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Peer Mental Health Stigmatization Scale: Psychometric properties of a questionnaire for children and adolescents

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**Abstract**

**Background:** The nature of stigmatising attitudes towards children and adolescents with mental health problems has received little empirical attention, despite consensus that such attitudes are widespread. As a consequence, much less is known about stigma in childhood and adolescence and methods of stigma measurement are frequently borrowed from the adult literature. For research on this topic to develop, a theoretically based and developmentally appropriate measure is needed. This study aimed to develop a theory-based peer stigma questionnaire suitable for children and adolescents. **Method:** Participants were 562 children and adolescents aged 9-16 years (*M* = 12.99 years; *SD* = 1.6 years) in the Republic of Ireland, 316 female, all were White. The Peer Mental Health Stigmatization Scale (PMHSS) contains 24 statements (negative and positive) about peers with mental health problems that are rated on a 5-point scale. Participants also completed the Strengths and Difficulties Questionnaire. Re-test data was collected after two weeks from 109 participants. **Results:** Principal Components Analysis on the negative statements indicate the presence of two components: *Stigma Agreement*, personal endorsement of stigmatizing statements and *Stigma Awareness*: awareness of prevailing societal stigma towards youth with mental health problems. The positive statements include three components: *Intellectual Ability*, *Recovery* and *Friendship*. **Conclusions:** The PMHSS is a psychometrically sound instrument with good retest reliability suitable for use with older children and teenagers. Initial use of the scale suggests that personal endorsement of stigma is lower than their perceptions of public stigma.

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**Keywords:** stigma, children, adolescents, questionnaire development, mental health.

Key Practitioner Messages

* The measurement of mental health stigma in children and adolescents has received little attention and most studies have used adapted questionnaires developed for adults without presenting evidence on their appropriateness or psychometric properties.
* The stigma construct used to develop the Peer Mental Health Stigmatization Scale (PMHSS) comprises stereotypes, prejudice, discrimination and lower status.
* The PMHSS can be administered to children as young as 9 years and yields a total stigma score, a total score for endorsement of positive statements as well as scores on separate subscales.
* The findings demonstrate that children and adolescents distinguish between societal stigma (what most people think) and personal stigma (what I think) in relation to mental health problems.**Introduction**

Stigma contributes to the shame and silence associated with mental ill health (Hinshaw, 2005). For children and young people with mental health problems, the persistence of stigma is likely to have implications across many aspects of their lives including help-seeking behaviours (Bowers et al., 2013), the realization of academic goals (Hinshaw, 2005), and the quality of mental health first aid provided by peers (Yap & Jorm, 2011). However, the stigma associated with mental health problems in childhood and adolescence is relatively under researched, either from the perspective of children with such problems or their peers (Hinshaw, 2005; Mukolo, Heflinger, & Wallston, 2010). This is surprising, considering that global estimates for the prevalence of emotional and behavioural problems in childhood suggest rates as high as 20% (Belfer, 2008). In addition, empirical work on children’s social cognition suggests that personal stereotypes as well as awareness of societal stereotypes have developed by middle childhood (Augoustinos & Rosewarne, 2001). If the stigma associated with mental health problems in childhood and adolescence is to be better understood, then reliable and psychometrically sound instruments for its measurement are needed.

Stigma is conceptualized as comprising three components: stereotypes, prejudice and discrimination (Corrigan & Shapiro, 2010). In the context of youth mental health, *stereotypes* refer to beliefs about the characteristics of young people with mental health problems (e.g. that they are dangerous); *prejudice* refers to negative feelings or attitudes towards these young people (e.g. fear or anger); *discrimination* refers to the enactment of these negative responses (e.g. through avoiding affected individuals). Stigma is also regarded as applicable only to those in a position of *low power* (Corrigan & Shapiro, 2010). In other words, if the term stigma is to apply to young people with mental health problems they must be perceived as having lower social status than others in the peer group.

Using questionnaires adapted from work with adults, researchers have measured some of these components of stigma in young people. For example, Watson et al. (2004) and Pinto et al. (2012) used the Revised Attribution Questionnaire (Corrigan et al., 2002) to measure stereotypes, prejudice and discrimination. Schulze et al. (2003) and Pinfold et al. (2003) measured young people’s stereotypes and desire for social distance from peers with mental health problems. Other researchers have focused on specific mental health problems. For example, Kellison, Bussing, Bell and Garvan (2010) developed a measure of stigma towards ADHD for use with adolescents. Although these studies represent a useful initial insight into the stigma of youth mental health problems, none measured loss of power or status and, with the exception of Pinto, et al. (2012) and Kellison et al. (2010) none presented data on the psychometric properties of the instruments they used.

Research on the stigma of mental illness in adulthood has highlighted the importance of extending stigma measurement beyond the focus on personal stigma (Griffiths et al., 2004). For example, research by Corrigan (Corrigan, Watson & Barr, 2006; Corrigan & Rao, 2012) measured awareness of *societal* stigma as conceptually distinct from personal beliefs. There are both theoretical and empirical reasons to consider measuring perceptions of societal stigma. From the theoretical perspective, ‘subjective norms’ (perceptions of others’ beliefs) are antecedents of behaviour (Armitage & Conner, 2001). Empirically there is evidence perceived societal stigma is related to help seeking (Eisenberg et al., 2009).

The present study was designed to develop an instrument that measures all the components of stigma (stereotypes, prejudice, discrimination and low social status) as identified in the literature on the stigma of mental illness in adulthood (Corrigan & Shapiro, 2010). In addition, the instrument was designed to distinguish conceptually between individual respondents’ personally held stigma beliefs and their perceptions of societal stigma; we have called it the Peer Mental Health Stigmatization Scale (PMHSS). Although a questionnaire distinguishing between personal and societal stigma has previously been used with teenagers (Calear, Griffiths, & Christensen, 2011; Jorm & Wright, 2008) the instrument did not measure all stigma components and was developed for use with adults (Griffiths, et al., 2004). We know of no research that has measured its psychometric properties when completed by children or teenagers.

This paper represents an exploratory assessment of the psychometric properties of the PMHSS. The specific objectives include evaluating the factor structure of the scale with typically developing children and adolescents, estimating its internal reliability, the internal reliability of its subscales, its test re-test reliability over a two-week period, and its acceptability to young people. The age group of participants (9 to 16 years) was chosen as research by Augustinos and Rosewarne (2001) suggests that by 9 years children are able to distinguish between personally held beliefs and knowledge of wider culturally held stereotypes. It is particularly important to be able to reliably measure mental health stigma in this age group because the first years of secondary school may be appropriate for anti-stigma interventions (e.g. Pinfold et al, 2003; Schulze et al., 2003) as mental health problems that may persist to adulthood are beginning to emerge (Patel et al., 2007). An understanding of positive attitudes towards peers with mental health problems can also contribute to the development of anti-stigma interventions by providing a base on which to build positive attitudes and behavioural intentions.

**Method**

*Development phase*

A wide range of questionnaires were consulted in the development of the instrument: the Self Stigma of Mental Illness Scale (SSMIS; Corrigan, et al., 2006), a stigma questionnaire developed by Moses (2009), the Revised Attribution Questionnaire (Corrigan et al., 2002); the Perceived Devaluation/Discrimination Scale (PDDS; Link et al., 1997), the attitude questions in a measure developed by Pinfold et al. (2003); and a measure of depression stigma developed by Griffiths, et al. (2004). The items chosen for inclusion measured stereotypes (dangerousness, blameworthiness, poor self care, academic ability), prejudice (fear, not trustworthy, behaviour in class), discrimination (‘hang out with’, refusing employment) and low social status (look down on). These items were chosen because they are consistent with Corrigan and Shapiro’s (2010) conceptualization of the components of stigmatizing responses and are developmentally appropriate. Sixteen of the items described young people negatively (e.g. are dangerous) and 8 described them positively (e.g. are just as intelligent as others). The decision to include the positive statements was based on Hinshaw’s (2005) exhortation that printed statements about young people with mental health problems should include messages of strength, courage and resilience.

In keeping with Corrigan’s (Corrigan et al., 2006) distinction between awareness of societal stigma towards young people with mental health problems and personal beliefs, we structured the scale such that each statement regarding perception of societal stigma had a corresponding item relating to personal endorsement of that statement. This produced a total of 24 items, 12 items relating to societal stigma and 12 relating to personal stigma.

Having decided on the nature and content of items to be included within the scale it was still necessary to ensure that the language was suitable for use with children and adolescents. In her work with adolescents, Moses (2009) used the phrase ‘emotional and behavioural problems’ in place of the term ‘mental illness’ used in adult scales. This phrase was adopted for all items in the PMHSS.

Items followed a standard format. Personal endorsement of stigma began with the phrase ‘I believe that children with emotional and behavioural problems…’ Perceptions of stigma held by society began with the phrase ‘Most people believe that children with emotional and behavioural problems…’ Positive statements were similarly prefaced with these phrases. Participants responded to all items on a five-point Likert scale with response options ranging from ‘Disagree Completely’ to ‘Agree Completely’. In the version of the questionnaire used with secondary school pupils, the word ‘children’ was replaced with the word ‘teenagers’. All other aspects of the questionnaire were identical. See Appendix for the full questionnaire.

*Participants*

Demographic details are presented in Table 1. The sample included children and adolescents from fourth- through ninth-grade with an age range of 9-16 years (*M* = 12.99 years, *SD* = 1.6 years). These young people came from 10 mixed-sex predominantly rural public schools in the north-east of the Republic of Ireland. Within each school letters to parents were sent home with young people requesting written consent to approach their child to participate. Questionnaires were completed by 641 pupils (42.93%), however 79 had to be excluded because of missing data (n = 59) or high scores (≥ 20 see below) on the Strengths and Difficulties Questionnaire (n =20) leaving a final sample of 562. A proxy measure of participants’ socioeconomic status (SES) was calculated from the highest level of education achieved by the consenting parent/guardian (see Table 1). Parental level of education is a commonly used proxy of SES in research involving school-aged individuals (Aarø et al., 2009).

For the purpose of establishing the test-retest reliability of the measure, 109 children and adolescents completed the questionnaire on a second testing occasion, two weeks after they had completed the measure for the first time.

[Table 1 here]

*Ethica1 Approval*

Ethical approval for this study was granted from the Human Research Ethics Committee - Humanities of University College Dublin, Ireland. Only those students who returned a signed parental consent form were eligible to take part in the study. Child assent was also sought verbally before respondents completed the questionnaire.

*Procedure*

Participants completed the questionnaire in a classroom setting in approximately 20 minutes. The term ‘emotional and behavioural problems’ was explained to participants before they began to complete the questionnaire. The explanation included descriptions of ADHD and Depression/Anxiety, the most common types of psychiatric disorder experienced by children and adolescents (Lynch et al., 2006). The descriptions of these conditions were based on DSM-IV (American Psychiatric Association, 2000) criteria for diagnosis.

*Additional measures*

*Strengths and Difficulties Questionnaire* (SDQ; Goodman, Meltzer & Bailey, 1998): This brief behavioural screening questionnaire includes 25 items divided into 5 subscales of 5 items each (conduct problems, hyperactivity, emotional symptoms, peer problems and prosocial). Each item is rated ‘not true’, ‘somewhat true’ or ‘certainly true’. The first four subscales can be summed to give a total difficulties score. The prosocial subscale which measures positive behaviour is not included in this total score. Participants with a total score of ≥ 20 were excluded from further analysis because of concerns that they might differ in their attribution for problem behaviour from young people without such problems (Wells, 1980). In cases where a child scored in this range (20 in total), their consenting parent was contacted. This was a stipulation placed on the research team by the ethics committee who reviewed the study.

*PMHSS Feedback:* In order to determine the acceptability of the instrument to young people, participants were asked to rate the instrument on 4 statements. Statements related to enjoyment and understanding of the task, ease of completing the questionnaire, as well as understanding of the language used. Participants responded to each item on a five-point Likert Scale with response options ranging from ‘Disagree Completely’ (1) to ‘Agree Completely’ (5).

*Analysis*

The primary goal of the statistical analysis was to test the factorability of the data using Principal Component Analysis (PCA). PCA was run separately for the negative and positive items after initial analyses found very different response patterns. Other studies have also found children respond differently to positively and negatively phrased items in surveys (Benson & Hocevar, 1985). There is some evidence to suggest that aspects of prosocial behaviour might be negatively related with personal stigma (Eisenberg, Eggum & Giunta, 2010) so this relationship is tested as an element of divergent validity.

Further analyses explore the demographic differences in stigma responses, using parent education as a proxy indicator of socioeconomic status and comparing scores of primary and secondary school pupils.

**Results**

*Principal components analysis – negative statements*

Initially, the suitability of the 16 items for principal component analysis (PCA) was examined. The correlation matrix revealed an adequate number of coefficients > .3 and Kaiser-Meyer-Olkin = .805. This exceeds the recommended value of .6 (Kaiser, 1970; 1974). In addition, Bartlett’s Test of Sphericity (Bartlett, 1954) reached statistical significance ( = 1863.703; *p* < .001), which supported the factorability of the correlation matrix (Tabachnick & Fidell, 2005).

PCA identified 4 components with eigen values greater than 1 and parallel analysis (Monte Carlo simulation; Watkins, 1998) indicated retention of 3 components. Solutions involving between 2 and 4 components were tested. The 2 component solution, which explains 35.66% of variance, was the most interpretable and so was selected (Beavers et al., 2013). The correlation between the components = .33, which is just above the cut-off of .32 recommended by Tabachnick and Fidell (2005) for the use of orthogonal rotation. Therefore, both orthogonal (varimax) and oblique (oblimin) rotations were used and they yield an identical factor structure so only the varimax rotation is presented below.

 [Table 2 here]

Item loadings, following varimax rotation, are contained in Table 2. The first component contains 8 items referring to personal endorsement of stigma and was labelled ‘Stigma Agreement’ and the second component contains 8 items referring to awareness of societal stigma and so was labelled ‘Stigma Awareness’. With this solution only two items meet the criterion of ‘complex’ as defined by Tabachnick and Fidell (2005) i.e. load on a second factor >.32. If the more lenient criteria of >.4 identified by Beavers et al. (2013) is accepted then only one item has significant cross-loading.

‘Stigma Agreement’ has item factor loadings that could be described as fair to very good (.492 to .679) (Comery & Lee, 1992). Component 2 ‘Stigma Awareness’ has factor loadings that could be considered poor to very good (.420 to .643).

Cronbach’s α was used to assess the internal consistency of all 16 items and the two components identified in the results of PCA. Overall  = .806 and although coefficients for the subscales are marginally lower (‘Stigma Agreement’  = .753; ‘Stigma Awareness’  = .706) they are both acceptable (Cortina, 1993).

*Principal components analysis – positive items*

Principal component analysis with varimax rotation was also performed on the 8 positive items in the scale. Kaiser-Meyer-Olkin = .638, Bartlett’s Test of Sphericity was significant ( = 740.270; *p* < .001). Three components had eigen values greater than 1, which together explain 61.02% of variance. These three components map onto item content, we have labelled them ‘Intellectual Ability’, ‘Recovery’ and ‘Friendship’ respectively. Item loadings are contained in Table 3. No items loaded on more than one factor. Reliability estimates for the positive items are: total  = .673, ‘Intellectual Ability’  = .666; ‘Recovery’  = .735 and ‘Friendship’  = .437. Two of these components (‘Recovery’ and ‘Friendship’) have just two items. As the primary focus of this paper is on stigma, in the analyses that follow only the overall score for the items in positive scale are included.

*Re-test reliability Analysis*

Correlation of scores over 2 weeks for 109 participants yielded the following results: ‘Stigma Agreement’, *r* = .679; ‘Stigma Awareness’, *r* = .745; and for the total of negative items, *r* = .753. Reliability for the total score on positive items: *r* = .645.

*Correlations*

A bivariate correlation reveals a moderate significant relationship between total scores on the ‘Stigma Awareness’ and ‘Stigma Agreement’ subscales (*r* = .476). In addition, when a paired samples t-test was conducted, a significant difference was observed between scores on these subscales, *t*(516) = 23.87, *p* < .001. Looking to the mean scores, it was apparent that participants had higher scores on the ‘Stigma Awareness’ subscale *M1* = 23.81 (*SD* = 4.98) than on the ‘Stigma Agreement’ subscale *M2* = 18.55 (*SD* = 4.80).

*Discriminant validity*

 A negative correlation was predicted between ‘Stigma Agreement’ and the Prosocial subscale of the SDQ and this was confirmed, r = -.160, p < .001. As expected there was also a negative correlation between participants’ total scores on the positive and negative items *r* = -.490, p < .001.

*Socio-demographic analysis*

In order to test for differences in responses based on family background, participants were divided into three groups according to parental education: secondary school or lower, post second level diploma or certificate, bachelor degree or higher. Four one-way between subjects ANOVAs compared outcomes for total score on the negative items, ‘Stigma Agreement’ subscale, ‘Stigma Awareness’ subscale and total score on positive items for the three groups. No significant differences were found: negative item total F (2, 501) = 0.009, NS; ‘Stigma Agreement’ F (2, 522) = 0.003, NS; ‘Stigma Awareness’ F (2, 517) = 0.094, NS; positive item total F (2, 519) = 0.055, NS.

Independent samples t-tests were used to examine differences on total negative score, ‘Stigma Agreement’, ‘Stigma Awareness’ and total positive score for primary and secondary school pupils. Primary school pupils had significantly lower scores than secondary school pupils on all negative items but the two age groups did not differ on the positive items: total negative Mprimary = 40.42, Msecondary = 43.59 t (377.75) = -4.09, p <.001; ‘Stigma Agreement’ Mprimary = 19.95, Msecondary = 19.03 t (539) = -2.56, p <.02; ‘Stigma Awareness’ Mprimary = 22.48, Msecondary = 24.62 t (533) = -4.97, p <.001; total positive Mprimary = 29.36, Msecondary = 28.75 t (371.77) = 1.55, NS.

*Participant feedback*

Responses to the feedback questions indicate that participants were generally positive about the experience of completing the questionnaire (see Table 3). Although there were small age differences in mean scores, in all cases the modal response was the same for younger and older participants. The modal response was ‘agree’ to the statement that completing the questionnaire was enjoyable; ‘disagree’ to the statement that some questions were difficult to understand; ‘agree’ to the statement that the questionnaire was easy to complete and ‘agree completely’ to the statement that they understood all the words used.

**Discussion**

The primary goal of this research was to develop a questionnaire to capture children and adolescents’ stigma responses to peers with mental health problems. The finding that there is a distinction between young people’s awareness of public stigma and their personal endorsement of stigma is consistent with previous studies (e.g. Corrigan et al., 2006). Separate PCA on the positive items in the scale support the presence of three components. Although the study was not primarily designed to provide further evidence of construct validity, a small negative correlation between the Prosocial subscale of the SDQ and the ‘Stigma Agreement’ subscale provides a basis for further investigation of the relationship between the stigma scale and other measures of personal beliefs and behavioural intentions. As expected there was a negative correlation between total scores on the negative and positive items. The items measuring stereotypes, prejudices and discrimination included in the questionnaire have some overlap with qualitative research findings that highlight experiences of stigma reported by young people with mental health problems (e.g. McIntyre & Hennessy, 2012).

The finding that there were no significant differences in stigma related to socio-economic status is consistent with Swords, Heary & Hennessy (2011) who found no evidence for an association between parental education and acceptance of peers with ADHD or depression. Although a study with college students (Eisenberg et al., 2009) found that stigma higher among students from poor families, the fact that the study was with college students rather than school pupils and that they measured parental income rather than education may explain this difference.

In the present study, older participants showed significantly higher levels of stigma than younger participants, whereas they did not differ in their endorsement of positive items. In previous research, findings on age related differences in stigma responses are inconsistent: Eisenberg et al (2009) found that younger students had more stigmatizing attitudes than older students, Yap and Jorm (2011) also found that younger participants had higher stigma scores. However, O’Driscoll, Heary, Hennessy & McKeague (2012) found that age differences were in part related to the aspect of stigma that was measured. Thus, adolescents wanted less physical social distance from peers with mental health problems but reported a greater willingness to exclude them from activities than younger children.

*Clinical implications*

Several clinical implications follow from the findings of the present study. Early intervention is an important predictor of treatment response and sustained recovery (Calear & Christensen, 2010), however, most young people who have a mental health problem do not receive treatment (U.S. Surgeon General, 1999). In order to improve the effectiveness of mental health services there is an urgent need to understand barriers to help seeking such as societal stigma. Furthermore, we know that peer acceptance is not only thought to be important in maintaining good mental health (Warren, Jackson, & Sifers, 2009) but also helps facilitate recovery among young people experiencing mental health problems (Meadows, Brown, & Elder, 2006). Thus, tackling stigma either through the development of anti-stigma interventions or shaping policy is an issue of concern for all working in the field of mental health. Heflinger and Hinshaw (2010) argue that despite stigma now being recognized as important in child and adolescent research, the construct remains under-conceptualised and under-researched. The ability to tackle the stigma of mental health problems must be a central concern to clinical psychologists and psychiatrists so the development of a suitable instrument to measure these constructs is an important step in developing appropriate interventions.

*Limitations*

Use of the instrument described in the present study should be considered in light of a number of limitations. As is typical when relying on self-report questionnaires, it is not possible to determine the extent to which participants’ responses are consistent with their behaviour towards peers with mental health problems. If the instrument is being used to measure stigma change following an intervention then measures of behaviour change should also be included as these are fundamental to assessing real improvement (Corrigan & Shapiro, 2010). The order of presentation of items could potentially have caused a response bias among participants. This might be addressed in future research by presenting items in random order, as was the case in a study conducted by Corrigan et al. (2006).

The use of the broad term ‘emotional or behavioural problems’ in the PMHSS is a further limitation of the present study. This phrase was included so as to preserve its comparability with stigma measures that are already in use with adults (where the term ‘mental illness’ is used). However, use of this term does not allow for a distinction between stigma towards different types of mental health problem. This may be problematic, as research suggests that children’s perceptions of peers with mental health problems may vary depending on the nature of the psychiatric diagnosis in question (O’Driscoll et al., 2012; Walker et al., 2008). However, we believe that the instrument could readily be adapted to accommodate assessment of stigmatizing attitudes towards specific types of mental health problem.

Despite these limitations, the present study represents an important step in the measurement of peer stigmatization of mental health problems in children and adolescents. The scale is based on a conceptualization of stigma as consisting of stereotypes, prejudice, discrimination and lower status that was drawn from research on the stigma of adult mental health problems (Corrigan & Shapiro, 2010). The structure of the scale distinguishes between personal stigma and awareness of societal stigma and permits measurement of young people’s positive perceptions of peers with mental health problems. The usability and acceptability of the scale to young people was confirmed by their responses to feedback questions.

*Conclusion*

We believe the current findings represent a contribution to the availability of psychometrically sound measures of stigma in childhood and adolescence. The PMHSS includes both positive and negative items about young people with emotional and behavioural problems. The negative items include two reliable subscales that will prove useful in charting the development of children’s awareness of mental health stigma in society, their own endorsement of stigma towards peers with mental health problems and the relationship between these two constructs. The instrument will also prove useful to those who are evaluating the effectiveness of stigma intervention programs with young people, as it can measure changes in positive as well as negative attitudes. Finally we believe that with further research the scale could be readily adapted to focus on specific types of mental health problem and to investigate the self-stigma of young people who have mental health problems.

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Contribution:

Lynn McKeague: Research design, data collection, data analysis, drafting article

Eilis Hennessy: Research design, data analysis, drafting article

Claire O’Driscoll: Research design, drafting article

Caroline Heary: Research design, data analysis, drafting article, PI of grant

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**TABLE 1** Characteristics of Participants (N = 562)

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | n | % |
|  |  |  |  |
| Gender  | Male | 246 | 43.8% |
|  | Female | 316 | 56.2% |
|  | Total | 562 |  |
| SES | Low (second-level completion or lower)  | 285 | 50.7% |
|  | Middle (post second-level certificate or diploma)  | 171 | 30.4% |
|  | High (degree or higher) | 85 | 15.1% |
|  | Missing data | 21 | 3.7% |

SES, socioeconomic status.

**TABLE 2**

Items and PCA Loadings for the Negative items

|  |  |  |
| --- | --- | --- |
|  |  | **Component** |
| **No.** | **Item descriptor** | **Stigma agreement** | **Stigma awareness** |
| 2 | Most people look down on children who visit a counsellor because they have emotional or behavioural problems. |  | .643 |
| 4 | Most people believe that children with emotional or behavioural problems are dangerous. |  | .626 |
| 5 | Most people believe that children with emotional or behavioural problems are not as trustworthy as other children. |  | .586 |
| 6 | Most people believe that children with emotional or behavioural problems are to blame for their problems. |  | .428 |
| 8 | Most employers believe it is a bad idea to give a part-time job to a child with emotional or behavioural problems. |  | .583 |
| 10 | Teachers believe that children with emotional or behavioural problems do not behave as well as other children in class. | .321 | .441 |
| 11 | Most people believe that children with emotional or behavioural problems are not as good as other children at taking care of themselves. |  | .420 |
| 12 | Most people are afraid of children who visit a counsellor because they have emotional or behavioural problems. |  | .591 |
| 14 | I would look down on a child if I knew that he/she was visiting a counsellor because of emotional or behavioural problems. | .494 |  |
| 16 | I believe that children with emotional or behavioural problems are dangerous. | .531 | .413 |
| 17 | I believe that children with emotional or behavioural problems are not as trustworthy as other children. | .679 |  |
| 18 | I believe that children with emotional or behavioural problems are to blame for their problems. | .492 |  |
| 20 | I believe that it is a bad idea for employersto give part-time jobs to children with emotional or behavioural problems. | .653 |  |
| 22 | I believe that children with emotional or behavioural problems do not behave as well as other children in class.  | .521 |  |
| 23 | I believe that children with emotional or behavioural problems are not as good as other children at taking care of themselves | .598 |  |
| 24 | I would be afraid of someone if I knew that they had emotional or behavioural problems. | .578 |  |

PCA, Principal Components Analysis.

*Note.* Coefficients less than .3 are suppressed

**TABLE 3**

Items and PCA Loadings for the Positive items

|  |  |  |
| --- | --- | --- |
|  |  | **Component** |
| **No.** | **Item descriptor** | Intellectual ability | Recovery | Friendship |
| 1 | Most people believe that children with emotional or behavioural problems are just as intelligent as other children | .604 |  |  |
| 3 | Most children would be happy to hang out with someone who has who has emotional or behavioural problems |  |  | .828 |
| 7 | Most people believe that children with emotional or behavioural problems will get better some day |  | .888 |  |
| 9 | Most people believe that children with emotional or behavioural problems can get good grades in school | .665 |  |  |
| 13 | I believe that children with emotional or behavioural problems are just as intelligent as other children | .784 |  |  |
| 15 | I would be happy to hang out with someone who has who has emotional or behavioural problems |  |  | .735 |
| 19 | I believe that children with emotional or behavioural problems will get better some day |  | .872 |  |
| 21 | I believe that children with emotional or behavioural problems can get good grades in school | .729 |  |  |

Table 4 Means and standard deviations for each of the feedback questions

|  |  |  |
| --- | --- | --- |
| Feedback questions | Primary pupils(N = 220) | Secondary pupils (N=337) |
|  | Mean | SD | Mean | SD |
| Filling in the questionnaire was an enjoyable experience | 3.90 | .926 | 3.55 | .837 |
| Some of the questions were difficult to understand  | 2.36 | 1.17 | 2.39 | 1.17 |
| Completing this questionnaire was easy | 3.90 | 1.01 | 3.97 | .900 |
| I understood all of the words used  | 4.06 | 1.12 | 4.21 | .867 |

**Appendix**

**Peer Mental Health Stigmatization Scale[[1]](#footnote-1)**

When you are ready, please read each sentence and decide your answer (you may read quietly to yourself). There are five possible answers for each question - “Disagree completely”, “Disagree”, “Neither agree nor disagree”, “Agree”, “Disagree completely”. Choose your answer to a sentence and tick the box for the answer you choose. You may only choose one answer.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Disagree completely** | **Disagree** | **Neither** **agree nor** **disagree** | **Agree** | **Agree****completely** |
| **1.** Most people believe that children with emotional or behavioural problems are just as intelligent as other children. |  |   |  |  |  |
| **2.** Most people look down on children who visit a counsellor because they have emotional or behavioural problems. |  |  |  |  |  |
| **3.** Most children would be happy to be friends with somebody who has emotional or behavioural problems. |  |  |  |  |  |
| **4.** Most people believe that children with emotional or behavioural problems are dangerous. |  |  |  |  |  |
| **5.** Most people believe that children with emotional or behavioural problems are not as trustworthy as other children. |  |  |  |  |  |
| **6.**Most people believe that children with emotional or behavioural problems are to blame for their problems. |  |  |  |  |  |
| **7.** Most people believe that children with emotional or behavioural problems will get better some day. |  |  |  |  |  |
| **8.** Most employers believe it is a bad idea to give a part-time job to a child with emotional or behavioural problems. |  |  |  |  |  |
| **9.** Most people believe that children with emotional or behavioural problems can get good grades in school. |  |  |  |  |  |
| **10.** Teachers believe that children with emotional or behavioural problems do not behave as well as other children in class. |  |  |  |  |  |
| **11.** Most people believe that children with emotional or behavioural problems are not as good as other children at taking care of themselves. |  |  |  |  |  |
| **12.** Most people are afraid of children who visit a  counsellor because they have emotional or behavioural problems. |  |  |  |  |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Disagree completely** | **Disagree** | **Neither** **agree nor** **disagree** | **Agree** | **Agree****completely** |
| **13.** I believe that children with emotional or behavioural problems are just as intelligent as other children |  |  |  |  |  |
| **14.** I look down on children who visit a counsellor because they have emotional or behavioural problems |  |  |  |  |  |
| **15.** I believe it is good to be friends with someone  who has emotional or behavioural problems |  |  |  |  |  |
| **16.** I believe that children with emotional or behavioural problems are dangerous |  |  |  |  |  |
| **17.** I believe that children with emotional or behavioural problems are not as trustworthy as other children |  |  |  |  |  |
| **18.** I believe that children with emotional or behavioural problems are to blame for their problems. |  |  |  |  |  |
| **19.** I believe that children with emotional or behaviouralproblems can get better |  |  |  |  |  |
| **20.** I believe that it is not a good idea for employers to give part-time jobs to children with emotional or behavioural problems |  |  |  |  |  |
| **21.** I believe that children with emotional or behavioural problems can get good grades in school |  |  |  |  |  |
| **22.** I believe that children with emotional or behavioural problems do not behave as well as other children in class. |  |  |  |  |  |
| **23.** I believe that children with emotional or behavioural problems are not as good as other children at taking care of themselves |  |  |  |  |  |
| **24.** I would be afraid of someone if I knew that they had emotional or behavioural problems. |  |  |  |  |  |

1. With participants in secondary schools the word ‘children’ was replaced with the word ‘teenager’ [↑](#footnote-ref-1)