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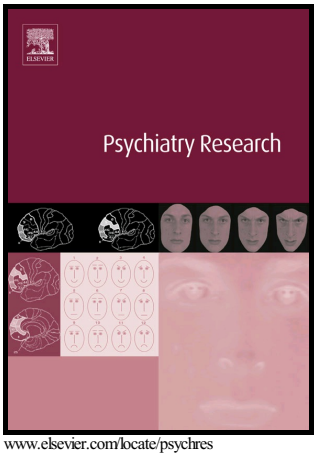

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The Stigma of Mental Illness in Children & Adolescents:

A Systematic Review

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Abstract

One in ten children and adolescents suffer with mental health difficulties at any given time, yet less than one third seek treatment. Untreated mental illness predisposes to longstanding individual difficulties and presents a great public health burden. Large scale initiatives to reduce stigmatization of mental illness, identified as a key deterrent to treatment, have been disappointing. This indicates the need for a clearer understanding of the stigmatizing processes faced by young people, so that more effective interventions are employed. A systematic review of the literature, assessing public stigma and self-stigma (i.e. internalized public stigma) specifically in children and adolescents with mental health difficulties (YP-MHD), was conducted. Forty-two studies were identified, confirming that stigmatization of YP-MHD is a universal and disabling problem, present amongst both children and adults. There was some variation by diagnosis and gender, and stigmatization was for the most part unaffected by labelling. Self-stigmatization led to more secrecy and an avoidance of interventions. The findings confirm that stigmatization of mental illness is poorly understood due to a lack of research and methodological discrepancies between existing studies. Implications for the findings are discussed, and suggestions made for future research.

Key words: Social Stigma, Stigmatization, Social Discrimination, Child, Adolescent, Mental Health, Mental Disorders

1. Introduction

1.1. Mental health difficulties in children and adolescents

Mental health difficulties in children and young people are prevalent, estimated to affect 10%-20% of 5-18 year olds (Green et al., 2004; U.S. Public Health Service., 2000). Indeed, half of all lifetime cases of mental illness begin by age 14 (Sawyer at al., 2000; Kessler et al., 2005a; Kessler et al., 2005b). Untreated, they present a profound and longstanding impact on the individual and society (Patel et al., 2007; Jokela et al., 2009; Moses T., 2009a; Post et al., 2010). Having a mental health difficulty from a young age is associated with educational underachievement, family disruption, substance misuse and violence. Young sufferers experience poorer physical and sexual health than peers without mental health problems (Farina and Felner, 1973; Barkley, 2002; Donenberg and Pao, 2005), and have increased mortality rates from suicide and accidental injury (Gould et al., 2003; Aaron et al., 2004; Commission on Adolescence Suicide Prevention, 2005; Vijayakuma et al., 2005). On a societal level, public sector spending on untreated young sufferers presents a significant socioeconomic burden at £59,000 per child per year (Department of Health, 2001; Green et al., 2004) - 10 times higher than spending on unaffected peers (Scott et al. 2001; Romeo et al., 2006). For the purpose of this paper, YP (young persons) will be used to describe 'children and adolescents without mental health difficulties', and YP-MHD will be used to describe 'children and adolescents under 18 with mental health difficulties'.

1.2. What is stigma?

Stigma has been defined as a deeply discrediting attribute associated with a given condition, directed towards those of considered lower social standing (Goffman, 1963). It consists of three key components: Stereotypes, prejudice and discrimination (Corrigan, 2005; Thornicroft, 2006). Stereotypes are learned, oversimplified and often negative attitudes embedded in society,

which allow individuals to generate quick impressions of specific subgroups (e.g. psychiatrists are eccentric), without necessarily believing in them (Jussim, 1995). Prejudices are endorsed stereotypes, meaning they are accompanied by negative emotional reactions. This inevitably leads to avoidance and social distancing, resulting in discrimination. Public stigma refers to the reaction of the general public towards stigmatized groups; it can be further differentiated into personal stigma (an individual's own views of a stigmatized group) and perceived stigma (an individual's perception of how others view a stigmatized group).

The extent to which a stigmatized individual is aware of public stigma has been termed stigma consciousness (Pinel, 1999; Thornicroft et al., 2007). The greater one's stigma consciousness, the more likely they are to internalize public stigma, i.e. to self-stigmatize (Corrigan and Watson, 2002b). This makes them more likely to exhibit unfavorable behaviors in line with stereotypes (such as withdrawing from the general public), resulting in a perpetuating, negative cycle (Pinel, 1999). The result is one of impaired self -esteem and avoidance of treatment, leading to poorer long-term outcomes (Corrigan and Watson, 2002a).

1.3. Stigma in YP-MHD

It is increasingly evident that YP-MHD experience stigmatization, from both adults and children (Weiss, 1986; Adler and Wahl, 1998; Rose et al., 2007). Research has shown that YP-MHD are more stigmatized than children with physical illness or learning disability (Wilkins and Velicer, 1980) and that stigmatizing views and behaviors can develop from early childhood. Children as young as 6 appear to grasp everyday terms associated with mental illness and are well familiarized with cultural stereotypes by age 10, or even earlier if they themselves form part of a stigmatized group (Costello et al., 2006; Gale, 2007).

Stigmatizing views in YP are believed to develop as an assimilation of parent/carer views (Gale, 2007), media representation and cognitive development (Donenberg and Pao, 2005); and children are also more vulnerable to stigmatization due to their lower social status (Phares, 2003).

There are key developmental considerations as to why understanding and targeting the stigmatization of YP-MHD, by both adults and children, is paramount. Firstly, the use of mental health services by YP-MHD is remarkably low (Sawyer et al., 2001; Essau, 2005; Zachrisson at al., 2006)

and stigma has been identified as an especially important barrier to help-seeking (Penn et al., 2005; Pescosolido et al., 2007b; Gulliver et al., 2010; Mukolo et al., 2010; Clement et al., 2014). Early intervention can result in long-term benefits (Barrett et al. 2001, Biederman, 2003; Hazell, 2007), which highlights the importance of accessing early effective care.

Secondly, stigmatization of YP-MHD may influence personal identity and independence in the long-term, as adolescence in particular is a key stage in the development of autonomy (Hinshaw S.P., 2005). Positive peer relationships are important not only for promoting self-esteem, adjustment and resilience (Brown and Lohr, 1987; Parker et al., 1995; Azmitia, 2002), but also result in better outcomes in YP-MHD (Bagwell, et al., 1989). Hence, if YP-MHD are stigmatized by peers, they are more likely to avoid seeking support (Chandra and Minkovitz, 2006), and less likely to do well in the future.

1.4. The purpose of this study

Unfortunately, stigmatization of YP-MHD is under-researched and not well understood (Hinshaw, 2005; McKeague et al, 2015), yet children are not necessarily stigmatized as their adult counterparts, and stigma is likely to have different long-term implications based on a child's development. This lack of a more specific understanding has resulted in expensive large scale national initiatives with predominantly disappointing results (Rickwood et al., 2004). A clearer understanding of the origins and constructs of the stigmatization of YP-MHD could better inform future stigma reduction policies and improve engagement, peer relationships and outcomes. This paper sets out to systematically review the literature examining the stigmatization of YP-MHD by adults and peers. Specifically, the objectives of the review were to identify how stigmatization of YP-MHD was affected by diagnosis, age and demographics and which key themes identified in the adult literature pertained to YP-MHD. We hypothesized, in line with the adult literature, that:

- Not all conditions would be stigmatised equally and that certain stigmatizing views would be more prominent in certain conditions e.g. dangerousness in psychosis.
- females and individuals of higher education attainment would be less stigmatising towards YP-MHD;
- Stigmatisation of YP-MHD would increase with increasing age of unaffected peers

- Children and adolescents experience self-stigma and that this would have a detrimental effect on their emotional wellbeing.

2. Methods

Following PRISMA guidelines (Moher et al., 2009), Pubmed, PsycINFO, and the Cochrane Library were searched by 2 authors working collaboratively (AK and EK) for original research papers published between 1980 and 2015, examining stigmatization of YP-MHD. Search terms used were:

- Stigma: stigma, self-stigma, discrimination, prejudice, attitude, stereotype
- Mental illness: mental, psychiatric, psychological, AND illness OR disorder OR disturbance OR difficulty; Individual searches were also conducted for commonly diagnosed or significant conditions in childhood.
- Children and adolescents: adolescent* OR child* OR young person*".

For a full list of the individual searches conducted please refer to supplement 1.

Abstracts (and where necessary full reports) were screened independently by AK and EK. Only English language, original research papers, assessing adults' and YP stigmatizing views towards YP-MHD (specified age range 0-18) or self-stigma in YP-MHD were included in the review. Papers were excluded if:

- They did not address any component of mental health stigma
- They examined stigmatization towards individuals outside the 0-18 specified age range. If the papers concerned a wider age range but had extractable data for the 0-18 age group, these were included.
- They reviewed stigmatization following a stigma reducing intervention.
- The paper was a review article
- There was no extractable data
- They focused on stigmatization of mental health treatment, which we considered to be important enough to warrant a separate review.

Eligible papers were hand-searched for relevant references meeting the same criteria.

Data was extracted using a predetermined data extraction sheet. Methodological quality was assessed using the Effective Public Health Practice Project "Quality Assessment Tool for Quantitative Studies (EPHPP),which gave ratings of either strong, moderate or weak quality. Qualitative studies were assessed using the Critical Appraisal Skills Programme (CASP) (Public Health Resource Unit, 2006), resulting in ratings of either good or weak methodological rigor. Data and quality were assessed independently by two of the authors (AK and MK) and discrepancies were discussed until a consensus was reached.

Qualitative data was analyzed using a thematic analysis approach (Liamputtong and Ezzy, 2005). An initial coding framework was manually created by AK, deduced from examination of this literature and background reading on stigma in mental health disorders. AK and MK then applied the coding template to the papers, revising the framework as was necessary until themes were identified.

3. Results

The database searches returned 5925 items after the removal of duplicates. Screening titles and abstracts identified 27 studies which met all 3 inclusion criteria (Fig. 1). A hand-search of reference lists resulted in a further 15 relevant studies, resulting in a total of 42 studies for the purpose of this review.

Thirty-two papers examined YPs' stigmatizing views towards YP-MHD (Table 1) and 7 papers examined adults' stigmatizing views towards YP-MHD (Table 2). Of these 39 papers, 31 reported on quantitative findings, ranging in quality from strong (10 studies), to moderate (15 studies) and weak (6 studies). Eight papers were qualitative in nature, and all of good methodological rigour, but one (Poster et al,1986). Only 3 papers were found, by the same author, examining self-stigmatization. These were mixed methods papers of robust methodological means.

Studies were mainly conducted in the USA, followed by the United Kingdom, Ireland, Israel, Australia, Iran, Canada, Greece and Japan. Papers were published between 1985 and 2015 and participant numbers varied from 24 to 55,520. The age of participants in papers examining YP views was 6-18. Papers examining adults' views did not all specify participants' age range. All

studies but one (Harris et al., 1992) included male and female participants. The following results summarize the main findings.

3.1. Key themes in the relationship between mental illness and stigma in YP-MHD

All 42 identified studies examining adults' and YPs' views evidenced that YP-MHD experienced stigmatization (Table 1). Most identified papers measured personal stigma. Regardless of assigned quality ratings, YP-MHD were consistently more stigmatized than unaffected peers (Peterson et al., 1985; Poster et al., 1986; Harris et al., 1992; Friedrich et al., 1996; Brook et al., 2000; Brook and Geva, 2001; Campbell et al., 2004.; Corrigan et al 2005.; Ghanizadeh et al., 2006; Pescosolido et al., 2007a; Mukolo and Heflinger, 2011; O'Driscoll et al., 2012; Ohan et al., 2013; Swaim and Morgan, 2001; Bellanca and Pote, 2013). They were more stigmatized than peers with learning difficulties (Brook and Geva, 2001; Bellanca and Pote, 2013) and peers with physical health conditions and disability (Corrigan et al., 2005; Martin et al., 2007; Pescosolido et al., 2007a; Walker et al., 2008; Mukolo and Heflinger, 2011). The only condition more stigmatizing than mental health difficulties was alcohol misuse (Corrigan et al., 2005).

Interestingly, the only study that compared the same mental health condition in adults and children reported childhood depression to be considered more severe than adult depression (Perry et al., 2007). The key, identified themes related to stigmatization were consistent with findings in the adult literature. These were as follows:

3.1.1. Blame and responsibility

Ten studies commented on the role of 'blame/responsibility' on stigmatization. Seven examined YP views (Peterson et al., 1985; Corrigan et al., 2005; Coleman et al., 2009; Swords et al., 2011; O'Driscoll et al., 2012; Dixon et al., 2013; Dolphin and Hennessy, 2014; O'Driscoll et al., 2015) and two examined adults' views (Martin et al., 2007; Mukolo and Heflinger, 2011). The degree of blame varied by diagnosis (e.g. Corrigan et al., 2005). High caliber qualitative and quantitative means found that where causal attributions were identified as beyond the child's control, YP-MHD were not blamed (Peterson et al.,1985; Dolphin and Hennessy, 2014; O'Driscoll et al., 2015).

3.1.2. Behavioral Intentions and Social Distance

Eighteen studies, of varying scientific rigor, examined social distance/behavioral intentions, making it the most frequently assessed construct of stigmatization (Table 1). Blaming views were associated with a desire for greater social distance (Corrigan et al., 2005; Coleman et al., 2009; Dixon et al., 2013). The desire for social distance was also reliably related to diagnosis (Martin et al., 2007; Walker et al., 2008; Mukolo and Heflinger, 2011; Ohan et al., 2013); ethnicity (Mukolo and Heflinger, 2011); participant age (Martin et al., 2007) and identification with YP-MHD (Secker et al., 1999). Negative beliefs and attitudes were mirrored with negative behavioral responses (Harris et al., 1992; Moses T., 2010b). Positively, negative emotions and attitudes were not always predictive of peer exclusion (Friedrich et al., 1996; Swaim and Morgan, 2001; Campbell et al., 2004; O'Driscoll et al., 2012; Washington et al., 2012; Dolphin and Hennessy, 2014; Mavropoulou and Sideridis, 2014). Being white, female, and educated resulted in less social distance (Martin et al., 2007).

3.1.3. Dangerousness

Dangerousness was endorsed more frequently in YP-MHD than in YP with physical disorders or normal troubles (Pescosolido et al., 2007a). Participants rated female mental health sufferers as less dangerous than their male counterparts, and fourteen year olds as less dangerous than eight year olds (Poster et al., 1986). 'Dangerousness' was most often, - but not always (O'Driscoll et al., 2012)-, associated with psychotic or behavioral disorders (Secker et al., 1999; Yoshioka et al., 2013), though it was also identified as a stigmatizing belief in depression (Reavley and Jorm, 2011). Children aged 12-13 more commonly reported perceptions of dangerousness than children aged 6-7 (Spitzer and Cameron, 1995). Surprisingly, greater familiarity increased perceptions of dangerousness in some YP-MHD (Corrigan et al., 2005). Adult studies mirrored the above findings (Martin et al., 2007; Pescosolido et al., 2007a) with some adults believing depressed children to be more dangerous than depressed adults (Perry et al., 2007).

3.1.4. Familiarity

Six studies commented on the role of familiarity (i.e. experiencing or knowing someone with a mental illness) in shaping attitudes towards YP-MHD (Secker et al., 1999; Corrigan et al., 2005; Law et al., 2007; Martin et al., 2007; Bellanca and Pote, 2013; Mavropoulou and Sideridis, 2014). Results were inconsistent: familiarity was identified as decreasing (Bellanca and Pote,

2013; Mavropoulou and Sideridis, 2014; Secker et al., 1999), increasing (Corrigan et al., 2005) or not affecting stigmatizing attitudes (Law et al., 2007). These differences could not be explained based on quality ratings. Amongst adult participants, personal contact with YP-MHD only reduced stigmatization if this contact was rated as positive (Martin et al., 2007).

3.2. Stigmatization varies by mental health diagnosis

In order to examine the first hypothesis, the authors searched the identified literature for stigmatizing views related to specific disorders. Eleven papers, of predominantly robust methodological means, looked at stigmatization by diagnosis (Table 1 & Table 2). Nine papers looked at depression (Poster et al., 1986; Secker et al., 1999; Walker et al., 2008; Coleman et al., 2009; Swords et al., 2011; O'Driscoll et al., 2012; Bellanca and Pote, 2013; Dixon et al., 2013; Ohan et al., 2013); 6 papers examined Attention deficit and hyperactivity disorder (ADHD) (Walker et al., 2008; Coleman et al., 2009; Swords et al., 2011; O'Driscoll et al., 2012; Bellanca and Pote, 2013; Ohan et al., 2013); 3 papers examined anxiety (Poster et al., 1986; Dixon et al., 2013; Yoshioka et al., 2013), 3 papers examined schizophrenia (Poster E., 1992; Secker et al., 1999; Yoshioka et al., 2013) 1 paper examined anorexia (Secker et al., 1999) and 1 paper studied Borderline personality disorder (Catthoor et al., 2015).

It is unclear whether ADHD or depression in children is more stigmatized by YP (Walker et al., 2008; Coleman et al., 2009; Swords et al., 2011; O'Driscoll et al., 2012; Bellanca and Pote, 2013). Adults appear to stigmatize depression more than ADHD (Ohan et al., 2013). Children with anxiety were favored over children with depression (Dixon et al., 2013). YP generally recognized schizophrenia as a mental illness (Poster E., 1992; Secker et al., 1999; Yoshioka et al., 2013), but were less clear about anorexia (Secker et al., 1999) and social phobia (Yoshioka et al., 2013). In Catthoor et al. (2015), borderline personality disorder was the highest rated condition with regards to stigmatizing experiences.

3.2.1. A mental health label does not necessarily increase stigma, but a negative behavioral description does.

Six studies looked at the interaction between mental health labels and actual/described behavior on stigmatizing attitudes towards YP-MHD; 4 studies examining YPs' views (Harris et al., 1992;

Friedrich et al., 1996; Swaim and Morgan, 2001; Law et al., 2007) and 2 studies looked at adults (Martin et al., 2007; Ohan et al., 2013). The 4 studies examining YPs views found that the addition of a diagnostic label did not increase stigmatization but rather that participants were reacting to the behaviors present or described in the target children. This finding was consistent, despite varying methodological considerations. In the 2 carefully considered adult studies, despite using different quantitative tools, the addition of a mental health label or the recognition of the child as "mentally ill" did result in an increase in stigmatization. Although there appears to be a difference in the way adults and YP responded to the addition of a label, overall it is the delivery of a negative description and actual behavior that results in the most discrimination.

3.3. The impact of demographic factors on stigmatization

3.3.1. Age

The authors hypothesized that stigmatization of YP-MHD would increase with increasing age. Looking at the evidence, 15 papers studied the relationship between participants' age and stigmatizing attitudes (Table 1). Despite different quality ratings, knowledge of mental health difficulties improved with increasing age, (Poster, 1992; Spitzer and Cameron, 1995; Brook and Geva, 2001). However, knowledge did not equate to acceptance. A number of high quality studies, predominantly comparing primary school children of 2 different ages, identified younger children to be more accepting than older children (Peterson et al., 1985; Swaim et al., 2001;Campbell et al., 2004; Bellanca and Pote, 2013; McKeague et al, 2015). This contrasted with the carefully considered work of Swords et al (2011), who found that adolescents aged 14-18 were more positive than children aged under 12, towards peers with ADHD and depression. Some studies found no differences in beliefs about YP-MHD (O'Driscoll et al., 2015).

Amongst adult participants, participant age did not impact on endorsed beliefs (Mukolo and Heflinger, 2011). In other studies the observed relationships were much more complex and dependent on other variables (O'Driscoll et al., 2012; Mavropoulou and Sideridis, 2014;). In two studies, attitudes were similar across grades, with subtle differences depending on the specific construct being measured (Mavropoulou and Sideridis, 2014). A comparison of 13-17 year olds with 18-24 year olds found that adolescents and their families had greater difficulty with disclosure and

acceptance than the older age group and their families (Elkington et al., 2012). Identifying with the character based on age was helpful in reducing stigma (Secker et al., 1999).

3.3.2. Gender

The relationship between gender and stigmatization was examined in twenty-three papers. As predicted in the hypothesis and identified in many studies of adults' views, several robust studies identified more positive attitudes amongst female participants (Peterson et al., 1985; Martin et al., 2007; Reavley and Jorm, 2011; Swords et al., 2011; O'Driscoll et al., 2012; Dolphin and Hennessy, 2014; Yoshioka et al., 2014). At the same time, two well executed experiments, looking at Tourette Syndrome and Autism, found male participants to be more positive than females on certain measures of stigma (Friedrich et al., 1996; Swaim and Morgan, 2001) and a third study found boys to be better at recognizing deviant behavior (Spitzer and Cameron, 1995). Females were more likely to endorse stress as a causal factor for mental illness (Swaim and Morgan., 2001) and children were more likely to draw a "crazy person" as male, particularly if they were female (Poster et al., 1986). In some cases, participant gender had no impact on attitudes (Corrigan et al., 1995; Law et al., 2007; Mukolo and Heflinger, 2011; Washington et al., 2012; O'Driscoll et al., 2015) or findings were mixed (Mavropoulou and Sideridis, 2014). Being of the same sex as the child increased identification and reduced stigmatization (Secker et al., 1999). Boys reported more perceived peer stigmatization (Moses T., 2010b). There was some suggestion that children of both genders more often identified a child with psychological difficulties to be male, whereas children with physical difficulties were more often thought of as female (Roberts et al., 1981; Roberts et al., 1984).

3.3.3. Ethnicity

Few studies examined the role of ethnicity in this age group and findings are not comparable due to the quality of the studies and different ethnicities considered (Martin et al., 2007; Walker et al., 2008; Coleman et al., 2009; Moses T., 2010b; Mukolo and Heflinger, 2011; Elkington et al., 2012). There may be a trend towards ethnic minority groups holding more stigmatizing views but this requires further exploration.

3.3.4. Socioeconomic status

Despite hypothesizing that the evidence would find less stigmatizing attitudes amongst individuals of higher educational attainment, only 2 moderately rated papers (Roberts et al., 1984; McKeague et al., 2015) specifically examined the role of socio-economic status in children's perceptions of psychological disturbance. These did not find significant differences between the beliefs of participants in high and low socioeconomic groups.

3.4. Self-Stigma

Only 3 studies were identified to examine the effects of self-stigma on emotional wellbeing in YP-MHD. These were all moderately rated and are summarized in Table 3 (Moses, 2009a; 2009b; 2010a). They looked at the same sample of sixty 12-18 year old YP-MHD. Self-labelling resulted in increased levels of self-stigma and depression and a trend towards a lower sense of self-mastery, but no impact on self-esteem (Moses, 2009a). Self-labelling practices were also more prominent in those with greater perceived public stigma, younger age at initiation of treatment and a higher socio-economic status. Older adolescents; lower age at treatment onset; and being of white ethnicity were linked to higher self-stigma. Less self-stigmatization was noted in those with externalizing disorders e.g. conduct disorder. Parental factors were also of relevance, in that parental optimism and a greater faith in the child's ability to control behavior was protective against self-stigmatization, whereas parental secrecy increased self-stigma (Moses, 2010a), resulting in greater personal rejection and shame.

Correlations were also identified between adolescents understanding/perceptions of mental illness and self-stigma (Moses T., 2010a). Self-stigma increased in adolescents who perceived less control over their mental health difficulties and believed their problems to be life-long. Perceived causal explanations for illness that correlated with increased self-stigmatization were social problems, family problems, trauma, personality/way of thinking, and biological causes. The more causal factors identified per patient, the higher their self-stigma rating. Perceived economic difficulties as a causal factor were not correlated to self-stigmatizing beliefs. Parental secrecy regarding a child's mental health problems also increased self-stigmatization among adolescents.

3.5. Perceived Stigma

Several reliable lines of evidence suggest that perceived stigma is greater than personal stigma (Friedrich et al., 1996; Moses T., 2010b; Elkington et al., 2012; Yoshioka et al., 2014). Girls

and participants aged 12 (as compared to participants aged 9) gave lower ratings for their classmates' behavioral intentions (i.e. perceived stigma) towards a peer with autism than their own (personal stigma) (Swaim and Morgan, 2001). Greater peer stigmatization was also perceived by Whites, males, those receiving treatment from a younger age and youth with at least one mood disorder (Moses T., 2010b). A study examining whether children with ADHD viewed their behaviors as stigmatizing found that diagnosed children reported more perceived stigmatization on all fronts-teachers, parents and peers (Wiener et al., 2012), which had knock on effects on their global self-worth.

4. Discussion

4.1 Summary of findings

This paper is, to the best of the authors' knowledge, the first systematic review examining stigma specifically towards YP-MHD. With this in mind, the authors investigated a number of pre-determined hypotheses guided by the adult literature, and conducted a thematic analysis to start to build a picture of stigmatization in this age group.

Most notably, the evidence for stigmatization in YP-MHD was found to be significant, universal and multifaceted, with levels of stigmatization varying depending on the characteristics of both the stigmatizers and the stigmatized. There were several parallel themes between stigmatization of YP-MHD and adult patients. Specifically, YP-MHD, like their adult counterparts, suffered more discrimination than peers with other health needs; and themes such as familiarity and blame/responsibility had discreet effects on the degree of stigmatization individuals experienced. Consistent with the adult literature (Chandra and Minkovitz, 2006; Burke et al., 2008; Andersson et al., 2010) and our hypothesis, males were both more stigmatized and more stigmatizing than females, possibly as a result of the same widely held belief that males should be self-sufficient at managing mental health difficulties, leading to a lower uptake of treatment by male children. Also consistent with the hypotheses, there was evidence of variation in stigmatizing views based on participants' diagnosis; and stigmatizing beliefs for the most part appeared to increase with age, possibly as children's awareness of mental health difficulties increased. It was not felt possible to

comment on the impact of socioeconomic status and ethnicity, as studies were too few and varied in their methodology.

At a rate of 25%, Moses (2009a) found the prevalence of self-stigmatizing attitudes to be lower than adult self-stigmatization figures. The strongest evidence for stigmatization due to 'labeling' was also amongst adults. Today's youth may be more open and supportive of YP-MHD, and the media's role in normalizing MHD may be filtering through to YP-MHD such that they no longer feel as "singled out". Although encouraging, this leaves much room for improvement for the 25% who will suffer self-stigmatizing attitudes, resulting in secrecy, denial and possible poorer outcomes (Moses T., 2010b).

4.2. Limitations

Whilst this review represents a promising start to our understanding of stigma towards YP-MHD, it has some limitations.Firstly, although 42 papers were identified, the rich variation in methodology, sample size and subsequent quality presented a challenge in comparing the data, as the concepts being investigated were not always like-for-like. This is in part due to the absence of standardized, validated tools, to compare experiences of stigma in YP-MHD, until recently (McKeague et al, 2015). Hence, this made it difficult to both draw comparisons between groups, and also investigate change over time. Secondly, the studies only reviewed a limited number of stigma components. Thirdly, due to the specific age range reviewed for the purposes of this paper, recent studies which overlapped with our age range but from which we could not readily extract child-specific data were excluded. Fourthly, most studies also looked at self-reporting of stigmatizing attitudes and this may not reflect true behavioral intentions. Finally, evidence regarding self-stigmatization came from only one sample of YP-MHD

4.3. Future directions

It was very positive to identify that YP may present as more accepting than adults of YP-MHD. YP reacted to the behaviors displayed by their peers rather than any labels attached,

whichsuggests that naming the concern, so that appropriate interventions can be sought, may not have such a negative impact on YPs' attitudes.

Future studies will need to further investigate sex-related aspects of stigmatizing attitudes and in particular why females have less stigmatizing views than males, and at what point self-stigmatization develops in both sexes. It is also important to understand why familiarity and knowledge do not necessarily equate to a reduction in stigmatizing views, as this may often be an assumption when designing projects to reduce stigmatization. There is a need to replicate the above work to ensure findings are reproducible and more widely applicable, and to invest in longitudinal studies to understand how stigma evolves across the developmental trajectory of children and adolescents.

Based on our findings, future investment should aim at

- Targeting gender differences with special emphasis on males e.g. working with boys' schools and providing better pastoral care.
- Targeting worries associated with specific diagnoses e.g dangerousness in psychosis.
- Offering tailored psychoeducation following diagnosis to YP-MHD and their family. The evidence has shown that those with a greater sense of responsibility for their illness have a higher level of self-stigma, so specific psychoeducation programs around this may reduce the impact of this false notion.
- Offering family orientated interventions. Unless stigma is addressed within families, transgenerational transmission of stigmatizing attitudes will continue to affect access to services and appropriate treatment of YP with mental health problems. Families in lower socioeconomic groups may be in greater need of intervention of this kind.
- Setting up anti-stigma campaigns led by individuals with an understanding of the wider cultural context. A 'one size fits all' approach is likely to fail in an ethnically diverse society, as different cultural beliefs come into play from childhood, influencing attitudes and discrimination.

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REFERENCES

Aaron, R., Joseph, A., Abraham, S., Muliyil, J., George, K., Prasad, J., Minz, S., Abraham, V.J., Bose, A., 2004. Suicides in young people in rural southern India. Lancet 363, 1117–1118.

Adler, A.K., Wahl, O.E., 1998. Children's beliefs about people labelled mentally ill. Journal of the American Orthopsychiatric Association 682, 321-326.

Andersson, H.W., Biorngaard, J.H., Kaspersen, S.L., Wang, C.E., Skre, I., Dahl, T., 2010. The effects of individual factors and school environment on mental health and prejudiced attitudes among Norwegian adolescents. Social Psychiatry and Psychiatric Epidemiology 45, 569-577.

Azmitia, M., 2002. Self, self-esteem, conflicts, and best friendships in early adolescence. In: Brinthaupt, T.M. (Eds.), Understanding early adolescent self and identity: Applications and interventions. Albany, State University of New York Press, pp. 167–192.

Bagwell, C.L., Newcomb, A.F., Bukowski, W.M., 1998. Preadolescent friendship and peer rejection as predictors of adult adjustment. Child Development 60, 140-153.

Barkley, R.A., 2002. Major life activity and health outcomes associated with attention- deficit/hyperactivity disorder. Journal of Clinical Psychiatry 63, 10–15.

Barrett, P.M., Duffy, A.L., Dadds, M.R., Rapee, R.M., 2001. Cognitive-behavioral treatment of anxiety disorders in children: long-term (6-year) follow-up. Journal of Consulting and Clinical Psychology 69, 135 – 141.

Bellanca, F.F., Pote, H., 2013. Children's attitudes towards ADHD, depression and learning disabilities. Journal of Research in Special Educational Needs 13, 234-241.

Biederman, J., 2003. Pharmacotherapy for attention-deficit/hyperactivity disorder (ADHD) decreases the risk for substance abuse: findings from a longitudinal follow-up of youths with and without ADHD. Journal of Clinical Psychiatry 64, 3–8.

Brook U., Geva D., 2001. Knowledge and attitudes of high school pupils towards peers' attention deficit and learning disabilities. Patient Education and Counselling 43, 31-36.

Brook, U., Watemberg, N., Geva, D., 2000. Attitude and knowledge of attention deficit hyperactivity disorder and learning disability among high school teachers. Patient Education and Counselling 40, 247- 252.

Brown, B.B., Lohr, M.J., 1987. Peer-group affiliation and adolescent self-esteem: An integration of ego-identity and symbolic-interaction theories. Journal of Personality and Social Psychology 52, 47–55.

Burke, S., Kerr, R., McKeon, P., 2008. Male secondary school student's attitudes towards using mental health services. Irish Journal of Psychological Medicine 25, 52-56.

Campbell J.M., Ferguson J.E., Herzinger C.V., Jackson J.N., Marino C.A., 2004. Combined descriptive and explanatory information improves peers' perceptions of autism. Research in Developmental Disabilities 24, 321-339.

Catthoor, K., Feenstra, D.J., Hutsebaut, J., Schrijvers, D., Sabbe, B., 2015. Adolescents with Personality Disorders suffer from severe psychiatric stigma: evidence from a sample of 131 patients. Adolescent Health, Medicine and Therapeutics 6, 81-89

Chandra, A., Minkovitz, C., 2006. Stigma starts early: Gender differences in teen willingness to use mental health services. Journal of Adolescent Health 38, 754- 754.

Clement, S., Schauman, O., Graham, T., Maggioni, F., Evans-Lacko, S., Bezborodovs, N., Morgan, C.,Rüsch, N., Brown, J.S., Thornicroft, G., 2015. What is the impact of mental health-related stigma on help-seeking? A systematic review of quantitative and qualitative studies. Psychological Medicine 45(1), 11-27

Coleman, D., Walker, J.S., Lee, J., Friesen, B.J., Squire, P.N., 2009. Children's beliefs about causes of childhood depression and ADHD: a study of stigmatization. Psychiatric Services 60, 950-957.

Commission on Adolescent Suicide Prevention, 2005. Youth suicide. In: Evans, D.L, Foa, E.B, Gur, R.E., Hendin, H., O'Brien, C.P., Seligman, M.E.P., Walsh, B.T. (Eds.), Treating and preventing adolescent mental health disorders: what we know and what we don't know. Oxford University Press, New York, 431–493.

Corrigan, P.W., 2005. On the stigma of mental illness: Practical strategies for research and social change. American Psychological Association, Washington, D.C.

Corrigan, P.W., Lurie, B.D., Goldman, H.H., Slopen, N., Medasani, K., Phelan, S., 2005. How adolescents perceive the stigma of mental illness and alcohol abuse. Psychiatric Services 56, 544-550.

Corrigan, P.W., Watson, A.C., 2002a. The paradox of self-Stigma and mental illness. Clinical Psychology: Science and Practice 9, 35–53.

Corrigan, P.W., Watson, A.C., 2002b. Understanding the impact of stigma on people with mental illness. World Psychiatry 1, 16-20.

Costello, E.J., Foley, D.L. Angold, A., 2006. 10-year research update review: the epidemiology of child and adolescent psychiatric disorders: II. Developmental epidemiology. Journal of the American Academy of Child and Adolescent Psychiatry 45, 8–25.

Crombie, I., 1996. The Pocket Guide to Critical Appraisal: A Handbook for Healthcare Professionals. BMJ Books: London

Dadds, M.R., Spence, S.H., Holland, D.E., Barrett, P.M., Laurens, K.R., 1997. Prevention and early intervention for anxiety disorders: A controlled trial. Journal of Consulting and Clinical Psychology 65, 627-635.

Dawson, G., 2008. Early behavioral intervention, brain plasticity, and the prevention of autism spectrum disorder. Developmental Psychopathology 20, 775-803.

Dawson. G., Rogers, S., Munson, J., Smith, M., Winter, J., Greenson, J., Donaldson, A., Varley, J., 2010. Randomised controlled trial of an intervention for toddlers with Autism: The early start Denver model. Paediatrics 1, 17 -23.

Department of Health. Public Health, adult social care and the NHS, 2011. Improved mental health therapies for children. http://www.dh.gov.uk/health/2011/10/improved-mental-health-therapies-for-children/. Accessed 20 May 2012

Dixon C., Murray C., Daiches A., 2013. A qualitative exploration into young children's perspectives and understandings of emotional difficulties in other children. Clinical Child Psychology and Psychiatry 18, 72-90.

Dolphin L., Hennessy E., 2014. Adolescents' perceptions of peers with depression: An attributional analysis. Psychiatry Research 218, 295-302.

Donenberg, G.R., Pao, M., 2005. Youth and HIV/AIDS: Psychiatry's role in a changing epidemic. Journal of the American Academy of Child and Adolescent Psychiatry 44, 728–747.

Elkington, K.S., Hackler, D., McKinnon, K., Borges, C., Wright, E.R., Wainberg, M.L., 2012. Perceived mental illness stigma among youth in psychiatric outpatient treatment. Journal of Adolescent Research 27, 290-317.

Effective Public Health Practice Project (EPHPP) "Quality Assessment Tool for Quantitative Studies". http://www.ephpp.ca/tools.html.

Essau, C.A., 2005. Frequency and patterns of mental health services utilization among adolescents with anxiety and depressive disorders. Depression and Anxiety 22, 130-137.

Farina, A., Felner, R.D., 1973. Employment interviewer reactions to former mental patients. Journal of Abnormal Psychology 82, 268–272.

Friedrich, S., Morgan, S.B., Devine, C., 1996. Children's attitudes and behavioural intentions toward a peer with Tourette Syndrome. Journal of Paediatric Psychology 21, 307-319.

Gale, F., 2007. Tackling the stigma of mental health in vulnerable children and young people. In: Vostanis, P. (Eds.), Mental Health Interventions and Services for Vulnerable Children and Young People. Jessica Kingsley Publishers, London, pp. 58- 82.

Ghanizadeh, A., Bahredar, M.J., Moeini, S.R., 2006. Knowledge and attitudes towards attention deficit hyperactivity disorder among elementary school teachers. Patient Education and Counseling 63, 84-88.

Goffman, E., 1963. Stigma: Notes on the management of spoiled identity. London: Penguin.

Gould, M.S., Greenberg, T., Velting, D.M. Shaffer, D., 2003. Youth suicide risk and preventive interventions: a review of the past 10 years. Journal of the American Academy of Child and Adolescent Psychiatry 42, 386–405.

Green, H., McGinnity, A., Ford, T., Goodman, R., 2004. Mental health of children and young people in Great Britain. Office of National Statistics.

Gulliver, A., Griffiths, K.M., Christensen, H., 2010. Perceived barriers and facilitators to mental help-seeking in young people: A systematic review. BMC Psychiatry 10, 113.

Harris, M.J., MIlich, R., Corbitt, E.M., Hoover, D.W., Brady, M., 1992. Self-fulfilling effects of stigmatizing information on children's social interactions. Journal of Personality and Social Psychology 63, 41-50.

Hazell, P., 2007. Does the treatment of mental disorders in childhood lead to a healthier adulthood? Current Opinion in Psychiatry 20, 315-318.

Hood, K.K., Eyberg, S.M., 2003. Outcomes of parent–child interaction therapy: Mothers' reports of maintenance three to six years after treatment. Journal of Clinical Child and Adolescent Psychology 32, 419–429.

Jokela, M., Ferrie, J., Kivimaki, M., 2009. Childhood problem behaviors and death by midlife: The British national child development study. Journal of the American Academy of Child and Adolescent Psychiatry, 48, 19–24.

Jussim, L., Nelson, T.E., Manis M., Soffin, S., 1995. Prejudice, stereotypes, and labeling effects: sources of bias in person perception. J Pers Soc Psychol. 68, 228–246.

Kessler, R., Bergland, P., Demler, O., Jin, R., Merikangas, K.R., Walters, E.E., 2005a. Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the National Comorbidity Survey Replication. Archives of General Psychiatry 62, 593–602

Kessler, R.C., Chiu, W.T., Demler, O., Walters, E.E., 2005b. Prevalence, severity, and comorbidity of 12-month DSM-IV disorders in the National Comorbidity Survey Replication. Archives of General Psychiatry 62, 617–27

Law, G.U., Sinclair, S., Fraser, N., 2007. Children's attitudes and behavioural intentions towards a peer with symptoms of ADHD: Does the addition of a diagnostic label make a difference? Journal of Child Health Care 11, 98-111

Liamputtong P., Ezzy D., 2005. Qualitative Research Methods. Melbourne: Oxford University Press; 2005.

Martin, J.K., Pescosolido, B.A., Olafsdottir, S., McLeod, J.D., 2007. The construction of fear: American's preferences for social distance from children and adolescents with mental health problems. Journal of Health and Social Behaviour 48, 50 – 67.

Mavropoulou S., Sideridis G.D., 2014. Knowledge of autism and attitudes of children towards their partially integrated peers with autism spectrum disorders. Journal of Autism and Developmental Disorders 44, 1867-1885.

McKeague, L., Hennessy, E., O'Driscoll, C., Heary, C., 2015. Peer Mental Health Stigmatization Scale: Psychometric Properties of a questionnaire for children and adolescents. Child and Adolescent Mental Health 20 (3), 163-170.

Moses, T., 2009a. Self-labelling and its effects among adolescents diagnosed with mental disorders. Social Science and Medicine 68, 570 -578.

Moses, T., 2009b. Stigma and self-concept among adolescents receiving mental health treatment. American Journal of Orthopsychiatry 79, 261-274.

Moses, T., 2010a. Adolescent mental health consumers' self-stigma: associations with parents' and adolescents' illness perceptions and parental stigma. Journal of Community Psychology 38, 781-798.

Moses, T., 2010b. Being treated differently: Stigma experiences with family, peers, and school staff among adolescents with mental health disorders. Social Science and Medicine 70, 985- 993.

Mukolo, A., Heflinger, C.A., 2011. Factors associated with attributions about child health conditions and social distance preference. Community Mental Health Journal 47, 286-299.

Mukolo, A., Heflinger, C.A., Wallston, K.A., 2010. The stigma of childhood mental disorders: a conceptual framework. Journal of the American Academy of Child and Adolescent Psychiatry 49, 92–103.

O'Driscoll, C., Heary C., Hennessy E., McKeague L., 2012. Explicit and implicit stigma towards peers with mental health problems in childhood and adolescence. Journal of Child Psychology and Psychiatry 53, 1054-1062.

O'Driscoll, C., Heary C., Hennessy E., McKeague L., 2015. Adolescents' beliefs about the fairness of exclusion of peers with mental health problems. Journal of Adolescence 42, 59-67

O'Driscoll, C., Heary C., Hennessy E., McKeague L., 2015b. Adolescents' Explanations for the Exclusion of Peers with Mental Health Problems: An insight into Stigma. Journal of Adolescent Research, DOI. 10.1177/0743558414550246

Ohan, J.L., Visser, T.A.W., Moss, R.G., Allen, N.B., 2013. Parents' stigmatizing attitudes toward pychiatric labels for ADHD and depression. Psychiatric Services 64, 1270-1273

Parker, J., Rubin, K., Price, J., de Rosier, M., 1995. Peer relationships, child development, and adjustment. In: Cicchetti, D., Cohen, D. (Eds.) Developmental psychopathology: Vol 2. Risk, disorder, and adaptation. Wiley, New York, pp. 96–161.

Patel, V., Flisher, A.J., Hetrik, S., McGorry, P., 2007. Mental health of young people: a global public-health challenge. The Lancet 369, 1302-1313.

Penn, D., Judge, A., Jamieson, P., Garczynski, J., Henessy M., Romer, D., 2005. Stigma. In: Evans, D., Evans, D.L, Foa, E.B, Gur, R.E., Hendin, H., O'Brien, C.P., Seligman, M.E.P., Walsh, B.T. (Eds.), Treating and preventing adolescent mental health disorders: What we know and what we don't know: A research agenda for improving the mental health of our youth. Oxford University Press Oxford, pp. 531-543.

Perry B.L., Pescosolido B.A., Martin J.K., McLeod J.D., Jensen P.S., 2007. Comparison of public attributions, attitudes, and stigma in regard to depression among children and adults. Psychiatric Services 58, 632- 635.

Pescosolido, B.A., Fettes, D.L., Martin J.K., Monahan J., McLeod J.D., 2007a. Perceived dangerousness of children with mental health problems and support for coerced treatment. Psychiatric Services 58, 619-625.

Pescosolido, B.A., Perry, B.L., Martin, J.K., McLeod, J.D., Jensen, P.S., 2007b. Stigmatizing attitudes and beliefs about treatment and psychiatric medications for children with mental illness. Psychiatric Services 58, 615-618.

Peterson, L., Mullins, L.L., Ridley-Johnson, R., 1985. Childhood Depression: peer reactions to depression and life stress. Journal of Abnormal Child Psychology 13, 597-609.

Phares, V., 2003. Understanding abnormal child psychology. New York: Wiley.

Pinel, E.C., 1999. Stigma consciousness: The psychological legacy of social stereotypes. Journal of Personality and Social Psychology 76, 114–128.

Post, R.M., Leverich, G.S., Kupka, R.W., 2010. Early-onset bipolar disorder and treatment delay are risk factors for poor outcome in adulthood. Journal of Clinical Psychiatry 71, 864-872.

Poster E., 1992. Children's Concept of the Mentally ill. Journal of Child and Adolescent Psychiatric Nursing 5 (2), 28-36 DOI: 10.1111/j.1744-6171.1992.tb00119.x

Poster, E.C., Betz, C., McKenna, A., Mossar, M., 1986. Children's attitudes toward the mentally ill as reflected in human figure drawings and stories. Journal of the American Academy of Child Psychiatry 25, 680-686.

Moher D., Liberati A., Tetzlaff J., Altman D.G., The PRISMA Group., 2009. Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement. PLoS Med 6(6): e1000097. doi:10.1371/journal.pmed1000097

Reavley, N., Jorm, A., 2011. Depression Stigma in Australian high school students. Youth Studies Australia 30(2), 33-40.

Rickwood, D., Cavanagh, S., Curtis, L., Sakrouge, R., 2004. Educating young people about mental health and mental illness: evaluating a school-based programme. International Journal of Mental Health Promotion 6, 23-32.

Roberts M.C., Beidleman W.B., Wurtele S.K., 1981. Children's perceptions of medical and physical disorders in their peers. Journal of Clinical Child Psychology Summer 1981, 76.

Roberts M.C., Johnson A.Q., Beidleman W.B., 1984. The role of socioeconomic status on children's perceptions of medical and psychological disorder. Journal of Clinical Child Psychology 13 (3), 243-9.

Romeo, R., Knapp, M., Scott, S., 2006. Economic cost of severe antisocial behaviour in children-and who pays it. British Journal of Psychiatry 188, 547-553.

Rose, D., Thornicroft, G., Pinfold, G., Kassam, A., 2007. 250 labels used to stigmatise people with mental illness. BMC Health Services Research 7, 97.

Sawyer, Arney F.M., Baghurst P.A., Clark J.J., Graetz B.W., Kosky R.J., Nurcombe B., Patton G.C., Prior M.R., Raphael B., Rey J., Whaites L.C. and Zubrick S.R., 2000. The Mental Health of Young People in Australia. Mental Health and Special Programs Branch. Commonwealth Department of Health and Aged Care, Canberra.

Sawyer, M.G., Arney, F.M., Baghurst, P.A., Clark, J.J., Graetz, B.W., Kosky, R.J., Nurcombe, B., Patton, G.C., Prior, M.R., Raphael, B., Rey, J.M., Whaites, L.C., Zubrick, S.R., 2001. The mental health of young people in Australia: key findings from the child and adolescent component of the

national survey of mental health and well-being. Australian and New Zealand Journal of Psychiatry 35, 806-814.

Scott, K.M., Von Korff, M., Angermeyer, M.C., Benjet, C., Bruffaerts, R., de Girolamo, G., Haro, J.M., Lépine, J.P., Ormel, J., Posada-Villa, J., Tachimori, H., Kessler, R.C., 2011. Association of childhood adversities and early-onset mental disorders with adult-onset chronic physical conditions. Archives of General Psychiatry 68, 838-844.

Scott, S., Knapp, M., Henderson, J., Maughan, B., 2001. Financial cost of social exclusion: follow-up study of antisocial children into adulthood. BMJ 323, 191.

Secker, J., Armstrong, C., Hill, M. 1999. Young people's understanding of mental illness. Western Journal of Nursing Research 14, 729-739.

Spitzer, A., Cameron, C., 1995. School-age children's perceptions of mental illness. Western Journal of Nursing Research 17, 398-415

Strain, P.S., Bovey II, E.H., 2011. Randomized controlled trial of the LEAP model of early intervention for young children with autism spectrum disorders. Topics in Early Childhood Special Education 31, 133.

Swaim, K.F., Morgan, S.B., 2001. Children's attitudes and behavioural intentions towards a peer with autistic behaviors: Does a brief educational intervention have an effect? Journal of Autism and Developmental Disorders 31, 195-205.

Swords L., Heary C., Hennessy E., 2011. Factors associated with acceptance of peers with mental health problems in childhood and adolescence. Journal of Child Psychology and Psychiatry 52, 933-941.

Thornicroft, G., 2006. Shunned: discrimination against people with mental illness. Oxford University Press.

Thornicroft, G., Rose, D., Kassam, A., Sartorius, N., 2007. Stigma: ignorance, prejudice or discrimination? British Journal of Psychiatry 190, 192-193.

U.S. Public Health Service, Report of the Surgeon General's Conference on Children's Mental Health: A National Action Agenda. Washington, D.C., Department of Health and Human Services, (2000).

Vijayakumar, L., John, S., Pirkis, J., Whiteford, H., 2005. Suicide in developing countries (2): Risk factors. Crisis: The Journal of Crisis Intervention and Suicide Prevention 26, 112-119.

Walker, J.S., Coleman, D., Lee, J., Squire, P.N., Friesen, B.J., 2008. Children's stigmatization of childhood depression and ADHD: magnitude and demographic variation in a national sample. Journal of the American Academy of Child and Adolescent Psychiatry 47, 912-920.

Weiss, M.F., 1986. Children's attitudes toward the mentally ill: a developmental analysis. Psychological reports 58, 11-20,

Wiener J., Malone M., Varma A., Markel C., Biondic D., Tannock R., Humphries T., 2012. Children's perceptions of their ADHD symptoms: positive illusions, attributions, and stigma. Canadian Journal of School Psychology 27, 217-242.

Wilkins, J.E., Velicer, W.F., 1980. A semantic differential investigation of children's attitudes toward three stigmatized groups. Psychology in the Schools 17, 364-371.

Wright, A., Jorm, A.F., Mackinnon, A.J., 2011. Labelling of mental disorder and stigma in young people. Social Science and Medicine 73, 498-506.

Yoshioka K., Reavley N.J., MacKinnon A.J., Jorm A.F., 2014. Stigmatizing attitudes towards people with mental disorders: results from a survey of Japanese high school students. Psychiatry Research 215, 229-236.

Zachrisson, H.D., Kjetil, R., Mykletun, A., 2006. Utilization of health services in relation to mental health problems in adolescents: A population based survey. BMC Public Health 6, 34.

Table 1:
Detailed analysis of studies investigating young persons (YP) stigmatizing views towards young people with mental health difficulties (YP-MHD)

Number *qua	Views of Young People	Country	No. participants	Age	Gender	Ethnicity	Purpose	Methods	Outcome Measures	Summary of key

Qualitative studies										findings
1	**Bellanca et al 2013** Personal stigma *Quality: Moderate*	UK	273	7 - 11 (mean 9.2 yrs)	128 F (46%)	Not reported	To examine social distance (conative attitudes) and cognitive attitudes towards a peer with one of: no difficulties, ADHD, depression, **Learning Difficulties (LD)**	Children listened to 4 vignettes describing a peer with either depression, ADHD, LD or no concerns. Questionnaires completed in school.	ACL[a] SAQ[d]	**Stigmatization by diagnosis:** Children held the most negative views towards peers with ADHD, followed by depression, then LD and finally a 'normal child'. This was generally true for conative and cognitive attitudes though conative and cognitive attitudes were not always linked. ADHD was more negatively viewed than depression which is not consistent with previous research findings (Coleman et al and Walker et al). **Age:** Younger children (7-9 years old) were more positive than older children (9-11 years) **Familiarity:** Previous social contact was favourable with regards to having more positive views about peer with MHD and this is consistent with the adult findings. **Social distance/conative attitudes:** See *stigmatization by diagnosis*
2	**Brook et al 2001** Personal stigma *Quality: Weak*	Israel	104	14-18	52 F (50%)	Not reported	To investigate knowledge and attitudes towards ADHD and LD	Pupils completed an anonymised questionnaire in class, designed by the authors and validated by a panel of professionals	Author designed Questionnaire, validated by other professionals	**Stigmatization of YP-MHD:** Approximately 80% believed peers with ADHD to have similar IQs to peers without ADHD. Pupils lacked knowledge about ADHD as compared to LD (62%), with their knowledge coming from the media. Pupils also presented more tolerance and positive towards peers with LD (74.1%) than ADHD (62.7%). Higher knowledge however did not necessarily mean greater tolerance. **Age:** Pupils appeared to become more perceptive with age
3	**Campbell et al 2004** *Quality: Strong*	USA	576	8-12 Mean 10	282 F (49%)	Caucasian 80.6%; African American 0.7%; Latina 4.5%; Asian American 0.7%; Other 5.2%	To assess behavioral intentions towards an unfamiliar peer with autism.	Pupils randomly assigned to watch same videos as in Swaim et al; each pupils watched 2 videos: one of a typical peer with a description; and one of a 12 year old male peer with a description and with or without an explanation for autism.	ACL[a] SAQ[d] SRF[g]	**Stigmatization of YP-MHD:** Children held more negative attitudes towards the child with autism compared to the child without autism (consistent with Swaim & Morgan 2001). The presence of explanatory information made it more likely that children would engage in shared activities with the boy with autism, regardless of respondents' age and gender **Age:** The presence of an explanation in relation to the boy with autism resulted in more positive cognitive attitudes for 3rd and 4th graders, but not for 5th graders **Gender:** Boys ratings of behavioral intentions were higher than female respondents'. Girls showed more positive academic intentions towards children in the autism + explanation group. Girls were overall more significantly responsive to the presence of an explanation than boys. **Social distance/ conative attitudes:** Children also held more negative behavioral intentions towards the child with autism compared to the child without autism (not consistent with Swaim & Morgan 2001).

Number *qualitative studies	Views of Young People	Country	No. participants	Age	Gender	Ethnicity	Purpose	Methods	Outcome Measures	Summary of key findings
4	**Catthoor et al 2015** *Quality: Moderate*	Belgium	133	Mean age 16.6	111 F 85%	Not stated	To investigate stigmatization in YP-MHD diagnosed with a personality disorder, as compared to YP diagnosed with other mental health difficulties.	YP-MHD admitted to an inpatient unit underwent a standardized assessment process and also completed the stigma measures.	Stigma Consciousness Questionnaire Perceived Devaluation-Discrimination	**Stigmatization by diagnosis:** Only Borderline personality disorder significantly predicted a higher degree of stigmatization, when compared to other personality disorders, internalising disorders and eating disorder.The degree of stigmatization in adolescents with personality disorder seemed proportional to the severity of the impairment as a result of the disorder. Other difficulties predictive

									Questionnaire (PDDQ)	of higher levels of stigmatization were i) Having an axis I as well as an axis II; ii) girls experienced more stigma than boys.
5	**Coleman et al 2009** Personal stigma *Quality: Weak*	USA	1901	8-18	926 F (48.7 %)	61.2% White, 14.8% African American, 17% Hispanic, 3.6% Asian or Pacifica Islander	To investiga te chil-dren's causal attri butions about childhood mental illness by age, race, ethnicity and gen-der. To assess social distance	Children were randomly assigned vignettes depicting a child with one of: ADHD, depression, or asthma and responded to an online survey.	SDS[e]	**Stigmatization by diagnosis:** De-pression was more stigmatized than ADHD. **Blame/Responsibility:** See below **Causal attributions, Blame/Responsibility** and **Social distance:** Poor parenting, substance misuse and low effort resulted in a more blaming view and an increased desire for social distance. Endorsed beliefs of stress, poor parenting, substance misuse and low effort were most commonly endorsed for the depression vignette. Genetic and brain difference were identified as causal attributions in all vignettes equally. Genetics, brain differences and God's will were not associated with social distance. **Ethnicity:** Differences were identified by ethnic background **Gender:** Girls were significantly more likely to endorse stress as a causal factor **Self-stigma:** Those who reported a diagnosis of depression or ADHD were more likely to endorse parenting, low effort and substance misuse causes (moralistic causal beliefs) **Social distance:** See Causal attribu-tions above
6	**Corrigan et al 2005** Personal Stigma *Quality: Moderate*	USA	303	13 to 19 years (mean ±SD age, 16.4±2.5 years	171 F (56%)	18 (6%) Asian American, 19 (6%) Black; 39 (13%) Hispanic; 2 (1%) Native American; 186 (61 percent) were white; 39 (13%) 2+ ethniciti es	To investigate: 1. differences in stigmati-zation between mental and physical health conditions; 2. the effect of causal at-tributions and beliefs about danger-ousness on dis-criminatory behaviors; 3. The role of familiarity on stigmatizing views	Adolescents were presented with one of 4 vignettes; peer with mental illness; peer with mental illness secondary to a brain tumour; peer with alcohol misues; peer with leukaemia.	rAQ Revised Level of Contact Report	**Stigmatization of YP-MHD:** Alcohol misuse was the most stigmatized of the conditions (statistically significant). Mental illness was more stigmatized than leukaemia on measures of pity, dangerousness, fear, help and avoid-ance. **Dangerousness:** Greater familiarity resulted in stronger attributions of dangerousness but with a small effect size (R2 = 0.05) **Ethnicity & Gender:** No associations were identified between de-mographics of participants and famili-arity. **Familiarity** & **Blame/Responsibility:** Greater familiarity resulted in greater responsibility being attributed to people for their mental illness **Social distance:** Willingness to help was associated with pity and inversely associated with anger. Danger was positively correlated with fear (R2 = 0.53) and which was in turn positively correlated with avoidance (R2 = 0.26) *Note: Some students had been exposed to the anti-stigma campaign so some responses may be post an anti-stigma intervention and such studies were generally excluded from the paper.*
Number *qualitative studies	**Views of Young People**	**Country**	**No. participants**	**Age**	**Gender**	**Ethnicity**	**Purpose**	**Methods**	**Outcome Measures**	**Summary of key findings**
7*	**Dixon et al 2013** Personal stigma *Quality: Good*	UK	25	8 and 9 (Year 4)	M and F	All White British Childre n	To explore chil-dren's understand-ing and views of peers with emotional difficulties.	Children were read vignettes of non-gender spe-cific peers experiencing anx-iety and de-pression. e.	Interpreta-tive phenome-nological analysis (IPA) to assess draw and write technique	**Stigmatization by diagnosis:** The child with anxiety was favoured over the child with depression **Blame/Responsibility:** Beliefs about control over behavior i.e. responsibil-ity/blame resulted in more negative attitudes, and a greater desire for social distance. The authors comment that *"little*

										stigma towards the experience of feeling worried or sad was apparent". IPA of responses identified 3 themes. One theme related to empathy versus blame. **Social distance:** As above
8	**Dolphin et al 2014** Personal stigma *Quality: Strong*	Ireland	401	14.75-17.08 years Mean 15.9 years	213 F (53.1	Not reported	To investigate adolescents' perceptions of a peer with depression, looking at causal attributions and views of personal responsibility	Structural Equation Modeling used to calculate the relationship between causal attributions/ perceived responsibility and social acceptance or exclusion	Personal Control Subscale of Revised Causal Dimension Scale (CDSII); Friendship Activity Scale (FAS)	**Responsibility:** Peers with depression were more likely to be pitied and socially accepted if they were not felt to be responsible for their depression. **Gender:** Female participants were more accepting than males. Also, depressed female peers were more accepted than depressed male peers. **Social distance:** Unlike previous research, negative emotional reactions did not necessarily predict peer exclusion.
9*	**Elkington et al 2012** *Quality: Good*	USA	24	13-24	10 F (41.7 %)	75 % Latino	To investigate mental illness related stigma in adolescents in outpatient treatment	Young people were interviewed and thematic analysis conducted to look at stigma at individual and structural levels	Thematic analysis of individual interviews	**ONLY RESULTS SPECIFIC TO THE 13-17 AGE GROUP REPORTED HERE** **Perceived stigma in YP-MHD:** 13-17 year old specifically reported experiences whereby their families denied or rejected their illness or need for treatment.
10	**Friedrich et al 1996** Personal stigma *Quality: Strong*	USA	153	9-11	85 F (55.5 %)	Not stated	To investigate differences in attitudes and behavioral intentions towards a hypothetical peer with and without Tourette Syndrome (TS); and to look at differences by gender and grade	Children were presented with a video depicting either: child without TS; child with TS & explanatory information; or child with TS and no explanatory information.	ACL[a] The Activity Preference Scale The (Modified) Fo-ley Questionnaire	**Stigmatization of YP-MHD:** Children rated the child without TS more favorably than the child with TS, regardless of whether the video was accompanied by an explanatory text. **Gender:** Boys rated the child more favourably than girls **Perceived stigma:** Children reported greater perceived stigmatization than personal stigmatization. **Social distance:** Behavioral intentions did not vary between groups and reported that they were just as likely to include each child in activities.
Number *qualitative studies	**Views of Young People**	**Country**	**No. participants**	**Age**	**Gender**	**Ethnicity**	**Purpose**	**Methods**	**Outcome Measures**	**Summary of key findings**
11	**Harris et al 1992** Personal stigma Directly observed and reported. *Quality: Strong*	USA	68	Grades 3-6 (9-12 years)	0 F (0%)	Not stated	To examine the effects of stigmatizing information and actual diagnosis on peer interactions	A 'perceiver' child and 'target' child of similar age were paired to play. The 'perceivers' were told their partner (target) hadhyperactive behaviors. The interactions were filmed and children responded to questions on the stigma of negative expectancy.	9-point Likert scale questionnaire used to rate "meaness", 'affect' and 'performance'	**Social distance:** Perceivers told that their partner had ADHD behaviors were less friendly, talked less and reported global negative features about their partner. The authors report this as the 'halo effect' i.e. information about a single negative characteristic resulted in a global negative impression of the target, tainting the perceiver's entire perception. In summary, the stigmatizing information affected both general impressions and actual behavior.
12	**Law et al 2007** *Quality: Weak*	UK	120	11-12	Not stated	98 % Caucasian	To investigate the impact of labeling on attitudes and behavioral intentions of children towards a hypothetical peer with ADHD.	Children were randomly assigned a vignette of a child with ADHD: without any label'; with an "attention deficit hyperactivity" label; or with an "attention deficit hyperactivity **disorder",** after which they completed the outcome measures	ACL[a] SAQ[d]	**Stigmatization of YP-MHD:** General attitudes were negative towards the hypothetical child in all 3 vignettes, and mainly consisted of beliefs that the child was 'careless', 'lonely', crazy' and 'stupid'. There were no significant differences in findings between the children in the 3 groups, indicating that children were predominantly responding to the ADHD behaviors described rather than to the labels in 2 of the vignettes i.e. independent of labelling. **Familiarity:** Familiarity with the child did not have an effect on behavioral intentions or attitudes. **Gender:** No significant gender differences noted. The vignette child was more commonly assumed to be male than female. **Social distance/behavioral intentions:** The more positive children

										were on their attitudes score, the more positive were their behavioral intentions.
13	**Mavropoulou et al 2014** Personal stigma *Quality: Strong*	Greece	475	Grades 4-6 Mean age 10.97	110 F (49%	Caucasian	To examine the knowledge, attitudes and empathy of children with and without classroom contact with ASD peers.	Children's attitudes towards peers with autism spectrum disorder are measured using the self reported Adjective Checklist	ACL[a] SAQ[d] BES (Basic Empathy Scale)	**Age & Gender:** There were positive changes for both boys and girls, with gender differences based on the specific construct being measured. Subtle differences in the strength of positive findings were noted between gender and grades. **Familiarity:** Children who had had actual classroom contact with peers with ASD held more positive attitudes and behavioral intentions and were more empathic than children who hadn't had classroom contact. This different was maintained at 3 months. **Social Distance/ behavioral intentions:** See above
14	**McKeague et al, 2015** *Quality: Moderate*	Ireland	562	9-16 (mean age 13)	316 F 56%	White Irish	To develop a questionnaire assessing stigmatizing views in children and adolescents towards peers with mental health difficulties	The Peer mental Health Stigmatization Questionnaire (PMHSS) was developed for this study and administered in class. It measures stereotypes, prejudice, discrimination and lower status.	PMHSS SDQ	The PMHSS showed good validity and reliability **Stigmatization of YP-MHD:** YP were able to distinguish between personal stigma (their own stigmatizing views) and societal stigma (other peoples' stigmatizing views) towards YP-MHD. **Socio-economic status (SES):** Did not show any differences in stigmatizing views **Age:** Older participants were more stigmatizing of YP-MHD than younger children
Number *qualitative studies	**Views of Young People**	**Country**	**No. participants**	**Age**	**Gender**	**Ethnicity**	**Purpose**	**Methods**	**Outcome Measures**	**Summary of key findings**
15*	**Moses et al- Being treated differently 2010** *Quality: Good*	USA	56	12-18	21 F (37.5	60.7% White	To examine adolescents perceptions of being "treated differently" by family, peers and school staff as a result of a mental health difficulty	Quailtative analysis of mixed method, semi-structured interviews	Quailtative analysis of mixed method, semi-structured interviews	**Ethnicity:** Whites reported more peer stigmatization. **Gender:** Males reported more peer stigmatization. No difference found in family stigmatization based on demographic factors. **Social distance & Perceived stigmatization in YP-MHD:** 62% participants described stigma in peer relationships amounting to friendship loss. Those who did not report difficulties were more secretive or to socialise with others with similar difficulties. 46% described stigmatization from family and 35% described stigma from school staff. 22% described a different but positive treatment from others as a result of their difficulties. 3 adolescents felt 'over-protected' by family members. Those who reported stigmatization in one domain were likely to report stigmatization in another domain. Youth with at least 1 affective disorder reported more perceived stigma from peers.
16	**O'Driscoll et al 2012** *Quality: Moderate*	Ireland	385	10.21 years & 15.36 years	203 F (52%)	Not reported	To investigate implicit and explicit stigma towards peers with ADHD or depression.	Participants were given a booklet containing two vignettes about age and gender matched peers: one peer with "normal issues" and a second peer with either depression, or ADHD. Data was collected from qualitative analyses of narratives from mixed	IAT[f] r-AQ[c] SAQ[d] SDS[e] paper-and-pencil Projective figure placement test (to assess physical social distance)	**Stigmatization by diagnosis:** The peer with normal issues was responded to more positively overall. ON measures of *explicit attitudes,* the peer with ADHD was more stigmatized than the peer with depression on measures of; anger, relationship **social distance, blame/responsibility-** with some variations by age and gender. However, on measures of *implicit attitudes,* responses were more negative towards the peer with depression than ADHD. **Age:** Adolescents wanted less physi-

								method interviews and questionnaires		cal distance from peers with ADHD, but excluded them more and reported being more fearful of them than children. Older age and male **gender** resulted in more negative explicit attitudes. Older males were more negative towards depression than younger males. **Dangerousness:** Perceptions of dangerousness were not linked to diagnosis **Gender:** Males were more negative than females with regards to depression. Males were also less inclusive than females and attributed more **responsibility** to peers with mental health difficulties.
17*	**O'Driscoll et al 2015** Quality: Good	Ireland	148	10-11 years (n = 72) and 15-16 years (n = 76)	80 F 54%	White	1. To explore adolescents beliefs about fairness of excluding peers with ADHD or depression 2. To examine any age and sex patterns in responses to the above	Qualitative group study consisting of same-sex groups of 3-5 participants interviewed in school. Participants were randomly assigned to either the depression or ADHD groups and read to age and sex matched vignettes	Thematic analysis	**Stigmatization of YP-MHD:** This was the only study in the review which sought out to explore YP views of excluding peers with a mental illness. The participants appeared to recognise the pros and cons of exclusion for YP-MHD. They appeared to respond that justification for excluding peers would depend on an extent to their relationship with the YP-MHD. They also recognised the benefits of positive peer relationships for YP-MHD but were concerned with the social costs for themselves of including them. **Blame/ Responsibility:** Those participants who recognised the hypothetical peers in the vignettes as having a mental illness as opposed to no illness attributed less blame to their situation. Participants were also less likely to justify excluding the hypothetic children in the vignettes where they felt that there was a cause for their depression. **Age:** No age differences identified between the 2 age groups in responses and views **Gender:** No gender differences identified in either of the 2 age groups.
Number *qualitative studies	**Views of Young People**	**Country**	**No. participants**	**Age**	**Gender**	**Ethnicity**	**Purpose**	**Methods**	**Outcome Measures**	**Summary of key findings**
18*	**O'Driscoll et al 2015b** *Quality: Good*	Ireland	148	10-11 years (n = 72) and 15-16 years (n = 76)	80 F 54%	White	To provide a detailed understanding of the nature and function of discriminatory behaviours in YP without mental health problems (social exclusion) towards YP-MHD.	Qualitative group study consisting of same-sex groups of 3-5 participants interviewed in school. Participants were randomly assigned to either the depression or ADHD groups and read to age and sex matched vignettes	Thematic analysis	**Stigmatization of YP-MHD:** Two main reasons were given to justify social exclusion (discrimination) of YP-MHD by peers: - Failure to engage in a reciprocal social interaction, which participants felt would result in a very one sided or boring interaction. They were also concerned with the YP-MHD not liking them. - Risk: Concerns about the impact that engaging with the YP-MHD would have own the participants own metal state, and the risk of disciplinary or social consequences of associating with them. **Age:** 10-11 year olds were more concerned about the disciplinary risks of engaging with e.g. a peer with ADHD; whereas the mid-adolescents were more concerned with the social consequences. **Gender:** Girls were more likely to comment on the failure of the vignette's character to share her problems with others.
19	**Peterson et al**	USA	163	9.27 and 11.16	93 F (57%	Predominantly	To investigate children's	Children were shown one of 4	IAT[f] SAQ[d] SDS[e]	**Stigmatization of YP-MHD:** Children rated the depressed child less favour-

	1985 Self-reported so personal stigma *Quality: Strong*			years	)	white	responses to peers with child-hood depression, with and without life stressors	videos of a white, female childhood actress portraying a depressed or non-depressed peer, with and without life stressors.	Responses to questions on ac-ceptance,/ rejection and future and current behavior rated on Lik-ert-like thermometer	ably than the non-depressed child on measures of liking, attractiveness and with regards to displaying less positive present and future behavior. **Age:** Younger children were more sympathetic to the depressed child with life stressors on ratings of attractiveness and liking, though this effect decreased with age. **Blame/Responsibility:** The depressed child without life stressors was rated as the the least likeable of the 4, whereas the depressed child with life stressors was rated as more likeable and attractive than either non depressed targets, which the authors state may be an indicator of children blaming the depressed target peer for her depression when no life stressors were present. **Gender:** Girls overall rated all children more positively than boys, particularly when stressors were present, whereas this effect was not seen with boys.
20*	**Poster et al 1986** Personal Stigma *Quality: Weak*	USA	168	Grades 3 - 6 (8-11)	98 F (58%)	Predominantly born in the USA	To examine children's perceptions of the mentally ill	Children asked to draw & write about a 'crazy' person so as to assess attitudes towards the mentally ill, after reading 6 vignettes on children & adults with schizophre-nia anxietyor depression	Targeted questions assessing liking, attractive-ness, current behavior, future behavior and therapy	**Stigmatization of YP-MHD:** Children more commonly depicted the 'crazy' person engaging in inappropriate behavior, suicidal acts, hostility/aggression and self-abuse. The depiction of such behaviors decreased with increasing age. **Age:** As above **Dangerousness:** Hostile-Aggressive behavior was the 3rd most frequent story theme.
21	**Poster EC 1992** Quality: Weak	USA	168	Grades 3 - 6 (8-11)	Not stated	Predominantly born in the USA	To examine children's concepts of individuals displaying behaviors com-monly associated with mental illness e.g. label-ing, causal attributions and treatment options	Children read 6 vignettes; 3 of which depicted children each display-ing anxiety, depressive symptoms or features commonly asso-ciated with schizophrenia	6 Targe11e dquestions assessing areas of interest.	**Stigmatization of YP-MHD:** 1/4 of children attributed mental illness labels to children in vignettes depicting different psychiatric disorders based on DSM-III-R criteria for anxiety, depression, schizophrenia. **Stigmatization by diagnosis:** Mental illness labels were also more commonly assigned to schizophrenia than anxiety or depression. **Age:** There appeared to be a developmental trend in this, in that 10-11 year olds (5th and 6th graders) attributed mental illness labels more commonly than 8and 9 year olds (3rd and 4th graders).
Number *qualitative studies	**Views of Young People**	**Country**	**No. participants**	**Age**	**Gender**	**Ethnicity**	**Purpose**	**Methods**	**Outcome Measures**	**Summary of key findings**
22	**Reavley and Jorm, 2011** Quality: Moderate	Australia	1804	12-15	F 956 (53%)	Not stated	To identify factors that are predictive of stigmatizing atti-tudes towards peers with depres-sion in adoles-cents	Adolescents in school were presented with a vignette describing a teen-age girl with de-pres-sion.They then completed a series of measures in-vestigating stigma-tising atti-tudes (personal and per-ceived stigma) and a self-rated measure of their own mental health.	Sociodemographic details on themselves A Likert scale of 14 statements as-sessing personal stigma and per-ceived stigma. Beliefs about help seeking Strengths and Dif-ficulties question-naire (SDQ)	**Dangerousness:** Beliefs about dangerousness/unpredictability were associated with males, speaking English and another language; recog-nising depression in the vignette and higher scores of hyperactivity on the SDQ **Gender:** Male participants was associated with increased beliefs in dangerousness, and weakness rather than sickness. **Perceived stigma:** Perceived stigma was increased in participants who spoke English and another language at home; and decreased in those with borderline prosocial problems. **Age:** Older children were more likely to believe that the depressed individual in the vignette was sick rather than weak but they were also less likely to want to disclose any difficulties.
23	**Roberts et al, 1984** Quality:	USA	105	10-13	F 52 (50%)	Not stated	To examine the role of socio-economic status (SES)	Children ' read 4 vignettes each depicting a	Questions set by authors of paper	**Gender:** No gender differences were identified participants' perceptions in the 2 SES groups. However, the

	Moderate						in children's perceptions of psychological and physical disturbance.	gender-neutral child with either a mild or severe physical or psychological presentation; and completed a series of 10 questions after each vignette to examine several variables, including perceived familiarity, & desirability, prognosis and etiology.		vignette characters were all perceived to be male, except for the vignette describing a peer in a wheelchair, who was perceived to be female. These beliefs were not correlated with the participants' gender. **Perceived desirability:** This is the only variable that achieved significance , with the low SES group reporting more willingness to be "more like" the vignette characters, regardless of which condition was described. However, both groups were generally reluctant to be like the vignette character overall. The mild psychologically - disordered character was seen as the least desirable character to "be like" in both SES groups. The psychologically-disturbed characters were rated as less attractive than the physically-ill characters. **Socio-economic status (SES):** Children in the high SES and low SES groups did not differ significantly in their perceptions of psychologically and physically-ill children, on measures of familiarity, prognosis and etiology. Both groups reported self-control as a way to prevent themselves from becoming like the children described in the vignettes on psychological disturbance, which was not the case for the vignettes depicting physical illness. Also, children in the high SES group were more likely to recommend psychological interventions for children presenting with psychological difficulties.
24	**Roberts et al, 1981** Quality: Weak	USA	34		9-13	Not stated	To investigate children's perceptions towards imaginary peers with mild or severe psychological and medical disorders	Children read 4 vignette, each depicting a peer with mild or moderate psyhcological or medical difficulties. Perceptions, including desirability or the descri bed peer and prognosis were examined using a written questionnaire.	Responses to 9 open ended and closed questions set by author.	**Gender:** Psychologically disturbed peers were viewed as being male whereas medically ill peers were more often perceived as female. This was independent of the participants' gender. **Perceived desirability:** The mild psychologically disturbed peer was described as the least desirable potential friend (presented as a child who played mean tricks; shouted; screamed and kicked out). The child with severe psychological disorder (psychotic like symptoms) was described to be as desirable a friend as the children with physical ailments.
Number *qualitative studies	**Views of Young People**	**Country**	**No. participants**	**Age**	**Gender**	**Ethnicity**	**Purpose**	**Methods**	**Outcome Measures**	**Summary of key findings**
25*	**Secker et al 1999** Personal-Stigma *Quality: Good*	Scotland	102	Young people in mainstream school	67 F (66%)	Not stated	To explore young people's views of mental illness	Semi-structured individual interviews & focus groups. They were given 5 short vignettes, 3 of which depicted a teenager experiencing a mental illness (the other 2 vignettes were of adult patients). Interviews were recorded & analysed using the NU*DIST software package.	Drawings & stories scored on 23 indicators of concepts towards mentally ill peers	**Stigmatization by diagnosis:** "Depression" was more often recognised as an experiences of everyday life rather than an illness. Young people were ambivalent about anorexia but much clearer that schizophrenia and paranoid symptoms represented mental illness. **Age** & **gender:** Where participants could identify with the characters based on age & gender, they were more sympathetic and less likely to express fear, whether or not they were recognised as mentally ill. **Dangerousness:** Fear was expressed more commonly towards the characters identified as unpredictable i.e. the vignettes depicting psychosis and behavioral problems. **Familiarity:** Young people's responses as to whether a particular problem described in a vignette constituted a mental illness, seemed very dependent on their ability to identify with the symptoms portrayed and their famili-

										arity with someone who'd experienced such a problem. e.g., When considering James, a 13 year old boy with behavioral problems who father left 3 year earlier, young people drew on their own experiences & rationalised James' behavior without recognizing him as mentally unwell. **Social distance:** The desire for distance was determined more reliably by the age & behavior of the vignette character, rather than by whether they were recognised as mentally ill. Interestingly, however, no one expressed any concern about living next to (i.e. lesser social distance) the depressed or anorexic character, but they did towards the psychotic and behavioral disturbed characters.
26*	**Spitzer et al 1995** *Quality: Good*	USA	90	Grades 1 (6-7), 4 (9-10) and 7 (12 -13)	46 F (51 %	Not stated	To examine: 1. School-age children's perception of deviant behaviour, including exploring thought around causality 2. School age children's perception of deviant behaviour, including exploring thought and causality	Children were given 3 vignettes regarding peers with either normal, antisocial or psychotic behavior.	Qualitative analysis of case vignettes & interviews.	**Stigmatization of YP-MHD:** Crazy adults were thought to behave inappropriately, whereas crazy children were thought to disobey parents/teachers. Children recognised both physical and psychological aetiologies, with a greater emphasis on psychological aetiologies with increasing age. **Age:** Increasing age did not affect children's ability to recognize deviance, but did affect recognition of mental illness. Younger children struggled to differentiate it from physical illness. Older children were more able to recognise the term as meaning "crazy" but also violating generally acceptable behavioral codes, as well as understanding it as a illness. Older children however, also more commonly stereotyped "crazy adults" as street people. **Dangerousness:** Older children more frequently characterised violence as a main presentation in "crazy adults". **Gender:** Boys were better at identifying deviant behavior than girls.
27	**Swaim et al 2001** Quality: Strong	USA	233	9 and 12	117 F (50.2 %)	93.6 % White and 6.4 % Black	To examine factors affecting children's attitudes (cognitive component) and behavioral intentions (conative component) towards a peer with autism.	Children were assigned to view one of 3 videos depicting a boy: without autism, with autism, with autism and explanation.	ACL[a] SAQ[d]-Self SRF[g]	**Stigmatization of YP-MHD:** Children at both grade level were less positive about children with autism than children without a diagnosis. This was the same, whether or not an explanation was provided. **Age:** Younger children rated the target more favourably than older children. **Gender:** Boys generally held similar views about the children in all 3 vignettes, on ratings of social activity, recreation and academia. Girls on the other hand were less positive about the children with autism than without autism. **Perceived stigma:** Older children and girls rated their classmates intentions toward the peer with autism as less positive than their own. **Social distance/Behavioral intentions:** Diagnosis did not alter children's own behavioral intentions.
Number *qualitative studies	**Views of Young People**	**Country**	**No. participants**	**Age**	**Gender**	**Ethnicity**	**Purpose**	**Methods**	**Outcome Measures**	**Summary of key findings**
28	**Swords et al 2011** Quality: Strong	Ireland	595	5 age groups: 6, 9, 12, 14 and 16	271 F (45.5 %)	Not specified	To examine the factors that contribute to or hinder acceptance of peers with depression or ADHD	Children answered open and closed questions about hypothetical male and female peers with symptoms (not a diag	CAPPP[b] SAQ[d]	**Stigmatization by diagnosis:** ADHD and depression were both stigmatized conditions, with levels of stigma varying depending on participant demographics and other factors. The factors most predictive of acceptance of a hypothetical peer suffering from

								nosis) of either depression or ADHD.		either ADHD or depression were participant age and gender, and perceived responsibility. These variables interacted in different ways to produce slightly different effects depending on the diagnosis and gender of the target child. The main findings were: 1. **Age:** Older children were generally more positive towards both male and female hypothetical peers with ADHD and the male target with depression. 2. **Gender:** 2. Females were overall more positive towards toward the male and female hypothetical peers with ADHD and the female target with depression. 3. **Responsibility:** A greater sense of perceived responsibility in the target child resulted in less acceptance for male target children, but this was not necessarily the case for female targets.
29	**Walker et al 2008** Quality: Strong	USA	1318	8-18	51.3 %	61 % White, 15 % African American, 17 % Hispanic, 4 % Asian or Pacific Islander	To examine stigmatizing attitudes towards children with ADHD or depression, and to investigate differences by age, sex and race/ethnicity.	Responses were gather via an online survey. Participants were randomly assigned one of the vignettes representing a peer with depression, ADHD or asthma	SDS[e] Positive Attributions Scale, Negative Attitudes Scale Family Attitudes Scale	**Stigmatization by diagnosis:** Depression and ADHD were more stigmatized than asthma. Depression was more stigmatized than ADHD. **Dangerouness:** Peers with mental disorders were more likely to be perceived as violent. **Ethnicity:** There weren't marked difference between responses based on ethnic background. Asian Pacific Islander respondents seemed to be more stigmatizing, than participants of other backgrounds, towards peers with depression (large effect size) and ADHD (moderate to large effect size). **Social distance:** Respondents indicated a desire for more social distance from peers with depression, followed by ADHD and then asthma.
30	**Washington et al 2012** Personal stigma Quality: Moderate	USA	89	6-7	Unknown	92 % white caucasian	To investigate whether typically developing first graders are more rejecting towards peers with autistic behavior.	Children watched a video of a male peers of the same age playing with a car set and then interacting with an adult female	SAQ[d] SRF[g] (similarity rating form) Screening tool assessing understanding of autism	**Social distance/Behavioral intentions:** There weren't any differences in behavioral intentions identified towards the video of the child displaying autistic behaviors and the video of the normally developing child. **Gender** There weren't any differences identified based on gender i.e. female participants did not have more positive behavioral intentions than male participants.
31	**Wiener et al 2012** Perceived Stigma, self-stigma, self-perception Quality: Moderate	Canada	152	9-14	F (22 % in ADHD group and 25 % in non ADHD group)	Unknown	The study had 3 main goals, only one of which was related to stigma as follows: Do children with ADHD view their problems behaviors and disorders as stigmatizing?	Children recruited from primary, secondary and tertiary care; schools, community centres and libraries. They completed a battery of questionnaires	AAQ (Attributions for ADHD Questionnaire) Adapted Dominic-R (statements and pictures of children with ADHD symptoms) SPPC (Self-Perception Profile Children)	**Perceived stigmatization** was linked to lower self esteem. The findings suggested that children with ADHD are vulnerable to self-stigmatization and greater perceived stigma. **Self-stigma:** Children with ADHD perceived the most problematic ADHD behaviors as more stigmatizing (i.e. more troublesome to others, more embarrasing) than children without ADHD. They reported more stigmatization from parents, teachers and peers.
Number *qualitative studies	**Views of Young People**	**Country**	**No. participants**	**Age**	**Gender**	**Ethnicity**	**Purpose**	**Methods**	**Outcome Measures**	**Summary of key findings**
32	**Yoshioka et al 2013** Personal stigma Perceived stigma	Japan	311	15-17 (M = 16.1)	F (47%)	Japanese	To examine how Japanese high school student stigmatize peers with depression, social	Young people were randomly allocated a vignette about a 15 year old (M or F) with either depres-	SDS[e] Additional statements measuring per-	**Stigmatization by diagnosis:** Social phobia was most commonly considered 'not a real illness' and schizophrenia was least likely to be considered 'not a real illness' Regarding measures of perceived stigma:

	Quality: Moderate						phobia and psycho-sis/ schizo-phrenia.	sion, psycho-sis or social phobia.	ceived and personal stigma	- Items about danger-ousness in schizophrenia were most likely to be endorsed. - Items relating to social phobia being a personal weakness were most likely to be endorsed. - Items relating to 'not telling anyone' about depression were most likely to be endorsed. **Dangerousness:** Beliefs about dangerousness were more commonly held about schizophrenia. **Gender:** Males were more stigmatizing than females for all scales (statistically significant difference) **Perceived stigma:** Personal stigma was lower than **perceived stigma** for all disorders.

KEY * Qualitative studies are starred Quality: Quality rating for paper based on either CASP for qualitative studies or EPHPP for quantitative studies

[a]The Adjectives checklist (ACL): A 32 item list which measures positive and negative cognitive attitudes towards target [b]CAPPP Children's Attributions about Psychological Problems in their Peers

[c]Revised Attribution Questionnaire (r-AQ): Measure stereotypes (Responsibility, dangerous-ness) and prejudice (emotional responses, such as fear, anger, pity, avoidance) "Shared Activity Questionnaire (SAQ): Measures behavioral intentions (i.e. discrimination) of elemen-tary school children towards a target child. [e]Social Distance Scale (SDS): A scale which measures desire for social distance from people with mental illness

'Implicit Association Test (IAT): Measures the strength of automatic associations between an individuals' mental representations of concepts in memory.

[g]Similarity Rating Form (SRF) This is a single item that served as a manipulation to determine whether typical children recognized the presence of autism in both AUT-D and AUT-D + E conditions- from Campbell YP-MHD = Young people with mental health difficulties

Table 2:

Detailed analysis of studies investigating adults' stigmatizing views towards young people with mental health difficulties (YP-MHD)

	Views of Adults	Country	No. partici-pants	Age	Gender	Race	Purpose	Methods	Outcome Measures	Summary of key find-ings
1	**Brook et al 2000** Personal stigma Quality: Weak	Israel	46	30-50	40 F (87%)	Not com-mented on.	To investigate teachers' knowledge and attitudes to-wards ADHD and LD.	An author designed ques-tionnaire of 54 questions in total, assessed, amongst other things, teachers' attitudes to-wards pupils with ADHD	Newly piloted questionnaire of demographics and teacher knowledge & attitudes about ADHD & LD (learning difficul-ties)	**Stigmatization of YP-MHD:** 1/2 teachers' responded that pupils with ADHD should be taught in a special setting and 1/2 favoured main-stream education. Most teachers believed that students with ADHD have similar IQs to stu-dents without ADHD. 87% felt that children with ADHD required psychological support; and 85% would be more lenient towards students with ADHD. Teachers wanted to be informed if a child had ADHD. 15% thought that pupils with ADHD were less likely to be less successful in the future. 1/2 believed that children with ADHD would continue to strug-gle with peer relations and family life in the future. In summary, the authors reported that attitudes and understand-ing of ADHD were rela-tively poor.

	Views of Adults	Country	No. participants	Age	Gender	Race	Purpose	Methods	Outcome Measures	Summary of key findings
2	**Ghanizadeh et al 2006** Personal stigma Quality: Strong	Iran	196	38.92 mean age	108 F (54%)	Not stated	To survey knowledge and attitudes of teachers towards elementary school pupils in Iran	Elementary school teachers from a stratified random sample on Shiraz anonymously completed a questionnaire on ADHD.	Self-report true/false Questionnaire assessing participant demographics, ADHD knowledge and attitudes	**Stigmatization of YP-MHD:** Teachers overall were found to have weak tolerant attitudes. 77% felt that children with ADHD should be taught in a special setting and that they experience difficulties in class peer relationships. 51% believed that children with ADHD experience difficulties with family relations. 44.4% responded that children with ADHD have lower IQs than children without ADHD and just a small percentage less felt that they should receive less homework and that they should be examined orally. There was a significant correlation between knowledge and attitudes and education level of teachers.
3	**Martin et al 2007** Personal stigma Quality: Moderate	USA	1393	Adults 18-89	794 F 57%	79% White 14% Black 7% Other	To investigate adults' social reactions to children with mental health difficulties. The study assessed attitudes towards 4 children described in non-labelled vignettes depicting children representing meeting DSM-IV criteria for ADHD, major depression, asthma and physical disabilities	2002 General Social Survey (GSS) data on the stigmatization of children analysed. Respondents were each read 1 vignette and asked a series of specifically designed questions assessing causal attributions, labelling, perceptions of dangerousness & stigma associated with receiving mental health treatment.	National Stigma Study-Children (NSS-C) was administered, and bivariate analysis used to assess perceptions of dangerousness.	**Blame/Responsibility:** Social distance preferences were not reduced when the underlying causality was seen as biological. When causality was related to bad character or home life, the desire for social distance increased. Respondents were significantly more likely to reject a child whom they labelled "mentally ill" **Dangerousness**: Children believed to be dangerous to self or others are more likely to be rejected. Children labelled as mentally ill also more likely to be perceived as violent. **Ethnicity**: Non-whites and non-blacks more likely to reject child. **Familiarity**: Those who reported having known someone with MHD where the relationship improved indicated a desire for less social distance. **Gender**: Women were more accepting of YP-MHD than men. **Social distance/Behavioral intentions:** Respondents preferred significantly greater social distance from children with ADHD and depression than the other 2 conditions ($p < 0.001$). 1 in 5 did not want their children to have contact with children with behaviors consistent with ADHD or depression. Children with described ADHD and depressive symptoms were 2-3 time more rejected than the other children.

	Views of Adults	Country	No. participants	Age	Gender	Race	Purpose	Methods	Outcome Measures	Summary of key findings
4	**Mukolo et al 2011** Personal stigma Quality: Moderate	USA	1372	Not stated	800 F (58.3%)	79.5% White; 14.6% Black; 5.6% Other	To examine attributions about child health conditions and their impact on stigma See methods Martin et al	Secondary analysis of data from the GSS 2002 National Stigma Study-Children (NSS-C). Attributions were broadly classified into the categories of: biological, environmental, and child rearing factors.	Descriptive analysis & logistic regression used to account for the emergence and persistence of negative attitudes	**Blame/Responsibility:** Child blame was endorsed as a causal attribution in over 70% of children depicted in the ADHD or depression vignette, which was higher than for asthma (43%) and normal troubles (65%). ADHD was the only one of the 4 conditions significantly positively associated with all four causal attributions. Higher educational achievement resulted in increased beliefs of environmental stress factors and less apportioning of blame to the child. **Social distance/Behavioral intentions:** Desire for social distance was significantly higher for children in the ADHD and depression vignettes than for asthma. ADHD had the highest mean desire for social distance, and parent blame was endorsed more frequently than biology. **Gender, Age,** race and income had no statistically significant difference with endorsed attributions. **Ethnicity:** black respondents preferred greater social distance from the child.
5	**Ohan et al 2013** Personal stigma Quality: Moderate	Australia	225	39.17 +/- 5.42	200 F (89%)	Australian 92% Other 8%	To examine the impact of labelling on children with ADHD or depression	Parents answere d questions on a vignette of a M/F child with either: no mental health difficulty; symptoms of depression or ADHD but no label; symptoms of either ADHD or depression with an attached diagnostic label	Stereotypes subscale, Prejudice subscale social distance subscale	**Stigmatization of YP-MHD:** Parents were significantly more stigmatizing (more stereotypes and prejudices held) towards children with symptoms of ADHD or depression than without. There was a further small significant increase in stigmatizing views when a label was attached. **Stigmatization by diagnosis**: ADHD was more stigmatized than depression on measures of prejudice and **Social distance** distance. **Social distance** As above

	Views of Adults	Country	No. participants	Age	Gender	Race	Purpose	Methods	Outcome Measures	Summary of key findings
6	**Perry et al 2007** Personal stigma Quality: Moderate	USA	505	Adults 18-89 years	302 (60%)	13-15% African American	To compare public attributions and attitudes of the general population towards children and adults with depression, with a focus on causality, perceptions of violence and the use of coercion	Participants responded to questions assessing the described construct, following a vignette description of either a child or adults with depression	Descriptive & bivariate logistic analysis of 5 sets of binary variables, comparing public attitudes and attributions toward child/adult depression	**Stigmatization of YP-MHD:** Childhood depression was perceived a more serious than adult depression (83% v 51%). **Causal attributions:** Both adult and childhood depression were attributed to stress. More people recognised childhood depression as a genetic condition, a chemical imbalance or a consequence of child rearing. **Dangerousness**: Respondents believed children with depression to be more dangerous than adults with depression (40% v 30%). They perceived the 2 groups to be of equal risk to themselves. In summary, authors concluded that children with depression may be more vulnerable to stigmatization than adults with the same condition.
7	**Pescosolido et al 2007** Personal stigma Quality: Moderate	USA	1152	Adults 44 +/- 16.4 years	Not stated	78% White, 15% African American; 7% Other	To examine the public's beliefs of dangerousness in children with ADHD, depression, asthma and daily troubles, and willingness to support coerced treatment.	Data from the NSS-C analysed, whereby adults were presented with vignettes describing children with either ADHD, major depression, asthma or daily troubles.	Multivariate analysis of predictors dangerousness predictors & willingness to enforce treatment	**Dangerousness**: Beliefs about dangerousness to self or others were endorsed by 81% of the sample for children with major depression; 33% for children with ADHD; but only 15% and 13% respectively for children with asthma and daily troubles. The child with depression was assessed as over twice as likely to be dangerous to others and 10 times more likely to be dangerous to themselves than the child with "daily troubles". Individuals who labelled the child as mentally ill were 5 times more likely to endorse beliefs about violence.

Table 3: Factors influencing self-stigmatization in young people with mental health difficulties (YP-MHD)

Factors correlated with increased self-stigmatization in YP-MHD	Factors correlated with decreased self-stigmatization in YP-MHD
Clinical factors Younger age at first treatment Demographic factors in YP-MHD Older participant age White ethnic background Parental factors Secrecy over child's diagnosis Self-Labelling Perceptions of causal factors Trauma, social skills deficits, family problems Personality/way of thinking Biological factors Perceptions about illness Lack of control over symptoms Life-long course	Clinical Factors Externalising disorder e.g. conduct Parental factors Parental optimism Beliefs in ability of YP-MHD to control symptoms

Highlights

- Stigmatization of young people with mental health difficulties is widespread and starts from childhood.
- Young people seemed to be more accepting than adults' of children and adolescents with mental health difficulties.
- Current evidence suggests that young people may be reacting more to the behaviours displayed in peers with mental health difficulties, rather than to mental health labels.
- More research, and validated instruments measuring stigma, are needed to better understand stigma and self-stigma, so that it can be targeted effectively in the future.

Figure 1. Flow Chart of systematic identification of papers examining stigma in children and adolescents with mental health difficulties, following PRISMA Guidance