Children’s attitudes and behavioural intentions towards a peer with symptoms of ADHD: does the addition of a diagnostic label make a difference?

G. URQUHART LAW, BSc(Hons), DClinPsych
SCOTT SINCLAIR, BSc(Hons), MSc, ClinPsyD
NICOLE FRASER, BA(Hons)
Department of Clinical Psychology, School of Psychology, University of Birmingham, UK

Abstract

This article explores the impact of diagnostic/psychiatric labelling on the attitudes and behavioural intentions of school-aged children towards a hypothetical peer presented with symptoms of attention deficit hyperactivity disorder (ADHD). A sample of 120 children aged 11–12 years read one of three vignettes describing the behaviour of a gender-neutral, same-age peer presenting with symptoms of ADHD. The participants completed self-report measures of attitudes and behavioural intentions after reading the respective vignettes. The majority of participants perceived the vignette character as being male and the attitude held towards him was predominately negative. Significant positive relationships were found between attitudes and children’s willingness to engage in social, academic and physical activities. Diagnostic/psychiatric labelling had no additional influence upon attitudes or behavioural intentions. Children’s negative attitude towards peers with symptoms of ADHD, given its association with friendship choice, is an important target for change in reducing stigma.

Keywords ADHD • attitudes • behavioural intentions • labelling • stigma

Children and adults, across cultures (Chung et al., 2001; Crisp et al., 2000), hold unfavourable views of those with mental health difficulties (Adler and Wahl,
1998; Sayce, 1998) and ascribe a variety of negative characteristics (for example, ‘dangerous’, ‘unpredictable’) to individuals with psychiatric labels (Fink and Tasman, 1992). Moreover, children with mental health problems are described more negatively by their peers than children with physical disabilities (Adler and Wahl, 1998) and the main avenue for mental health stigma arises from young people’s peer groups (Winchester, 2002).

Stigmatizing attitudes can have a negative impact upon the recipient’s psychological development and well-being – for example self-esteem, friendships (Hayward and Bright, 1997; Link and Phelan, 2001; Wahl, 1999) – and can act as barriers to treatment access, adherence and efficacy (Corrigan, 2004; Penn and Wykes, 2003). Unfortunately, despite the increase in anti-stigma campaigns, evidence suggests that stigmatization and discrimination towards people with mental health difficulties has changed little in over 50 years (Fraser, 1994; Phelan et al., 2000).

To date, most research in mental health stigma has been focused on adults relative to that of children (Hinshaw, 2005). However, given that stigma does not just suddenly emerge in adulthood, it is important to advance our understanding of the development of children’s attitudes towards mental health generally, and peer mental health specifically.

The causes of stigmatization are seen as complex and multifactorial (Hewstone et al., 2002). For children, stigmatization is thought to develop from various sources, such as information promulgated by the media, adopting parental attitudes and their own stage of cognitive development (Wahl, 2002, 2003). However, little is known as to the specific content or nature of childhood conditions or respondent characteristics that give rise to stigmatizing attitudes. The dearth of studies, together with variability in research methodologies, makes it difficult to draw firm conclusions.

Research into children’s understanding about the causes and consequences of mental health impairments has shown developmental and impairment-specific trends. For example, Smith and Williams (2001) have shown that children aged four to 12 years make judgements about the physical, cognitive and social capabilities of peers with a variety of difficulties and that these judgements differ as a function of disability type and the participant’s age. Similarly, Hennessy and Heary (2002) found that eight-year-old children were more likely to make internal attributions, such as diet and injury, for peers’ attention deficit hyperactivity disorder (ADHD) difficulties than older children who made more frequent external attributions, such as family, school and peer-group factors. Clearly, children develop perceptions about the cause, consequences and competencies of a peer’s mental health, but the degree to which perceptions are influenced by the amount and type of information and whether the addition of a diagnostic label would alter attitudes and behavioural intentions, remains unanswered.

ADHD, one of the most commonly-diagnosed psychiatric disorders of
childhood, describes individuals who present with extreme and situationally pervasive problems with inattention, hyperactivity and impulsivity (American Psychiatric Association, 1994). Prevalence rates vary considerably (3% to 14% of school-age children; Knapp, 1997) with a male-to-female ratio of 3:1 (Satzmari et al., 1989). ADHD can have long-term adverse effects upon academic performance, vocational success and psychosocial functioning and children with ADHD are at a heightened risk of engaging in offending behaviour, having contact with mental health services as adults and misusing substances in adulthood (Biederman et al., 1995; Weiss and Hechtman, 1993). Indeed, children with ADHD often present with significant conduct problems, depression, anxiety and poor family relations (Jensen et al., 1997). Moreover, they can develop a view of themselves as being different – a sense of being ‘damaged’ or ‘incomplete’ – and have been found to be particularly concerned about the potentially stigmatizing effects of the label (Cooper and Shea, 1999).

Studies exploring children’s views of peers with ADHD characteristics indicate that attitudes are generally negative and that ADHD characteristics are found to be troublesome: children with ADHD are excluded frequently from their peer group (Hinshaw et al., 1997; Hoza et al., 2005); and preschoolers have been shown to hold a negative social evaluation of a child with ADHD (Milich et al., 1982).

This study explores the attitudes that 11- to 12-year-old schoolchildren hold towards a peer with symptoms associated with ADHD and whether there is an effect of including labelling or diagnostic information. More specifically, the aim was to address the following questions:

RQ1: What attitudes do schoolchildren hold towards a peer with symptoms of ADHD?

RQ2: What behavioural intentions do schoolchildren have towards such a peer?

RQ3: Are attitudes and behavioural intentions influenced by labelling or diagnostic information?

RQ4: Is there a relationship between attitude and behavioural intention?

Method

Participants

A purposive sample of 10 mainstream secondary schools within the West Midlands region of the UK were invited to take part and from the six schools agreeing to take part, three (referred to as A, B and C) were able to participate within the timeframe of the study. Children in their first year of secondary school were targeted for participation so that they could complete questionnaires unaided, and the effect of familiarity with mental health (which has the potential to
increase with age) could be minimized. Form groups, able to complete questionnaires on specified dates, were identified by headteachers.

Information letters were sent home to children and parents or carers with participation requiring written consent (opt-in procedure) from both. The aim was to recruit equal numbers of respondents in all schools, but numbers varied: school A ($N = 75$), school B (23) and school C (22). In total, 120 children (51 boys, 69 girls) agreed to participate (participation rate, 28%). School A serves a largely suburban area, which is slightly more affluent than the areas where schools B and C are situated, although the sample as a whole represented primarily low- to low-to-middle income families. The university research ethics committee approved the study.

The final sample comprised 120 children. The participants were aged between 11 and 12 years of age ($M = 11.9$, $SD = 0.3$, range 11.1 to 12.7) and 98 percent were Caucasian.

**Materials**

Self-report booklets were presented in the same order at each presentation and across conditions. These are described in their presenting order.

**Vignettes:** three vignettes were devised by the authors, each describing a gender-neutral child of equivalent age to the participants:

Anon is a pupil in your class at school. Anon often does not pay attention in class and is easily distracted. When the class teacher speaks, Anon regularly does not listen, fidgets a lot and fails to finish schoolwork. Anon is often on the go and usually interrupts other people’s conversations and games. Anon often talks a lot, is often forgetful and has difficulty awaiting turn in class, often blurt out answers at the teacher before the question has been finished. Anon often loses things.

The vignette contains 12 characteristics of ADHD described in the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV): six symptoms of inattention and three each of impulsivity and hyperactivity. Vignette condition 1 was presented as above. Vignette condition 2 was presented as above, but with an additional final sentence reading ‘Anon has Attention Deficit Hyperactivity’. Vignette condition 3 was presented as above, but with an additional final sentence reading ‘Anon has Attention Deficit Hyperactivity Disorder’. The latter two manipulations were used to examine the effects of labelling or diagnostic information over and above the presentation of behavioural symptoms. Henceforth, condition 1 will be known as ‘symptoms’ ($N = 45$), condition 2 as ‘ADH’ ($N = 36$) and condition 3 as ‘ADHD’ ($N = 39$). Child clinical psychologists, independent of the study, verified the face validity of the vignette as describing a child with symptoms associated with ADHD. Chi-square tests revealed no significant differences in gender distribution between conditions.

**Adjective checklist:** this 34-item questionnaire (Siperstein and Bak, 1977)
requires participants to endorse positive and negative adjectives that best describe a target child (Bell and Morgan, 2000). Half the items are positive (for example, ‘happy’, ‘clever’) and half are negative (for example, ‘careless’, ‘ugly’). A total score is calculated by subtracting the total negative adjectives from the total positive adjectives endorsed and adding a constant of 20 with scores higher than 20 indicative of more positive attitudes. The checklist can be analysed according to a three-factor structure: negative affect (five items; for example, ‘lonely’, ‘sad’, ‘bored’); negative (12 items; for example, ‘stupid’, ‘greedy’, ‘crazy’); and positive (17 items; for example, ‘clever’, ‘friendly’, ‘helpful’) factors. Published Cronbach’s alphas are: 0.81 (Siperstein, 1980) for total checklist and 0.83, 0.76 and 0.73 for the positive, negative and negative affect factors, respectively (Manetti et al., 2001). Cronbach’s alphas for the current sample were: 0.74 total checklist, 0.74 positive factor, 0.70 negative factor and 0.59 negative affect factor.

Shared Activities Questionnaire (SAQ-B): a 24-item questionnaire (Morgan et al., 1996) was used to assess children’s behavioural intentions to engage in particular activities with ‘Anon’. The items fall into three subscales: general social (for example, ‘Eat lunch next to Anon in school’); academic (for example, ‘Work on a science project at school with Anon’); and active recreational or physical (for example, ‘Go to a ball/sports game with Anon’) activity areas. The wording on some items was altered so as to make it applicable to a UK school population. The participants were asked to circle either ‘yes’, ‘maybe’ or ‘no’ on the three-point scale for each item; higher scores indicated greater willingness to share in activities. Published Cronbach’s alphas were as follows: 0.94 for total score; 0.86 for general social; 0.83 for academic score; and 0.86 for recreational factor score (Bell and Morgan, 2000). Cronbach’s alphas for the present study were: 0.81 general social; 0.82 academic score; and 0.82 recreational factor score.

Procedure

Each school was randomly allocated to one of three vignette conditions, with the participants from school A split between two conditions in order to ensure approximately equal numbers across conditions. The researchers attended the participating schools and read aloud the relevant vignette to groups of children (to help ensure that each child had all the information contained within the vignette), before asking the participants to reread the vignette and complete questionnaires.

Statistical analyses

Statistical analyses were conducted using the Statistical Package for the Social Sciences (SPSS). Data were checked for assumptions of normality and homogeneity of variance prior to parametric analyses. A one-way ANOVA was conducted on those measures found to be normally distributed to test for differences
across conditions; a Kruskal–Wallis test for differences when scores were not normally distributed. Parametric and non-parametric correlation analyses were used where appropriate. The significance level of $p < 0.05$ was set.

**Results**

**Gender of ‘Anon’ and familiarity**

Of the participants, 85 percent ($N = 102$) rated ‘Anon’ as being male and 8 percent reported that they knew (yes/no response format) something about ADHD; with no significant difference in this proportion across the three vignette conditions (Chi-square = 1.91, $df = 2$, $p = 0.39$). However, 63 percent of the participants reported that they had met someone like ‘Anon’ before (yes/no response format); with no significant difference in the proportion of children reporting familiarity across conditions (Chi-square = 0.61, $df = 2$, $p = 0.73$).

**Attitudes**

Table 1 presents means and standard deviations for scores on the adjective checklist (total) and factors by vignette condition and total sample.

<table>
<thead>
<tr>
<th>Table 1: Adjective checklist total and factor scores</th>
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<tbody>
<tr>
<td>Adjective total</td>
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<td>M (SD)</td>
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<tr>
<td>Symptoms</td>
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<tr>
<td>ADH</td>
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<tr>
<td>ADHD</td>
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<tr>
<td>Total sample</td>
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</table>

\textsuperscript{a} = possible range of 4–36, with scores higher than 20 indicative of more positive attitudes; scores below 20 indicating negative attitudes.

\textsuperscript{b1} = possible range of 0–12; b2 = 0–17; b3 = 0–5

Independent sample $t$-tests revealed no significant gender differences on the total and factor adjective checklist scores. A one-way ANOVA, comparing the adjective checklist total scores across vignette conditions, found no significant differences ($F_{2, 117} = 0.26; p = 0.97$). Notably, mean scores across all three vignettes fell below the accepted cut-off of 20 (82.5% of responses fell below the cut-off score of 20), indicating generally negative attitudes towards ‘Anon’.
ANOVAs were repeated for each of the three adjective factor scores in order to examine the differences across vignette conditions; however, no significant differences were found on either the negative, positive or negative affect factor scores. Thus, the participants gave equivalent ratings on the total and each of the factor scores, irrespective of vignette condition. Therefore, there was no additional effect of diagnostic labelling on children’s attitudes.

Taking the entire sample of 120 participants and examining negative attitudes by exploring both the frequency of ascribed negative adjectives and the least frequently ascribed positive adjectives, the four most frequently ascribed negative adjectives (which were also the four most frequently ascribed from the entire 34 adjectives) were ‘careless’ (73%), ‘lonely’ (69%), ‘crazy’ (58%) and ‘stupid’ (53%). The four least frequently ascribed positive adjectives were ‘pretty’ (0%), ‘glad’ (2%), ‘smart’ (3%) and ‘helpful’ (3%).

**Behvioural intentions**

Table 2 shows means and standard deviations across vignette conditions. A one-way ANOVA, comparing the SAQ-B total scores across conditions, found no significant differences ($F_{2, 117} = 1.65; p = 0.20$). Similarly, ANOVAs and a Kruskal–Wallis test, comparing the subscale scores across vignette conditions, revealed no significant differences on either the general social ($F_{2, 117} = 1.39; p = 0.25$), academic (Chi-square = 3.06, $df = 2; p = 0.21$), or active recreational ($F_{2, 117} = 1.65, p = 0.15$) subscales.

**Table 2: Shared activities total and subscale scores**

<table>
<thead>
<tr>
<th></th>
<th>SAQ-B total&lt;sup&gt;a&lt;/sup&gt;</th>
<th>General social&lt;sup&gt;b&lt;/sup&gt;</th>
<th>Academic&lt;sup&gt;b&lt;/sup&gt;</th>
<th>Active recreational&lt;sup&gt;b&lt;/sup&gt;</th>
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<tbody>
<tr>
<td></td>
<td>M (SD)</td>
<td>M (SD)</td>
<td>M (SD)</td>
<td>M (SD)</td>
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<tr>
<td>Symptoms</td>
<td>39.98 (11.84)</td>
<td>13.62 (4.16)</td>
<td>12.49 (3.99)</td>
<td>13.87 (4.41)</td>
</tr>
<tr>
<td>ADH</td>
<td>36.92 (9.58)</td>
<td>12.39 (3.37)</td>
<td>11.53 (3.62)</td>
<td>13.00 (3.66)</td>
</tr>
<tr>
<td>ADHD</td>
<td>41.33 (10.42)</td>
<td>13.67 (3.69)</td>
<td>12.79 (3.69)</td>
<td>14.87 (4.12)</td>
</tr>
<tr>
<td>Total sample</td>
<td>39.50 (10.80)</td>
<td>13.27 (3.79)</td>
<td>12.30 (3.79)</td>
<td>13.93 (4.14)</td>
</tr>
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<sup>a</sup> = possible range of 24–72;  <sup>b</sup> = possible range of 8–24

The above results show that the children reported equivalent degrees of behavioural intention towards ‘Anon’, irrespective of diagnostic labelling (vignette condition). Two sample z-tests showed that SAQ-B total scores for this sample were significantly below SAQ-B total scores for a sample of similarly aged
children reporting behavioural intentions towards an obese child \((z = 5.16; p < 0.05; \text{Bell and Morgan, 2000})\). Similarly, total sample scores for the general social \((z = 8.59; p < 0.05)\), academic \((z = 11.65; p < 0.05)\) and active recreational \((z = 5.17; p < 0.05)\) factors were significantly below those reported by an equivalent age sample of children reporting behavioural intentions towards a peer with autistic behaviours (Swaim and Morgan, 2001).

**Attitudes and behavioural intentions**

To examine the effect of familiarity on reported attitude (adjective checklist) and behavioural intentions (SAQ-B), independent sample and Mann–Whitney U tests were used to compare scores on those variables found to be normally and not normally distributed, respectively. Familiarity with ‘Anon’ was found not to relate to self-reported attitude and behavioural intentions for either the total or subscale scores on the adjective checklist or SAQ-B. Therefore, simple bivariate correlations were examined between adjective checklist scores and behavioural intention scores for the total sample (Table 3).

<table>
<thead>
<tr>
<th>Table 3: Correlations between adjective checklist and SAQ-B scales</th>
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<tbody>
<tr>
<td>SAQ-B scales</td>
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<tr>
<td>----------------</td>
</tr>
<tr>
<td>Total</td>
</tr>
<tr>
<td>General social</td>
</tr>
<tr>
<td>Academic</td>
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<tr>
<td>Active recreational/physical</td>
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</table>

* \(p < 0.05\), ** \(p < 0.01\)

Adjective checklist total scores, as well as negative affect, negative and positive factor scores, were in the predicted directions with SAQ-B scores, such that the more positive children were towards ‘Anon’ (higher adjective checklist total and positive scores and lower negative scores), the higher the scores on the behavioural intention domains. The negative affect factor produced inconsistent results. Moderate correlations between the adjective total and SAQ scores found here were consistent with those found in previous research (Morgan et al., 1996).
Discussion

This study set out to examine the attitudes and behavioural intentions that children held towards a peer presenting with symptoms of ADHD and to ascertain whether each was influenced by the addition of a diagnostic or psychiatric label. The results showed that the majority of children (85%) perceived ‘Anon’ as male and 63 percent reported familiarity with him. However, familiarity was not found to be related to either the attitudes held towards ‘Anon’ or children’s self-reported willingness to engage with him. These results suggest that children were not responding to ‘Anon’ as a peer with ADHD per se (only 8% reported knowing about ADHD), but more likely were responding to the externalizing behaviours presented. Thus, it is more likely that the attitudes and behavioural intentions reported here need to be interpreted as attitudes and behavioural intentions towards a male peer with externalizing symptoms. Importantly, however, high levels of reported co-morbidity between ADHD and oppositional, conduct and anti-social disorders do make the above results relevant, although not exclusive, to children with ADHD.

In terms of attitudes towards ‘Anon’, the four most frequently endorsed adjectives were all negative and derogatory (‘careless’, ‘lonely’, ‘crazy’ and ‘stupid’) and the adjective checklist total score demonstrated that children held predominantly negative views. Importantly, such negative attitudes were independent of labelling information. Although this study did not examine the effect of labelling per se, but rather labelling in addition to a description of ADHD behaviours, it has shown that behavioural descriptions are enough to elicit negative attitudes and behavioural intentions. In addition, ‘Anon’s perceived male gender suggests that male children exhibiting attentional and externalizing behaviours are vulnerable to negative peer attitudes. This is significant, as research has shown that males with ADHD exhibit more rule-breaking and externalizing behaviours in the classroom than females with ADHD (Abikoff et al., 2002). Moreover, the gender of the participants was not related to the attitudes held and this finding is generally inconsistent with previous research, where males have been found to report less favourable attitudes than females (Cohen et al., 1997; Zahn-Waxler and Smith, 1992).

The degree to which children were willing to engage with ‘Anon’ in various activities was unaffected also by the addition of diagnostic or labelling information. Across the vignettes, children were equally as willing (or unwilling) to engage with ‘Anon’. Although no available cut-off score for this questionnaire is available, comparisons made with previous literature using the SAQ-B measure showed a significant degree of reluctance to engage with ‘Anon’, at least compared with peers presenting with either obesity (Bell and Morgan, 2000) or autistic-like behaviours (Swaim and Morgan, 2001). Such differences in the types of clinical presentations given to children may be accounted for either by methodological considerations (for example, visual versus written stimuli or
vignettes) and/or by variables thought to mediate and moderate varying degrees of stigma, such as perceived attractiveness, dangerousness, skills deficits and control attributions. The degree of perceived positive traits or skills, within specific academic, social or physical contexts, is something which also needs to be considered and controlled for in future studies.

The significant moderate relationships found between adjective checklist and behavioural intentions measures supports the view of Gottlieb and Gottlieb (1977) in that they each represent different constructs, with the adjective checklist tapping the cognitive component of attitudes and behavioural intentions assessing the conative component. The children in this study, who reported more positive attitudes towards ‘Anon’, were more inclined to want to engage with ‘Anon’ across general social, academic and active or physical recreational activities. The predicted positive relationships stood for the adjective checklist total and positive factor scores, with a predicted negative relationship on the negative factor score. However, the five-item negative affect factor (items including ‘ashamed’, ‘lonely’, ‘bored’, ‘sad’, ‘unhappy’) was only significantly negatively related (i.e a weak relationship) to the general social domain of the SAQ-B and unassociated with any other behavioural domains. This factor (interestingly, the most sensitive to change as a result of contact; personal communication with G. Siperstein, 14 April 2003) is, arguably, a more concentrated assessment of how children perceive ‘Anon’ to feel (compared with behavioural elements in the negative factor such as ‘cruel’, ‘careless’, ‘greedy’), and as such may not measure children’s own feelings towards ‘Anon’, thus helping to explain the absence of, or weak relationships between, negative affect and behavioural responses. Including a measure of empathy may have examined better the relationship between children’s own feelings and their own behavioural intentions. Also, the low alpha coefficient on the negative affect factor (0.59) may help to explain the lack of relationship with behavioural intentions.

The results presented here must be evaluated within their methodological context. First, the response rate of 28 percent leaves open the possibility that those who participated differed from those who declined (68% power to detect medium effect sizes) and, therefore, generalizability needs to be cautious. Second, the sample was mainly Caucasian, ranging from low- to low-to-middle income families and, although some research has found little impact of socio-economic status on attitudes towards others (Wahl, 2002), ethnicity may influence perceptions of others as beliefs about mental health differs across cultures. Third, the questionnaire tapping willingness to engage in activities was only a measure of behavioural intentions and not a measure of actual behaviour. Fourth, the absence of any positive characteristics contained within the vignettes may have influenced the results in that there may have been a tendency for children both to endorse more readily the negative items on the adjective checklist and low levels of intended engagement with ‘Anon’. However, variation within the data and the absence of ceiling effects indicates that individual differ-
ences still existed in the children’s responses, and this study was interested primarily in examining any additional impact of labelling over and above behavioural descriptors.

Although the cross-sectional nature of this study does not disentangle cause–effect relationships, it does show that children do hold negative views of peers’ behaviour difficulties. The current practice of introducing children to peers with differences (whether emotional, behavioural or physical) via experiential (contact hypothesis) or educational means, may be one means of reducing negative attitudes and enhancing mental health literacy (Couture and Penn, 2003; Esters et al., 1998; Pinfield et al., 2003; Watson et al., 2004); however, quantity and quality of contact needs to be controlled for better in future studies.

Future research should adopt a longitudinal perspective and measure variables tied to theoretical frameworks of attitude development and the stigma of child mental health (Corrigan, 2000). Until then, it remains an empirical question as to which and what degree positive items may counterbalance and influence the attitudes that children hold toward a peer, the degree to which behavioural intentions translate into actual behaviour, and what participant characteristics factor into attitude development and friendship choice.

Acknowledgement

This article is dedicated to the memory of our dear friend and colleague Dr Scott Sinclair (1971–2003), a source of inspiration who is greatly missed.

References


G. URQUHART LAW is a child clinical psychologist and lecturer in clinical psychology at the University of Birmingham. He has clinical and research interests in child and family beliefs regarding physical ill-health and mental health, particularly the regulation of health behaviours, beliefs surrounding the onset and management of mental health, stigma formation and help-seeking behaviours.

SCOTT SINCLAIR was a clinical psychologist with South Staffordshire Healthcare NHS Trust and an honorary research fellow at the University of Birmingham. His clinical and research interests lay in the areas of children’s emotional regulation and the mental health needs of young offenders.

NICOLE FRASER was an undergraduate psychology student who worked as part of the stigma of child mental health research team.

Correspondence to:
G. Urquhart Law, School of Psychology, University of Birmingham, Birmingham, B15 2TT, UK. [email: g.u.law@bham.ac.uk]