**The effect of social devaluation, labelling and familiarity on children's attitudes and behavioural intentions towards a peer with symptoms of ADHD**

Charlotte W. Greenway, School of Psychology and Counselling, University of Wales Trinity Saint David, College Road, Carmarthen, SA31 3EP, United Kingdom.

Email: [c.greenway@uwtsd.ac.uk](mailto:c.greenway@uwtsd.ac.uk)(Corresponding author)

Ammanys H. Robinson, School of Psychology and Counselling, University of Wales Trinity Saint David, College Road, Carmarthen, SA31 3EP, United Kingdom.

Janice M. King, School of Psychology and Counselling, University of Wales Trinity Saint David, College Road, Carmarthen, SA31 3EP, United Kingdom.

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Abstract

The present study examined the attitudes and behavioural intentions of 336 children aged 7-11 towards a hypothetical peer with symptoms of ADHD to determine whether they were influenced by labelling, social devaluation or familiarity. Children read one of five vignettes describing the behaviour of a gender-neutral peer before completing self-report measures of attitudes and behavioural intentions. Results showed children held predominantly negative attitudes towards the hypothetical peer, which were more pronounced for inattentive than hyperactive/impulsive symptoms. These findings suggest that children were more likely to devalue internalising rather than externalising behaviours. Children also reported being more likely to engage in active/recreational and social activities rather than academic activities. In addition, the diagnostic label ‘ADHD’ led to more negative attitudes and behavioural intentions, while knowing someone with ADHD mediated the negative effect of hyperactive/impulsive symptoms on attitudes and behavioural intentions. Finally, significant positive relationships were found between attitudes and children’s willingness to engage in social, academic and physical activities. Policy and practice implications of these findings are discussed.

Introduction

Attention-Deficit Hyperactivity Disorder (ADHD) is a neurodevelopmental disorder characterised by developmentally inappropriate patterns of inattention and/or hyperactivity-impulsivity (American Psychiatric Association [APA], 2013). Inattention symptoms mean children are easily distracted and forgetful, making task completion and following instructions difficult. Symptoms of hyperactivity and impulsivity include blurting out answers and difficulty sitting still, fidgeting and engaging in activities quietly. A global consensus on ADHD prevalence rates in children has yet to be reached due to the different diagnostic criteria and methods used to obtain them. Worldwide estimates vary considerably from 2.2% (Fayyad et al., 2017) to 7.2% (Thomas et al., 2015). Figures are higher again in the United States, with estimates of 6.1 million (9.4 percent) children diagnosed with ADHD. Somewhere in the middle, the National Institute for Health and Care Excellence (NICE, 2018) indicates that ADHD affects 3% to 9% of children attending UK schools.

The symptoms of ADHD not only interfere with a child's ability to learn, but due to difficulty in waiting their turn and excessive talking, the behaviours associated with ADHD are often challenging to peers (Mrug et al., 2012). Behaviours such as infringing on personal space and interrupting others can lead to bullying, social exclusion and peer rejection (McQuade & Hoza, 2015; Barkley, 2018; Nguyen & Hinshaw, 2020). Children who face peer rejection are more likely to be excluded from social activities that provide crucial opportunities to develop friendships and refine the social skills needed to navigate school life (Parker et al., 2006).

Positive relationships among peers are a vital part of a child's happiness and mental well-being throughout their school years (Quinn & Duckworth, 2007). Making friendships and forming bonds can make school life a happy and sociable experience; however, children with ADHD struggle in this area, as research suggests they find it difficult to form friendships and keep friendships over time (Grygiel et al., 2014; Normand et al., 2013). Furthermore, children with ADHD can spend most of their day with a teaching assistant/teacher aide, often working on different tasks, resulting in very little interaction or engagement with their peers (Greenway & Rees Edwards, 2021). Therefore, children with ADHD tend to be on the periphery of social interactions within the classroom, making developing and sustaining friendships challenging. Consequently, limited access to group work and being removed from class for misdemeanours or special education classes can lead to misconceptions and negative attitudes. Such attitudes can lead to social and peer rejection (de Boer & Pijl, 2016; O'Driscoll et al., 2012; Bellanca & Pote, 2012; Mikami & Normand, 2015; McDougall et al., 2004), loneliness, stigmatisation, and unhappy experiences during the school years (Hoza, 2007; Metzer & Hamilton, 2021; Singh, 2011).

Peer problems for those with ADHD may also exist due to peers' stigmatised attitudes toward disliked children. Here, peers socially devalue children they perceive as different from themselves (Wright et al., 1986). Therefore, in classrooms with a culture of internalising behaviours, children who exhibit internalising behaviours are more likely to be socially accepted. In contrast, children with externalising behaviours (as is often the case with ADHD) are more likely to be rejected (devalued) (Stormshak, 1999). Being devalued for belonging to a specific group (e.g., ADHD) and being treated differently by others may lead to negative attitudes, avoidance and behaviour that could impact emotional well-being (Katz et al., 2002). The majority of literature that examines social devaluation is concerned with racial/ethnic minorities, gender and gay/lesbian groups. There is some literature on disability, but except for a few papers, they do not examine ADHD. The literature that does exist suggests that people tend to view those with a disability as an unfamiliar out-group (as opposed to a familiar in-group) (Hatemi et al., 2013), which may result in a biased, unfavourable perception of the out-group in comparison to in-groups (Gramzow & Gaertner, 2005).

The above is especially true when individuals want to protect and promote the in-group, which can lead to the over-valuing and devaluing of groups (Tajfel &Turner, 1979). Evidence of this is seen in Harnum et al. (2007), who asked thirty 7-12-year-olds to read a stereotyped scenario featuring a child with autism, ADHD, and a neurotypical child. Children expressed dislike/avoidance towards the stereotypical behaviour associated with ADHD and perceived the child in the scenario to be unlike themselves. Consequently, children tended to hold more negative attitudes towards the child with ADHD. More recently, Bellanca and Pote (2016) presented one of two vignettes, one showing externalising behaviours associated with ADHD and the second, internalising traits associated with depression. Children in the externalising condition perceived the target child more negatively, held negative attitudes, and were less willing to engage with the child with ADHD. However, it is worth noting that children in Harnum’s study may have perceived themselves as dissimilar to the child with ADHD due to gender and not the behaviours presented in the scenario. The authors’ use of the name Sam is more likely to be considered a male name leading some females to rate themselves as dissimilar to Sam, a boy, and not the behaviours per se. It is unclear if this would be the case for Belanca and Pote’s findings since they failed to state the gender of their hypothetical character.

Another critical factor in the success of peer relationships is behavioural intentions. Behavioural intentions (BI) are defined as a person's motivation toward behaving in a specific way (Ajzen & Madden, 1986) and an individual's willingness to engage with another (Morgan et al., 2000). For example, McMahan (2011) examined peer BI toward an ADHD individual using the Shared Activity Questionnaire (SAQ-B) and found that 176 children were less willing to engage with peers who presented with ADHD symptoms across recreational, academic and social areas. Similar findings were found by Swords et al. (2011) in their study of 595 children. However, Ogg et al. (2013) found no differences in willingness to engage in recreational and social areas, but they were less willing to engage with an ADHD peer in academic areas. This is not surprising given the issues children with ADHD have with academic studies.

Research has also examined the influence of labelling on attitudes and BI. Labelling a child with a disability, specifically ADHD, can cause impaired relationships and stigmatisation (Metzger & Hamilton, 2021; Law et al., 2007; Singh, 2011; O'Driscoll et al., 2012). Diagnostic labels can make it difficult for individuals to move away from stereotypical perceptions, which include thinking those with ADHD have more serious behavioural issues and are more likely to disrupt the classroom (Arcia et al., 2000; Ohan et al., 2011). The consequences of such labelling can lead to negative attitudes, marginalisation and negative school experiences. In their study, Law et al. (2007) examined the effect of labelling and diagnostic information on peer attitudes and BI. One hundred and twenty 11-12-year-olds read a vignette which described a peer with ADHD before completing the SAQ-B (Morgan et al., 2000) and the adjective checklist task (Siperstein, 1980). The SAQ-B assesses willingness to engage in three types of activities: general social, academic, and active recreational/physical activities. The authors were also interested in the effect of familiarity (knowing an individual with ADHD) and whether a relationship exists between attitudes and BI. Results showed that although a label and behavioural descriptions were enough to elicit negative attitudes and BI (evident in the 82.5 percent of participants falling below the accepted cut-off of 20 that represents positive attitudes), Law et al. found no significant differences between conditions (behaviours with or without a label). Additionally, a label of ADHD did not affect participants' willingness to engage in activities with the peer in the vignette.

The findings from this study suggest that, overall, children held negative attitudes towards a hypothetical character with ADHD, and attitudes were not affected by a diagnostic label and a description of symptoms. However, a significant positive relationship between BI and attitudes indicated that when attitudes were negative, so too was BI. Familiarity was unrelated to either the attitudes or BI, suggesting that knowing someone with ADHD has no bearing on a child's attitudes towards or likelihood of engaging with a child with ADHD. However, Law's study did not examine the effect of labelling alone, making conclusions difficult to interpret.

The effect of familiarity on peer attitudes and BI was also examined in two further studies (Carter et al., 2001; Chew et al., 2009). Both studies revealed that participants were more willing to engage and had more positive attitudes when they knew someone with ADHD. These findings are significant as they suggest that familiarity might help mediate negative attitudes and BI, leading to improved peer acceptance and friendships (McDougall et al., 2004; Marton et al., 2012). However, unlike Law et al. (2007), both studies examined the peer attitudes and BI of high school and college students, not primary school children.

There is a crucial need to improve peer relations and friendships for those with ADHD to help stave off the negative outcomes outlined above. Having friends prevents internalising and externalising problems among those rejected by their peers (Laursen et al., 2007) and can protect against peer victimisation and maladjustment (Cardoos & Hinnshaw, 2011). Understanding the factors that affect peer attitudes and BI towards children with ADHD should help schools develop appropriate interventions to enhance peer interactions with children with ADHD and address issues related to social devaluation and labelling in the classroom.

The current study expands on the findings of Law et al. (2007) by examining younger children of primary school age and the influence of a diagnostic label alone (without diagnostic symptoms). Alongside familiarity, the study examines social devaluation, which provides a unique opportunity to explore the predictive power of ADHD symptoms on children's attitudes and BI, and how the symptoms may be associated with specific social deficits and peer rejection (Wheeler Maedgen & Carlson, 2000; Mrug et al., 2012). The study involves children between 7 and 11, chosen since research suggests that attitudes are likely formed by age 7 (Corrigan & Watson, 2007). In addition, the dearth of research examining primary school children's peer attitudes and BI towards ADHD provides a clear need for investigation.

The current study aims to answer the following research questions:

1. What attitudes and behavioural intentions do children hold towards a hypothetical peer with symptoms of ADHD?
2. Are attitudes and behavioural intentions influenced by social devaluation, labelling information and familiarity with ADHD?
3. Is there a relationship between attitudes and behavioural intentions?

Method

Participants

Six primary schools in West Wales were invited to participate in the study. Children in years three to six were targeted. A total of 336 children, 193 (57.40%) female and 143 (42.60%) male) were included. Participants were between 7 and 11 years of age (*M*= 8.78, *SD*= 1.26). There were 71 participants in the externalising (37 in years 3 and 4; 34 in years 5 and 6) and 65 in the internalising vignette (social devaluation conditions) (31 in years 3 and 4; 34 in years 5 and 6), 65 in the label-only (34 in years 3 and 4; 31 in years 5 and 6), 66 in the label and diagnostic symptoms (36 in years 3 and 4; 30 in years 5 and 6) and 69 in the no-label and diagnostic symptoms vignette (labelling information conditions) (32 in years 3 and 4; 37 in years 5 and 6).

Materials and procedure

Participants across the six schools were randomly allocated to one of five vignettes. The vignettes were adapted from Law et al. (2007) and included characteristics of ADHD as described in the Diagnostic and Statistical Manual of Mental Disorders (DSM-5; American Psychiatric Association, 2013). Additional ADHD characteristics listed in the DSM-5 were included to ensure an accurate portrayal of a child with ADHD. These characteristics included being unable to play quietly, making careless mistakes, and having organisational difficulties. All vignettes described a gender-neutral child called Anon. The vignette measuring social devaluation presented either externalising (hyperactivity/impulsivity) or internalising (inattention) behaviours. The internalising vignette contained eight characteristics of inattention, and the externalising vignette had nine characteristics of hyperactivity. The vignettes measuring the effect of labelling information included 12 characteristics of ADHD as described in the DSM-5, including six symptoms of hyperactivity/impulsivity and six of inattention. One vignette included the label-only ‘Anon has Attention Deficit Hyperactivity Disorder', a second included diagnostic symptoms only, and a third included the label-plus the diagnostic symptoms (appendix 1).

Siperstein's (1980) Adjective Checklist Task (ACL) was used to measure peer attitudes. The task contains 16 negative and 16 positive adjectives. Adjectives include 'greedy', 'happy' and 'careless'. Scores are calculated by deducting the total number of negative adjectives from the total number of positive adjectives and adding a constant of 20. Higher scores indicated more positive attitudes. Typically, positive attitudes warranted a score of 21 or more. Siperstein (1980) reported a Cronbach alpha for the task of .81. A Cronbach alpha for the present sample was .84.

The Shared Activity Questionnaire (SAQ-B) (Morgan et al., 2000) was used to measure BI. Twenty-four items were included in this questionnaire which measured a child's intention to interact with a peer in general social, active recreational and academic areas of life. Total scores were calculated by scoring 'No' as one, 'Maybe' as two, and 'Yes' as three. Statements used to measure interaction in general social areas of life included 'Ask Anon to come to my house to watch TV'; active recreational areas included 'Ask Anon to go to a swimming party with me'; and academic areas included 'Work on a science project at school with Anon. Again, total scores and subscale scores were calculated. Internal consistency reliability for the SAQ-B has been reported with a Cronbach alpha for total scores of .94, and .83, .86, .86 for the three subscales, academic, general social and active recreational, respectively (Morgan et al., 2000). Cronbach’s alphas for the present study were: total scores .89; .85 general social; .86 academic score; and .84 recreational factor score.

Two additional questions were added at the end of the questionnaires; 'Do you know someone like Anon?' (familiarity), and for those in the social devaluation vignettes, 'Do you see a lot of Anon's behaviours in the classroom?' This final question was asked to determine the extent of internalising and externalising behaviours in the classroom. The SAQ-B and ACL have been used successfully for primary-aged children, who were required to read the materials themselves (see Morgan et al., 1998; Campbell et al., 2004). The vignettes were piloted with 22 children aged 7-11. All children understood their meaning and could easily read the vignettes without assistance. Thus, the readability of the materials is appropriate for the current sample.

Once ethical approval had been gained from the university's ethics board, emails detailing the study were sent to the headteachers asking if they would like to participate in the research. Following headteacher and classroom teacher consent, information sheets and informed consent forms were sent to parents/guardians using an opt-in procedure to all children aged 7-11 in years three to six. Four hundred and seven consent forms were sent out. For parents with a child diagnosed with ADHD, separate letters were sent explaining the nature of the study and why their child would not be included. The researchers offered contact details to parents to discuss this further if they were concerned about this decision. No parents contacted the school or researchers. All three researchers were known to the children. Two researchers had either worked in the school as a volunteer or on community projects, and the third worked part-time as a teaching assistant at two schools, making the administration of the study feel safe and comfortable.

The study was conducted in small groups so that those with an ADHD diagnosis (10 children) and those without parental consent (61 children) would not feel excluded or singled out. These children formed one of the groups (across the different schools) and were given fun tasks (for example, word search and puzzles) by their class teachers.

The study was explained to the children in an age-appropriate manner per NSPCC and BPS guidelines (NSPCC, 2020, BPS, 2021). Practice tasks were included so children understood what was expected of them before the study began. These involved reading a short story (and giving them time to read it themselves) describing a scene at the seaside. Next, children circled describing words relating to the characters and colours presented in the scenario. Similarly, to allow practice for the shared activity questionnaire, children were asked to circle faces (yes, no, maybe) to questions such as ‘do you like pizza, football, or reading?’ The researchers then explained that they would do a similar task for the study before asking the children if they would like to participate. Finally, the researchers explained that the study aimed to gain their views on the character portrayed in the subsequent scenario. Children were asked if they understood what they were being asked to do before assent was gained verbally and by drawing a happy (yes) or sad face (no) to take part. Assent was monitored throughout by the researchers and class teacher/teaching assistant. If at any point they wished to stop participating, or they had any questions, they were to put up their hands. No children withdrew assent; twenty-nine raised their hand, asking for help with words such as ‘alert’ and ‘sloppy’ or asked for the vignette to be reread to them.

The researchers read one of the vignettes to each group before the children were asked to read it themselves. If the children required further assistance, the researcher or teacher/teaching assistant reread the vignette to them and was also on hand to help read aloud the questions on the ACL. Children were required to circle any adjectives they felt described Anon in the vignette. They were reminded that there were no wrong or right answers and no one else would see their responses. Once all children had completed this task, they were asked to complete the SAQ-B (Morgan et al., 2000). Here children circled either 'Yes', 'No' or 'Maybe' for a selection of statements. The final task was to complete the additional questions. Children were given 30 minutes to complete tasks to minimise distress. On study completion, children were verbally debriefed and allowed to ask questions and raise concerns.

Data analysis

Statistical analyses were conducted using the Statistical Package for the Social Sciences (SPSS v27). Data were checked for assumptions of normality and homogeneity of variance prior to parametric analyses. Where appropriate, ANOVAs, chi-square test of independence, independent t-tests, and correlation analyses were used.

Results

Around half of the children were familiar with someone like Anon (50.3%). A chi-square test of independence showed a significant difference in the proportion of children reporting familiarity across vignettes, *x2*(3) 14.67, *p*= .005. Children in the internalising and externalising vignettes (40% and 44%, respectively) were more familiar with someone like Anon than those in the label-only, label-plus symptoms and symptoms-only vignettes (33%, 25% and 27%, respectively). Children in the social devaluation vignettes (externalising and internalising) were asked, 'Do you see a lot of Anon's behaviour in the classroom?' If, as the literature suggests, a culture of internalising behaviours is the norm in UK classrooms, we would expect children to see more internalising than externalising behaviours in their respective conditions. This was the case as 82% in the internalising vignette saw a lot of internalising behaviours compared to 68% in the externalising vignette, who reported seeing a lot of externalising behaviours, *x2*(1) 3.45, *p*= .048. Therefore, if children socially devalue externalising behaviours, those in the externalising condition should have higher scores (more positive attitudes and BI) on the internalising vignette condition than those in the externalising vignette condition. A two-way ANOVA found a significant main effect for social devaluation, *F*(3,132) = 4.55, *p* = .035, η2 .033 but not in the expected direction. Children in the externalising condition had more positive attitudes than those in the internalising condition. Furthermore, the main effect for seeing a lot of Anon's behaviour in the classroom was not significant, *F*(3,132) = 0.02, *p* = .886, η2 .000, nor was there an interaction between both variables, *F*(3,132) = 1.57, *p* = .213, η2 .012.

In contrast, for BI (SAQ-B total score), a two-way ANOVA found no significant main effects but did reveal a significant interaction between social devaluation and seeing a lot of Anon's behaviour in the classroom *F*(3,132) = 5.64, *p* = .019, η2 .041, (*M*=48.29 and *SD=*8.13 and *M*=51.83 and *SD=*6.74), and the General social subscale, *F*(3,132) = 6.24, *p* = .014, η2 .045, (*M*=16.90 and *SD=*3.80 and *M*=17.33 and *SD=*3.42, respectively).

Attitudes

Table 1 shows that when describing a peer with ADHD symptoms, children selected a total of 2100 adjectives, including 425 positive and 1675 negative adjectives. Negative adjectives accounted for 79.76% of the adjectives chosen. The high percentage of negative adjectives compared to positive adjectives is consistent across all vignettes.

Table 1: Positive and negative adjectives chosen (percentages) and the Mean and SD of the total score on the adjective checklist (ACL).

|  |  |  |  |
| --- | --- | --- | --- |
| Vignette | Positive Adjectives | Negative Adjectives | Total ACL scores  *Mean (SD)* |
| Internalising | 29 (8) | 333 (92) | 15.32 (3.26)  17.62 (4.77)  16.15 (2.79)  17.05 (2.79)  15.03 (2.80)  2285\* -  2205\* - |
| Externalising | 121 (29) | 290 (71) |
| Label-plus symptoms | 82 (20) | 337 (80) |
| Symptoms-only  Label-only | 128 (28)  65 (14) | 329 (92)  386 (86) |
| Familiarity | 165 (22) | 596 (78) |
| No familiarity | 196 (22) | 693 (78) |

\*Total scores on the ACL

A one-way ANOVA on total ACL scores revealed significant differences across vignette conditions, *F*(4) = 7.18, *p* < .001, η2 .080. A post hoc Tukey test found significant differences between the internalising and externalising vignettes (*p*<.001), internalising and symptoms-only vignettes (*p*=.027), externalising and label-only (*p*<.001) and the symptoms-only and label-only vignettes (*p*=.006). An independent samples t-test revealed no differences in familiarity with someone like Anon, *t*(334) = 0.78, *p* = .21, Cohen's *d* = .08. However, a one-way ANOVA on those who were familiar with someone like Anon revealed significant differences across vignette conditions, *F*(4) = 6.02, *p* < .001, η2 0.13. A post hoc Tukey test found significant differences between the internalising and externalising vignettes (p=.005), externalising and label-plus symptoms (p=.039), externalising and label-only (p<.001) and the symptoms-only and label-only vignettes (p=.041). Notably, 90.47% of responses on the ACL fell below the cut-off score of 20, indicating negative attitudes towards Anon.

Behavioural Intentions

The highest possible total score for the SAQ-B is 72, and the highest score for each subscale is 24.

Table 2: Means and standard deviations across vignettes for the shared activities total and subscale scores.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Vignette | SAQ-B total scores | General  Social | Academic | Active/ recreational |
| Internalising | 47.14 (6.79) | 15.78 (2.98) | 15.28 (3.31) | 16.65 (3.31) |
| Externalising | 47.79 (8.39) | 16.41 (3.72) | 14.58 (3.59) | 16.73 (3.49) |
| Label-plus symptoms | 44.76 (6.48) | 15.09 (2.69) | 13.73 (2.62) | 15.50 (3.17) |
| Symptoms-only  Label-only | 46.59 (7.17)  43.32 (7.26) | 16.28 (3.55)  14.69 (2.57) | 14.86 (2.79)  13.48 (2.65) | 15.77 (3.00)  15.23 (3.30) |
| Familiarity | 46.77 (7.31) | 16.06 (3.12) | 14.65 (3.38) | 16.33 (3.48) |
| No familiarity  Total | 46.41 (7.33)  45.96 (7.26) | 15.75 (3.47)  15.67 (3.20) | 14.56 (2.89)  14.39 (3.08) | 16.00 (3.06)  15.98 (3.30) |

Table 2 shows similar overall scores on the shared activities questionnaire except for the lower mean in the label-only condition. A one-way ANOVA, comparing the SAQ-B total scores across vignette conditions found a significant difference *F*(4) = 4.46, *p* = .002, η2 .05. Post hoc Tukey tests revealed differences between the internalising and label-only vignettes (*p*=.02) and the externalising and label-only vignettes (*p*=.003). To establish differences in likelihood to engage across the three activities, a one-way ANOVA on total scores found significant differences, *F*(2) = 23.45, *p* < .001, η2 .045, between social and academic activities (*p<*.001) and academic and active/recreational activities (*p<*.001), but not social and active/recreational activities (*p=*.408). ANOVAs comparing the three activities across vignette conditions revealed significant differences on the general social *F*(4) = 3.75, *p* = .005, η2 .043, active recreational *F*(4) = 4.13, *p* = .003, η2 .048 and the academic subscales, *F*(4) = 2.91, *p* = .022, η2 .034. A post hoc Tukey test for the general social subscales showed differences between the internalising and the label-only vignettes (*p*=.049), the externalising and label-plus symptoms (*p*=.015), externalising and label-only (*p*=.002), symptoms-only and label-plus symptoms (*p*=.30), and the symptoms-only and label-only vignette conditions (*p*=.004). The academic subscale found differences between the internalising and label-plus symptoms (*p*=.030) and the internalising and label-only vignettes (*p*=.007). For the active recreational subscale, differences between the externalising and label-only (p=.050) vignettes were found. An independent samples t-test revealed no significant differences in familiarity for the SAQ-B total scores, *t*(334) = 0.35, *p* = .36, Cohen's *d* = .038. Unlike the differences in attitudes for those who reported knowing someone like Anon, ANOVAs revealed no significant differences for general social *F*(1) = 0.37, *p* = .545, η2 .001; active recreational, *F*(1) = 0.32, *p* = .570, η2 .015; or academic subscales, *F*(1) = 0.26, *p* = .608, η2 .001. However, a one-way ANOVA on total SAQ-B scores for those familiar with someone like Anon revealed significant differences across vignette conditions, *F*(4) = 4.22, *p* = .003, η2 .09. A post hoc Tukey test found significant differences between the externalising and label-only vignette conditions (p=.006).

Table three shows that all correlations between the SAQ-B scales and the Adjective checklists reached significance in the predicted direction except for negative adjectives on the academic activity subscale. Furthermore, the correlations show that the more positive children were towards Anon (higher adjective checklist and positive scores and lower negative scores), the higher the scores on the BI activities.

Table 3: Correlations between adjective checklist and SAQ-B scores.

|  |  |  |  |
| --- | --- | --- | --- |
| SAQ-B scales | Adjective  total | Adjective  positive | Adjective negative |
| Total  General social  Academic  Active recreational | 0.29\*\*  0.30\*\*  0.12\*\*  0.21\*\* | 0.58\*\*  0.26\*\*  0.19\*\*  0.26\*\* | -0.86\*\*  -0.21\*\*  -0.05  -0.10\* |

*\* P* < 0.05, \*\**P* < 0.01

Discussion

This study aimed to examine the attitudes and behavioural intentions (BI) of children aged 7-11 towards a hypothetical peer with symptoms of ADHD and to determine whether they were influenced by labelling, social devaluation or familiarity.

The results showed that over three-quarters of the adjectives chosen by children were negative, supporting previous literature that states children hold predominantly negative views towards ADHD (Law et al., 2007; O'Driscoll et al., 2012). Contrary to the work of Bellanca and Pote (2016), who report that children socially devalue externalising symptoms, inattentive symptoms (internalising vignette) elicited significantly more negative attitudes than the hyperactive/impulsive symptoms (externalising vignette). This is surprising not only because children reported significantly more internalising behaviours in the classroom than externalising behaviours, but we would also expect hyperactive/impulsive symptoms to elicit more negative attitudes due to the disruptive nature of these behaviours in the classroom and their tendency to exacerbate peer problems (Hinshaw, 2005; Mrug et al., 2012). Therefore, this finding does not support social devaluation, where we expect peers to devalue children they perceive as different from themselves. One reason for this finding could be that 68% of children in the externalising vignette condition stated that they saw many of these behaviours in the classroom. This supports the notion that children exposed to certain behaviours have better attitudes towards them (Watson et al., 2005). It also suggests that hyperactive/impulsive behaviours appear commonplace in today's primary school classrooms. However, the lack of interaction on attitude scores between seeing lots of Anon's behaviours and the social devaluation vignettes does not support this. Therefore, it is unclear why those in the internalising condition would have more negative attitudes than those in the externalising vignette condition.

These findings have implications for classroom practice because if externalising symptoms are normalised, children who display mostly internalising behaviours may be at a higher risk of stigma and peer rejection (Mikami & Normand, 2015), and as in the case of the findings here, negative attitudes. In addition, the difference in attitudes across internalising and externalising conditions supports the notion that different symptoms may elicit different attitudes towards ADHD (Mrug et al., 2012), but further research is needed to unpack this.

Unlike the findings reported by Law et al. (2007), attitudes in the present study were influenced by labelling information. Those in the symptom-only vignette condition held the most positive attitudes, which included both hyperactive/impulsive and inattention symptoms but no label, while those in the label-only vignette held significantly more negative attitudes towards Anon than in any other condition. This unique element of measuring the effect of a label alone is vital since children have no additional information on which to base their attitudes. The fact that children in the label-only condition held more negative attitudes supports the adverse effect that a diagnostic label can have on attitudes (Metzger & Hamilton, 2021; Ohan et al., 2013). The negative impact of labelling was further strengthened by the finding that attitudes in the label-only and label-plus symptoms conditions were not significantly different, suggesting that symptoms alongside a label are not enough to negate the effect of a label. However, despite the more positive attitudes reported in the symptoms-only condition, scores on the ACL fell below the cut-off point of 20 for positive attitudes, indicating overall negative attitudes towards Anon.

In line with previous literature (McMahan, 2011; Swords et al., 2011), the degree to which children were willing to engage with Anon differed across activities and vignette conditions. Children reported being more likely to engage with Anon in active/recreational and social activities than academic activities, supporting Ogg et al. (2013). These findings have implications for children's socialisation/interaction because if children are more likely to engage in social activities, this may help to improve peer relations outside the classroom, thus, highlighting the need for schools to increase opportunities for those with ADHD to interact with their peers. Equally, the finding that children are less likely to engage in academic activities with someone like Anon has negative consequences for key classroom activities such as group work. For example, children may be less likely to choose those with ADHD or show animosity towards an individual if placed in a group/pairing with a child with ADHD. Therefore, educators may need to reflect on grouping and selection practices during academic sessions to ensure that those with ADHD have the opportunity to show their strengths and educational capabilities.

Interestingly, for SAQ-B total scores and each subscale, unlike attitudes scores, the differences between the internalising and externalising conditions were not significant, suggesting that BI are not influenced by the different symptoms of hyperactivity/impulsivity or inattention in the same way as attitudes. However, the findings show that children in these two conditions were significantly more likely to engage with someone like Anon than those in the label-only condition, which contradicts the results by Law et al. (2007) but supports the notion that a diagnostic label decreases the likelihood of engaging with someone with ADHD. A diagnostic label also affected the likelihood of engagement across the different activities. In general social activities, children in the externalising and symptoms-only vignette were most likely to engage with Anon, and those in the label-only vignette were the least likely to engage. The fact that children in the symptoms-only vignette were the most willing to engage socially with Anon may be due to the nature of the description itself. For example, children may perceive behaviours such as not listening, failing to finish schoolwork, talking lots and blurting out answers to be associated with academic and not social contexts, so they would see no issue engaging socially with someone exhibiting these behaviours. However, the negative effect of a label on engaging in social activities has implications for children with ADHD since they already find socialising and interacting with peers difficult. So if peers are less likely to want to engage socially with these children, this is more likely to result in peer rejection and exclusion.

Similarly, for academic activities, those in the label-plus symptoms and label-only vignettes were least likely to engage with Anon. This result may be due to misconceptions and lay understandings surrounding the disruptive nature and poor academic outcomes associated with ADHD. Unlike the general social (and active/recreational) activities, children in the internalising vignette condition were more likely to engage with Anon in academic activities (despite these children having the most negative attitudes towards Anon). Again this may be due to the descriptions of inattentive symptoms. For example, children may believe that they cause less disruption to the class as a whole (forgetful, loses things, makes mistakes, struggles to organise tasks), and are less likely to affect academic performance, so children would happily engage in academic activities with someone exhibiting inattentive behaviours. As in the general social scale, children in the externalising vignette were the most likely to engage in active/recreational activities with Anon, and those in the label-only vignette were the least likely to do so. The same reasoning for active/recreational activities may be relevant in that the hyperactive/impulsive symptoms in the externalising vignette may be perceived as positive traits for physical activity (on the go, leaving their seat, running about and climbing on things). Furthermore, the label-only vignette does not provide children with the relevant information to make an informed choice - no symptoms, just a label. Thus, children with negative attitudes towards ADHD are less likely to engage when presented with a label alone. However, to fully understand why children are more or less willing to engage in different activities, future research needs to ask their reasons for their behavioural intentions.

The results also indicated that for BI, the effect of seeing lots of behaviours like Anon's in the classroom depends on social devaluation. There were small differences in SAQ-B scores for the externalising condition between seeing lots of Anon's behaviour or not seeing them. For the internalising condition, however, not seeing lots of the behaviours led to significantly higher scores on the SAQ-B. The same pattern was found in the general social subscale. Thus, when children do not see inattentive behaviours in the classroom, they are more likely to engage with someone like Anon. This was not the case for attitudes. Therefore, future studies may wish to explore social devaluation and the role of different symptoms across attitudes and BI further.

The degree to which children were familiar with someone like Anon was higher for those in the internalising and externalising vignette conditions. These differences may have been due to the small rural location of the schools that were allocated the labelling vignettes in that small classes are less likely to have children with ADHD in them. Future researchers should randomly assign individuals to vignettes rather than whole schools/classes to minimise potential differences due to vignette allocation.

Despite results showing that attitudes and BI were not related to familiarity per se, which supports the findings of Law et al. (2007), the present study went a step further to examine whether those familiar with someone like Anon differed in their attitudes and BI across vignette conditions. In particular, results showed that familiarity led to more positive attitudes for those in the externalising compared with the internalising vignette condition. Thus, suggesting that knowing someone with ADHD mediates the negative effects of hyperactive/impulsive symptoms on one's attitude. Similarly, those familiar with someone like Anon were more likely to engage with them if they were in the externalising than the label-only vignette condition. Therefore, like attitudes, familiarity mediates the effect of hyperactive/impulsive symptoms but does not improve the likelihood of engaging when presented with a diagnostic label alone.

Finally, the significant relationships between attitudes and BI indicate that the children in this study who reported more positive attitudes were more inclined to want to engage with Anon across general social, academic and active/recreational activities. As expected, the positive relationships were for the adjective checklist total and positive adjective scores, with the predicted negative relationship on the negative adjective scores. Such relationships support the notion that attitudes affect behavioural intentions (Kim et al., 2022), which have important implications for children with ADHD and their schools. In particular, schools may wish to set up initiatives that improve and challenge attitudes that encourage positive engagement across all activities.

Although this study has several strengths, including its large sample of primary-age schoolchildren, its focus on social devaluation and its examination of ADHD characteristics both with and without a diagnostic label, there are also limitations. These include the lack of diversity in the participant group. For example, participants were all from one area of West Wales, which decreases the generalisability of findings (Jeno et al., 2018). Another drawback is using a vignette to assess what a child would do in a real-life situation. Similarly, the BI scale does not measure actual behaviour but simply a willingness to engage in activities. Therefore, future studies could observe actual behaviours during classroom and playground interactions between children with ADHD and their peers. A further limitation is the absence of positive characteristics within the vignettes, which may have resulted in children perceiving Anon in a negative light, making it difficult for them to move away from the negative adjectives in the ACL. However, this did not appear to be the case as there was variation within the data, and the differences between externalising, internalising and label vignette conditions suggest individual differences existed. Finally, although the internalising behaviours presented in the social devaluation vignettes were observable symptoms such as failing to finish work, losing and forgetting things, and not following instructions, children may miss or misinterpret internalising behaviours such as daydreaming, quietness, or shyness. Thus, distinguishing between quiet children and those with inattentive type ADHD is complex and may not be in the purview of children of this age. Therefore, interpretations of the high percentage of internalising behaviours reported need caution.

The findings presented in this study raise several implications for practice. First, the negative influence of a label on children’s attitudes and BI may be complex for educators to navigate since labels are commonly used to support the needs of individuals effectively. It would seem a sensible strategy for educators to provide children with information on the symptoms of ADHD alongside the label, which has been suggested in the literature (see Solvang, 2007; Taylor et al., 2010). However, it may not be that simple, as the label with symptoms vignette in the present study was insufficient to counteract the negative effect of labelling on attitudes or BI. Therefore, schools may need to expand their activities to strengthen awareness curricula, peer support and mentoring programmes that explore not only ADHD but the process and consequences of labelling. Secondly, discussing symptoms and behaviours in any intervention must move away from the deficit model. Information presented to children should be reframed to include strengths and positive traits, not based on labels or diagnostic criteria alone. Thirdly, the finding that knowing someone with ADHD led to more positive attitudes and a likelihood to engage highlights a need for schools to introduce children to peers with ADHD via experiential means. Integration into recreational and academic activities may decrease the possibility of socially devaluing individuals and behaviours of which children are uncertain.

In summary, this study further explains peer attitudes and BI towards ADHD. By acknowledging peers' negative attitudes, BI and the negative effect of diagnostic labelling, it is possible to create and implement policies and classroom initiatives that foster equality and peer acceptance, which could have positive implications for individuals with ADHD (Fisher & Purcal, 2016). The findings presented here also highlight the need to explore further why children's attitudes and BI vary across the different symptoms of ADHD and to establish which specific symptoms are being socially devalued. Only then can we help schools reframe the negativity and encourage a positive narrative surrounding ADHD to improve peer relations and school experience for those with the condition.

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