Abstract

Background

Limited literature on the stigma of mental illness has examined the socio-cultural processes involved in the development of stigma around mental health in children, which emerges in middle childhood (7-11 years). Greater understanding might inform preventative interventions.

Aims

This review aims to integrate disparate theoretical and empirical research to provide an overview of social communications to children aged 7-11 years about mental illness across four key socio-cultural contexts (the media, school, peers, parents) of relevance to children's development, and to consider their role in the development of stigmatized views.

Method

Systematic literature searches were conducted within electronic databases and abstracts were scanned to identify relevant studies. Fifteen papers were selected for the review.

Results

The review found few studies have directly examined communications about mental illness to children. Available evidence suggests messages across children's socio-cultural contexts are characterized by silence and stigma, which may shape children's developing views. Specific theoretical frameworks are lacking; possible mechanisms of transmission are discussed.

Conclusions

This review suggests overcoming stigma will require efforts targeting young children, explicitly tackling mental illness, and spanning multiple social spheres: further research is warranted.

Declaration of interest

None.

Abstract word count: 198

Introduction

Branded 'the ultimate stigma' (Falk, 2001), the stigma of mental illness has shown little change over time, despite targeted campaigns, interventions and policies (Hinshaw, 2007; Mehta, Kassam, Leese, Butler, & Thornicroft, 2009; Phelan, Link, Stueve, & Pescosolido, 2000). Most existing anti-stigma interventions aim to challenge stigma in adolescents or adults despite calls for programmes to employ a preventative approach with younger children (Hinshaw, 2007; Pinfold et al., 2003). Indeed, little theoretical and empirical research has considered the development of mental illness stigma during childhood (Hinshaw, 2005).

Stigma is a broad concept developed from Goffman's (1963) seminal work, combining labeling, stereotyping, separation ('us' from 'them'), status loss, and discrimination, within the context of power differences (Angermeyer, Beck, & Matschinger, 2003; Link & Phelan, 2001). Pescosolido and colleagues (2008) developed a framework incorporating individual-level socio-cognitive factors with wider cultural influences that maintain the stigma of mental illness. However, stigma development in childhood was not accounted for. Corrigan and Watson (2007a) identified that the cognitive stage model (Flavell, 1999; Piaget, 1985) and the incremental learning model (Katz, Sohn, & Zalk, 1975) together predict that from age five, children develop the cognitive ability to conceptualise difference more subtly than 'good' in-groups and 'bad' out-groups, simultaneously learning social desirability rules that constrain endorsement of prejudices. The authors proposed that children will demonstrate mental illness stigma later than they do ethnic prejudice, at around age seven, because identification, conceptualization, and attribution about 'unseen' mental illness and latent out-groups requires more advanced cognitive development, while social desirability may

have a lesser impact due to the pervasiveness of mental illness stigma. Indeed, mental illness emerges as an ontologically distinct concept to physical illness during middle childhood (6-11 years) (Fox, Buchanan-Barrow, & Barrett, 2010). Stigmatised attitudes and behaviours around mental illness are consistently reported from age 7-8 (Wahl, 2002) and persist into young adulthood (Reavley & Jorm, 2011; Rose, Thornicroft, Pinfold, & Kassam, 2007; Weiss, 1994).

Developmental cognitive factors explain the capacity for, but not the emergence of, stigmatized attitudes about mental illness in children. Aboud (2005) proposes a theoretical framework of childhood prejudice development based on cognitive and developmental mechanisms interacting with socio-cultural communications: children's beliefs and behaviours are shaped by important others (c.f. social learning theory; Bandura, 1977). Allport (1954) identified parents as the most influential source of young children's prejudices, and attitudes towards out-groups in general are transmitted intergenerationally in families (Chatard & Selimbegovic, 2008). However, only one study has investigated the relationship between parent and adolescent views on mental illness, finding a significant association (Jorm & Wright, 2008). Peers are crucial role models in learning prejudiced attitudes, particularly as parental influence decreases (Aboud & Doyle, 1996; Corrigan & Watson, 2007a). Primary school teachers perform multiple roles in managing mental health problems in young children (Nikapota & Ford, 2000), while secondary schools are now a well-established target for anti-stigma campaigns (Corrigan, 2000; Pinfold et al., 2003; Watson et al., 2004). Negative media portrayals have been theoretically and empirically linked to increased mental illness stigma in adults (Pescosolido et al., 2008; Shapiro & Lang, 1991) and young people identify the media as a source of mental health stigma (Time to

Change, 2013). The lifetime prevalence of mental illness across 28 countries worldwide is estimated at between 18.1-36.1%, with many problems beginning in childhood and adolescence (WHO World Mental Health surveys; Kessler, et al., 2009); opportunities for communication, contact, and stigma related to mental illness are high. Cultural factors, such as ethnic group, and socio-economic status, are likely to influence the messages children receive about mental illness across these social spheres (Chandra & Minkovitz, 2007).

Scant literature has considered socio-cultural mechanisms by which the stigma of mental illness might be transmitted to young children at the age when they develop relevant cognitive abilities. Child attitudes about ethnic groups are shaped by parent-driven 'socialisation' processes, such as messages around mistrust, or preparation for discrimination (Hughes et al., 2006). General mechanisms of attitude transmission are learning, whereby children connect labels verbalized by parents with associated emotions, and link these with certain individuals and groups, and conformity, whereby children conform to implicit rules for how other people behave (Allport, 1954). Proposed unconscious mechanisms of mental illness stigma transmission are classical conditioning, and misattribution (Ottati, Bodenhausen, & Newman, 2005): repeated pairing of child discomfort elicited by a parent or teacher's grimace in response to a person with mental illness results in the child associating discomfort with people with mental illness, or misattribute the discomfort as being *directly caused* by the person with mental illness. However, before considering how messages are transmitted to young children we must first understand *what* is communicated.

The present review

The present paper will be the first to integrate disparate empirical literature reporting on what is communicated to children in middle childhood (7-11 years) about mental illness. The review will focus upon four main socio-cultural influences: parents, peers, schools, and the media. The term "mental illness" (as opposed to "mental health problems") will be used throughout this review as it is most frequently used in the extant literature. It is arguably the term laden with the greatest stigma and therefore relevant when considering stigma development in children. Greater understanding of socio-cultural communications may shed light on processes shaping young children's developing views and how best to design interventions to prevent, rather than reduce, the development of stigma around mental illness.

Methods

A systematic literature search was conducted within electronic databases (Medline; Psychinfo; Pubmed Central; Cochrane; ScienceDirect) for papers published until December 2013. The search used terms "mental illness" *and* "communication" *and* "child" *and* "parents" *or* "peers" *or* "school" *or* "media". A variety of alternative terms were used to capture as many papers of relevance as possible. For example, "mental health" *or* "distress" was searched in conjunction with "mental illness"; and "messages" *or* "socialization" *or* "education" were used in conjunction with "communication". The search initially generated 1351 papers.

Duplicates were removed, non-English citations and unpublished articles were excluded. Each result was scanned to identify relevant studies. References were crosschecked and review papers examined to gather all pertinent literature. Exclusion criteria were studies examining: (a) general interactions between parents with mental illnesses and their children; (b) the impact of parental mental illness on children's wellbeing; (c) help-seeking processes for mental illness; (d) communication about mental well-being (vs. illness); (e) studies about attitudes towards mental illness that did not explicitly report on socio-cultural communications (f) learning disabilities or neurodevelopmental problems (e.g. autism), and epilepsy (vs. mental illness); (g) exclusively children aged 12 years and older. Given the limited evidence base, papers sampling some older children were included if the focus of the paper was upon children within the target age range, and no studies were excluded on the basis of quality.

Fifteen papers were selected for the review; these studies are summarized in Table 1.

Results

The literature search identified two papers exploring parents' communications about mental illness, two related to peers, five reporting on school-based messages, and six related to media communications. Parent communications were notable in the silence around mental illness. Little is known about how young children communicate with peers about mental illness, whilst adolescent peers already express stigma. There were few school interventions for children under the age of 12, and no studies investigating teachers' communications. In contrast, several studies reported widespread negative portrayals of mental illness in children's' media.

Parents/family

A grounded theory study in the UK (Mueller, Callanan, & Greenwood, 2014), found that parents' communications to primary-school aged (7-11 years) children were governed by the extent to which they view issues as either related to 'Them' (mental illness) or to 'Us' (mental wellbeing). Parental communication about mental illness was characterized by avoidance, contrary to parents' conscious intentions to be open, and in contrast to comfortable communication about mental wellbeing. Messages about 'Them' were often contradictory (e.g. empathy vs. warnings; verbal vs. non-verbal messages), driven by largely unconscious processes of taboo, and influenced by intergenerational parenting patterns.

No literature was found on parent-child communication about mental health or illness when the child has a mental health problem. Similarly, no studies were found explicitly reporting on parental communication about mental illness with children aged under 11 years when the parent has a mental health problem. A qualitative study of children's experiences of

parental mental illness in Finland found children (age 9-11) described limited, if any, discussion about their parent's difficulties and a reduction in general parent-child communication (Pölkki, Ervast, & Huupponen, 2004).

Parents feel that children will be burdened by, and are too young to understand mental illness, yet young people want more information about parental mental health problems to help them cope (Gladstone, Boydell, Seeman, & McKeever, 2011; Mueller, Callanan, & Greenwood, 2014). The limited literature indicates an environment of stigma and silence for families with primary school-aged children both unaffected, and affected by mental illness, in line with theory around self-stigma (Watson, Corrigan, Larson, & Sells, 2007). These patterns of limited communication in early childhood are reflected in research with adolescents, which found parental communication was curtailed by cultural beliefs around mental illness being kept within the family (Chandra & Minkovitz, 2007). However, both studies reviewed here were preliminary exploratory reports with small sample sizes, and one (Pölkki, Ervast, & Huupponen, 2004) failed to meet quality guidelines for qualitative research (Mays & Pope, 2000).

Peers

No literature was found specifically reporting on communications between children of primary-school age on the subject of mental illness.

Related literature about children's conceptions of peers' mental health may inform understanding of what children communicate to each other about these issues. Dixon et al

(2012) examined focus group data on children's (8-9 years) understandings of vignettes of peers with emotional difficulties, identifying three themes: searching for an explanation; empathy versus blame; and consequences and solutions. Children viewed characters as different to themselves – an out-group. Children expressed that friendship was conditional on the peer's harmfulness and their motivation to change. However, Hennessy and Heary (2009) found that compared to children in focus group interviews, individually interviewed children (8-15 years) were less likely to suggest friends as a source of help for a depressed peer. In this study, children in focus groups may have influenced each other into considering help-seeking, or alternatively, this finding may highlight socially desirable responses. It is unclear how the focus group method of Dixon et al (2012) affected the study findings. We do not yet know how the views of children of primary school age about peer mental illness translates to peer communication.

Adolescent peer communications include labelling peers with mental illness as 'weird' and 'an outcast' (Chandra & Minkovitz, 2007), and these communications can change teenagers' own attitudes from empathy to prejudice (Pinto-Foltz, Hines-Martin, & Logsdon, 2010). Recent research has focused upon developing a 'mental health first aid' programme for teenagers to help their peers (Ross, Hart, Jorm, Kelly, & Kitchener, 2012). However, findings from adolescents cannot be extrapolated to the experiences of younger children, for whom social and cognitive factors (e.g. contact with peers; mental illness conceptualization) may be different.

Schools

Despite recommendations for primary school-based interventions (Pitre, Stewart, Adams, Bedard, & Landry, 2007; Schachter et al., 2008; Ventieri, Clarke, & Hay, 2011), few studies have focused upon children aged under 12 years. Of forty studies identified by recent systematic reviews of school-based stigma-reduction programmes (Schachter et al., 2008; Yamaguchi, Mino, & Uddin, 2011), only two reported on interventions within primary schools (Lauria-Horner, Kutcher, & Brooks, 2004; Shah, 2004). Both were brief education-based approaches and neither study employed a control group. In Canada, Lauria-Horner, Kutcher, and Brooks (2004) reported improved child knowledge, and suggested improved attitudes about mental illness. In the UK, Shah (2004) did not report any child outcomes, but noted that teachers had ambivalent views on the utility of the intervention.

Three further primary-school intervention studies were identified by this review. Education-based programmes in the USA and in Australia resulted in significant improvements in child knowledge about mental health and illness (DeSocio, Stember, & Schrinsky, 2006) and in knowledge, social distance, and attitudes towards mental illness at one week and at four months post-intervention, compared to controls (Ventieri et al., 2011). However, only one of forty-three schools approached agreed to take part in the latter intervention. A randomized controlled trial of a hand-puppet educational/indirect contact program in Canada found significantly improved attitudes towards mental illness in the intervention group (Pitre et al., 2007). Interestingly, child exposure to mental illness outside school did not moderate the results. However, parental permission rate was low (57%), and several schools declined to participate.

Primary schools appear to be reticent to engage with interventions communicating about mental illness. Limitations of this evidence base reflect those found in secondary school-based interventions and include low participation; small sample sizes; lack of control groups and follow-up data; inconsistent outcome measurement; lack of measurement of behaviour change (e.g. social distance, help-seeking); and possible negative impacts. Limited reference was made to relevant theoretical frameworks, particularly around mechanisms of stigma reduction. Currently, interventions with primary school children to tackle mental illness stigma are considered as *lacking evidence of efficacy* (Chambless & Hollon, 1998).

Teachers' informal communications

No studies were found on teachers' informal communications to children about mental illness in primary schools. Teachers and school staff have been reported to be influential in adolescents' attitudes to mental health issues (Chandra & Minkovitz, 2007), but teachers' informal communication about mental illness to primary-school aged children are likely to differ.

Media

This review identified six empirical studies examining what is communicated about mental illness within children's media. Four of these studies were reviewed by Coverdale and Nairn (2006), who reported that three studies had examined children's films in a non-systematic manner, finding depictions of mental illness and extreme negative stereotypes were common (Beveridge, 1996; Lawson & Fouts, 2004; Wahl, Wood, Zaveri, Drapalski, & Mann, 2003). A fourth study found almost half of children's television episodes in New Zealand contained at least one (negative) reference to mental illness (Wilson, Nairn, Coverdale, &

Panapa, 2000). Two further studies were found by this review. One non-systematic study found references to mental illness in 18 of 22 Tintin books, all of which related to unwise and impulsive behaviours (Medrano, Malo, Uriarte, & Lopez, 2009). Wahl and colleagues (Wahl, Hanrahan, Karl, Lasher, & Swaye, 2007) used a systematic sampling approach, finding disparaging slang relating to mental illness in 46% of children's programmes in the USA. However, fewer than 3% programmes depicted characters with mental illness.

The methodological quality of this evidence base is poor, with limited use of theoretical frameworks or systematic procedures, and inadequate reporting of methods. Coverdale and Nairn (2006) note that a distinction between linguistic references to mental illness versus characters portrayed as being 'mentally ill' is important in considering how children develop conceptions of mental illness and out-groups. In general, children are exposed to insidious stigma about mental illness via language and characterization in children's television programmes, films, and books, in addition to similar messages via the adult media (Coverdale, Nairn, & Claasen, 2002; Klin & Lemish, 2008). Recent media portrayals are becoming more realistic and positive (Henson et al., 2009), and anti-stigma media campaigns such as Time to Change are increasingly prominent. However, little is known about positive representations in children's media, nor what types of messages might be communicated to young children via social media. The link between media messages and children's views has yet to be empirically investigated.

Discussion

This review is the first to explore the role of communication across key social contexts on development of mental illness stigma in children. The overriding finding is that there is a

dearth of literature on what is communicated to children about mental illness, and available evidence is limited by methodological concerns and a lack of consideration of the impact of culture. The breadth and diversity of research makes it difficult to synthesize, but largely paints a picture of silence and stigmatized messages across young children's social contexts. These social experiences at age 7-11 years dovetail with children's emerging socio-cognitive abilities and are hypothesised to lead to the stigmatized attitudes about mental illness reported in children aged seven and older.

Communications about mental illness across young children's social environments can be tentatively considered in light of mechanisms of stigmatised attitude transmission. This review identified widespread examples of explicitly stigmatized labels and attributions about mental illness, suggesting that learning is likely to be an important mechanism. However, parental communication about mental illness tended to be implicit, limited, and contradictory. Similarly, primary school teachers' discomfort around educational programmes about mental illness may translate into informal communications and undermine positive programme-based messages. When negative attitudes are suppressed or ambivalent, unconscious processes of attitude transmission are likely to be most potent (Fisak & Grills-Taquechel, 2007; Ottati et al., 2005). Such mechanisms may include conformity, and classical conditioning, parental modeling of anxiety (Fisak & Grills-Taquechel, 2007), and 'epistemic trust', which allows complex socio-cultural learning about how to behave from safe sources such as parents and teachers (Csibra & Gergely, 2009). Peer influence may exert effects via conformity to others' behaviour, as young children's expressed views about mental illness are different when amongst a group of peers than when alone. Children's media may also transmit stigmatised attitudes via conformity

processes, as well as conditioning children into associating fear with mental illness when characters portrayed as mentally ill are accompanied by frightening sounds or visual effects. Social media-based communication is increasingly relevant to younger children, but nothing is yet known about this socio-cultural influence around mental illness.

As stigma operates at multiple socio-cultural levels, preventing stigma with young children will require efforts spanning these social spheres (Hinshaw, 2005; Schachter et al., 2008). For example, primary school-based interventions report positive initial results, although interventions cannot yet be considered efficacious (Chambless & Hollon, 1998). A larger body of literature has explored school-based interventions aimed at promoting children's mental *wellbeing,* emotional empathy, and resilience, finding largely positive effects (Spence et al., 2005; Weare & Nind, 2011; Wigelsworth, Humphrey, & Lendrum, 2012). However, the present review highlights that positive messages about mental wellbeing do not necessarily 'counteract' stigmatised communications about mental illness. Parents discuss mental health, but model taboo around mental illness. We propose that in addition to promoting mental health and resilience, education programmes should explicitly and openly address mental illness with young children before stigmatised attitudes develop. Studies in primary schools are yet to investigate the use of direct contact-based approaches in achieving this, found to be more effective than educational strategies in adult and adolescent populations (Corrigan & Shapiro, 2010; Schachter et al., 2008; Yamaguchi, Mino, & Uddin, 2011). Indirect contact interventions, such as using puppets (Pitre et al., 2007), may offer an alternative approach. Similarly, although the effectiveness of indirect contact-based interventions to reduce stigma are being investigated in the adult media (Schiappa et al., 2005; Time to Change, 2013), similar studies are yet to be conducted in young children's media. Finally,

promoting parent-child communication about mental illness in families affected by these issues leads to positive outcomes for both parents and children (Pihkala, Sandlund, & Cederström, 2012; Solantaus, Paavonen, Toikka, & Punamäki, 2010): future work should aim to widen the focus of such programmes to all families, and to intervene when children are young (Mueller, Callanan, & Greenwood, 2014).

A limitation of this review include that no studies from low or middle-income countries were found. As factors such as culture and ethnicity are likely to be important in stigma and the types of communications children receive about mental illness (Chandra & Minkovitz, 2007; Corrigan & Watson, 2007b), future studies should aim to increase the geographical and cultural diversity of research, and explicitly consider the impact of culture. Lastly, communication to children about mental wellbeing (as opposed to illness) may be protective against the development of stigma; this was beyond the scope of the current review.

This review indicates numerous areas for future research including:

1) The association between representations of mental illness in children's media and child attitudes and behaviour, using evidence to develop media and social media-based anti-stigma interventions for young children.

2) Primary school teachers' communications to young children about mental illness, with a view to developing collaborative curriculums to prevent stigma development.

3) How young children influence each other's views and behaviour around peers' mental health difficulties, and intervention opportunities.

4) The impact of, and mechanisms for, parents' communications to young children about mental illness, in order to inform preventative interventions for parents.

References

Aboud, F. E. (2005). The Development of Prejudice in Childhood and Adolescence. In John F. Dovidio, P. S. Glick, & L. A. Rudman (Eds.), *On The Nature Of Prejudice: Fifty Years After Allport* (pp. 310-326). Oxford: John Wiley & Sons.

Aboud, F. E., & Doyle, A.-B. (1996). Parental and peer influences on children's racial attitudes. *International Journal of Intercultural Relations*, *20*(3-4), 371-383.

Allport, G. W. (1954). *The nature of prejudice*. Cambridge, MA: Addison-Wesley.

Angermeyer, M. C., Beck, M., & Matschinger, H. (2003). Determinants of the public's preference for social distance from people with schizophrenia. *Canadian Journal of Psychiatry*, *48*(10), 663-8.

Bandura, A. (1977). *Social learning theory*. New Jersey: Prentice Hall.

Beveridge, A. (1996). Images of madness in the films of Walt Disney. *Psychiatric Bulletin*, *20*, 618–620.

Chambless, D.L., & Hollon, S.D. (1998). Defining empirically supported therapies. *Journal of Consulting and Clinical Psychology, 66,* 7–18

Chandra, A., & Minkovitz, C. S. (2007). Factors that Influence Mental Health Stigma Among 8th Grade Adolescents. *Journal of Youth and Adolescence*, *36*(6), 763-774.

Chatard, A., & Selimbegovic, L. (2008). The intergenerational transmission of social dominance: A three-generation study. *European Journal of Personality*, *22*(6), 541–551.

Corrigan, P. W. (2000). Mental health stigma as social attribution: Implications for research methods and attitude change. *Clinical Psychology: Science and Practice*, *7*(1), 48–67.

Corrigan, P. W., & Shapiro, J. R. (2010). Measuring the impact of programs that challenge the public stigma of mental illness. *Clinical Psychology Review*, *30*(8), 907-22.

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Corrigan, P. W., & Watson, A. C. (2007a). How Children Stigmatize People With Mental Illness. *International Journal of Social Psychiatry*, *53*(6), 526-546.

Corrigan, P. W., & Watson, A. C. (2007b). The stigma of psychiatric disorders and the gender, ethnicity, and education of the perceiver. *Community Mental Health Journal*, *43*(5), 439-58.

Coverdale, John, Nairn, R., & Claasen, D. (2002). Depictions of mental illness in print media: a prospective national sample. *Australian and New Zealand Journal of Psychiatry*, *36*(5), 697-700.

Coverdale, JH, & Nairn, R. (2006). A research agenda concerning depictions of mental illness in children's media. *Academic Psychiatry*, *30*(1), 83-87.

Csibra, G., & Gergely, G. (2009). Natural pedagogy. *Trends in Cognitive Sciences, 13,* 148–53.

DeSocio, J., Stember, L., & Schrinsky, J. (2006). Teaching Children About Mental Health And Illness: A School Nurse Health Education Program. *The Journal of School Nursing*, *22*(2), 81-86.

Dixon, C., Murray, C., & Daiches, A. (2012). A qualitative exploration into young children's perspectives and understandings of emotional difficulties in other children. *Clinical Child Psychology and Psychiatry*, *18(1),* 72-90

Falk, G. (2001). *Stigma: How we treat outsiders*. New York: Prometheus Books.

Fisak, B., & Grills-Taquechel, A. E. (2007). Parental modeling, reinforcement, and information transfer: risk factors in the development of child anxiety? *Clinical Child and Family Psychology Review*, *10*(3), 213-31.

Flavell, J. H. (1999). Cognitive development: children's knowledge about the mind. *Annual Review of Psychology*, *50*, 21-45.

Ford, T., & Nikapota, A. (2000). Teachers' attitudes towards child mental health services. *The Psychiatric Bulletin (United Kingdom), 24(12),* 457

Fox, C., Buchanan-Barrow, E., & Barrett, M. (2010). Children's conceptions of mental illness: A naïve theory approach. *British Journal of Developmental Psychology*, *28*(3), 603-625.

Gladstone, B. M., Boydell, K. M., Seeman, M. V., & McKeever, P. D. (2011). Children's experiences of parental mental illness: a literature review. *Early Intervention in Psychiatry*, *5*(4), 271-89.

Goffman, E. (1963). *Stigma: Notes on the Management of Spoiled Identity* (p. 147). New York: Simon and Schuster.

Hennessy, E., & Heary, C. (2009). The Development of Children's Understanding of Common Psychological Problems. *Child and Adolescent Mental Health*, *14*(1), 42-47.

Henson, C., Chapman, S., McLeod, L., Johnson, N., McGeechan, K., & Hickie, I. (2009). More us than them: positive depictions of mental illness on Australian television news. *The Australian and New Zealand journal of psychiatry*, *43*(6), 554-60.

Hinshaw, S. P. (2005). The stigmatization of mental illness in children and parents: developmental issues, family concerns, and research needs. *Journal of Child Psychology and Psychiatry, and Allied Disciplines*, *46*(7), 714-34.

Hinshaw, S. P. (2007). *The mark of shame: stigma of mental illness and an agenda for change*. Oxford: Oxford University Press.

Hughes, D., Rodriguez, J., Smith, E. P., Johnson, D. J., Stevenson, H. C., & Spicer, P. (2006). Parents' ethnic-racial socialization practices: a review of research and directions for future study. *Developmental Psychology*, *42*(5), 747-70.

Jorm, A., & Wright, A. (2008). Influences on young people's stigmatising attitudes towards peers with mental disorders: national survey of young Australians and their parents. *The British Journal of Psychiatry*, *192*(2), 144-9.

Katz, P. A., Sohn, M., & Zalk, S. R. (1975). Perceptual concommitants of racial attitudes in urban grade-school children. *Developmental Psychology*, *11*(2), 135-144.

Kessler, R.C., Aguilar-Gaxiola, R., Alonso, J., Chatterji, S., Lee, S., Ormel, J., Bedirhan Üstün, T., Wang, P.S. (2009). The global burden of mental disorders: an update from the WHO World Mental Health (WMH) surveys. *Epidemiologia e psichiatria sociale, 18(1),* 23–33

Klin, A., & Lemish, D. (2008). Mental disorders stigma in the media: review of studies on production, content, and influences. *Journal of Health Communication, 13(5),* 434-49.

Lauria-Horner, B., Kutcher, S., & Brooks, S. (2004). The feasibility of a mental health curriculum in elementary school. *Canadian Journal of Psychiatry, 49(3),* 2-5.

Lawson, A., & Fouts, G. (2004). mental illness in Disney animated films. *Canadian Journal of Psychiatry*, *49*(5), 310-4.

Link, B. G., & Phelan, J. C. (2001). Conceptualizing Stigma. *Annual Review of Sociology*, *27*(1), 363-385.

Mays, N., & Pope, C. (2000). Assessing quality in qualitative research. *BMJ, 320*, 50-52.

Medrano, J., Malo, P., Uriarte, J. J., & Lopez, A.-P. (2009). Stigma and prejudice in Tintin. *BMJ*, *339*, b5308-b5308.

Mehta, N., Kassam, A., Leese, M., Butler, G., & Thornicroft, G. (2009). Public attitudes towards people with mental illness in England and Scotland, 1994-2003. *The British Journal of Psychiatry*, *194*(3), 278-84.

Mueller, J., Callanan, M.M., & Greenwood, K. (2014). Parents' communication to their primary school-aged children about mental health and illness: a grounded theory study. *Journal of Public Mental Health, 13(1),* 13-19

Ottati, V., Bodenhausen, G., & Newman, L. (2005). Social Psychological Models of Mental Illness Stigma. In P. W. Corrigan (Ed.), *On the stigma of mental illness: Practical strategies for research and social change* (pp. 99-128). Washington, DC: American Psychological Association.

Pescosolido, B. A., Martin, J. K., Lang, A., & Olafsdottir, S. (2008). Rethinking theoretical approaches to stigma: a Framework Integrating Normative Influences on Stigma (FINIS). *Social Science & Medicine*, *67*(3), 431-40.

Phelan, J. C., Link, B. G., Stueve, A., & Pescosolido, B. A. (2000). Public Conceptions of Mental Illness in 1950

and 1996: What Is Mental Illness and Is It to be Feared? *Journal of Health and Social Behavior*, *41*(2), 188-

207.

Piaget, J. (1985). *The Equilibrium of Cognitive Structures.* Chicago: University of Chicago Press.

Pihkala, H., Sandlund, M., & Cederström, A. (2012). Children in Beardslee's family intervention: Relieved by

understanding of parental mental illness. *The International Journal of Social Psychiatry, 58(*6), 623-628

Pinfold, V., Toulmin, H., Thornicroft, G., Huxley, P., Farmer, P., & Graham, T. (2003). Reducing psychiatric stigma

and discrimination: evaluation of educational interventions in UK secondary schools. *The British Journal

of Psychiatry*, *182*, 342-6.

Pinto-Foltz, M. D., Hines-Martin, V., & Logsdon, M. C. (2010). How Adolescent Girls Understand and Manage

Depression Within Their Peer Group: A Grounded Theory Investigation. *School Mental Health*, *2*(1), 36-

43.

Pitre, N., Stewart, S., Adams, S., Bedard, T., & Landry, S. (2007). The use of puppets with elementary school

children in reducing stigmatizing attitudes towards mental illness. *Journal of Mental Health*, *16*(3), 415-

429.

Pölkki, P., Ervast, S., Huupponen, M. (2004). Coping and resilience of children of a mentally ill parent. *Social

Work Health Care, 39,* 151–63.

Reavley, N. J., & Jorm, A. F. (2011). Young people's stigmatizing attitudes towards people with mental

disorders: findings from an Australian national survey. *The Australian and New Zealand Journal of

Psychiatry*, *45*(12), 1033-9.

Rose, D., Thornicroft, G., Pinfold, V., & Kassam, A. (2007). 250 Labels Used To Stigmatise People With Mental

Illness. *BMC Health Services Research*, *7*, 97-103.

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Ross, A. M., Hart, L. M., Jorm, A. F., Kelly, C. M. & Kitchener, B. A. (2012). Development of key messages for

adolescents on providing basic mental health first aid to peers: a Delphi consensus study. *Early*

Intervention in Psychiatry, 6, 229–238

Schachter, H. M., Girardi, A., Ly, M., Lacroix, D., Lumb, A. B., van Berkom, J., & Gill, R. (2008). Effects of school-

based interventions on mental health stigmatization: a systematic review. *Child and Adolescent*

Psychiatry and Mental Health, *2*(1), 18.

Schiappa, E., Gregg, P. B., & Hewes, D. E. (2005). The Parasocial Contact Hypothesis. *Communication*

Monographs, *72*(1), 92-115.

Shah, N. (2004). Changing minds at the earliest opportunity. *Psychiatric Bulletin*, *28*(6), 213-215.

Shapiro, M. A., & Lang, A. (1991). Making Television Reality: Unconscious Processes in the Construction of

Social Reality. *Communication Research*, *18*(5), 685-705.

Solantaus, T., Paavonen, E. J., Toikka, S., & Punamäki, R.-L. (2010). Preventive interventions in families with

parental depression: children's psychosocial symptoms and prosocial behaviour. *European Child &*

Adolescent Psychiatry, *19*(12), 883-92.

Spence, S., Burns, J., Boucher, S. et al. (2005). The beyondblue Schools Research Initiative: conceptual

framework and intervention. *Australas Psychiatry, 13,* 159-64.

Time to Change. (2013). Time to Change children and young people's programme development

Summary of research and insights. Retrieved from http://www.time-to-

change.org.uk/sites/default/files/TTC%20CYP%20Report%20FINAL.pdf

Ventieri, D., Clarke, D. M., & Hay, M. (2011). The Effects of a School-Based Educational Intervention on

Preadolescents' Knowledge of and Attitudes towards Mental Illness. *Advances in School Mental Health*

Promotion, *4*(3), 5-17.

Wahl, O. (2002). Children's Views of Mental Illness: A Review of the Literature. *Psychiatric Rehabilitation Skills*,

6(2), 134-158.

Wahl, O., Hanrahan, E., Karl, K., Lasher, E., & Swaye, J. (2007). The depiction of mental illnesses in children's television programs. *Journal of Community Psychology*, *35*(1), 121–133.

Wahl, O., Wood, A., Zaveri, P., Drapalski, A., & Mann, B. (2003). mental illness depiction in children's films. *Journal of Community Psychology*, *31*(6), 553-560.

Watson, A. C., Corrigan, P., Larson, J. E., & Sells, M. (2007). Self-stigma in people with mental illness. *Schizophrenia Bulletin*, *33*(6), 1312-8.

Watson, A. C., Otey, E., Westbrook, A. L., Gardner, A. L., Lamb, T. A., Corrigan, P. W., & Fenton, W. S. (2004). Changing middle schoolers' attitudes about mental illness through education. *Schizophrenia Bulletin*, *30*(3), 563-72.

Weare, K., & Nind, M. (2011). *Promoting mental health of children and adolescents through schools and school based interventions: Report of Workpackage Three of the DATAPREV PROJECT*. Retrieved from http://www.dataprevproject.net/files/final_reports/WP3 - Final Report - Promoting Mental Health of Children and Adolescents.pdf

Weiss, M. F. (1994). Children's attitudes toward the mentally ill: an eight-year longitudinal follow-up. *Psychological Reports*, *74*(1), 51-6.

Wigelsworth, M., Humphrey, N. & Lendrum, A. (2012). A national evaluation of the impact of the secondary social and emotional aspects of learning (SEAL) programme. *Educational Psychology: An International Journal of Experimental Educational Psychology, 32(2),* 213-238.

Wilson, C., Nairn, R., Coverdale, J., & Panapa, A. (2000). How mental illness is portrayed in children's television: A prospective study. *British Journal of Psychiatry*, *176*, 440-443.

Yamaguchi, S., Mino, Y., & Uddin, S. (2011). Strategies and future attempts to reduce stigmatization and increase awareness of mental health problems among young people: a narrative review of educational interventions. *Psychiatry and Clinical Neurosciences*, *65*(5), 405-15.

	Article	Topic/ Intervention	Country	Participants (n)	Child age	Methods	Findings
	Parents/family						
1	Mueller, Callanan, & Greenwood (2014)	Parents' communication about mental health and illness to their primary school-aged children	UK	n=10 7 mothers, 3 fathers from separate families 8 White British, 1 White African, 1 White Traveller Varied socio-demographics & experience with mental health problems.	7-11 years	Grounded theory analysis of semi-structured interviews	A preliminary theoretical model was generated. Parents' communications were governed by the amount of overlap in their conceptions of 'Them' (mental illness) and 'Us' (mental health). Communication about mental health was deliberate, and comfortable. Communication about mental 'illness' was characterized by avoidance and contradiction, driven by unconscious processes of taboo and stigma.
2	Pölkki, Ervast, & Huupponen (2004).	Exploring experiences of children affected by parental mental illness	Finland	n=6 (two children from the same family) Data from n=17 adult children analysed separately	9-11 years	Grounded theory analysis of qualitative interviews	Themes identified were children's experiences of parental symptoms, children's responsibilities, stress reactions, coping and resilience, and the role of (the lack of) professional help.
	Peers						
3	Hennessy & Heary (2009)	Exploring children's beliefs about the causes of peers' psychological problems and about potential sources of help	Ireland	n=116 58 F, 58 M 100% White	8-15 years	Randomised to focus groups (n=12 of 5 children) or individual interviews. Vignettes & questions on depression, conduct disorder, & ADHD. Qualitative &quantitative analysis.	Children of all ages were able to offer a range of explanations for the behaviour of the children described in the vignettes. Friends were statistically less likely to be suggested as a help source for mental health problems by individually interviewed children compared to those in focus groups.
4	Dixon et al. (2012)	Exploring children's	UK	n=25	8-9 years	Focus group data (n=5 of	Three themes: searching for an explanation; empathy

	Article	Topic/ Intervention	Country	Participants (n)	Child age	Methods	Findings
		understandings of vignettes of peers with emotional difficulties		12 F, 13 M 100% White British n schools = 5		5 children) Vignettes & questions on peers with depression & anxiety. Interpretative phenomenological analysis.	versus blame; and consequences and solutions. Children drew upon own emotional experiences in understanding peers' difficulties, but friendship was conditional on peer's motivation to change, and harmfulness. Children viewed characters as different to themselves.
	Schools						
5	Lauria-Horner, Kutcher, & Brooks (2004)	Teacher-led education-based curriculum	Canada (Francopho ne)	n=158 (98% students in school) n school = 1 No gender or ethnicity data	Elementary school 6-13 years	Focus group discussions. Pre-post intervention study-specific questionnaire of knowledge and attitudes	Findings indicated improved knowledge and were suggestive of improved attitudes around mental health. Teachers were enthusiastic about the project. Parents were initially reluctant.
6	Shah (2004)	30-minute classroom-based stories and games about mental illness	UK	Children; n=not reported Teachers n=8, 4 responded to questionnaire n school = 1 No gender or ethnicity data	Primary school 5-11 years	Descriptive study.	Anecdotally noted older children already had stigmatized views. Teachers were ambivalent about the utility of the intervention.
7	DeSocio, Stember, & Schrinsky (2006)	Six 45-minute education sessions	USA	n=370 n schools= unknown	Elementary & middle schools 10-12 years	Pre-post intervention measures. No control group. Study-specific	Significant improvements in knowledge about mental health and illness. Anecdotal evidence suggested improvements in students' help-seeking behaviour.

	Article	Topic/ Intervention	Country	Participants (n)	Child age	Methods	Findings
				No gender or ethnicity data		questionnaire measure on knowledge and attitudes	
8	Pitre et al. (2007)	Hand-puppet educational/indirect contact program	Canada	Pre-test data: n=173 95F, 78M Post-test data: n=144 80F, 64M n schools = 6 No ethnicity data	Elementary schools 8-12 years	Randomised controlled trial (randomization at the school level). Pre-post measure: Opinions about Mental Illness (OMI) scale	Significantly improved attitudes in experimental group compared to controls as measured by three factors of the study measure (Separatism, Restrictiveness, Stigmatisation). No main effects or moderating role found for child exposure to mental illness in the family or via parental profession. Parental permission rate low (57%), several schools and individual teachers declined to participate.
9	Ventieri et al (2011)	165-minute school-based educational intervention	Australia	Intervention group: n=69 34F, 35M 86.9% born in Aus/NZ n schools=1 Control group: n=126 71F, 55M 92.1% born in Aus/NZ n schools=4	Primary schools 9-12 years	Controlled trial (non random). Pre/post/follow-up measures. Validated study-specific questionnaire measure of attitudes based on OMI; adapted measure of social distance; study-specific measure of knowledge.	Significant improvement in intervention group as compared to controls on knowledge, social distance and attitudes towards mental illness at one week post-intervention and at four months follow-up. One of forty-three schools approached took part in the intervention. Low participation rate of 39.7%.
	Media						
10	Beveridge (1996)	Walt Disney films	USA	4 films (Dumbo, 1941; Alice in Wonderland, 1950; Mary Poppins,	Not defined	Descriptive	Main character in 3 of 4 films were labeled as "mad" due to strong emotional reactions.

	Article	Topic/ Intervention	Country	Participants (n)	Child age	Methods	Findings
				1964; Beauty & the Beast, 1992)			
11	Wilson, Nairn, Coverdale, & Panapa (2000)	Children's television	New Zealand	128 episodes from 1 week sample	Aimed at children under 10 years	Discourse analysis	46% episodes contained at least one reference to mental illness. Characters depicted as mentall ill were 'evil' or comically stupid and irrational. Characters were seen as objects of fear, derision, or amusement.
12	Wahl, Wood, Zaveri, Drapalski, & Mann (2003)	Walt Disney films	USA	49 G or PG films released over one year	Not defined	Nonsystematic analysis	Twelve films (24%) contained at least one character classified as having a mental illness.
13	Lawson & Fouts (2004)	Children's films	USA	34 of the 40 feature-length films released 1937-2001	Not defined	Content analysis	85% films contained characters with mental illness, with 5 references per film on average. The 3 most common single word relating to mental illness were 'crazy,' 'mad(nss)' and 'nut(ty)' 21% of main characters were judged to be mentally ill and seen as objects of fear, derision, or amusement.
14	Wahl et al. (2007)	Children's television programmes	USA	269 hours of television from 527 different programmes over a 5 week period	Aimed at children under 14 years	Systematic coding & analysis	Disparaging slang relating to mental illness was found in 46% of programmes. 21 characters across 14 programmes (<3% programmes) were identified as specifically depicted with mental illness. Characters with mental illness were treated negatively by other characters (67%), labeled with slang terms, and feared (48%).
15	Medrano, Malo, Uriarte, & Lopez (2009)	Tintin books, Spanish versions	Spain	22 books	Not defined	Nonsystematic analysis & description	References to mental illness found in 18 of 22 Tintin books, all of which related to unwise and impulsive behaviours