavioural consequences of negative attitudes towards peers with problems are examined, with a focus on social distance.

*Behavioural Intentions: Social Distance*

To begin, investigations of stigma among the general adult public commonly use measures of social distance through which respondents indicate their willingness versus

unwillingness to interact with a person with mental illness in increasingly close forms of contact (Hinshaw, 2005). For instance, the Mental Health Module of the General Social Survey, which surveyed almost 1500 adults in the United States in 1996, showed that more than half of respondents were unwilling to spend an evening socializing, work next to or have a family member marry a person with mental illness (Martin et al., 2000). A vignette study by Link and colleagues (1999) examined public conceptions of mental illness using data from the same large survey and assessed respondents' predicted social distance, for example, how willing they would be to, for instance, move next door to, work closely to or make friends with an individual with a specific mental illness described in a vignette. Consistent with the findings of Martin and colleagues, results showed a strong desire for social distance across several domains of social interaction.

Researchers have noted that discrimination comes in many forms, including social avoidance (i.e., striving not to interact altogether) and withholding help (Corrigan & Watson, 2002). Unlike surveys, experimental behavioural investigations allow the direct observation of discrimination, for instance through behavioural indicators of social distance (e.g., Bessenoff & Sherman, 2000; Macrae & Johnston, 1998; see Hinshaw & Stier, 2008 for review). For example, a study by Corrigan and colleagues (2002) found that fear of dangerousness negatively predicted helping behaviour toward individuals with mental illness. Such assessments have also demonstrated the negative effects of labels on social interaction patterns; when individuals believe that they will be interacting with social partners who suffer from mental illness, they behave in a cautious and even punitive fashion (e.g., Mehta & Farina, 1997). In sum, research using various methods to

assess social distance has yielded valuable information regarding the widespread presence of mental health stigma amongst adults in the general population.

The desire for social distance has also been examined and measured in children. For instance, some researchers (e.g., Coleman et al., 2009; Walker et al., 2008) have adapted the Social Distance Scale, initially developed for adults (Link, Cullen, Frank, & Wozniak, 1987; Penn et al., 1994) to reflect situations more typical of childhood (e.g., to work on a school project with the person). In a study of fifth and eighth graders, Gillmore and Farina (1989) had boys interact with a peer, actually an experimental confederate, labeled as emotionally disturbed, "mentally retarded" (i.e., intellectually disabled) or "ordinary". Participants expressed desire for greater social distance from the labeled children, in contrast to the ordinary child, and behaved in a less friendly and more negative fashion toward the labeled youth.

Second, Harris and colleagues (Harris, Milich, Corbitt, Hoover, & Brady, 1992; Harris, Milich, Johnston, & Hoover, 1990) conducted research whereby school-aged children (grades three to six) interacted with a peer, with the manipulated variables including the actual diagnosis of the peer (ADHD versus no disorder) and the child's expectation for the partner's behaviour (i.e., label of "behaviour problem" or no label). When boys were told that their partner in a dyadic play task had behaviour problems (even when that was not true), they reported lower levels of liking towards their partner, and were less friendly, less helpful and less likely to give their partner credit for successful task completion. Both factors (actual diagnosis and expectation) negatively influenced participants' responses to the peer. According to the authors, the labeling effect strongly suggests that stigma processes are active in middle childhood.

Lebowitz (2013) reviewed additional studies of social distance towards peers (actual or hypothetical) with ADHD. A study by Law, Sinclair and Fraser (2007) found that early adolescents reported negative attitudes towards, and less willingness to share activities or to be friends with, a peer with ADHD regardless of diagnostic label. The authors concluded that the behavioural symptoms of children with ADHD were driving stigmatizing attitudes and behavioural intentions. Another study examined positive and negative attributions and social distance towards peers with depression, ADHD and asthma in a sample of youth aged 8 to 18 years (Walker et al., 2008). Findings indicated that depression and ADHD were more stigmatized than asthma across most items, including perceived likelihood of violence and antisocial behaviour and the willingness to work with the person on a project. In this study, depression was more stigmatized (i.e., higher social distance) than ADHD, a finding that has since been replicated by Coleman and colleagues (2009).

In another study of stigmatization of peers with ADHD and depression, O'Driscoll and colleagues (2012) examined implicit and explicit (i.e., self-reported) attitudes. Specifically, they measured perceived dangerousness, personal responsibility for symptoms, fear, anger and social distance. In contrast with findings by Walker and colleagues (2008) and Coleman and colleagues (2009), social distance and attributions of personal responsibility were generally stronger for the peer with ADHD than with depression. Taken together, these studies suggest that the desire for social distance from individuals with ADHD is generally as strong as towards depression and indicate a widespread reluctance to interact socially with individuals with ADHD across the lifespan, including children and adolescents (Lebowitz, 2013).

To summarize, research on social distance during middle childhood and early adolescence has used various methods and measures to examine responses to peers with mental health difficulties, with an emphasis on behavioural problems, ADHD in particular. Taken as a whole, these studies suggest that youth stigmatize age-mates whom they view as having behaviour problems, as evidenced by lower levels of liking and a greater desire for social distance. In addition to how youth respond to peers with difficulties, there is the question of how they might assist or what they might suggest to a peer in need of help. Research on youth's recommended help sources and strategies, tied to the broader literature on mental health literacy, is reviewed next.

*Knowledge of Treatment and Help Strategies*

"Mental health literacy" refers to knowledge, attitudes and beliefs about mental illness and is considered a key component for early recognition of mental health issues and eventual help seeking (Jorm et al., 1997a; Jorm, 2000). It is comprised of five main components, among which knowledge and beliefs about self-help interventions and professional help available. Initially examined primarily in adults, research on mental health literacy has since been carried out with youth (e.g., Burns & Rapee, 2006; Cotton, Wright, Harris, Jorm, & McGorry, 2006). A particular aspect of youth's understanding of mental health that has received growing attention is their knowledge and beliefs about sources of help for mental health problems (e.g., Armstrong et al., 2000; Burns & Rapee, 2006; Hennessy & Heary, 2009; Hill, 1999; Maas et al., 1978; Roberts et al., 1981, 1984). First, some studies have focused on youth with a diagnosed mental health problem and examined to whom they turn to for help (see Swords et al., 2011). Such studies have shown that adolescents are likely to turn to their peer group for help if they personally

experience a mental health problem (e.g., Offer, Howard, Schonert, & Ostrov, 1991; Sheffield, Fiorenza, & Sofronoff, 2004; Wisdom & Agnor, 2007).

Of greater relevance to the current research are studies focusing on young people's perceptions of appropriate sources of help for a peer experiencing a mental health problem (for reviews see Hennessy & Heary, 2009; Swords et al., 2011). In an earlier review, Hill (1999) concluded that youth generally emphasize the central role of family and friends in providing help and support. Indeed, a number of studies have confirmed that school-aged youth typically refer a peer with problems to family and peers as sources of help, with few recommendations for professionals (e.g., Armstrong et al., 2000; Cotton et al., 2006; Raviv, Sills, Raviv, & Wilansky, 2000; Wright et al., 2005). In terms of preferred source of help, some studies have found that children of all ages view family as the most important source of help for individuals with problems (e.g., Hennessy & Heary, 2009; Jorm et al., 2007; Swords et al., 2011).

Evidence is mixed regarding the degree to which children recommend professional help. As alluded to above, most studies have found, perhaps not surprisingly, that children and early adolescents recommend general practitioners (GPs) and mental health professionals significantly less than informal sources of help (e.g., Hennessy & Heary, 2009; Jorm et al., 2007; Poster, 1992; Swords et al., 2011; Villeneuve, Bérubé, Ouellet, & Delorme, 1996). The sole exception to the finding that adolescents are more likely to refer peers to informal than to formal sources of help is reported in a study of older youth (15 to 17 years) by Burns and Rapee (2006). Results showed that older adolescents were more likely to recommend the help of a school counsellor, rather than the help of friends or family, to a depressed peer. Other evidence for a developmental

progression in help recommendations includes a study by Wright and colleagues (2005) which found that younger adolescents (12–17 years) were significantly more likely to believe that family and friends were the best form of help for peers with depression and psychosis than were older adolescents (18–25 years). Similarly, in a study of help-seeking intentions (Jorm et al., 2007), a minority of adolescents (12 to 17 years) identified GPs as a source of intended help, as compared to young adults (18 to 25 years).

To summarize, existing research suggests that adolescents are likely to recommend informal sources of help, such as friends or family, to a peer who is experiencing psychological difficulties and that, likewise, youth who themselves have a mental health problem report peers as an important source of help.

*Help Strategies*

In contrast with the body of literature on sources of help summarized above, there has been much less research on youth's knowledge of treatment and suggested help solutions (i.e., actual ways to help oneself or someone else with a problem). To begin, a review of mental health literacy in adults by Jorm (2000) concluded that the main self-help interventions recommended by adults consisted of seeking support from family and friends, engaging in pleasurable activities and physical exercise. This review also showed that participants held overall negative beliefs regarding medication and, in contrast, generally positive views of psychological treatments and natural remedies. In one of the few existing investigations of youth's help suggestions, Poster (1992) observed three intervention categories based on the responses of third to sixth graders in her qualitative study. These interventions were psychiatric (i.e., take to the psychiatrist), non-psychiatric (e.g., take to the medical doctor or teacher) and child-initiated, which included activity-

oriented, physical care, supportive, authoritarian and punitive interventions. Findings are mixed regarding youth's familiarity with psychological treatments (see Spitzer & Cameron, 1995 for review). Some earlier studies have shown that children are relatively unaware of psychological services (Dollinger & Thelen, 1978; Roberts et al., 1981), while others suggest a degree of knowledge and sophistication as evidenced by youth's recommendations involving psychiatrists and psychologists (Hennessy & Heary, 2009; Poster, 1992; Roberts et al., 1984; Spitzer & Cameron, 1995). These apparent inconsistencies in youth's awareness of professional help may be better understood in light of evidence suggesting a historical trend in adult help-seeking preferences, most notably a change in attitudes toward seeking and recommending professional help (e.g., Angermeyer, Matschinger, & Riedel-Heller, 1999; Riedel-Heller, Matschinger, & Angermeyer, 2005), with increased mental health literacy proposed as an explanation.

It is clear that young people's knowledge of possible sources of help has implications for their responses to peers with difficulties. For instance, belief in the efficacy of self-help (e.g., Roberts et al., 1981) might be associated with negative reactions to peers with problems because such a belief may imply that they could choose to help themselves if they wanted to (Hennessy & Heary, 2009, p. 43). In addition, it has been proposed that knowledge of available sources of help in youth may determine whether or not help is recommended or sought from mental health professionals, as the peer group may be an important source of information and support at a time when adolescents are trying to cope with mental health problems (Swords et al., 2011; Villeneuve et al., 1996). Such knowledge is especially crucial in light of current evidence suggesting that only one out of every five youth who show signs of mental health

problems and need help will actually receive it (Cauce et al., 2002; Evans & Seligman, 2005; Kataoka, Zhang, & Wells, 2002; Moses, 2009). Lastly, in order to provide appropriate support and education, it is highly relevant for professionals to gain an understanding of young people's beliefs about sources of help (Hennessy & Heary, 2009). Yet, little is known about the extent to which adolescents believe that different types of help are appropriate for different mental health problems (Swords et al, 2011). For this reason, an open-ended question was included in the present study to elicit possible ways of helping peers with different symptom presentations. Specifically, depression, anxiety, ADHD and conduct disorder were chosen as the focus as they are the top four most commonly diagnosed clinical conditions amongst Canadian youth (Smetanin et al., 2011). The examination of these conditions also allows a comparison between two internalizing and two externalizing problems.

*The Present Study: Rationale and Aims*

Despite the indisputable problems associated with the stigma of mental illness, little is known about the emergence of stigmatizing attitudes and behaviours across the developmental spectrum (Hinshaw & Stier, 2008, p. 381). The present study was designed to investigate early adolescents' attitudes and behavioural intentions towards hypothetical peers with common forms of psychopathology. Early adolescent participants were asked both to rate close-ended questions and to generate their own thoughts and beliefs in response to a question in open-ended format. Qualitative methods have become more widely accepted and used in psychological research in recent years (Braun & Clarke, 2006; Coyle, 2007; Willig & Stainton-Rogers, 2008). Moreover, it has been recognized that quantitative and qualitative techniques are not mutually exclusive and can

be used in combination (Mayring, 2007; Weber, 1990; Zhang & Wildemuth, 2009). Qualitative content analysis (Mayring, 2000; 2002), the approach adopted in this study to examine the open-ended question, has been defined as a research method for the subjective interpretation of the content of text data through the systematic classification process of coding and identifying themes or patterns (Hsieh & Shannon, 2005, p. 1278), as well as a data reduction and sense-making effort that takes a volume of qualitative material and attempts to identify core consistencies and meanings (Patton, 2002, p. 453). In other words, this technique aims to uncover patterns, themes and categories and to illustrate the range of the meanings of the phenomenon (Zhang & Wildemuth, 2009). Several studies of children's views of mental illness and/or of their reactions to peers with problems have adopted a mixed-method approach (e.g., Magiati et al., 2002; Moses, 2008; Spitzer & Cameron, 1995; Swords et al., 2011). Regarding the benefits of open-ended questions, according to Burns and Rapee (2006, p. 227), "the vignette style of questionnaire, requiring subjects to articulate their own beliefs and knowledge, provides an alternate method to investigate mental health literacy that taps more directly into declarative knowledge". In sum, the combination of a qualitative component with a more traditional quantitative approach constitutes a strength of this study.

Specifically, this mixed-method study aimed to examine early adolescents' attitudes (i.e., liking) and behavioural intentions (i.e., friendship and helping) towards hypothetical peers described as exhibiting symptoms of four common childhood mental health problems. There were three main objectives to this study, namely:

1) To examine whether early adolescents' reported levels of liking, friendship and helping towards hypothetical peers would vary as a function of the type of disorder

depicted in the vignette. We expected a main effect of disorder across all measures, with a differential response towards peers with internalizing versus externalizing problems. In addition, based on the existing literature on aggression and peer relations, we hypothesized that early adolescents' attitudes and behavioural intentions would be more negative (i.e., lower levels of liking, friendship and helping intentions) towards peers who were disruptive and potentially threatening (i.e., conduct disorder and, to a lesser extent, ADHD) than towards peers with internalizing problems.

2) To assess potential grade and sex differences in early adolescents' attitudes and behavioural intentions. Indeed, grade and sex (of rater and target) may potentially impact the relationship between the variables of interest. For this reason, we assessed main and interactive effects of grade and gender; however, it was not within the scope of this study to formulate specific hypotheses regarding grade and sex effects.
3) Lastly, an open-ended question was included to learn about the solutions proposed by early adolescents to help a peer with a psychological problem. The aim of this qualitative component of this study was two-fold. First, we set out to uncover themes in the written responses provided by early adolescent participants and to identify and categorize the help strategies recommended. Second, we were interested in examining which recommended help strategies would be common to all four hypothetical peers experiencing psychological difficulties versus unique to peers with a particular symptom presentation. Lastly, we were interested in drawing links between the patterns observed in the help strategies proposed and the quantitative findings with regards to liking, helping and friendship. No specific hypotheses were proposed, as this question was exploratory.

## Method

### *Participants and Procedure*

Data for this study were collected from a subsample of 180 fifth and sixth graders (*M* = 10.67 years, *SD* = .55; 88 girls, 92 boys) attending two public elementary schools in Montreal, Quebec. For a full description of the recruitment of participants and details regarding the procedure, see the introduction and method sections of the first study.

### *Measures*

*Vignettes*. Measures for this project were part of the same questionnaire used in the first study and followed the vignettes depicting hypothetical male or female same-aged peers exhibiting symptoms of different psychological problems (i.e., depression, anxiety, ADHD, conduct disorder) (see Appendices D and E). Participants were presented with a series of close-ended questions, as well as an open-ended question (see Appendix F), as described below.

*Attitude and behavioural intentions - Quantitative.* Following each of the four descriptions, participants were asked to imagine that the child described in the vignette was in their class and then to rate the following items pertaining to liking and helping using a four-point scale (1="Not at all" to 4="A lot"): (a) how much they would <u>like</u> the hypothetical peer, (b) how much they would <u>want to help</u> the peer and (c) how much they <u>could help</u> the peer. Participants were also asked to rate three other items pertaining to help and friendship, this time using a two-point scale (1 = "No", 2 = "Yes"): (d) whether it is <u>possible to help</u> the peer with this problem, (e) whether they would <u>want to become</u> this person's friend and (f) whether they would <u>want to continue</u> being the peer's friend.

*Knowledge regarding how to help a peer – Qualitative.* Participants were presented with an open-ended question to tap their perceptions of possible ways of helping the peer described in the vignette ("How could someone help Clara?").

*Data Analyses*

*Quantitative analyses.* Descriptive statistics (means, ranges and standard deviations) were initially calculated for all study variables. Quantitative analyses were then conducted using mixed model ANOVAs and paired-samples t-tests to compare means across the four vignette conditions. For instance, for analyses of the help measure, mean scores were computed for the two types of help (want help and can help) for each of the four disorders and analyzed with a 2 (sex of rater) by 2 (sex of target) by 2 (grade) by 2 (type of help) by 4 (type of disorder) mixed model ANOVA.

*Qualitative analyses.* As for the open-ended question eliciting suggested ways of helping the peer, the first step was to calculate the frequency of blank or "I don't know", responses, both overall and by disorder. Examination of the written responses provided by participants in this study was conducted using qualitative content analysis (Mayring, 2000; 2002). As outlined by Zhang and Wildemuth (2009), the process of qualitative content analysis consists of eight main steps. Key steps early on in the process included defining the unit of analysis (i.e., unit of text) to be classified and developing categories and a coding manual. The development of categories can be based on three main sources – from the data itself, previous studies and/or theory. Mayring's (2000) step model of inductive category development was followed at this stage. As recommended to ensure consistency of coding, a codebook was developed, which consisted of category names, definitions and rules for assigning codes, as well as examples (Weber, 1990). Guidelines

from Mayring (2000) were followed in the development of the coding scheme, such as the permission to assign a unit of text to more than one category simultaneously.

The next step was to test the developed coding scheme on a sample of text, an iterative process consisting of coding sample text, checking coding consistency and revising coding rules. Therefore, within a feedback loop, categories were revised and checked with respect to their reliability. Two coders were involved in the coding process of this study - a trained member of the research team and the main investigator. During the training phase, the two coders coded the same responses independently, and then met to discuss the codes they had assigned and made adjustments to the codebook for comprehensive and consistent coding. In addition, an external expert was consulted on a regular basis for guidance regarding qualitative content analysis, the coding process and the evolving codebook. Regular meetings were also held with members of the larger research team (who took part in the data collection but were not directly involved in the coding process) to obtain feedback regarding the coding scheme and emerging themes.

Later steps included coding all of the text, assessing coding consistency and drawing conclusions from the coded data. To establish trustworthiness, a reliability analysis using the Kappa statistic was performed to determine consistency among raters (Landis & Koch, 1977). The two coders analyzed four classes of identical material (two classes together during the test sample followed by two classes coded independently). Following satisfactory reliability results for the first four classrooms, each coder then analyzed two classes separately, with reliability checks on 15% of the data (i.e., other coder's responses). As part of the final step of reporting findings, as is common practice, typical quotations to support conclusions were identified (Schilling, 2006).

## Results

### *Descriptives*

Means, standard deviations and ranges for the variables that were used in this study appear in Table 9.

### *Mean Comparisons*

*Liking.* As expected, an analysis of variance revealed a main effect for type of disorder ($F(3, 157) = 75.33$, $p < .001$, $\eta_p^2 = .59$). No interactive effects with grade or sex were observed. Consistent with our hypotheses, participants reported lower levels of liking for the hypothetical peer with conduct disorder ($M = 1.56$) than for the peers with ADHD ($M = 2.40$), depression ($M = 2.57$) or anxiety ($M = 2.68$) (see Figure 2). Paired samples t-tests showed a significant difference between the liking score for conduct disorder compared with the other vignette conditions; i.e., with anxiety: $t(172) = 15.19$, $p < .001$; depression: $t(169) = 12.60$, $p < .001$, and ADHD: $t(172) = 10.16$, $p < .001$.

*Friendship.* Findings from an analysis of variance revealed both main and interactive effects. Main effects were observed for type of friendship ($F(1, 166) = 67.57$, $p < .001$, $\eta_p^2 = .29$) and for type of disorder ($F(3, 164) = 129.23$, $p < .001$, $\eta_p^2 = .70$). An interaction between type of friendship and type of disorder was detected ($F(3, 164) = 3.80$, $p < .05$, $\eta_p^2 = .07$). Interactions with grade and sex were also observed; first, a type of disorder by grade by rater sex three-way interaction ($F(3, 164) = 3.73$, $p < .05$, $\eta_p^2 = .06$). A clarification of this interaction showed that the grade by rater sex interaction was significant in the case of the depression condition ($F(1, 172) = 16.37$, $p < .001$, $\eta_p^2 = .08$); however, it was non-significant for the other three vignette conditions (i.e., anxiety, ADHD and conduct disorder). Means indicate that girls in Grade 5 gave higher friendship

ratings to the depressed peer than did boy raters. The opposite pattern was observed in Grade 6, whereby boys gave higher friendship ratings to the depressed peer than girls. Lastly, a type of friendship by target sex by rater sex three-way interaction ($F(1, 166) = 4.31$, $p < .05$, $\eta_p^2 = .03$) was also observed. This effect was not predicted and therefore further analyses were not conducted.

For all disorders, participants indicated a greater willingness to continue being friends with the hypothetical peer rather than to become friends with him/her (see Figure 3). Paired samples t-tests showed significant differences between participants' scores on the two friendship items for all four disorders; ADHD: $t(176) = 5.56$, $p < .001$; depression: $t(177) = 5.98$, $p < .001$; anxiety: $t(176) = 3.79$, $p < .001$; conduct disorder: $t(178) = 3.07$, $p < .01$. However, as may be seen in Table 9, a floor effect was observed for conduct disorder whereby participants reported virtually no desire to become or to stay friends with the peer with conduct problems.

*Help – Willingness and efficacy.* Analysis of variance results indicated main effects for type of help ($F(1, 168) = 19.08$, $p < .001$, $\eta_p^2 = .10$) and type of disorder ($F(3, 166) = 35.26$, $p < .001$, $\eta_p^2 = .39$). A significant interaction between these effects was observed ($F(3, 166) = 6.17$, $p < .001$, $\eta_p^2 = .10$). A clarification of the type of help by type of disorder interaction showed that it was significant for sixth graders ($F(3, 97) = 8.80$, $p < .001$, $\eta_p^2 = .21$) but not for fifth graders ($F(3, 66) = 8.80$, *ns*) (i.e., an interactive effect with grade). Means indicate that sixth graders rated their willingness to help the peer (i.e., want to help) higher than their perceived efficacy (i.e., could help) for all conditions except conduct disorder. Lastly, a significant four-way interaction was observed; type of

help by type of disorder by grade by target sex ($F(3, 166) = 3.0$, $p < .05$, $\eta_p^2 = .05$). This effect was not predicted and therefore further analyses were not conducted.

For all disorders, with the notable exception of conduct disorder, participants reported that they wanted to help the peer more than they thought they could help (see Figure 4). Paired samples t-tests showed significant differences between participants' scores on the two help items for ADHD: $t(177) = 4.94$, $p < .001$; depression: $t(179) = 4.45$, $p < .001$, and anxiety: $t(178) = 3.39$, $p < .001$, whereas the difference was non-significant in the case of conduct disorder: $t(177) = -1.18$, *ns.* Paired samples t-tests also showed that ratings for willingness to help and perceived efficacy to help were significantly lower for conduct disorder than anxiety: $t(176) = 9.03$, $p < .001$; depression: $t(177) = 10.41$, $p < .001$; and ADHD: $t(176) = 7.19$, $p < .00$.

*Help - Possibility.* Lastly, analysis of variance results for the third help item (i.e., possible to help) revealed a main effect for type of disorder ($F(3, 165) = 6.09$, $p < .001$, $\eta_p^2 = .10$). However, as may be observed in Table 9, a ceiling effect was observed for this item whereby mean ratings across vignettes were close to the maximum value of 2 (i.e., "Yes"). For this reason, further analyses involving this specific item were not pursued. However, it is informative to note the apparent consensus across participants that it is indeed possible to help the four peers depicted in the vignettes.

Table 9. *Descriptive Statistics of Liking, Helping and Friendship Items for each Vignette Condition*

| Item | | | **Depression** | | **Anxiety** | | **ADHD** | | **Conduct disorder** | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Min. | Max. | *M* | *SD* | *M* | *SD* | *M* | *SD* | *M* | *SD* |
| 1. How much would you want to help…? | 1.00 | 4.00 | 2.99 | .93 | 2.94 | .88 | 2.74 | 1.01 | 2.13 | 1.09 |
| 2. How much do you think you could help…? | 1.00 | 4.00 | 2.73 | .97 | 2.75 | .92 | 2.42 | .94 | 2.22 | 1.02 |
| 3. Is it possible to help…? | 1.00 | 2.00 | 1.93 | .25 | 1.90 | .30 | 1.81 | .39 | 1.81 | .39 |
| 5. How much would you like *Clara*? | 1.00 | 4.00 | 2.57 | .88 | 2.68 | .86 | 2.40 | .91 | 1.56 | .81 |
| 6. a) Would you want to continue to be her friend? | 1.00 | 2.00 | 1.82 | .38 | 1.84 | .37 | 1.69 | .46 | 1.18 | .39 |
| 6. b) Would you want to become her friend? | 1.00 | 2.00 | 1.62 | .49 | 1.73 | .45 | 1.51 | .50 | 1.12 | .32 |

Valid overall *N* listwise = 178

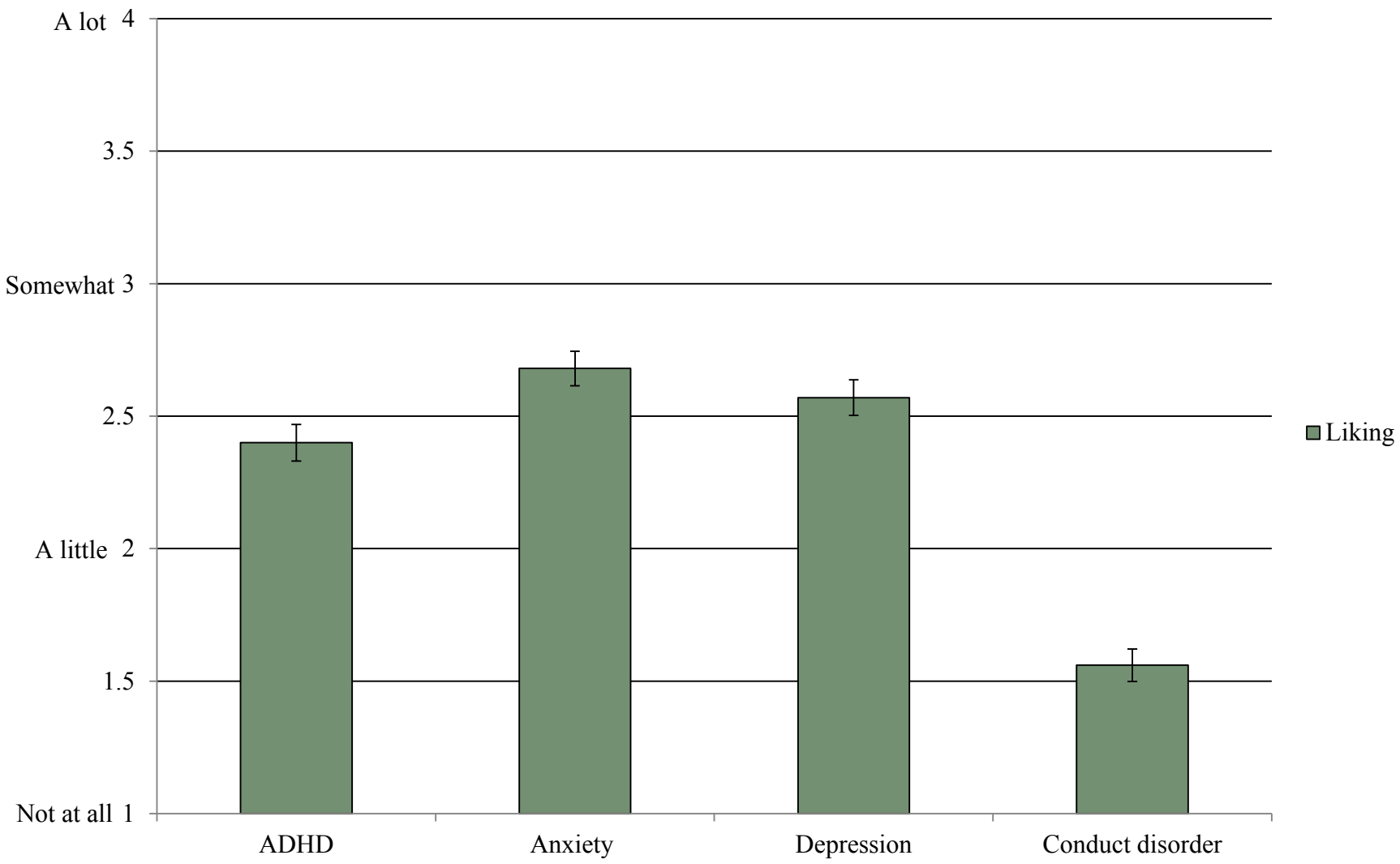


*Figure 2.* Liking ratings for hypothetical peers displaying symptoms of psychological disorders.
*Note.* Error bars represent mean standard errors. There was a statistically significant difference between the liking rating for conduct disorder and the other three conditions.

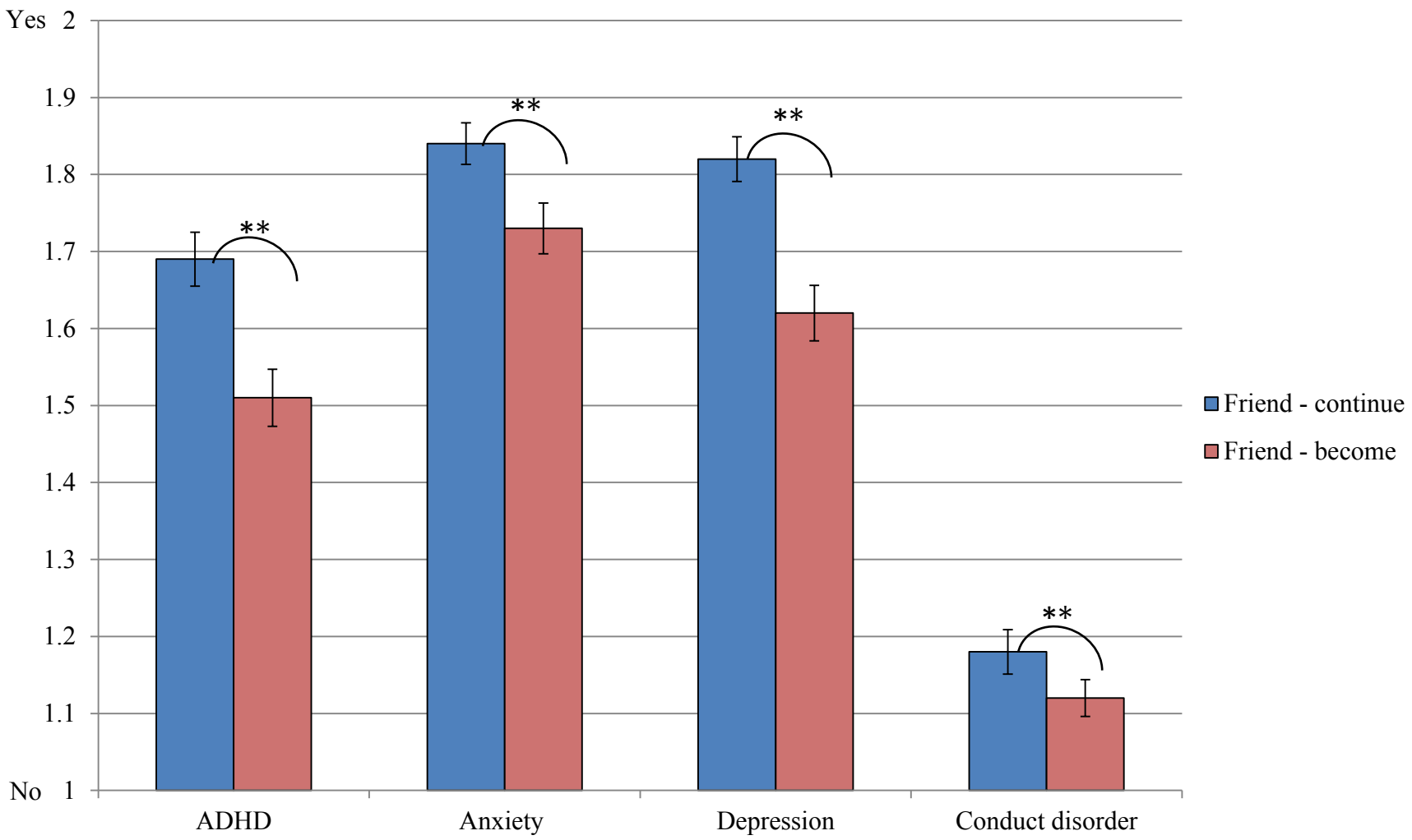


*Figure 3.* Friendship ratings for hypothetical peers displaying symptoms of psychological disorders.

*Note.* Error bars represent mean standard errors. For all conditions, willingness to continue being friends was significantly greater rather than willingness to become friends. A floor effect was observed for conduct disorder. ** $p < .01$

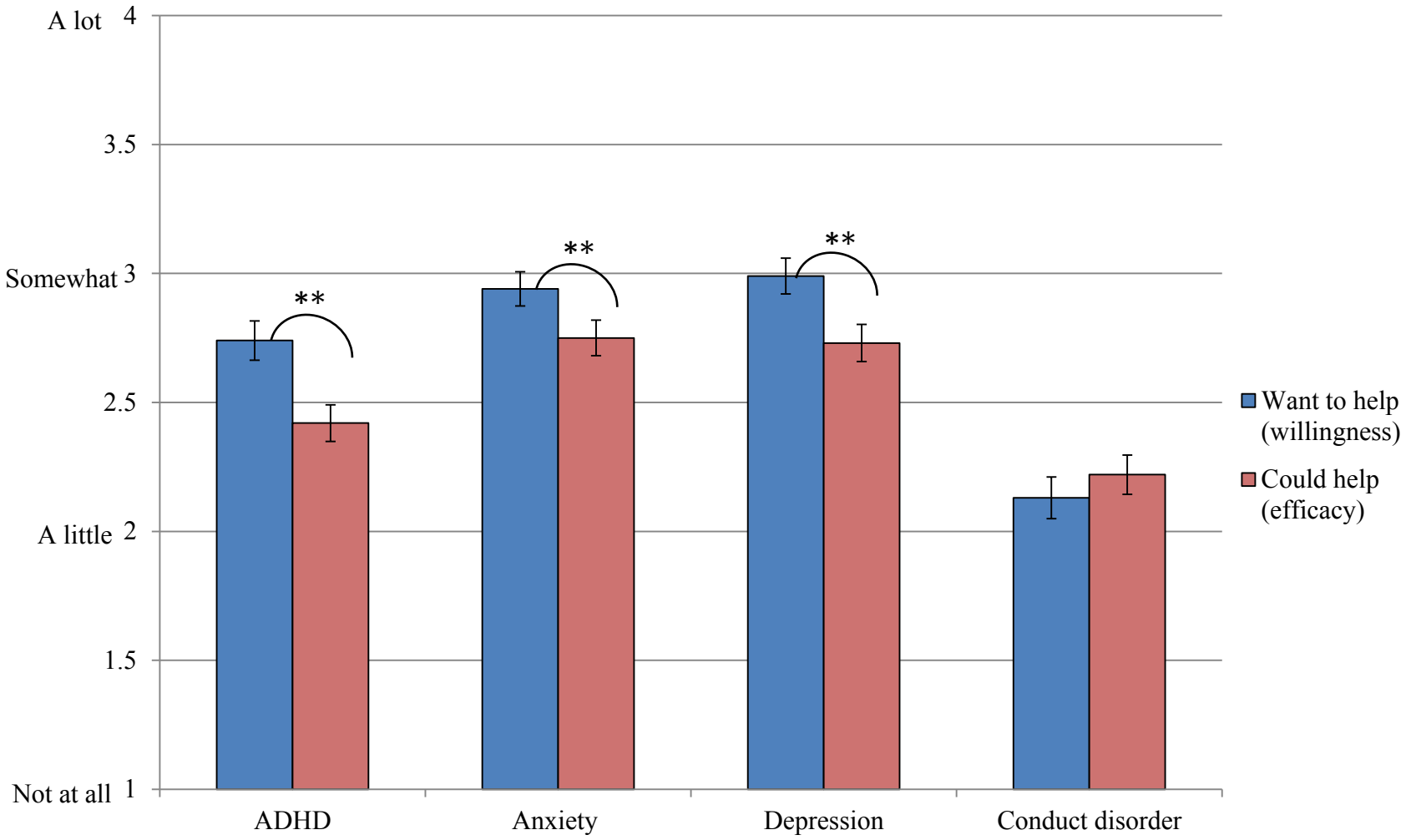


*Figure 4.* Helping ratings for hypothetical peers displaying symptoms of psychological disorders.

*Note.* Error bars represent mean standard errors. For all conditions except conduct disorder, willingness to help was significantly higher than perceived efficacy to help. Ratings for conduct disorder on both willingness and efficacy were significantly lower than the other three. ** $p < .01$

*Qualitative Observations*

In the qualitative portion of the questionnaire, participants were asked to answer the following open-ended question for each of the four hypothetical peers: "How could someone help (name of peer)?". Qualitative data were used to learn about solutions proposed to help peers displaying symptoms of different psychological disorders. Analyses presented are based on coding of the entire sample (i.e., all eight classrooms) by two coders with "almost perfect" inter-rater reliability (Landis & Koch, 1977), with kappa coefficients, adjusted for missing codes, ranging from .84 to 1.0 (for the classes coded by both coders) and .94 to 1.0 (for the reliability checks).

First, exactly 10% of responses to this question were blanks, "I don't know" or equivalent (e.g., "no idea", "I'm not sure", ?, etc.). Such responses ranged in proportion from 2% to 19% by classroom and were evenly distributed across vignette type.

The iterative coding process resulted in a coding scheme with two levels and 25 codes: a first level with 10 categories of sources of help and a second level with 15 categories of help strategies. Definitions of each category from the coding scheme with characteristic responses are presented in Table 10 (Level 1) and Table 11 (Level 2) (see Appendix G for the full codebook). The categories for Level 1 were developed based on prior research. Indeed, seven of the ten categories used for coding in this study (i.e., family, friend, teacher, doctor, psychologist, psychiatrist and other) have been identified in prior studies of adolescents' knowledge and beliefs about sources of help (e.g., Burns & Rapee, 2006; Swords et al., 2011). As for the categories of help strategies at Level 2, they were developed from the data itself using inductive category development (i.e., responses were categorized according to the help strategies suggested).

*Sources of Help*

Although the open-ended question did not ask for sources of help per se, many participants identified in their response one or more individuals who could help the peer described in the vignette. All different individuals or groups involved in the help strategy were coded at Level 1. Overall, a number of different individuals were recommended to initiate and/or to provide help to the peer with a problem (see Table 10). Recommended "helpers" included peers (e.g., friends), as well as adult figures (e.g., parents, teachers, professionals), for example:

> *Get a meeting with a sicologist. Meet with teacher. Get the parents to impose more discipline.* (boy, conduct disorder, girl vignette)

Several different health professionals were recommended, including family doctors and those specialized in mental health (e.g., psychiatrist, psychologist). In sum, both informal sources of help (e.g., family, friends) and more formal (i.e., professional) sources were represented in participants' responses.

Three novel categories that, to our knowledge, have not been examined or reported in prior studies were developed based on observations pertaining to pronoun use. Indeed, with specific subjective pronouns as keywords (e.g., "I", "She/he" and "They"), new categories emerged in addition to those described above. First, in some instances, as indicated by the pronouns "I" and "We", the participant appeared to involve him/herself in the help suggestion and play an active role. In such responses, participants seemed to offer their personal help by initiating (i.e., by taking the first step), as in:

> *I could tell her to talk to the teacher about it and the teacher could find ways to make it easier.* (girl, ADHD, girl vignette)

or by actually doing something (i.e., taking action) to help the target. For example:

*I could organize a group (large) of people to go and try to convince him to stop bullying because it isn't cool.* (girl, conduct disorder, boy vignette)

*To help Pierre if I was in his class I would not reject him and be a lot with him.* (girl, depression, boy vignette)

*We can help her by playing with her and being friends with her.* (boy, depression, girl vignette)

Participant-as-helper responses, such as the above examples, were observed in 4.2% of total responses. A clear pattern was observed with regards to the sex of participant; female participants accounted for 87% (26/30) of such responses. Stated differently, 85% (17/20) of participants who provided this type of response were girls.

Next, responses with the pronouns "he" or "she" featured the vignette child (i.e., the target) as the helper. Here, it was recommended that the target do something to help him/herself (i.e., self-help), typically by seeking help or by taking action. For instance:

*He can go see a therapist.* (boy, ADHD, boy vignette)

*She could start going to bed earlier.* (girl, depression, girl vignette)

Lastly, a large number of responses featured someone else who was responsible for initiating and/or providing the help. It is not surprising that this was the most common type of helper recommended as it is in line with the wording of the question posed to participants: "How could <u>someone</u> help (name of peer)?". These help suggestions, containing keywords of "someone", "they" and "people", were without reference to any individual person and, therefore, coded as "Non-specified other". Unlike the categories described above, these suggestions did not involve the participant (i.e., rater) or the target. Finally, in some instances of this code, the help suggested had an almost impersonal quality whereby the rater seemed to remove him/herself completely, as in:

*By getting someone else to help him.* (boy, conduct disorder, boy vignette)

Table 10. *Categories of Sources of Help Suggested by Participants.*

| Code | Definition | Keyword | Example |
|---|---|---|---|
| Participant | The study participant includes him/herself in the help suggestion and plays an active role. | I<br>We | *I could help her by practicing work at recess and lunch with her.* (girl, anxiety, girl vignette) |
| Non-specified other | Someone else is responsible for helping. | Someone<br>They<br>People | *Someone could support her and tell her that she is doing great.* (girl, anxiety, girl vignette) |
| Target | The target (i.e., vignette peer) does something to help him/herself. | She/he<br>Clara (target name) | *He could take retalin or before going to school he could jog so he has less energy.* (boy, ADHD, boy vignette) |
| Friend | All references to friends or peers actively involved in the help solution. | Friend | *His friends could find fun games.* (boy, depression, boy vignette) |
| Teacher | All references to a classroom teacher (of any type). | Teacher | *As a teacher you should talk about it with the class so they are aware.* (girl, depression, boy vignette) |
| Family | All references to parents, siblings and relatives. | Mother/father<br>Parent(s), family<br>Brother/sister, sibling<br>Grandparent etc | *Get the parents to impose more discipline.* (girl, conduct disorder, boy vignette) |
| Doctor | All general references to doctors that do not include a named mental health specialization. | Doctor<br>General/family doctor<br>Physician | *She could go to a physician and get acupuncture.* (girl, ADHD, girl vignette) |
| Psychiatrist | All references to psychiatrist. | Psychiatrist<br>Shrink | *Bring her to the sicauatris.* (boy, conduct disorder, girl vignette) |

| Code | Definition | Keyword | Example |
|---|---|---|---|
| Psychologist | All references to psychologist. | Psychologist<br>Therapist<br>Counsellor | *Maybe he could go to the sycologist to talk about his problem.*<br>(boy, conduct disorder, boy vignette) |
| Other | Any individual who is involved in the help solution and does not fall into one of the above categories. | Tutor<br>Principal<br>School staff<br>Other adult<br>Nurse<br>Police etc. | *By getting her a tutor so she can be happy about her grades.*<br>(boy, depression, girl vignette) |

*Note.* Only the relevant text segment of a response is displayed here (i.e., the segment that received the code). Keywords presented are the most characteristic. For a complete list of keywords and corresponding examples by category, see coding agenda in Appendix G.

*Help Strategies*

A wide range of strategies and solutions were proposed to help the peer with a problem. Examples of participants' responses, keywords and corresponding categories of help strategies are presented in Table 11. It was common for participants to propose more than one strategy to help the peer. All different types of help strategies present in a response were coded, resulting in possible multiple codes per response. The following sample responses featuring multiple strategies provide a sense of the range and richness of ideas suggested:

> *By encouraging her. By begin strict. By getting her medical attention.* (girl, anxiety, girl vignette)
>
> *He should see a doctor or a therapist it could help him. I would say enrol in a sport to stop energy to calm down take a special class.* (girl, ADHD, boy vignette)
>
> *Someone could help her by playing with her or being her friend. She could ask to be accepted by other people at school. The last way is that she could ask for attention from her parents.* (boy, depression, girl vignette)
>
> *By hanging out with her as her friend, helping her in class to understand more and getting it, listening to her feelings and could maybe make them change.* (girl, ADHD, girl vignette)

Some participants reported that help was not possible or would not be given. Although such responses were rather infrequent overall (2.1% of total responses), they hold some relevance considering the aims of the study and therefore were examined more closely. Two subtypes were observed. First, responses indicating that help was not possible were often accompanied by an explanation that the person was born that way and observed most frequently in reaction to the peer with ADHD. A typical example:

> *People can't help Amy with her case because she was probably born like that.* (girl, ADHD, girl vignette)

A second subtype was observed in responses indicating that help would likely not be given to the target, typically the peer with conduct disorder, either due to characteristics of the peer (e.g., "mean" or "rude") or due to a risk of retaliation. These reasons for not providing help to the peer are shown in the examples below:

> *I don't think anyone would wanna help her cuz shes mean.* (girl, conduct disorder, girl vignette)
>
> *I don't think a child can or else he/she get beaten up.* (boy, conduct disorder, boy vignette)

As reflected in the sample responses above, No-help codes occurred predominantly in response to the peers with externalizing problems (i.e., ADHD and conduct disorder). Indeed, more than half of no-help responses were observed for the ADHD vignette (53.3%; mostly "not possible" subtype) while 26.7% were observed for the peer with conduct disorder (mostly "not given" subtype). This means that 80% of no-help responses were for the externalizing problems combined.

The vast majority of participants, however, provided responses in which they recommended ways to help the peers with their difficulties. The following section presents a selection of help strategy categories of special interest (for more details on all 15 categories, see codebook in Appendix G). First, help strategies coded as positive interpersonal experiences consisted of social experiences, processes or provisions at the dyadic relationship or group level. These were typically peer experiences and subcategories, such as friendship, companionship, support and acceptance or inclusion. This help strategy was recommended more often for the peer with depression than the other peers with difficulties. A sample response featuring elements of both friendship and companionship:

> *They can help her by being kind and be friends, hang out, have pj parties and more.* (girl, conduct disorder, girl vignette)

Next, help strategies that were coded as encouragement were verbal in nature with the aim of motivating or reassuring the peer experiencing difficulties. These were recommended almost exclusively for the peers with internalizing problems. Moreover, the subcategory of reassurance was predominantly observed in response to the peer with anxiety, for example:

> *Reassure her that everything is OK.* (boy, anxiety, girl vignette)

> *A bunch of people could help him by saying it's ok you'll be fine or don't worry I'm sure you're going to get a good mark.* (boy, anxiety, boy vignette)

Solutions coded as attentional strategies comprised two subcategories: focus and distraction. First, strategies aimed at increasing the peer's focus or concentration consisted of directing his/her attention to someone (e.g., the teacher) or to something (e.g., a task such as schoolwork). As one might expect, these were primarily recommended for the peer with attention problems (i.e., ADHD). A typical example of an attentional strategy (focus subtype):

> *She needs someone to keep her on track and occupied.* (boy, ADHD, girl vignette)

In contrast, distraction strategies consisted of shifting or redirecting the peer's attention to something neutral or positive (i.e., away from something negative). Not surprisingly, this type of attentional strategy was observed most often in response to the peers with internalizing problems, particularly the anxious peer. For example:

> *Get him to think of other things.* (boy, anxiety, boy vignette)

> *I would say think about good things not bad things.* (girl, anxiety, boy vignette)

Next, correctional strategies comprised verbal and non-verbal strategies aimed at modifying the target's problematic behaviour (e.g., decreasing its frequency). Several different subcategories were observed, such as teaching or modelling (see typical example in Table 11), discipline and supervision; however, they all shared a common goal of behaviour change. Several responses were reminiscent of behavioural principles, such as negative punishment (i.e., the removal of something good):

> *Give him no recess for 3 months.* (boy, conduct disorder, boy vignette)
>
> *Her parents could stop giving stuff to her.* (boy, ADHD, girl vignette)

Extinction, which requires ignoring or redirecting the target behaviour, was also recommended. For example:

> *Maybe not give her any attention.* (boy, conduct disorder, girl vignette)
>
> *I think nobody should help her but only ignore her and maybe she will get tired of being like that and stop.* (girl, conduct disorder, boy vignette) Note: Atypical response.

Another correctional subcategory was disapproval, a verbal expression that the target's behaviour is bad or wrong. For example:

> *By telling him that what he is doing is bad.* (girl, conduct disorder, boy vignette)

Overall, correctional strategies were recommended more often in response to the peers with externalizing problems, in particular the peer with conduct disorder, as reflected in the representative responses presented above.

As for help recommendations coded as consultation, they consisted of seeking help from a professional or a trusted person, such as a teacher or parent. It is worth noting that the vast majority of responses coded as consultation at Level 2 received a code at Level 1 corresponding to the person consulted (e.g., doctor, psychologist, teacher etc.).

Sometimes, the help strategy recommended was the appointment or visit per se, for instance:

> *I would go see a doctor with her.* (boy, anxiety, girl vignette)
>
> *Bring her to the psychiatrist.* (boy, conduct disorder, girl vignette)

In addition, the reason for the consultation was sometimes specified, such as to identify the problem (as in the examples below), to obtain medication and/or for therapy:

> *Someone could take Frank to the Doctor, to see what he has.* (boy, ADHD, boy vignette)
>
> *She should also go see a doctor in case her body chemicals are unbalanced.* (boy, depression, girl vignette) Note: Atypical response.

Examples of suggestions to consult a therapist, along with proposed aims of therapy:

> *She can see a therapist that can help her be more calm and she can express her feelings with the therapist, that might help her.* (boy, conduct disorder, girl vignette)
>
> *Make her see a therapist, to make her feel better and to explain why she does those things.* (girl, conduct disorder, girl vignette)

Next, physiological interventions comprised an eclectic set of strategies, all of which affect internal bodily processes and alter one's physiological state. Suggestions included the ingestion of food, drink or medication, physical exercise, sleep and relaxation. The promotion of healthy lifestyle habits was observed, for example:

> *Eat better and sleep more.* (boy, depression, boy vignette)

When medication was recommended, it was generally for the peer with ADHD, as in the following examples:

> *Give her medical pills for a.d.d.* (boy, ADHD, girl vignette)
>
> *Give him a medication that helps you focus.* (boy, ADHD, boy vignette)

> *He could take retalin or before going to school he could jog so he has less energy.* (boy, ADHD, boy vignette)

Physical exercise was recommended mostly for the peer with ADHD, typically as a way to expend energy, as in the example above. Not surprisingly, stress management and relaxation techniques were typically recommended for the peer with anxiety difficulties, for instance:

> *By studying a lot but after do yoga or relax to stay calm and think about her test if it is that.* (girl, anxiety, girl vignette)

> *Teach her how to relax: music, yoga etc.* (boy, anxiety, girl vignette)

Table 11. *Categories of Help Strategies Suggested by Participants.*

| Code | Definition | Keyword | Example |
|---|---|---|---|
| Positive interpersonal experiences | Social experience, process or provision at the dyadic (relationship) or group level. | Friend<br>Hang out, play with<br>Support | *To be his friend and be nice to him.* (girl, depression, boy vignette) |
| Encouragement | Solution aims to encourage, motivate or reassure. | Encourage, cheer<br>Reassure | *By cheering him and encouraging him.* (boy, depression, boy vignette) |
| Instructions | Solution consists of giving advice or orders to guide future behaviour. | Tips, tricks, suggestions<br>Tell him/her to… | *Tell her some fun learning tricks to concentrate better.* (girl, ADHD, girl vignette) |
| Perspective taking | Looking at the situation from the other person's point of view. | Victim<br>Bully, bullied<br>In his/her shoes | *Tell him that if he was in the victims place he would feel very hurt inside.* (boy, conduct disorder, boy vignette) |
| Attentional strategies | Directing focus to task or attention away from (i.e., distraction). | Attention, concentrate<br>Focus, on track<br>Think of ~ something else | *Get him to think of other things.* (boy, anxiety, boy vignette) |
| Academics | Solution pertains to learning or academic performance. | Study, practice<br>Homework, grades<br>Tutoring | *If she can't concentrate do after school tutoring.* (girl, anxiety, girl vignette) |
| Correctional strategies | Solution aims to modify the target's current behaviour through modelling, reinforcement or punishment. | Teach, example<br>Discipline, rules<br>Control, stop | *By showing her what to do. And what not to do. And also how to control herself.* (boy, conduct dis., girl vignette) |
| Physical interventions | External manipulations to the body, generally with the aim of limiting activity. | Can't/doesn't get up<br>Put in front of class | *Put something heavy on his lap so he doesn't get up.* (girl, ADHD, boy vignette) |

| Code | Definition | Keyword | Example |
|---|---|---|---|
| Physiological interventions | Actions, such as ingestion, sleep or exercise, which affect internal bodily processes and alter the physiological state of the target. | Eat, drink, medicine<br>Sleep, exercise<br>Relax, yoga | *Well they could give him an energy drink.* (boy, depression, boy vignette) |
| Consultation | Appointment, visit or meeting with a professional or trusted person. | Meet, meeting<br>Go see, visit<br>Take him/her to | *Someone could help Mateo by taking him to the doctor, to see if he has ADD.* (boy, anxiety, boy vignette) |
| Disclosure/ Awareness | Raising awareness by recognizing or divulging the existence of problem or by providing information about the problem. | Tell, say it to<br>Talk about, explain<br>Aware | *They just have to say it to their parents.* (girl, conduct disorder, girl vignette) |
| Investigation of problem | Information gathering to better understand or identify the problem and/or to find a solution. | Find out<br>Check<br>Ask about | *Find out what happened in her past and why she is reacting now to her peers.* (girl, conduct dis., girl vignette) |
| Talking | Solution consists of verbal communication (in and of itself), i.e. talking to the target or the target talking to someone. | Talking, talk to/with<br>Say | *You can help him by talking to him.* (girl, depression, boy vignette) |
| Other | Help strategies that do not fall into one of the above categories. | Games, laughter<br>Rescue, religion<br>Effort, patience etc. | *To make life more simple, one step at a time.* (boy, anxiety, girl vignette) |
| No help | Help for the problem is not possible or not given. | ~ Can't help (not possible) | *I don't think you can help her. She is born that way.* (girl, ADHD, girl vignette) |
| | | ~ Won't help (not given) | *I don't think anyone would wanna help her cuz shes mean.* (girl, conduct disorder, girl vignette) |

*Note.* Only the relevant text segment of a response is displayed here (i.e., the segment that received the code). Keywords presented are the most characteristic. For a complete list of keywords and corresponding examples by category, see coding agenda in Appendix G.

To summarize the results reported thus far, participants proposed a variety of strategies to help the peer. Moreover, the recommended help was sometimes directly tied to, and consistent with, the peer's symptoms, as in the case of attentional strategies and physiological interventions. Indeed, several recommended help strategies were observed to differ by disorder. Other differences between vignette conditions also emerged, particularly with regards to conduct disorder. To begin, the content of a number of responses suggests that the peer with symptoms of conduct disorder was viewed as a bully or as engaged in bullying. For example:

> *By maybe asking her why she is bullying.* (girl, conduct disorder, girl vignette)
>
> *Tell her that it is not cool to bully others.* (girl, conduct disorder, girl vignette)

The help strategy of perspective taking consisted of looking at the situation from the other person's point of view, thus seemingly requiring some degree of cognitive empathy (i.e., imagining what someone else might be thinking or feeling). These responses were predominantly observed in the case of the peer with conduct disorder; in fact, "bully" and "victim" emerged as keywords. Two subcategories emerged according to whose perspective was taken. First, some recommendations were for the vignette peer (or target) to take the perspective of the other person in the situation (i.e., of the person being bullied). For instance:

> *By making him think if someone else was like him. By thinking if he was the one bullied how would he feel.* (boy, conduct disorder, girl vignette)
>
> *Get her to understand how other people feel about that and just because she was teased when she was a kid doesn't mean she has to be a bully now.* (girl, conduct disorder, girl vignette)

In contrast, other recommendations involved taking the perspective of the "bully" in an effort to understand his/her behaviour. For example:

> *I think that they can take the time to listen to him, and to try to be his in his shoes to understand and help him.* (girl, conduct disorder, boy vignette)

Lastly, a category emerged for the investigation of the problem. This strategy consisted of information gathering to better understand the problem, for example:

> *They could maybe ask him why he is violent and try to see real reason.* (girl, conduct disorder, boy vignette)

In addition, some responses provided a rationale for investigating the problem, such as the need to first identify and understand the problem. For instance:

> *Ask what's the problem because or else you don't know what proper solution to make.* (boy, anxiety, girl vignette)

Similarly, some participants indicated that the cause(s) of the problem must be known to find a solution (i.e., how to help depends on the cause). The help strategy of investigation was recommended most often for the peer with depression (39% of the time). As may be observed in the following examples, multiple solutions or courses of action could be generated in the investigation process:

> *It depends what is wrong with her. If it is divorce, she could see a therapist. If it is she got a bad grade, study with her to help.* (girl, depression, girl vignette)

> *For loss (death or separation), it is an event that is hard to forget of. For relationship issues (bullied or family), she could be helped by a service like "Kids Help Phone".* (boy, depression, girl vignette)

In conclusion, participants suggested a wide range of possible strategies or solutions (i.e., what could help the peer), as well as sources (i.e., who could help the peer) in response to the open-component of this study about ways to help peers with mental health problems. Differences in the suggested sources of help were observed depending

on the problem displayed by the peer (i.e., depression, anxiety, ADHD or conduct disorder). To summarize, suggestions for the anxious peer focused on reassurance, distraction, relaxation and stress management, whereas typical recommendations for the peer with symptoms of depression included support and companionship, encouragement and investigation of the problem. Suggestions for the peer with ADHD emphasized strategies to focus, medication and physical exercise. Lastly, strategies recommended primarily for the peer with conduct disorder, often viewed as a bully, included perspective taking and a range of correctional strategies (e.g., modelling, discipline, punishment etc.). In addition to these problem-specific help strategies, some general strategies were observed for all peers regardless of symptom presentation, such as seeking help from a professional or trusted person.

# Discussion

The overall aim of this study was to investigate early adolescents' attitudes and behavioural intentions towards hypothetical peers displaying symptoms of common forms of child psychopathology. Participants were asked to report on their levels of liking, friendship and helping towards four different peers with emotional and/or behavioural difficulties (i.e., depression, anxiety, ADHD, conduct disorder) and to suggest ways of helping the individual. Noteworthy quantitative and qualitative results are discussed below, separately, followed by an integrated discussion of findings overall.

## *Key Quantitative Findings*

The first objective was to examine whether early adolescents' responses towards hypothetical peers would vary as a function of the type of problem depicted in the vignette. As predicted, a significant effect for type of disorder was observed for all measures (i.e., liking, friendship and helping), indicating that the attitude and intended behaviours towards the peer varied according to the symptoms exhibited. Also in line with our initial hypotheses, the response to the peer with conduct disorder was most negative, a striking pattern that was observed across all measures. Conversely and also as expected, the response to the peers with internalizing conditions (i.e., depression and anxiety) were consistently more positive, as evidenced by higher reported liking, friendship and helping. Moreover, greater similarity was observed between findings for the two internalizing conditions than between the two externalizing disorders (i.e., ADHD and conduct disorder) on all measures (as shown in Figures 2, 3 and 4). Overall then, several findings were observed consistently across the close-ended measures.

Broken down by measure, the current findings suggest that early adolescents' liking varied according to the symptoms of psychopathology exhibited by the peers depicted in the different vignettes. It is important to note however that, despite this variation by disorder, mean liking scores for all vignettes were below the "somewhat" level (i.e., below three on the four-point scale). This suggests that even those hypothetical peers who received higher liking ratings, relative to the peer with conduct disorder for instance, were not in fact well-liked or accepted. Therefore, it may be more accurate to view the current findings as variations in disliking, rather than liking.

Findings regarding friendship showed a greater willingness to carry on an existing friendship with the hypothetical peer with difficulties, rather than to start a new friendship with him/her. This pattern was observed across disorders; however, in the case of conduct disorder, participants reported virtually no desire to become or to stay friends with the peer. It is consistent with the existing literature on children's responses to aggressive peers, for instance a study which found that a hypothetical peer with conduct disorder was viewed as unattractive for friendship (Roberts et al., 1981). Indeed, as reviewed earlier, it is well established that disruptive types of behavioural problems are often associated with rejection by normative peers in structured settings like school classrooms (Masten & Curtis, 2000). Furthermore, a similar pattern of findings was observed with regards to help (i.e., willingness and perceived efficacy); for all disorders, except conduct disorder, participants reported that they wanted to help the peer more than they thought they could help.

A notable difference was observed between results for the two externalizing problems fairly consistently across measures; specifically, the response towards the peer

with ADHD was strikingly less negative than towards the peer with conduct disorder. This finding may seem surprising initially considering research indicating a widespread reluctance across the lifespan to interact socially with individuals with ADHD (for review see Lebowitz, 2013). At the same time, two recent studies (Coleman et al., 2009; Walker et al., 2008) found that youth held more stigmatizing attitudes (i.e., higher social distance) towards depression than ADHD. In other words, there is a current lack of consensus with regards to which emotional and/or behavioural problems are most stigmatized. Moreover, to our knowledge, no study to date has examined the desire for social distance from peers with ADHD as compared to peers displaying other forms of "acting out", such as conduct disorder. Based on the existing literature on aggression and peer relations, we expected attitudes and behavioural intentions to be most negative towards the peer with conduct disorder due to the element of potential threat. The current findings warrant further investigation of youth's responses to different forms of externalizing problems, with particular attention to the dimension of perceived threat.

Grade and sex were found to be significant factors in some of the reported behavioural intentions. An interaction with grade was observed for the help measure, whereby sixth graders rated their willingness to help the peer higher than their perceived efficacy for all conditions, with the exception of conduct disorder. This pattern was not observed for fifth graders, indicating less differentiation on the part of the slightly younger participants. A similar pattern was observed in a recent study of 12- to 16-year-olds by Swords and colleagues (2011); indeed, they found that only the oldest participants differentiated by disorder. However, the age range of participants in both studies is discrepant, thus leading to a contradictory finding for the 12-year-olds. Overall,

there is little existing research to shed light on this effect, underscoring the developmental progression of perceived willingness to help as an area worthy of research attention.

Second, an interaction between grade and sex of participant (i.e., rater) was detected for friendship, an effect which was only significant in the depression condition. Specifically, girls in Grade 5 gave higher friendship ratings to the depressed peer than did boy raters, while the opposite pattern was observed in Grade 6 (i.e., boys gave higher friendship ratings to the depressed peer than girls). The finding for fifth graders is consistent with research in the peer domain indicating a predominance of connection-oriented goals among girls (for critical review, see Rose & Rudolph, 2006). Studies in middle childhood (i.e., before 11 years of age) have shown that girls are more likely than boys to endorse goals that involve friendliness (Murphy & Eisenberg, 2002) and supportiveness (Rose & Asher, 2004). The finding for sixth graders, on the other hand, is difficult to explain based on existing research on sex differences in peer relationship processes. In their review, Rose and Rudolph (2006) highlighted a lack of knowledge regarding the developmental progression of specific social goals for girls and boys, as research on this topic has been primarily examined in middle childhood.

*Key Qualitative Findings*

*Sources of Help*

The results of the open-ended question illustrated that, overall, early adolescent participants believed that help to support change could be provided by a number of different individuals. Participants recommended both informal (e.g., friends and family) and formal sources of help (i.e., professional help), consistent with existing research on sources of help with adolescent samples. Indeed, as in prior studies (e.g., Armstrong et

al., 2000; Burns & Rapee, 2006; Hennessy & Heary, 2009; Hill, 1999; Kutcher et al., 1996; Raviv et al., 2000; Roberts et al., 1984; Swords et al., 2011; Wright et al., 2005), participants recommended family and friends as possible sources of help for the peer with problems. Moreover, the types of professional help recommended by fifth and sixth grade participants in the present study are consistent with findings from an earlier qualitative study of children's views (Spitzer & Cameron, 1995) which found that the suggestions of elementary school-aged children of different ages included going to a general doctor, psychological treatment and psychiatric help.

A novelty of this study was the development of categories based on pronoun choice. To our surprise, some participants seemed to involve themselves personally in the help solution (i.e., the Participant-as-helper category). A sex difference was observed in that female participants accounted for the vast majority of such responses. This finding is in line with the body of literature suggesting girls are more relationally oriented (e.g., Maccoby, 1990; for review see Rose & Rudolph, 2006). The spontaneous involvement observed more in girls here might also reflect empathy. Research on girls' higher sensitivity to distress (e.g., Eisenberg & Lennon, 1983) lends support to this possibility, along with two prior studies of children's understanding of mental illness, according to which girls provided responses of a more sympathetic and sensitive nature than boys (Fox et al., 2008) and were more compassionate in their thinking about mental illness, not wanting those who suffer from a disorder to become socially isolated (Norman & Malla, 1983). While these differences may reflect a more understanding and caring nature of girls than boys towards others, more research is needed in order to better understand the impact of gender on responses to peers with mental health difficulties.

*Help Strategies*

The qualitative component's focus on suggested solutions to help peers with mental health difficulties is an original aspect of the current study, as research to date has predominantly examined proposed sources of help. Qualitative content analysis (Mayring, 2000) was used to identify and code proposed help strategies leading to the development of 15 categories and, overall (i.e., across vignettes), a wide range of help strategies was suggested by early adolescents to assist the hypothetical peers depicted.

Amongst the categories of help strategies that emerged, several had an interpersonal component and featured the involvement of a peer, most evidently in the case of friendship, companionship, support and acceptance (all subcategories of positive interpersonal experiences), as well as encouragement. This is in line with prior studies in this area (e.g., Hennessy & Heary, 2009), including a vignette study by Poster (1992) who found that child-initiated interventions, such as supportive strategies, were most recommended. Particularly salient in participants' responses was the importance of being a supportive friend, which emerged as both a source of help and a solution in and of itself (i.e., at both levels). Several studies have highlighted the key role of friends in help-seeking for problems (Armstrong et al., 2000; Cotton et al., 2006; Raviv et al., 2000; Wright et al., 2005); moreover, it has been argued that the central importance of friendship in youth's lives holds potential as a positive force in the prevention and promotion of mental health (Villeneuve et al., 1996). On a broader level, these findings highlighting the involved role of peers is consistent with the extensive literature on the growing importance of the peer group from childhood to adolescence, as social support broadens (Berndt & Ladd, 1989; Levitt et al., 2005; Rubin et al., 2006).

While some help strategies were recommended for all vignette peers regardless, it appears, of their specific symptom presentation, in contrast, a number of recommended help seemed geared to the peer's difficulties, as depicted in the vignette. This suggests an ability to match problems and needs, a phenomenon that was observed across vignette conditions. Examples of suggested help strategies for specific problems included relaxation for the anxious peer, companionship for the depressed peer, medication for the peer with ADHD and discipline for the peer with conduct problems. This observation is consistent with findings by Villeneuve and colleagues (1996), showing that adolescents' responses to problems were influenced by the type of problem presented. In contrast, Swords and colleagues' (2011) detected age differences in their sample whereby younger participants (including 12-year-olds) did not distinguish between the help suggested to hypothetical peers with ADHD and depression. However, with the exception of these two studies, there has been a lack of research comparing youth's suggested sources of help for different mental health problems, highlighting an area for further inquiry.

It is encouraging that several help suggestions made by early adolescents in this study correspond to known effective strategies, both general (e.g., consult a professional, healthy eating and sleep habits, social support etc.) and more problem-specific. For example, behavioural interventions involving reinforcement and extinction, which were recommended most often in response to the peer with conduct problems, are in fact recognized as highly effective at reducing disruptive behaviours (Furlong et al., 2013). One of the most interesting categories to emerge consisted of investigating the problem. A theme in these responses was that how to help depends on the origin of the problem such as consulting a therapist or having a study buddy depending on why the peer is

depressed (see sample response p. 33). In emphasizing the links between cause and treatment, these responses suggest a degree of insight and complexity and correspond to fundamental notions of clinical practice in mental health. Spitzer and Cameron (1995) also found that ideas concerning possible treatments for psychological problems were in relation to perceptions and beliefs regarding the cause of problems.

Taken as a whole, through their responses to the open-ended question, early adolescents demonstrated an awareness of a range of possible sources of help and strategies for individuals with psychological problems. Moreover, help recommendations were observed to vary according to the problem depicted in the vignettes. The current findings, both in terms of source of help and help strategy, build on existing research on mental health literacy in early adolescence (e.g., Hennessy & Heary, 2009; Jorm et al., 1997; Poster, 1992; Swords et al., 2011; Villeneuve et al, 1996).

*Overall Findings and Social Distance*

The current findings may be understood in light of research on social distance, commonly measured in the adult stigma literature (e.g., Link et al., 1999; Martin et al., 2000), and, more recently, with youth (e.g. Coleman et al., 2009; O'Driscoll et al., 2012). Indeed, the liking, friendship and helping measures of the current study may be viewed as indicators of social distance, the willingness to interact with a person in various forms of close contact (Hinshaw, 2005). From this perspective, participants indicated a lower desire for social distance in response to peers with symptoms of depression or anxiety; they reported higher liking, higher friendship and willingness to help and recommended much fewer no-help responses. In contrast, early adolescents showed a desire for higher social distance in response to the peers with externalizing problems, as evidenced by their

lower levels of reported liking, friendship and willingness to help and more frequent no-help responses. This pattern was, once again, most evident and pronounced in the case of the peer with conduct disorder. Indeed, a handful of participants indicated that help would not or should not be given, typically in response to the peer with conduct problems. These responses, with an almost punitive quality, may most clearly reflect a desire for social distance; indeed, the withholding of help is identified as a form of discrimination in the stigma literature (Corrigan & Watson, 2002). This pattern of findings is consistent with our initial hypotheses, as well as the substantial body of evidence showing that children who display aggressive or antisocial behaviours are typically least liked (e.g., Juvonen, 1991; Safran, 1995; Spitzer & Cameron, 1995).

In contrast, a minority of participants indicated that it was not possible to help the peer. These written responses, observed primarily for the peer with ADHD, may reflect beliefs regarding the stability of the problem and prognosis (i.e., stable problem with poor prognosis). There is growing evidence that biomedical explanations of mental disorder are associated with increased pessimism about improvement, contrary to the predictions of attribution theory (Farina et al., 1978; Lauber et al., 2004; Phelan, Yang, & Cruz-Rojas, 2006). It is possible that the attention and hyperactivity difficulties depicted in the ADHD vignette were viewed as more inherent and chronic than the other conditions depicted. However, these views were not representative of the sample as a whole, as evidenced by ratings reflecting apparent consensus across participants that it is possible to help all four peers.

In conclusion, consistent with our initial hypotheses, the present findings indicate that early adolescents' responses to hypothetical peers varied according to the problems

depicted. Specifically, findings showed that liking, friendship and helping intentions were higher towards peers with internalizing difficulties (i.e., anxiety and depression) than towards those displaying acting-out behaviours, with evidence across measures of stigmatizing responses towards the peer with aggressive tendencies.

*Strengths, Limitations and Future Directions*

A strength of the current mixed-method study was its examination of various aspects of behavioural intentions (i.e., friendship, helping), as well as attitudes (i.e. liking), in an effort to gain a better understanding of responses to peers with difficulties. This study's focus on suggested help strategies is a novelty, as the majority of studies to date have solely examined proposed sources of help. In this way, the current research contributes to our growing understanding of youth's knowledge of treatment for mental health, with implications for youth's help-seeking for themselves and peers. The coding system adopted was more comprehensive than most other qualitative studies in the area (e.g., Burns & Rapee, 2006; Hennessy & Heary, 2009; Poster, 1992). Indeed, to our knowledge, this is the first vignette study to include such an exhaustive open-ended examination of youths' views regarding possible ways to help a peer with difficulties.

We were unable to assess actual help-seeking behaviours of early adolescents for health problems (physical or mental); however, it is likely that participants' past experiences would inform and influence their recommendations regarding ways to help a peer. Other relevant aspects of this research that are worthy of attention but were outside of the scope of the current study include (1) perceived treatment effectiveness and (2) perceived barriers to seeking help. Jorm and colleagues (2007) have shown that, for youth, important barriers to seeking help include embarrassment and concern about what

others might think, thus highlighting the need to increase the acceptability of disclosure.

On a related note, the present qualitative findings suggest an awareness on the part of early adolescents of professional sources of help and treatments for mental health problems (e.g., therapy, medication etc.). However, as in other studies (e.g., Swords et al., 2011), the source of this knowledge is unknown. While the role of schools, parents and the media have been raised (e.g., Jorm, 2000; Hinshaw, 2005; Tinsley, 1992; Wahl, 2002), our understanding of these influences on attitudes and behaviours towards professional help, such as help-seeking, remains an area for further inquiry.

The current study depicted four hypothetical peers with mental health problems through behavioural descriptions only (i.e., without the use of labels). Researchers have questioned the extent to which children's responses to vignettes are indicative of their responses to actual peers (e.g., Hennessy et al., 2008; Spitzer & Cameron, 1995). Indeed, data from vignette studies are based on children's impressions of behavioural descriptions rather than on reactions to real-life situations (Spitzer & Cameron, 1995). In the only study comparing attitudes towards hypothetical and actual peers, Juvonen (1991) found evidence suggesting that ratings of hypothetical peers are positively biased. This raises the possibility that, due to social desirability, reported responses towards peers in this study may be an overestimate of levels of liking, friendship and helping towards actual peers with difficulties. Thus, despite its advantages, there are also limitations to the use of vignettes. Other possible limitations of the current study, such as the absence of a control vignette, have already been raised.

A possible direction for future research in the area of social cognition, peer relations and mental health would be to examine the associations between (a)

participants' reported causal beliefs, attitudes and behavioural intentions in response to vignettes (as in the current study), (b) self and peer ratings on measures of psychological adjustment, including of the symptoms described in the vignettes (i.e., of depressed affect, anxiety, ADHD and conduct disorder) and (c) sociometric status (i.e., level of acceptance and rejection as rated by their classmates). Such an investigation would make it possible to examine, in the same sample, several interesting and under-studied questions, such as (1) how youth with difficulties respond to hypothetical peers with difficulties similar to their own, (2) the extent to which participants with actual psychological difficulties are excluded from the peer group, and (3) the degree of association between reported attitudes, behavioural intentions and actual attitudes and behaviours (from the sociometric data).

In conclusion, this study builds on the literature on youth's tendency to respond negatively to peers with deviant behaviour, particularly those who display aggressive behaviours. Moreover, this work has implications for how youth perceive and respond to actual peers with psychological difficulties, for instance how much social distance they place between themselves and the other.

*Chapter 4: General Discussion*

This project aimed to assess the possible emergence of stigmatization of mental illness in a sample of early adolescents by examining their beliefs regarding various forms of psychopathology, as well as their attitudes and behavioural intentions towards hypothetical peers exhibiting symptoms. An open-ended component was included to elicit early adolescents' causal beliefs and help recommendations in response to peers with mental health problems. Overall, qualitative findings provided evidence for the ability of 10- to 12-year-olds to offer a range of explanations (both internal and external) for mental health problems and to suggest general and problem-specific help strategies, thus enhancing our limited knowledge of mental health literacy in this age group.

Results from both studies supported our main hypothesis that beliefs, levels of liking and intended behaviours would vary as a function of the type of psychological problem depicted and show differences between internalizing and externalizing problems. The differential response to peers according to symptom presentation across measures echoes findings from the empirical adult literature on the general public's varying reactions to different forms of mental illness (e.g., Link et al., 1999; Sadler et al., 2012). Of particular relevance is research by Phelan and colleagues (2000) showing that attitudes towards mental illness have taken two trajectories since the 1950s; that there has been a move toward the acceptance of some forms of mental illness as something that can happen to one of "us", while, on the other hand, people with psychosis remain a "them" who are stigmatized and feared more than they were half a century ago. This increasing split has meant a greater acceptance by the public of less severe problems such as depression and anxiety as relatively normal life events that can happen to anyone

("everyday mental illness") (Hinshaw, 2007) or as extensions of normal feelings that most people experience at some point (Angermeyer et al., 1999). These findings suggest that mental disorders may be stigmatized based on perceptions of normalcy and the extent to which the public can relate to or identify with the experience. In this way, early adolescents in this study may have been more likely to view the two internalizing problems as something that can happen to "me" (e.g., experiences on a continuum with sadness and nervousness) which, in turn, may have elicited a less negative attitude and lower desire for social distance. In contrast, externalizing behaviours may have been perceived as more deviant, threatening and "them-like". In fact, the reaction to the peer with aggressive and acting out tendencies was consistently and markedly negative in the present studies.

An evolutionary perspective on stigma centered on the notion of threat may shed additional light on the consistently negative response to the peer with conduct disorder across measures in both studies. According to Jacobsson (2002, p. 25), we continuously assess others with a number of basic questions in mind, such as: Is this somebody to be afraid of? Is this somebody who is disturbing the equilibrium in my group or society, or, in the case of school-aged students, the equilibrium in my classroom or school? This evaluation of potential threat, a more or less conscious continuously ongoing process, is believed to be the basis for the negative stigmatization that results in the discrimination and exclusion of people with mental illness. Indeed, evidence has clearly shown that the stereotype of dangerousness has a strong negative effect on the way people react emotionally to someone with mental illness and to increase preference for social distance (Angermeyer & Matschinger, 2003; Angermeyer et al., 2010; Link et al., 1999). This is

consistent with research from the child literature on aggression and peer acceptance suggesting that aggressive children are less accepted because they are viewed as more likely to have harmful effects on others in their surrounding (i.e., classmates) (Spitzer & Cameron, 1995). Finally, this evolutionary view proposes that stigmatization may be a form of social control used against those whose characteristics are seen to threaten the effective functioning of social groups (Crandall, 2000; Neuberg, Smith, & Asher, 2000). Examining the possible function of stigma as social control in the classroom context is an avenue worth exploring. In sum, research indicating that stigma may originate in a universal human tendency to avoid danger in response to perceived threat (Hinshaw, 2007; Stangor & Crandall, 2000) lends support to the hypothesis that the peer with conduct disorder was viewed as threatening to the self and to the group and, in turn, elicited higher social distance. Overall, results confirm and extend findings on youth's tendency to stigmatize peers displaying aggressive behaviour, through attributions of controllability, negative attitudes and social distance.

*Strengths and Limitations of the Present Studies*

Strengths of the current mixed-method research project include its fairly large community sample, considering its open-ended component and as compared to several previously published studies (e.g., Hennessy & Heary, 2009; Spitzer & Cameron, 1995). The use of four different vignettes allowed the comparison of various forms of psychopathology (i.e., a combination of externalizing and internalizing problems), including anxiety, which has been understudied. The inclusion of a qualitative component made it possible to gain greater proximity to early adolescents' views of mental health and their peers. Moreover, as per Mayring's (2001) guideline, the initial decision to use a

combination of qualitative and quantitative methods was determined by how best to answer the research questions.

The present data, collected at a single time point using a sample of fifth and sixth graders, did not allow an investigation of developmental trends in youth's beliefs, attitudes and behavioural intentions towards peers with psychological problems. Future research in this area could benefit from examining different age groups of youth across time to obtain both a cross-sectional and longitudinal developmental perspective. The current study is also limited by its reliance on self-report measures. Although the majority of studies on mental health stigma in adults and children use self-report measures of attitudes or behavioural rejection, both of which tap overt responding and are subject to the desire for positive self-presentation (Hinshaw & Stier, 2008), it is well known from research on racial prejudice that the expression of bias is often not overt (Hinshaw, 2005). This means that prejudice and bias towards mental illness may be underestimated by the exclusive reliance on explicit measures (Hinshaw & Stier, 2008). The past decade has seen an increased adoption of implicit measures of stigma in the study of responses to mental illness (e.g., O'Driscoll et al., 2012; Teachman, Wilson, & Komarovskaya, 2006), for instance with respondents' reaction times to associated images as dependent measures (i.e., the Implicit Association Test; Greenwald & Banaji, 1995). Seeing as the real question of interest is whether individuals with mental disorders, including youth, will be approached and accepted by their peers and broader society (Hinshaw & Stier, p. 378), it is recommended that future examinations of youth's biases towards mental illness include measures of implicit attitudes and behavioral indicators of stigma.

*Directions for Future Research*

The following section outlines other key questions relevant to the study of mental health stigma in youth that warrant further attention. These pertain to the role of personal experience and prior contact, as well as sources of knowledge, including the media.

*Personal Experience and Prior Contact*

Although it was outside of the scope of the current studies to assess participants' personal experiences with the psychological difficulties described in the vignettes or to obtain information regarding their health status, based on the community prevalence rate for mental disorders in Canadian youth aged 0 to 19 years of 15% (Waddell et al., 2002), an estimated 40 participants (i.e., three per classroom) from this normative sample may have been personally affected by one of the four conditions depicted in the vignettes. Some aspects of personal experience, such as self-stigma, have been examined with clinical samples. For instance, youth's reactions to receiving a mental disorder diagnosis, initially an understudied question (Hinshaw, 2005), have received growing attention in recent years. However, studies of self-stigma to date have focused primarily on the experiences of youth diagnosed with ADHD (e.g., Coleman et al., 2009; Kaidar et al., 2003; McIntyre & Hennessy, 2011; McMenamy et al., 2005; Singh et al., 2010). Thus, additional research is needed to elucidate the ways in which youth's direct personal experience with different condition impacts, for instance, attributions regarding the origins of their difficulties and the intentionality and controllability of symptoms.

In addition to personal experience, indirect contact with or exposure to the behaviours described in the vignettes is also likely to influence responses. In future vignette studies, it would be informative to gain a sense of participants' level of

familiarity with the problems presented by asking them if they know someone in their class, school or at home who, for instance, is "like Frank" (the vignette peer with symptoms of ADHD). Considering the lifetime prevalence of mental illness in the general Canadian population of one in five (Smetanin et al., 2011), it is likely that a fair proportion of participants have had some prior contact with family members or peers experiencing psychological difficulties. We do not know how such experience may have influenced the responses of participants here; however, as an indication, a past study of 10- and 11-year-olds found that direct or indirect experiences of people with different disabilities did not greatly affect knowledge and understanding of particular disabilities (Magiati et al., 2002). In sum, the impact of past experience and prior contact on beliefs and attitudes related to mental health problems is worthy of closer examination.

*Sources of Knowledge about Mental Health*

To the best of our knowledge, the fifth and sixth grade participants in this project did not receive any formal education at their school regarding mental health. One may wonder therefore where the participants in the present studies obtained their information and how their beliefs and attitudes formed. Individuals not examined in the present studies who play a central role in the lives of youth may shape beliefs and attitudes by promoting positive views versus perpetuating stereotypes around mental health. For instance, teachers have a key influence within the school setting, as do parents and other family members (e.g., siblings) in the home context. It has been proposed that children's knowledge of, and attitudes towards, mental health can be influenced implicitly by experience and explicitly by teaching practices at school and at home (Magiati et al., 2002). According to Hinshaw (2005, p. 717), "children's tendencies to stigmatize deviant

peers are doubtless fueled by the pervasiveness of negative messages about mental illness". However, research on the possible sources of children's beliefs has been limited (Wahl, 2002). Therefore, another important direction for future studies in this area would be to investigate the sources of children's mental health knowledge (i.e. where they get information), as well as its accuracy.

Several stigma experts (e.g., Hinshaw, 2005; Jorm, 2000; Wahl, 1995; 2002) have proposed that the mass media in its various forms (i.e., television, cinema, internet, print etc.) may play an important role in shaping public views of mental illness (Penn et al, 2005; Wahl, 2002). There is evidence to suggest that the media may be the most frequent source of information about mental illness for adults (Wahl, 1995), as well as youth in the West (e.g., Secker et al., 1999). Unfortunately, the stereotypes of mental illness receive almost continual support from the mass media (Scheff, 1999; Wahl, 1995), as evidenced by the tendency to depict mentally ill persons as violent, erratic and dangerous (e.g., Angermeyer & Schulze, 2001; Sartorius, 1999; Wahl, 1995). Despite this evidence, to date, there has been little research directly linking media images of mental illness to negative attitudes (Penn et al, 2005; Wahl, 2002).

At the same time, the suspected influence of the media suggests that it holds promise as a tool to promote more positive attitudes towards mental health and to educate about the effectiveness of available treatments (Penn et al., 2005). A greater use of the mass media for mental health promotion and education may be particularly relevant in efforts to reach adolescents, who are known heavy media users. In sum, there is a clear need for future research on the impact of cultural messages from the media on youth's attitudes towards mental illness, as well as its potential as a mental health promotion tool.

*Implications for Mental Health Care, Education and Policy*

As stigma processes operate in individual perceivers (i.e., youth and adults), families, communities, cultures and social policies, it has been argued that strategies to overcome stigma must therefore operate at multiple, interacting levels (Hinshaw, 2005; 2006; Hinshaw & Stier, 2008; Link & Phelan, 2001). With this in mind, the following section highlights implications of the current research for youth, teachers, health professionals and policy makers, with a focus on education and mental health care.

*Implications for Teachers and Mental Health Professionals*

The current studies inform our understanding of adolescents' beliefs about the causes of psychological problems and their ideas regarding treatment and help strategies. This knowledge, including the language used by respondents to describe problems and beliefs about sources of help, could facilitate communication between youth experiencing psychological difficulties and teachers and health professionals (Hennessy & Heary, 2009). This is in line with a recommendation by Jorm, Angermeyer and Katschnig (2000) that the lay public's views and beliefs be recognized in health care planning with the aim of making services more acceptable to the consumer and of reaching those in need. Considering the importance of detection and early intervention during adolescence, a developmental period recognized for the onset of mental health symptoms, there is much to gain from greater awareness on the part of health professionals and other front line workers of youth's beliefs and attitudes towards psychological problems and their treatments, with particular implications for help-seeking.

A recommendation for teachers working in mainstream or special education classrooms pertains to the well-documented peer relationship difficulties of youth with

externalizing problems. Indeed, based on the current findings and the broader literature, teachers should expect negative reactions from classmates, including exclusion and rejection, towards youth displaying "acting out" or aggressive behaviours (e.g., Giles & Heyman, 2003; Hennessy et al., 2008; Juvonen, 1991; Safran, 1995), and this, as early as the first grade (e.g., Boxer & Tisak, 2003; Younger et al., 1985). This highlights the need for access to services and early intervention for youth with aggressive behaviour as a means to promote positive outcomes, including acceptance into the peer group. Such early interventions would also allow teachers to focus less on classroom management.

*Implications for Peers Interacting with Children with Mental Health Difficulties*

Several researchers have underscored the importance of working towards greater acceptance and integration of children with psychological problems in their peer group (e.g., Hennessy et al., 2008; McMenamy et al., 2005). The insights of studies on children's understanding of psychological problems, such as these, can make an important contribution to our understanding of peer rejection and to the development of educational interventions to facilitate greater integration. As an example, McMenamy and colleagues (2005) recommended that educational programs in schools help children to understand that fellow students with behavioural problems (e.g., ADHD) feel as if they are unable to control their symptoms (e.g., Coleman et al., 2009; Kaidar et al., 2003). According to the tenets of attribution theory (e.g., Juvonen, 1991; Weiner, 1993), adopting such an uncontrollable view may facilitate more positive and empathetic interactions between youth with and without conditions.

Moreover, in light of evidence that many youth would turn to a friend if they were experiencing psychological difficulties (e.g., Armstrong et al., 2000; Hennessy & Heary,

2009) and that young people may be ill-equipped to provide help to peers suffering from mental illness (Kelly et al., 2007), early adolescents could benefit from formal education or training regarding what to do for themselves or for a friend if they are feeling or behaving, for instance, like the characters depicted in the vignettes used here. Moreover, targeting youth before they reach high school with accurate knowledge of effective help and treatment strategies would constitute an important prevention strategy, rendering them better equipped to face the emerging mental health difficulties that many of them will directly or indirectly experience during adolescence.

*Implications for Policy Makers: Stigma Reduction in Youth*

Seeing as most forms of mental illness first appear during adolescence and a large number of youth can be accessed in schools (Ministry of Health Promotion [MHP], 2010), youth have been identified as a key strategic target for anti-stigma activities (Stuart et al., 2012), such as education and contact (Corrigan & Penn, 1999). Recent years have seen renewed efforts to educate the public about mental disorders and their treatment strategies (Penn et al., 2005; Wahl, 2002; WHO, 2001) and recognition that the stigmatization of children by their peers may be a significant barrier to treatment-seeking by youth have led to efforts to better inform children about mental health (Hinshaw, 2006; U.S. Public Health Service, 2000). Brief classroom instruction on mental health literacy has been shown to improve willingness to seek professional help (Jorm, 2000); however, education generally appears to have short-term impact on attitudes and it is unclear the extent to which it leads to behaviour change (Corrigan & Penn, 1999; Stuart, 2005). The limits of education are also supported by evidence that, despite major gains in knowledge about mental disorders during the second half of the twentieth century,

attitudes towards the mentally ill have not improved (Hinshaw, 2007; Phelan et al., 2000). An important consideration and challenge for education efforts lies in how best to adapt mental health curricula and materials to be developmentally appropriate. In light of evidence that increased knowledge of mental illness does not necessarily translate into improved attitudes, Hinshaw (2005, 2007) affirms that it is naïve to expect that public education programs alone can solve the problem of stigmatization.

The contact strategy differs by creating opportunities to meet and interact with persons with mental illness and, thus, to witness resilience and the possibility of recovery (Corrigan & Penn, 1999). This strategy is based on Allport's (1954) "contact hypothesis", according to which attitudes and behaviours are most likely to improve through direct behavioural contact with members of outgroups (Hinshaw, 2005; Penn et al, 2005). Research to date suggests that interpersonal contact, especially when it is regular and long-term, is the most effective stigma-reduction strategy (Corrigan & Penn, 1999; (Watson & Corrigan 2005), as evidenced by large improvements in knowledge, attitudes and social distance scores (Stuart, 2005). It has been hypothesized that contact affects stigmatizing knowledge structures through cognitive individuation (i.e., the stereotype is superseded by another more positive image) or through recategorization of the minority group member (i.e., from "them" to "us") (Corrigan & Penn, 1999). Contact-based strategies with youth, such as bringing persons in recovery who have been successfully treated for mental illness to the classroom as guest speakers, have shown promise (Couture & Penn, 2003; Kolodziej & Johnson, 1996; Pinfold et al., 2005; Watson et al., 2004). Facilitating direct interpersonal contact between students and persons with lived experience may provide means of enhancing empathy (Hinshaw & Stier, 2008) and,

therefore, be crucial to reducing mental health stigma among youth (Penn et al, 2005). In recent years, a clear increase has been observed in the number of school-based programs and projects developed around the world aimed at mental health promotion and stigma reduction. Such programs feature a combination of education and contact activities, such as, in Canada, *Talking about Mental Illness* (CAMH, 2001) and *Understanding Mental Health and Mental Illness* (Kutcher, 2010). The vast majority of such programs have been carried out in high school settings (e.g., CAMH, 2001; Kutcher, 2010; Pinfold et al., 2005; Schulze et al., 2003; Spence et al., 2005; Watson et al., 2004), with fewer geared towards elementary students (e.g., Lauria-Horner, Kutcher, & Brooks, 2004).

In light of evidence showing that strategies involving interpersonal contact lead to significant improvements in social distance scores, one may wonder what indirect effects contact interventions in schools (e.g., guest speakers) may have on peer relationships in the classroom, notably on interactions with peers experiencing difficulties. The inclusion of peer relationship measures, such as sociometric nominations to assess acceptance and rejection, could contribute significantly to studies of classroom stigma reduction interventions with youth.

At this point, it is worth recalling that (as per the rationale of the present research) youth are already in daily contact with peers, some of whom are affected by mental health difficulties. The contact hypothesis suggests that facilitating interactions between individuals can, in and of itself, lead to more harmonious relationships (Hinshaw & Stier, 2008). It follows logically then that evidence supporting the effectiveness of the contact strategy holds implications for the debate on mainstreaming in schools. In Hinshaw and Stier's (2008) words: "if school systems and teachers are opposed to mainstreaming, both

"regular" students and those with mental disorders will undoubtedly notice the resistance, and attitudes toward classmates with mental and emotional disorders are not likely to improve" (p. 385). In other words, by fostering exchanges and shared goals, schools and classrooms can play a key role in moving toward greater knowledge, acceptance and empathy.

While the establishment of global school-based initiatives dedicated to mental health issues is both positive and encouraging, several existing programs are limited by a lack of evidence to guide and support their development and implementation (Wahl, 2002). This is obviously problematic; without a solid understanding of children's beliefs and misconceptions of mental illness, it remains unclear which specific ideas to target, which strategies to employ and how to carry out efforts effectively (Wahl, 2002, p. 154). The current findings and past research (e.g., Coleman et al., 2009) suggest, for instance, that causal beliefs and disproportionate associations of mental illness with dangerousness and threat may be promising targets of stigma reduction programs. Continued research on the effectiveness of stigma reduction efforts with youth is needed, including assessments of the long-term impact of brief versus more integrated school approaches to increasing mental health literacy in schools (Pinfold et al., 2005). To summarize, early education, contact opportunities and working with the media for balanced views of mental illness are essential steps towards overcoming stigma and, in turn, ensuring that youth obtain early treatment for mental health difficulties (Penn et al., 2005).

In conclusion, this work contributes to our understanding of early adolescents' views of mental health, with implications for peer relations and developing stigma. Moreover, several avenues that warrant further examination pertaining to mental health

stigma in youth have been outlined. Unfortunately, our current understanding of the nature of mental illness stigma is not matched by our knowledge of why it develops (Arboleda-Flórez, 2002; Thornicroft, 2007). A challenge for researchers in this area therefore will be to generate more empirical data on the actual processes and functions underlying the stigmatization of mental illness. Attention to the different functions of stigma can enhance our ability to reduce it (Hinshaw, 2005), especially if done within a developmental perspective. Indeed, the knowledge of what will work in terms of effectively fighting stigma rests in part upon our understanding of why the phenomenon occurs in the first place. Addressing stigma in youth also requires continued efforts to improve our understanding of how children perceive their peers with mental health difficulties, as well as how and when they acquire attitudes about mental illness. In turn, this knowledge base may guide efforts to help youth develop more accurate and sympathetic views of mental illness that may carry over into adulthood.

Stigma is a very real barrier that keeps youth devalued, isolated and reluctant to seek help (Hinshaw, 2005; MHP, 2010, p. 32; Penn et al., 2005; WHO, 2012). As mental health continues to gain recognition as a major priority at the global scale (Hinshaw & Stier, 2008; Pescolido, 2013; Sartorius, 1998; Stuart et al., 2012), the challenge ahead is to translate research insights into actions to effectively reduce the stigma and discrimination faced by individuals touched by mental illness, including those who most need the support of their schools, families and communities – youth.

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Appendix A:

Information Letter

UNIVERSITE Concordia UNIVERSITY

**Department of Psychology**
**and**
**Centre for Research in Human Development**

September 25, 2007

Dear Parent(s),

I am a professor at Concordia University, where I teach and do research on children and adolescents. One of the topics I study is how children's experiences with their parents, friends, and teachers affect their well being and their ability to cope with daily hassles and stress in their lives. This topic is of interest to many parents, teachers, and health professionals. The purpose of this letter is to tell you about a study my students and I are conducting with fifth- and sixth-graders at St. Mary's. This study will help us learn more about children, their health, and their development.

As part of the study, I will meet with the participating children in their classrooms, and ask them to complete two sets of questionnaires. One set will be completed by the children twice, once in October and once in December. In these questions, the children will be asked to indicate (a) how much they, their peers, and members of their families engage in behaviors such as helping, doing activities alone or in a group, or trying to do their best, (b) how much they are like the other boys and girls in the school, an how well they do in school, in sports and in getting along with others. The second set of questionnaires is much shorter than the first. It will be completed 7 times, roughly two times every three weeks during October, November and December of this school year. In the second questionnaire, we will ask the children what they ate during the previous day, what kinds of emotions they have experienced during this time, whether they have been sick in the past week, and whom they have talked with about their school work. All the questionnaires will be completed at the child's desk in school and none of the other children will know how any other child has answered the questions. We will also ask the school to provide us with the children's report card grades for the current academic year.

We will also ask the participating children's parent to complete a questionnaire for us. It will ask questions about family functioning, parental education and employment, and family income. The teachers will also complete a questionnaire about each child's competencies and their functioning in school. *As an expression of our gratitude we will give two tickets to a local movie theater to parents who return the parent questionnaire to us.*

We ask the children to maintain the privacy of their answers and we make certain that their answers are kept confidential. A copy of this questionnaire is available at the school principal's office.

***As a token of thanks, all participating children will receive a gift of school supplies and a t-shirt from the research team. In addition, we will be providing lectures to the students about mental health, and about ways to cope with the stressors they encounter in their daily lives.***

7141 Sherbrooke Street West, Montreal, Quebec, Canada H4B 1R6 www.concordia.ca

People who do research with children or adults are required to describe the risks and benefits related to participating in their studies. We assure you that this study poses no risks, other than what children encounter in their day-to-day lives. It is not a treatment study, and it is not intended to provide direct benefits to the students who participate, though most children enjoy participating in such studies.

The information collected in this study will be completely confidential, and participation is entirely voluntary. Even if you give your child permission to participate, he/she is not required to take part; furthermore, you may change your mind at any time even if you already gave your permission. Even if your child takes part in the study you are free to decide whether or not you wish to complete the parent question.

This study has been approved by both the School Board and the Concordia University Human Research Ethics Committee. If at any time you have questions or concerns regarding your rights or your child's rights as research participants, please feel free to contact Adela Reid, Office of Research (Secretary to the Concordia University Human Research Ethics Committee) at 514 848-2424 Ext. 7481.

If you have any other questions about the study, please call me at 514-848-2424 Ext. 2184 or send me a letter at: Department of Psychology, Concordia University, 7141 Sherbrooke Ouest, Montreal, QC, H4B 1R6. You can also email me at william.bukowski@concordia.ca.

Please fill out the attached form and have your child return it to his/her teacher tomorrow.

*As an incentive for the children to return the permission slip, any child who returns a slip, regardless of whether his/her parent has given permission for participating, will get a Concordia University pen from the research team.*

Thank you for your help. We very much appreciate it.

Sincerely,

William M. Bukowski
Professor

Appendix B:

Parental Consent Form

HEART, SOUL, MIND and BODY PROJECT

(GRADES 5 and 6)

FALL 2007

PERMISSION SLIP

Please read and sign the following:

I understand that I am being asked if my daughter/son can take part in a research study conducted by Dr. W. M. Bukowski. I know that the purpose of the study is to examine how children's friendships, skills, and behaviors help them cope with daily hassles and stress in their lives. I know that if my daughter/son participates she/he will be asked to answer some questionnaires at his/her desk in the classroom. I have been told that the questionnaires are about the social relations of young people and how they think and feel about themselves and their friends. I know that my daughter/son does not have to participate in the study, and that even if she/he starts to take part in it, she/he can end their participation at any time. I also know that all answers will remain confidential and will NOT be shown to anyone. Only Dr. Bukowski and his assistants will know what is in the questionnaires.

Please check one of the following and ask your daughter/son to bring this permission slip into the homeroom class tomorrow.

____ My son/daughter has permission to take part in Dr. Bukowski's study

____ My son/daughter DOES NOT have permission to take part in Dr. Bukowski's study.

Parent's Name: _____ PHONE: (____)_____

Signature: _____ DATE: _____

Child's Name: _____ CHILD'S SEX: ☐ Male ☐ Female

Appendix C:

Participant Assent Form

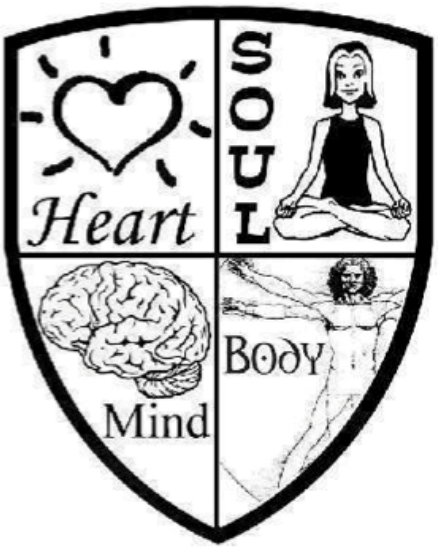
4031

UNIVERSITÉ Concordia UNIVERSITY

Sample Class

# OWWC 2008 Study

First Name: _____ Last Name: _____




**Please read and sign the following if you wish to participate in the study:**

We would like to invite you to take part in a research project. We are interested in learning more about how young people feel about themselves and how they get along with others. Although your parents have given us permission to ask you about this, you are still free to make your own choice. If you agree to be part of our project, we will ask you to answer some questions in class. These questions should take two classes to complete.

All of your answers to the questions will be kept confidential. "Confidential" means that no one will know what you wrote. We will write a code number, not your name, on all forms. No one will see your answers to the questions except the people here today. That means we are not going to share your answers with your parents, teachers, or classmates.

You are free to say no to participating in this project or to stop answering questions at any time. If you want to stop, all you have to do is let us know. We will not be mad or sad if you decide to stop; nothing bad will happen to you and we will still give you a reward for your help. If you have any questions, please feel free to ask us at any time.

Signature Here: _____

__ - 10 - 08
(day - month - year)

Please fill in the boxes completely: ■

and not like this ☒ ☑ ◻2

If you make a mistake, cross out the incorrect box and fill in the correct one:

■1 ◻2 ◻3 ☒4 ◻5

Appendix D:

Questionnaire Cover Page and Instructions

10758

UNIVERSITÉ Concordia UNIVERSITY

F

# OWWC 2009 Study

First Name: _____ Last Name: _____

Teacher :_____

[ ][ ] - [ ][ ] - [0][9]
(day - month - year)

We're interested in learning what you think and know about mental health and mental illness. Write down any sentences or words that you associate with mental health and mental illness.

1. What is mental health?

_____

_____

_____

2. What is mental illness?

_____

_____

_____

In the next pages, we would like you to read some stories that describe some girls your age. We want to know what you think makes them the way they are. For each page, read the description and then think about the reasons that might explain why the girl is the way she is. For each reason, please indicate whether you think it explains why she is like this. Then, we'd like you to tell us how much you would help and like this girl if she was in your class.

# Appendix E

## Vignette and Causal Explanation Items

2170

# Causes - Clara

Although Clara usually does ok in school, she sometimes thinks that she is stupid and no good at anything. Clara doesn't smile much and she doesn't enjoy things as much as she used to. She spends a lot of time feeling sad and is rarely happy. She has little energy and often feels tired during the day.

Why do you think Clara is like this?

There are different reasons that might explain why Clara is like this. For each reason, tell us whether you think it explains why she is like this. Please answer by using "Yes", "Maybe" or "No".

Is Clara like this:

| | NO | MAYBE | YES |
|---|---|---|---|
| 1. because her family has problems? | ☐ 1 | ☐ 2 | ☐ 3 |
| 2. because she gets bad grades? | ☐ 1 | ☐ 2 | ☐ 3 |
| 3. because she was born like this? | ☐ 1 | ☐ 2 | ☐ 3 |
| 4. because she has no friends? | ☐ 1 | ☐ 2 | ☐ 3 |
| 5. because of some things she eats or drinks? | ☐ 1 | ☐ 2 | ☐ 3 |
| 6. because she thinks other children are better than her? | ☐ 1 | ☐ 2 | ☐ 3 |
| 7. because she can't control how she feels? | ☐ 1 | ☐ 2 | ☐ 3 |
| 8. because she copies or imitates other children? | ☐ 1 | ☐ 2 | ☐ 3 |
| 9. because of how her parents brought her up? | ☐ 1 | ☐ 2 | ☐ 3 |
| 10. because there is something wrong with her brain? | ☐ 1 | ☐ 2 | ☐ 3 |
| 11. because she is teased, bullied or mistreated by other children? | ☐ 1 | ☐ 2 | ☐ 3 |
| 12. because there is nothing she can do about it? | ☐ 1 | ☐ 2 | ☐ 3 |
| 13. because she thinks it's cool to be this way? | ☐ 1 | ☐ 2 | ☐ 3 |
| 14. because she doesn't make enough of an effort to be different than this? | ☐ 1 | ☐ 2 | ☐ 3 |
| 15. because she wants attention from other children? | ☐ 1 | ☐ 2 | ☐ 3 |
| 16. because she can't control how she acts? | ☐ 1 | ☐ 2 | ☐ 3 |
| 17. because she copies other people in her family? | ☐ 1 | ☐ 2 | ☐ 3 |
| 18. because she doesn't try hard enough to be happy? | ☐ 1 | ☐ 2 | ☐ 3 |

| 19. What other reasons could explain why Clara is like this? | NO | MAYBE | YES |
|---|---|---|---|

Appendix F:

Attitude and Behavioural Intention Items

2170

# Causes - Clara

Now imagine that Clara is in your class.

| | Not at all | A little | Some what | A lot |
|---|---|---|---|---|
| 1. How much would you want to help Clara with this problem? | ☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 |
| 2. How much do you think you could help Clara with this problem? | ☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 |

3. Is it possible to help Clara with this problem? ☐ No ☐ Yes

4. How could someone help Clara?

_____

_____

_____

| | Not at all | A little | Some what | A lot |
|---|---|---|---|---|
| 5. How much would you like Clara? | ☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 |

6. a) Imagine that you were already Clara's friend and that she started having this problem. Would you want to continue to be her friend? ☐ No ☐ Yes

6. b) Imagine that you were just getting to know Clara and she had this problem. Would you want to become her friend? ☐ No ☐ Yes

Appendix G:

Coding Agenda for Suggested Help Sources and Strategies

**Coding Agenda:**
**"How could someone help Clara?**

Overview:

Level 1: Who? - Helper

Categories: Who initiates and/or provides help?

Level 2: What? - Strategies

Categories: What help solutions or strategies are proposed?

Note: This coding system does not cover the "where" or "when" of the help suggestions.

- "Where" (place, context) e.g., at school (Anx 1107); in class (ADHD 1302)
- "When" (time) e.g., before quiz (Anx 1110)

Coding Agenda Instructions:

- Only display the relevant text segment of a response for a specific category (i.e., the segment that received the code). Use … for text omission within a response.
- If the entire response is included because it is informative, then underline the specific segment that corresponds to the code assigned. (See legend below)

Legend for tables

| Symbol | Indicates |
|---|---|
| **Word in bold** | Keyword (indicates that the response receives this code) |
| *Word in italics* | Marker (indicates that the response might receive this code) |
| Words underlined | Text segment that corresponds to category |
| … | Omitted material within a response |
| * | Presence of multiple codes |
| ---------- | Atypical response – indicates demarcation |
| _____ | Do not code (i.e., exclusion) – indicates demarcation |

**Coding Key**

Level 1 – Helper (who)

C1. Participant
C2. Non-specified other
C3. Target
C4. Friend
C5. Teacher
C6. Family
C7. Doctor
C8. Psychiatrist
C9. Psychologist
C10. Other *(specify who)*

Level 2 – Strategies (what)

C1. Positive interpersonal experiences
C2. Encouragement
C3. Instructions
C4. Perspective taking *(specify target or other)*
C5. Attentional strategies
C6. Academics
C7. Correctional strategies
C8. Physical interventions
C9. Physiological interventions
C10. Consultation
C11. Disclosure/Awareness
C12. Investigation of problem
C13. Talking
C14. Other *(can repeat code)*
C15. No help (*specify not possible vs not given)*

## General Coding Instructions

- A response may be assigned several codes (i.e., multiple codes are allowed).
- Following each verbatim sample response, identify the id number and vignette type.
  e.g., (Anx 1234)
- Reminder: Dep is Depression; Anx is Anxiety; CD is Conduct disorder; ADHD
- If the rater alludes to their response to another vignette, go read it to better understand the current response. e.g., "I think by comforting him like Mateo." (Dep 1213) – Mateo is anxiety vignette so go read Anxiety 1213

When NOT to code at Level 1 or Level 2:

- If part of a **response is unclear** or difficult to understand (e.g. due to poor spelling), ignore that segment and code the rest.
  e.g., "Go to the doctor and the pipole oo sienge dit's persone." (Anx 1314)
  Code as Level 1 C7 (Doctor); Level 2 C10 (Consultation)
- When a **word is missing** and the response is incomplete, do not guess to code that strategy. Only code the parts of the response that are clear.
  e.g., "By showing him more fun people so he can his attitude now." (Dep 1208)
  Code only as C1 (companionship) at Level 2.
- Help strategies to be coded are almost always in future tense or conditional. If worded in present or past tense, this may be a **reason or cause** of the problem (i.e., not a help strategy) in which case do not code that segment. Another clue that a causal reason is provided is the use of "because". This could lead to coding at only one level.
  e.g., "Maybe his family because maybe he doesn't do a lot of activities with his family." (CD 1301) - Code as Level 1 C6 (family); No code for Level 2

**Help Coding Agenda:**

**LEVEL 1: Who helps?**

- **Identify all pronouns and proper nouns and then ask the question "Who helps?"**
- Code all different individuals or groups present who take part in helping. The helper may initiate by taking a step towards the help strategy (e.g. bring to awareness, seek help) and/or take action to provide the help.
- It is possible to assign multiple codes when several individuals are clearly present, including repeating the same code.
    - Exception: Cannot code both C1 (participant) and C3 (target).
    - "We" is always double coded C2 (non-specified other) and C3 (target)

| Category | Definition/ Coding rule | Examples (verbatim) | Key Words |
|---|---|---|---|
| **C1: Participant** | The rater (i.e. study participant) includes him/herself in the help and plays an active role in initiating and/or doing something to help the target.<br><br>Help for the problem is personalized.<br><br>Do NOT code rater opinion. | "**I** could be her friend." (Anx 1106)<br>"**I** could help her by practicing work at recess." (Anx 1105)<br>"To help Pierre if **I** was in his class I would not reject him." (Dep 1101)<br>"**I** could make her stop bullying." (CD 1106)<br>---<br>*Atypical:*<br>"**We** could ask her if she's being bullied." (Dep 1210)* C2<br>*NOT:*<br>"To be confident <u>because **I** know he could do it.</u>" (Anx 1102)<br>"<u>**I** have no clue!</u> :( Maybe he should be home schooled!" (CD 1206)<br>"<u>**I** don't really know trick **I** could help him with</u> but an encouragement should help." (Anx 1204)<br>"**I** think nobody should help her but only ignore her." (CD 1111) | - I<br><br>- We<br>(Note: code C1-C2) |

| Category | Definition/ Coding rule | Examples (verbatim) | Keywords |
|---|---|---|---|
| **C2: Non-specified other** | Someone else is responsible for initiating and/or providing the help.<br><br>Not someone specific (general, vague).<br><br>The rater is not involved in any way. Help for the problem is depersonalized. | "**They** can help her by being kind." (CD 1105)<br>"**People** could hang out with her." (Dep 1118)<br>"**Someone** could support her." (Anx 2302)<br>"To get **some people** to ask her if something is wrong." (CD 1118)<br>"He just needs to talk to **somebody** to make it better." (Dep, 1124)<br>"The best thing for Lina would probably be if she talked to **someone she trusts** about it." (Anx 2306)<br>---<br>*Absent pronoun*<br>[Someone could help by]<br>"Showing him that **everybody** would like him to change." (CD 1124)<br>[Someone could help him] "To practice doing his math." (ADHD 1102)<br>[Someone could] "Make him see a psycologiste." (CD 1221)<br>---<br>*Atypical:*<br>"**we** could ask her if she's being bullied." (Dep 1210)<br>"**He** could help him by setting an example to him." (ADHD 1202)<br>"I could organise a <u>group (large) of people</u> to go and try to convince him to stop bullying." (CD 1204) | - They<br>- People<br>- Everybody<br>- Someone, somebody<br>- You<br><br>- Absent pronoun.<br><br>*Trick:* When absent pronoun, try adding: "Someone could help…"<br><br>- We<br>(Note: code C1-C2) |
| **C3: Target** | Target (i.e., the child in the vignette) does something to help him/herself.<br>May include:<br>- taking the first step<br>- taking action<br><br>The rater is not involved and points to the target to initiate or to seek help for him/herself. | "**She** could start going to bed earlier." (Dep, 2302)<br>"**He** could take retalin." (ADHD, 1122)<br>"**She** should go see a doctor." (Dep, 1118)<br>"The best thing for Lina would probably be if **she** talked to someone she trusts about it." (Anx 2306)<br>---<br>*Absent pronoun*<br>[He could] "Go see someone." (Dep, 1104) | - She/he<br>- Clara, Pierre etc.<br>- The person<br><br>- Absent pronoun (target implied) |

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|---|---|---|---|
| **C3: Target (cont'd)** | Do NOT code if target is only the recipient of the help (i.e., does nothing) or if the help strategy can take place without the target's involvement. | [He could] "Put ear phones to hear better." (ADHD 2314)<br>[She could help] "by studying a lot but after do yoga." (Anx 1112)<br>[He could help by] "seeing a doctor." (ADHD 1306)<br>---<br>*Atypical: with him/her*<br>"I could help her by practicing work at recess…*with her*." (Anx 1105)<br>"do some very relaxing things *with him*." (Anx 1206)<br>"I would go see a doctor *with her*." (Anx 1517)<br>"to play *with her*." (CD 1308)<br>*NOT:*<br>"I could *tell her* to stop worrying." (ADHD 1106)<br>"You well have to *say to her* that everything is ok." (Anx 1103)<br>"By simply *telling her* good things about her and telling her to feel that way." (Dep 1224) | *Trick*: When absent pronoun, try adding "He/she could…"<br><br>- *with him/her*<br>- *with you*<br><br>- *tell him/her*<br>- *say to him/her* |
| **Category** | **Definition/ Coding rule** | **Examples (verbatim)** | **Keywords** |
| **C4: Friend** | All references to a friend or peer(s) actively involved in the help solution.<br><br>Do NOT code if response is about friendship but a friend is not actually doing something to help. | "His *friends* could find fun games." (Dep 1113)<br>"His *friends* could convince him to stop." (CD 1113)<br>---<br>*Atypical*<br>"He could study more with his *friends* or family." (Anx 1113)<br>"… and maybe she will say it to her best *friend*." (Dep 1103)<br>"And become *friends* with her and tell her to stop!" (CD 1201)<br>*NOT:*<br>"Someone could help her by…being her *friend*." (Dep 2314)<br>"Make him feel like he has lots of *friends* who care about him." (Dep 2303)<br>"find him some good *friends*." (Dep 2319)<br>"By maybe giving him a *friend*." (Dep 1305) | - *Friend* |

| Category | Definition/ Coding rule | Examples (verbatim) | Keywords |
|---|---|---|---|
| **C5: Teacher** | All references to a classroom teacher (of any type).<br><br>Do NOT code other individual who works in a school or who specializes in learning. | "A **teacher** could try to make him calm." (CD 1113)<br>"As a **teacher** you should talk about it with the class so they are aware." (Dep 1110)<br>"Maybe by saying to the **teacher** she needs help." (Dep 1203)<br><br>*NOT:*<br>"In school there are usually **helpers that specialize** in this." (ADHD 2310)<br>"By getting her a **tutor**." (Dep 2316) | - Teacher |
| **C6: Family** | All references to parents and relatives including extended family. | "Get the **parents** to impose more discipline." (CD 1110)<br>---<br>*Atypical*<br>"He could study more with his friends or **family**." (Anx 1113)<br>"Maybe…before every quiz/test you could reassure Mateo or as a teacher maybe have a meeting with the **parents**." (Anx 1110)<br>"By bringing her **mother/father** back." (Dep 1218) | - Mother, father<br>- Parent(s)<br>- Family<br>- Brother, sister<br>- Cousin<br>- Grandparent etc. |
| **C7: Doctor** | All general references to doctors that do not include a named mental health specialization. | "Bring her to a **doctor**." (ADHD 2322)<br>"She could go to a **physician** and get acupuncture." (ADHD 1210) | - Doctor<br>- General doctor<br>- Family doctor<br>- Physician |
| **C8: Psychiatrist** | All references to psychiatrist. | "Bring her to the **sicauatris**." (CD 1108)<br>"Take him to a **psychiatrist**." (CD 2205)<br>"visit a **phsycatrice** to find out whats on her mind." (ADHD 1210)<br>"by seeing a **sychatris** (I spelled it wrong but its someone who help)." (ADHD 1301) | - Psychiatrist<br>- Shrink |
| **C9: Psychologist** | All references to psychologist. | "Maybe he could go to the **sycologist** to talk about his problem." (CD 1122)<br>"He can go see a **therapist**." (ADHD 1126) | - Psychologist<br>- Therapist<br>- Counsellor |

| Category | Definition/ Coding rule | Examples (verbatim) | Keywords |
|---|---|---|---|
| **C10: Other person** | References to any individual that does not fall into one of the above categories.<br><br>If not C1 to C9, blank or "I don't know" = C10.<br><br>If C10, specify actual name of person (e.g., tutor). | "By getting her a **tutor**." (Dep 2316)<br>"By talking to him or taking him to a terapist or **another adulte**." (CD 2318)<br>"By telling an **adulte** and the adulte talks to him." (Dep 2318)<br>"Take him to a psychiatrist or to the **principal**." (CD 2205)<br>"Maybe a doctor or a **nurse** can give him treatments." (CD 1216)<br>"By calling the **police**." (Anx 1313)<br>"Someone could help Vera by talking to a **mentalist**." (CD 1222)<br>"Get a **proffesionnel** to help him." (Dep 2202)<br>"go to the **spésalice**." (CD 1314)<br>"Get someone who studies this symptom." (Anx 2202)<br>"In school there are usually **helpers that specialize** in this." (ADHD 2310)<br>"Well the **school** could help her if she goes to see someone." (CD 1225) | - Tutor<br>- Other adult<br>- Principal<br>- Nurse<br>- Police<br>- Mentalist<br>- Expert, specialist<br>- Professional<br>- Specialized helper<br>- School (staff implied)<br><br>- God (hypothetical example) |

**Help Coding Agenda**

**LEVEL 2: What solutions or strategies are proposed?**

- **Must answer the question "What is the help strategy?"**
- Only code the different categories of help present (i.e., do not repeat the same code) with the exception of C14 (Other) as this category contains a wide variety of different strategies.
- Always specify the subcategory (when applicable).
  e.g., C4 Perspective taking (target); C7 Correctional Strategies (punishment) etc.
- Reminder: Markers (in italics) differ from keywords (in bold) as they indicate the text segment of the verbatim response may receive one of several codes.
  e.g., "Tell" is a marker for several categories (i.e., C2, C3, C7 or C11).

| **Category** | **Definition** | | | |
|---|---|---|---|---|
| **C1: Positive interpersonal experiences** | A social experience, process or provision at the dyadic (relationship) or group level. May or may not be a peer experience. | | | |
| **Subcategory** | **Definitions** | **Examples (verbatim)** | **Key Words** | **Coding Rule** |
| Friendship | | "I could be her **friend**." (Anx 1106)<br>"by hanging out with her as her **friend**" (ADHD 1112)<br>"I could make her have more **friends**." (CD 1106)* C7<br>---<br>*Atypical:*<br>"Say that he has **friends**." (Dep 1122)* (C2)<br>"Make him feel like he has lots of **friends** who care about him." (Dep 2303)* (C14) | - friend | Specify when clearly a peer experience.<br>e.g., C1 companionship (peer)<br><br>Hints it is a peer or age-mate:<br>"I" or "people at school" |
| Companionship | Spending time together without necessarily being friends. | "People could **hang out with her**." (Dep 1118)<br>"Someone could help her by **playing with her**." (Dep 2314)<br>"Someone should always **be on her side.**" (Dep 1120)<br>"Do some very relaxing things **with him**." (Anx 1206) | - spend time<br>- hang out<br>- play<br>- invite<br>- sleep over | |

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| | Being together, playing together. | ---------- *Atypical:* "I could help her by practicing work at recess and lunch *with her*." (Anx, 1105)* (C6) "you can do something fun *with him*." (Anx 1219) "kind of have a friend always *with her*." (Anx 1318) "I would go see a doctor *with her* (Anx 1517) "*stay with her*." (Dep 1201) ---------- *NOT:* "By *staying* with her so she does not start another fight, etc." (CD 2316)* (C7) | - *with him/her* ~ accompany - *stay with* | "Stay with" = C1 or C7 (supervision) Do NOT code if staying with the target is to watch or supervise. |
| Acceptance/ Inclusion | Group-level | "To help Pierre if I was in his class I would **not reject** him and be a lot with him." (Dep 1101) "She could ask to be **accepted** by other people at school." (Dep 2314) | - not reject - accept - include | |
| Support | | "**Support** her through anything and everything." (ADHD 1220) "Someone could **support** her." (Anx 2302) ---------- *Atypical:* "stand up for him." (Anx 1305) "By being on his side more often." (CD 2222) "Someone to stand beside her." (Anx 1503) | - support (verb) | |
| Nice | | "by trying to be **nice** to him." (CD 2318) | - nice | |

| **Category** | **Definition** | | | |
|---|---|---|---|---|
| **C2: Encouragement** | Solution is verbal in nature. Does not require action on the part of the target (i.e., no next step). | | | |
| **Subcategory** | **Definitions** | **Examples (verbatim)** | **Key Words** | **Coding Rule** |
| Encouragement | | "By **encouraging** him to do better." (Dep 1117) "**encourage** her to do things she's never done before." (Dep 1201) "…**encourage** him to stop." (ADHD 2303)* (C7) | - *tell, say* - encourage | Careful! "Tell" = C2, C3, C7 or C11 |

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| Motivation | | "Someone should…keep her **motivated**." (Dep 1120)<br>"by **cheering** him." (Dep 1121)<br>"*tell* her that she is doing great." (Anx 2302) | - motivate<br>- cheer | |
| Reassurance | Verbal | "**reassure** her that everything is **OK**." (Anx 2317)<br>"*Tell* him there nothing to *worry*." (Anx 2315)<br>"**reassure** him." (Anx 2318)<br>"By *telling* him that it's **okay**." (Anx 1211)<br>"And *say* that he'll do **fine**." (Anx 1211)<br>---<br>*Atypical:*<br>"Well in the story he said he would like it if someone would *comfort* him, *tell* him its **okay**." (Anx 1213)<br>*NOT:*<br>"I could make her stop *worrying*." (Anx 1106)* (C7) | - reassure<br>- okay, ok<br>- fine<br>- *worry*<br>- *comfort* | |
| | | "tell him that he is **good** and that he is **not stupid**." (Dep, 1102)<br>"telling she is **beautiful** and **smart**." (Dep 2210)<br>"By telling her **good** things about her." (Anx 1115)<br>"I would say **positive** things about her." (Dep 1112)<br>"Tell him he is **better** than he thinks he is." (Dep 2209)<br>---<br>*Atypical:*<br>"Say that he has friends." (Dep 1122)* (C1)<br>"saying that she could always be a **good** person from the inside and outside of her body." (Dep 1105)<br>"Make him feel like he has lots of friends who care about him." (Dep 2303) (C14, C1)<br>*NOT:*<br>"Make him feel good about himself." (Dep 2309) (C14) | - good<br>- smart<br>- positive<br>- better<br>- (other qualities) | Do NOT code when not verbal. |
| Normalizing | | "telling her it is **normal** that you were born this way." (Dep 1105) | - normal | |

| **Category** | **Definition** | | | |
|---|---|---|---|---|
| **C3: Instructions** | Giving advice or orders that generally instruct or guide future behaviour.<br>All verbal. Tone often unclear. | | | |
| **Subcategory** | **Definitions** | **Examples (verbatim)** | **Key Words** | **Coding Rule** |
| Practical advice | | "Helping her by giving **tips**." (Dep 1114)<br>"Maybe by telling her…**tricks** to improve her skills." (Anx 1209)<br>"By giving him **tricks** to stay focus." (ADHD 1204)<br>"giving **pointers**." (Dep 2117) | - tips<br>- tricks<br>- pointers | Always double code for content of advice. |
| Advice with content | Informative. Does not indicate what to do. | "By *telling* him that school is 'cool' and you need to pass." (ADHD 1124) | - *tell him/her*<br>- *by telling* | Careful! "Tell" = C2, C3, C7 or C11 |
| Warning | Spells out consequences of behaviour. | "by *telling* her you could get expelled, suspended." (CD 1112)<br>"To *tell* her "it will not help get friends." (CD 1115)* (C1)<br>"By *telling* him if he wants friends he should stop." (ADHD 1128)* (C1-C7) | - *tell him/her*<br>- *by telling* | |
| Orders | Target is told what to do or not to do. Indicates a course of action. Directive. | "I could *tell* her to do her best." (Anx 1106)* (C14 effort)<br>"To *tell* him to calm down." (Anx 2321)* (C9)<br>**"***Telling* him to concentrate more." (ADHD 1127)* (C5)<br>"I could *tell* her to pay more attention." (ADHD 1106)* (C5)<br>---<br>*Double code – C7 regulation :*<br>"*Tell* him to *stop* worrying." (Anx 2318)<br>"By *telling* him *not to* do it." (ADHD 1117)<br>"By *telling* her to be herself and to *stop* copying others." (ADHD 1105) | - *tell him/her*<br>- *by telling* | Also C7 regulation if:<br>- stop<br>- don't<br>- not to |

| **Category** | **Definition** | | | |
|---|---|---|---|---|
| **C4: Perspective taking** | Looking at the situation from the other person's point of view. Shows empathy. | | | |
| **Subcategory** | **Definitions** | **Examples (verbatim)** | **Key Words** | **Coding Rule** |
| Perspective of other | The target puts him/herself in the shoes of another person.<br><br>When CD vignette: the other is generally the victim. | "tell him that if he was in the **victims** place he would feel very hurt inside. " (CD 1126)<br>"*Explaining*…how he wouldn't like that to happen to him." (CD 1121)<br><br>"By making him think if someone else was like him. By thinking if was the one **bullied** how would he feel." (CD 1128)<br>---<br>*Atypical:*<br>"Bring him to **bully** school he'll see whats it like" (CD 1107)<br>--- | - victim<br>- bullied<br>- feel<br>- in his/her shoes<br>- understand<br>- *explain* | Specify whether victim or bully.<br><br>Careful! "Explain" = C4 or C11 |
| Perspective of target | Another person (can be the rater) puts him/ herself in the shoes of the target.<br><br>When CD vignette: the target is generally the bully. | "they can…try to be **in his shoes** to **understand** and help him." (CD 1309)<br>"Try to **understand** how she feels." (Anx 1312)<br>"By *explaining* to him that there are other ways to feel powerful." (CD 1213)<br>---<br>*Atypical:*<br>"Make him **understand** that those actions do not make him cool." (ADHD 2303)* C7 | | |
| **Category** | **Definition** | | | |
| **C5: Attentional strategies** | Directing focus to or away from something. | | | |
| **Subcategory** | **Definitions** | **Examples (verbatim)** | **Key Words** | **Coding Rule** |
| Distraction | Attention away from | "I could try to **change her mind** or make her stop worrying by making her **think of something else**." (Anx 1106)* (C7)<br><br>"I would make sleepovers with her to **change her mind**." (Dep 1112)* (C1) | - change mind<br>- change ideas (from French)<br>- think of something else | Careful! "Change mind" = C5 or C14 |

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| Focus/ Concentration | Attention to | "By making her **change ideas** by telling she had good mark and cheer her up." (Anx 1207) (C2)<br>"Try to make him **think about something else**." (Dep 1122)<br><br>"By giving him tricks to **stay focus**." (ADHD 1204)*<br>"She needs someone to keep her **on track** and occupied." (ADHD 1120)<br>"By telling to **concentrate** more" (ADHD 1127)* (C3)<br>"To be more *attention* to his homework." (Anx 1102) (C6)<br>"make her pay *attention*" (ADHD 1302)* (C7)<br>---<br>*Atypical:*<br>"By making classes more interesting that way she wouldn't **fidget**." (ADHD 2213)* C6 | - focus<br>- concentrate<br>- on track<br><br>- *attention*<br><br>-fidget | Careful! Not C14 (attention from others) |
| **Category** | **Definition** | | | |
| **C6: Academics** | Relates to academic performance or learning. | | | |
| **Subcategory** | **Definitions** | **Examples (verbatim)** | **Key Words** | **Coding Rule** |
| (No subcategories.) | | "To **practice** doing his **math**." (ADHD 1102)<br>"helping her in **class** to understand more and getting it." (ADHD 1112)<br>"By getting her a **tutor** so she can be happy about her **grades**." (Dep 2316)<br>"by **studying** a lot." (Anx 1112)<br>"He could **study** more with his friends or family." (Anx 1113)<br>"Maybe he should be **home schooled**!" (CD 1206)<br>"If she can't concentrate do after school **tutoring**." (Anx 1210)<br>---<br>*Atypical:*<br>"**summer school**" (CD 2208)<br>"By making **classes** more interesting." (ADHD 2213) | - practice<br>- study(ing)<br>- homework<br>- work<br>- class<br>- math etc.<br>- grades<br>- tutor(ing)<br>- *school*<br>- *teacher* | Code only if content is explicitly academic.<br><br>Do NOT code:<br>- social life at school<br>- extra-curricular activities |

| **Category** | **Definition** | | | |
|---|---|---|---|---|
| **C7: Correctional strategies** | Goal is to modify or change the target's current behaviour (e.g., to increase or decrease the frequency of a behaviour). Generally done by another person. May be verbal or non-verbal. | | | |
| **Subcategory** | **Definitions** | **Examples (verbatim)** | **Key Words** | **Coding Rule** |
| Teaching/ Modelling | Explaining or showing what to do. Process. | "By **teaching** him to do good things" (CD 1102)<br>"by **showing** her what to do. And what not to do." (CD 1320)<br>"**show** him right or wrong." (CD 2308)<br>"He could help him by **setting an example** to him." (ADHD 1202)<br>**"Giving the example** and/or explaining what he's doing." (ADHD 1223)<br>"By trying to **teach** her the right way to act in front of others." (Anx 2208)<br>---<br>*Atypical:*<br>"*Telling* **how** to stop" (CD 1202)<br>"They can *tell* her what to do as a good reaction to stuff people do." (CD 1125) | - teach<br>- show<br>- how<br>- example<br><br>- *tell (marker)*<br>- *explain* | Careful!<br>"Tell" = C2, C3, C7 or C11 |
| | Contingency (when does x) | ---<br>*Atypical - contingency*<br>"**when** he does bad thing the other person could help him to control himself." (CD 1101)* (C7 - regulation, supervision)<br>"**Whenever** he does something bad, encourage him to stop." (ADHD 2303)* (C2, C7 - regulation, supervision)<br>"show her something else fun **rather** than bullying." (CD 1303)<br>"by talking **instead** of hitting." (CD 1311) | - *when*<br>- *whenever*<br>- *rather*<br>- *instead* | |
| Ignoring/ Extinction | Eliminating a response by not reinforcing it. | "I think nobody should help her but only **ignore** her and maybe she will get tired of being like that and stop." (CD 1111)<br>"just don't answer." (Anx 1201) | - ignore | |

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| Supervision | Monitor or watch over. | "by **making sure** she concentrates" (ADHD 2317)<br>"put him in front of the class so the teacher can **watch** him" (ADHD 2320)* (C8)<br>---<br>*Atypical:*<br>"By *staying with her* so she does not start another fight, etc." (CD 2316) | - make sure (~ to ensure)<br>- watch<br><br>- *stay with* | Careful!<br>"stay with" = C7 or C1 |
| Discipline | Training to act in accordance with rules. | "Get the parents to impose more **discipline**." (CD 1110)<br>"By begin **strict**." (Anx 2312)<br>---<br>*Atypical:*<br>"Make new **rules.**" (CD 2323)<br>"Send her to military school." (CD 2322) | - discipline<br>- rules<br>- strict | |
| Punishment (negative and positive) | Removal of desired stimulus or negative consequence. | "give him no recess for 3 month." (CD 2320)<br>"Someone could take everything that she eats that is full of sugar." (ADHD 2302)<br>"her parents could stop giving stuff to her etc." (ADHD 2307)<br>"Somebody stronger and bigger." (CD 1316) | | |
| Disapproval | Verbal expression that the behaviour is bad or wrong (i.e., judgment). | "By *telling* him that what he is doing is **bad**." (CD 2321)<br>"Somebody can *tell* her that this is **wrong.**" (CD 2307)<br>"Maybe someone could stand up and *say* its **enough**!" (CD 1201)<br>"*say* that it's **not nice."** (CD 1219)<br>"*Tell* her that it is **not cool** to bully others." (CD 1312)<br>"Just *tell* him 'you're being really **disrespectful and immature**' so he can stop bothering and interrupting in class." (ADHD 1208)<br>---<br>*NOT:*<br>"I would do nothing because since he would be **rude** to everyone especially my friends I would just say he's **rude**." (CD 1208) (C15) | - *tell*<br>- bad<br>- wrong<br>- enough<br>- nice (not)<br>- (negative adjective) | Careful!<br>"Tell" = C2, C3, C7 or C11<br><br>Reminder: Disapproval is already verbal so don't double code C3 (advice or order).<br><br>Don't code reason of disapproval. |

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| Regulation | A change in or termination of behaviour is imposed by another person or the target. | "I could **make her stop** bullying." (CD 1106)<br>"**Make her** calm down." (Anx 1109)* (C9)<br>"**Make him** see a psycologiste." (Anx 1221)* (C10)<br>"I could **make her** have more friends." (CD 1106)* (C1)<br>---<br>*Atypical: double code C2/C3*<br>"tell him it should **stop** now." (Dep 1126)* (C3)<br>"By telling him **not to do it**." (ADHD 1117)* (C3) | - make (~ to force)<br>- stop<br>- don't<br>- not to | Not verbal (except when double code with C3 or C2). |
| External pressure | Social influence or power of others to affect actions or behaviours of the target. | "his friends could **convince** him to stop." (CD 1113)<br>"Showing him that everybody would like him to change." (CD 1124)<br>---<br>*Atypical:*<br>"By…being against bullying." (CD 1120) | - convince | Specify when clearly a peer experience. e.g., C7 external pressure (peer) |
| **Category** | **Definition** | | | |
| **C8: Physical Interventions** | Actions on the corpus. External manipulations to the body. | | | |
| **Subcategory** | **Definitions** | **Examples (verbatim)** | **Key Words** | **Coding Rule** |
| Restraint | Limit or restrict activity. | "Put something heavy on his lap so he **doesn't get up**." (ADHD 1204)<br>"You can help Amy by sticking glue on her chair so she **can't get up**." (ADHD 2316) | - doesn't/ can't get up | |
| Devices | Use of aids, devices or objects. Includes removal. | "Put ear phones to hear better." (ADHD 2314)<br>"By placing something soft and heavy on her lap to comfort her." (ADHD 1217)<br>"Get rid of his scissors so he can't cut himself." (Dep 2205) | | |
| Move the target | Change seat | "By trying to **put him in front of the class.**" (ADHD, 1104)<br>"**put him in front of the class** so the teacher can watch him." (ADHD 2320)* C7 | - put in front of class<br>- put in corner | |

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| | In corner | "Try **putting her in a corner** alone to calm her." (ADHD 2214)* (C9) | | |
| **Category** | **Definition** | | | |
| **C9: Physiological Interventions** | Alters the physiological state of the target. Acts on brain chemistry and/or the central nervous system. Internal bodily processes, includes ingesting. | | | |
| **Subcategory** | **Definitions** | **Examples (verbatim)** | **Key Words** | **Coding Rule** |
| Medication | | "Give her **medicin**." (CD 1109)<br>"He could take **retalin**." (ADHD 1122) | - medicine<br>- pills<br>- ritalin | |
| Sleep hygiene | | "She could start going to **bed** earlier." (Dep, 2302)<br>"or asking if you are **sleeping** well." (Dep 1306) | - sleep(ing)<br>- bed<br>- tired | |
| Diet | | "Well they could give him an energy **drink**." (Dep 2315)<br>"Someone could take everything that she **eats** that is full of **sugar**." (ADHD 2302)<br>"By **feeding** her." (Dep 1306) | - drink<br>- eat<br>- feed<br>- sugar | |
| Exercise | Strategy focuses on physical activity, not the game or sport per se. | "Before going to school he could **jog** so he has less energy." (ADHD 1122)<br>"to be **active."** (ADHD 1221)<br>"…Because after *sports*, you're **tired**." (Anx 1316) | - exercise<br>- jog<br>- active<br>- *sports* | Careful!<br>If more about the game or sport itself = C14 |
| Relaxation/ Calm down | | "Teach her how to **relax**: musique, yoga etc." (Anx 1320)<br>"By telling her to watch **peaceful** movies, read **peaceful** books, do **peaceful** thoughts before she goes to sleep." (CD 1217)* (C3)<br>"by studying a lot but after do **yoga or relax** to stay **calm**…" (Anx 1112)* (C6)<br>"By **calming her down** with a **massage**." (Anx 1316)<br>"To **calm him down**." (CD 1126)<br>"To tell him to **calm down**." (Anx 2321)* (C3)<br>"Make her **calm down**." (Anx 1109)* (C7) | - relax<br>- peaceful<br>- yoga<br>- massage<br>- calm<br>- calm down | |

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| Relaxation/ Calm down (cont'd)<br><br>Stress management | | "A teacher could try to make him **calm**." (CD, 1113)<br>"give him treatments to **calm him down**." (CD 1216)<br><br>"Make sure he does not feel **stressed**." (Anx 2104)<br>"By making the person have less **stress**." (Anx 2217) | - stress | |
| **Category** | **Definition** | | | |
| **C10: Consultation** | Seeking help from a professional or trusted person (mere fact of). The meeting, visit or appointment is an end within itself. | | | |
| **Subcategory** | **Definitions** | **Examples (verbatim)** | **Key Words** | **Coding Rule** |
| (No subcategories.) | | "**Meet** with teacher." (CD 1110)<br>"He can **go see** a therapist." (ADHD 1126)<br>"Make him **see** a psycologist." (Anx 1221)* (C7)<br>"She should also **go see** a doctor in case her body chemicals are unbalanced." (Dep 1118)<br>---<br>*Trump rule: only code C10*<br>"Maybe he could **go to** the sycologist ~~to talk about his problem~~." (CD 1122)<br>"Make her **see** a therapist ~~to make her feel better and to explain why she does those things~~." (CD 1215)<br>"**visit** a phsycatrice ~~to find out whats on her mind and figure out why she is this way~~."(ADHD 1210)<br>"Someone could help Mateo by **taking him to** the doctor ~~to see if he has ADD~~." (Anx 1319)<br>"You could help very by **bringing her to** a child phsychologist ~~and see what problems she may have~~." (CD 2203)<br>---<br>*Atypical:*<br>"**go to** your dad and friend." (Dep 1310)<br>"Maybe **go to** the hospital to see if she has a mental problem." (ADHD 1225)<br>"By getting her medical | - meet/ meeting<br>- see<br>- go see<br>go to<br>- take/bring him/her to<br>- visit<br>- therapy<br>- hospital | Do NOT code the reason for consultation.<br><br>Consultation "trumps" disclosure (C11), investigation (C12) and talking (C13). i.e., Don't double code (see strikethrough).<br><br>Reminders:<br>- Helpers are coded at level 1<br><br>- The person consulted is not necessarily a professional. |

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| | | attention." (Anx 2312)<br>"Get someone who studies this symptom." (Anx 2202) | | |
| **Category** | **Definition** | | | |
| **C11: Disclosure/ Awareness** | Raising awareness by recognizing or divulging the existence of a problem. Disclosure is the first step of a longer process.<br>May include talking <u>about</u> the problem and providing information. | | | |
| **Subcategory** | **Definitions** | **Examples (verbatim)** | **Key Words** | **Coding Rule** |
| To other(s) | Tell or inform someone else (or not) to make them aware of the problem. | "As a teacher you should **talk about** it with the class so they are **aware**." (Dep 1110)<br>"It would be her parent that should make stop they just have to *say it to* their parents." (CD 1103)<br>"By *telling* an adult and the adult talks to him." (Dep 2318)<br>"I could tell her to **talk** to the teacher **about** it." (ADHD 1125)<br>"**talk about** issues with a trusted adult." (CD 1221)<br>---<br>*Atypical:*<br>"help her say something." (CD 1114) | - talk about<br>- aware<br>- *tell*<br>- *say it to* | Careful!<br>Don't double code talking (C13). |
| To target | Inform the target (or not) to gain understanding of the problem. May include sharing a diagnosis. | "*Tell* him he's in **depression**." (Dep 1126)<br>"by **talking** to him **about** his problems." (Dep 1429)<br>"don't *tell him* that will scary him." (Anx 2320)<br>---<br>*Atypical:*<br>"*Explaining* what he is doing." (CD 1121) | - label (name of problem)<br><br>- *explain* | Careful!<br>"Explain" = C4 or C11 |
| **Category** | **Definition** | | | |
| **C12: Investigation of problem** | Information gathering to better understand the problem.<br>Identification of problem and/or hypothetical causes => to find a solution. Multiple courses of action sometimes identified. | | | |
| **Subcategory** | **Definitions** | **Examples (verbatim)** | **Key Words** | **Coding Rule** |
| (No subcategories.) | | "It **depends** what is wrong with her. If it is divorce, she could see a therapist, If it is she got a bad grade, study with her to help." (Dep 1215)* (C10, C6)<br>"**Maybe** look at her surroundings look how she | - find out<br>- check<br>- depends<br>- maybe | Code only if asking about the problem.<br><br>Reminder: Double code solutions proposed. |

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| | | lives. It might only be she's not eating properly." (Dep 1225)<br>"**Maybe check** how it's going in her family. Maybe something happened and no one knows about it." (Anx 1225)<br>"**Find out** what happened in her past and why she is reacting now to her peers." (CD 1210)<br>"**Ask** her if she has any **problems** at school or at home." (ADHD 1225)<br>"Someone could **ask** her about her **problems**." (CD 2319)<br>"**Ask** her **what's wrong**." (Dep 1114)<br>"**ask** her if she's maybe on drugs." (CD 1114)<br>"**Ask why** is she doing this." (CD 1212)<br>---<br>*Atypical*<br>"really dig deep down inside of him, and **see what's wrong**!" (ADHD, 1206)<br>*NOT:*<br>"ask him questions." (ADHD 1214) | - ask about problem<br>- ask what's wrong<br>- ask if something is wrong<br>- ask why | Code only if clearly asking <u>about</u> the problem. |
| **Category** | **Definition** | | | |
| **C13: Talking** | The solution is simply to communicate.<br>Involves talking to the target or the target talking to someone. | | | |
| **Subcategory** | **Definitions** | **Examples (verbatim)** | **Key Words** | **Coding Rule** |
| (No subcategories.) | | "You can help him by **talking to** him." (Dep 1219)<br>"maybe he just need to **talk to** somebody." (Dep 1124)<br>"<u>Maybe someone can **talk to her**</u> to get her mind off it." (Anx 1205)* C5<br>---<br>*Atypical:*<br>"By saying something to him." (Anx 2222)<br>*NOT:*<br>"<u>talk to the teacher about it</u>." (ADHD 1125) (C11) | **- talk, talking to**<br>- *discuss*<br>- *say* | Do NOT code when talking is to investigate (C11) or is the reason for consulting (C10). |

| **Category** | **Definition** | | | |
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| **C14: Other** | All responses that do not fall under the existing categories and responses that are unclear or ambiguous. | | | |
| **Subcategory** | **Definitions** | **Examples (verbatim)** | **Key Words** | **Coding Rule** |
| Problem solving | | "see what *problems* she may have. Then you can try to **solve** them." (CD 2203) | - *problem*<br>- solve | If not C1 to C13, blank, "I don't know" or "No help" = C14.<br><br>Reminder: Code C14 when not sure. |
| Ask for help | | "Maybe by **saying** to the teacher she **needs help**." (Dep 1203)<br>"to tell him to **ask** his parents **for** extra **help**." (Dep 1204) | - say need help<br>- ask for help | |
| Generic help | Help is vague and unspecific. | "By *helping* her." (Dep 1123)<br>"well if someone *helps* him he might." (CD 2315)<br>*NOT:*<br>"*helping* him listen." (ADHD 1307) (C14-listen) | - *help* | |
| Referral | | "By saying I know someone that can help you if you want to." (CD 1203) | | Not C10 Consultation. |
| Listen | The solution is for the target or other person to listen. | "If she just **listens** she would do good in school." (ADHD 1123)<br>"**listening** to her feelings." (ADHD 1112)<br>"they can take the time to **listen** to him." (CD 1309) | - listen | |
| Activities, games and fun | The focus of the strategy is on the game or activity. | "His friends could find **fun games**." (Dep 1113)<br>"He could do an **activity**." (Anx 1113)<br>"do **fun stuff** to put her mind off of it." (Dep 1125)* (C5)<br>"Invite him to play **active games**." (Dep 1221)<br>"You can *play* **a sport** with her." (Anx 1207)* (C1) | - games<br>- activity<br>- fun<br>- sport<br>- *play* | CODE school activities only if non-academic. |
| Laughter | | "By trying to make her **laugh**." (Dep 1316)<br>"by doing **jokes**." (Dep 1320) | - laugh<br>- jokes | |
| Simplify life | | "To make **life more simple**, one step at a time." (Anx 2310) | - life<br>- simple | |
| Religion | | "Make her go to **church**." (CD 2208) | - church | |

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| Wake-up call | | "In class I could give him a wake-up call." (ADHD 1110) | | |
| Suppression | | "helping her with her problems staying inside more." (ADHD 1203) | | |
| Cognitive restructuring (!) | Changing or challenging thoughts and/or feelings. Strategy or outcome. | "By making him **think** positive." (Anx 1128)<br>"so she can **think** that she is not stupid." (Dep 2316)<br>"*change his mind* to happy **thoughts**."(Dep 1221)<br>"listening to her *feelings* and <u>maybe could make them **change**</u>." (ADHD 1112)* (C14) | - think<br>- thoughts<br>- *change*<br>- *feeling, feel* | Careful!<br>"Change mind" = C5 or C14 |
| | Includes experiment. | *Atypical:*<br>"make her do a test and you fail it and so she can see she's very very good at school."(Dep 1302) | | |
| | | *NOT:*<br>"let her know that she can change and leave all the bad things inside her behind." (CD 1220) (C2) | | Do NOT code if more about encouragement. |
| Confidence/ Assertiveness | Target in self or other in target. | "to be **confident** and to **believe** he could pass his grades." (Anx 1102)* (C6)<br>"By having a lot of **confidence** in her." (Dep 2206)<br>"all she needs is **to believe in herself**." (ADHD 1201)<br>"By telling her to **be herself**." (ADHD 1105)* (C3)<br>"**Standing up for yourself**." (Anx 1305) | - confident<br>- believe in self<br>- be yourself<br>- stand up for yourself | Double code if necessary.<br>e.g. confident about grades. |
| Positive outcome | Strategy consists of making the target feel good, happy or better. | "**Make him feel good** about himself." (Dep 2309)<br>"to **make her feel better**." (Dep 1112)<br>"maybe he just need to talk to somebody <u>to **make it better** and have a smile.</u>" (Dep, 1124)* C13<br>"**Make him** feel **happy**." (Dep, 1107) | Make him/her:<br>- better<br>- happy<br>- feel good<br>- feel better | Careful!<br>"Make" but not C7 regulation. |

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| Positive outcome (cont'd) | | *Atypical:*<br>"show her **happiness**." (Dep 2312)<br>"Tell her about **happy** thing." (Dep 1315) | - happy<br>- happiness | |
| Comfort/Care | Non-verbal. | "Show him that you **care** about him!" (ADHD, 1206)<br>"**Comfort** her as much as possible." (Anx 1217) | - care<br>- comfort<br>- hug | If verbal then code C2 reassurance. |
| Attention from others | | "she could ask for *attention* from her parents." (Dep, 2314)<br>"Tell him that there are other ways to get *attention*." (CD 2209) | - *attention* | Careful!<br>Not Focus (C5) |
| Special help | Special program<br><br>Special class<br><br>Behavioural techniques | "Teacher could do second step with him." (ADHD 1113)<br>"By giving him special class." (ADHD 1313)<br>"There are also behaviour techniques." (ADHD 2310) | | Code C14 (not C6) as not clearly or exclusively about academics. |
| Effort | | "By telling her to **try** as hard as possible to do the opposite of the things she does." (ADHD 1224)* (C3, C7)<br>"tell Lina to **try** harder." (ADHD 1306) | - try | |
| | | *NOT:*<br>"all she needs is to believe in herself <u>because she doesn't try hard enough</u>." (ADHD 1201) | | Do NOT code if lack of effort is identified as a cause but effort is not proposed as a solution. |
| | Hard work | "make her work very very very hard." (Anx 1302) | | |
| Patience/ perseverence | | "helping him…be **patient**." (ADHD 1307)<br>"Support her through anything and everything and <u>keep going until she is not like that anymore</u>." (ADHD 1220)* (C1) | - patient | |
| Reminder/ repetition | | "by **repeating** to him to do something." (ADHD 1311)<br>"**reminding** her that she have good marks." (Anx 1315)<br>"**Reminding** her things she needs." (ADHD 2220) | - remind<br>- repeat | |

| Category | Definition | | |
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| **C15: No Help** | Help for the problem is not possible or not given. As a result, no strategy or solution is provided. | | |
| **Subcategory** | **Definition/ Coding rule** | **Examples (verbatim)** | **Key Words** |
| Not possible | Code subcategory:<br>- not possible<br>- not given | "They **can't**." (ADHD 2206)<br>"I **don't think you can help** her. She is **born** that way." (ADHD, 2306)<br>"Well probably **no one** because if your **born** like that there are more chances she stays like that." (CD 1123)<br>---<br>*Atypical:*<br>"you **can do nothing** he'll just change eventually." (ADHD 2323)<br>"Is not someone but is the time." (Anx, 1421)<br>--- | - I don't think…<br>- no one<br>- nothing<br><br>Not possible:<br>- can't help<br>- nobody/no one can help<br>- born that way |
| Not given | | "I **don't think anyone would wanna** help her cuz shes mean." (CD 2306)<br>"I **don't think** a child can or else he/she get beaten up." (CD 1104)<br>---<br>*Atypical:*<br>"You **cannot** mess with some one's life." (ADHD 2109)<br>"I would **do nothing** because since he would be rude to everyone especially my friends I would just say he's rude." (CD 1208) | Not given:<br>~ won't help<br>~ shouldn't help |
| | Do NOT code if not providing help is part of a help strategy. | *NOT:*<br>"I think nobody should help her but only ignore her and maybe she will get tired of being like that and stop." (CD 1111; coded C7-extinction) | |