Teachers' Recognition of Children's Mental Health Problems

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Background: Teachers have a significant role to play in identifying children with mental health problems. However, teachers' perceptions of children's mental health problems are relatively unexplored. **Method:** Primary school teachers ($N = 113$) completed a questionnaire, composed of vignettes describing children with symptoms of a common emotional disorder and a common behavioural disorder, following which they were asked a number of questions regarding problem recognition and help-seeking. **Results:** Teachers were able to recognise the existence of a problem and rate its severity. They were significantly more concerned about a vignette of a child with symptoms of a behavioural disorder than an emotional disorder. The gender of the child was found to independently predict teachers' accurately recognising when a child had a problem. **Conclusion:** Teachers are good at recognising whether a child presents with a problem. However, their problem recognition is affected by both the gender of the child and the type of symptomatology being displayed (emotional versus behavioural).

Key Practitioner Message:

- Teachers were generally good at recognising the existence and severity of symptoms of problems (behavioural or emotional) presented by a child described in a vignette.
- Teachers were significantly more concerned about a child with clinical-level symptoms of a behavioural disorder than a child with clinical-level symptoms of an emotional disorder.
- Gender of the child portrayed also impacted upon teachers' accurate problem recognition.
- It appears that teachers could benefit from further training to refine their ability to identify and act upon children's mental health problems in a timely manner, thus minimising the need for future intervention.

Keywords: Externalising disorder; internalising disorder; school; assessment

Introduction

Approximately 20% of children and adolescents (henceforth referred to as 'children') will experience mental health problems in the form of behavioural and emotional difficulties (Richman & Graham, 1971), and a proportion of these children will require input from Child and Adolescent Mental Health Services (CAMHS). In a large representative sample of 5 to 15 year-olds (Meltzer et al., 2000), 30% of children with a mental health disorder had not been seen by a GP or received input from secondary healthcare services. Thus, there is much unmet need.

Mental health problems increase the likelihood of academic underachievement and impact negatively on the quality of a child's life (Rothi & Leavey, 2006). Specifically, mental health problems in children increase the likelihood of poor behaviour in school, low school achievement, and potentially lead to school exclusion (Rothi & Leavey, 2006). Furthermore, conduct disorder, for example, has been linked to severe antisocial behaviour and substance abuse in adulthood (Maughan & Rutter, 2001), and depression in childhood

has been linked to a greater risk for completed suicide in later life (Harrington, 2002).

Children do not usually refer themselves for professional help in the manner that adults would. Instead, help is sought by the adults involved with the child, most commonly their parents (Stanger & Lewis, 1993). Whilst some findings (e.g. Ford et al., 2005) suggest that parents are good at recognising mental health problems in their children, other findings contradict this (e.g. Pavuluri, Luk, & McGee, 1996).

Even if parents do recognise the signs of mental health problems in their children, they may not seek help for a multitude of reasons, including having a poor understanding of mental health, available services or sources of help, parenting difficulties, and inadequate help-seeking strategies (Rothi & Leavey, 2006). Culture, religion and beliefs held by the wider community also have an influence on a parent's help-seeking tendencies, and there is evidence that ethnic minority status is negatively associated with parental help-seeking (Zwaanswijk et al., 2003).

It seems important, given the consequences of untreated mental health problems in childhood, that

recognition of such problems is improved and that recognition is followed with appropriate help-seeking action.

The teacher's role

Teachers are often consulted by parents who are concerned about their children in terms of behaviour or development (Dwyer et al., 2005; Shanley, Reid, & Evans, 2007). Teachers are also increasingly being relied upon as sources of referral to CAMHS and schools act as a first contact for mental health problems that present within the school environment (Appleton, 2000). Contact with CAMHS can be predicted by the severity of the child's symptomatology, and by teachers' and parents' perceptions that the child has significant difficulties (Ford et al., 2008). Thus, in the absence of parental help-seeking or in addition to it, seeking help for a child depends on teachers' awareness and perception of their problems (Sayal, 2006).

The teacher's role in their pupils' mental health has been outlined by a number of policy documents from both the health and education sectors. The *National service framework for children, young people and maternity services* (Department of Health [DoH], 2004) includes teachers in Tier One CAMHS. That is, teachers are professionals who are involved with children on a daily basis, but who do not have specialist training in mental health. As such, teachers have a role in terms of problem recognition and early intervention. This limits inappropriate referrals to specialist secondary and tertiary services, minimising 'congestion' of these services, and limiting the potential stigmatisation for families of referral. The National Institute for Clinical Excellence (NICE) guidance (Henry, 2007) also advocated that primary schools have a duty to improve children's emotional and psychological well-being. Schools are expected to both prevent mental illness by combating factors that contribute to it (for example, by teaching emotional literacy) and to provide interventions to alleviate mental health problems.

The existing literature regarding teachers' ability to recognise and seek help for their pupils' mental health problems is limited. Rothi et al. (2005) and Rothi, Leavey, and Best (2008) found that teachers often felt unable to identify mental health problems and felt confused by the terminology used by CAMHS. Teachers were concerned that they had no specific training on mental health. Jackson and King (2004) found that teachers were able to differentiate between normal and ADHD-related problem behaviour. Furthermore, teachers responded differently depending on the gender of the child, with inflated ratings for girls as compared to boys. Maniadaki, Sonuga-Barke, and Kakouros (2003) found that trainee nursery teachers tended to regard the symptoms displayed by a child with a disruptive behavioural disorder (DBDs) as severe and atypical, and thought that such symptoms warranted advice from professional sources. In general, ratings of problem severity were predictive of ratings of concern for the child. Furthermore, gender of the child did not significantly affect ratings of severity, nor ratings of concern. Help-seeking has been found to be higher for children with behavioural disorders as compared to emotional disorders (Meltzer et al., 2003). This may be due to the visibility and impact of disruptive behaviour in the classroom, which may make the symptoms easier to identify and has a bigger impact on the class as a whole.

The current study

There is a high prevalence of primary school children with mental health problems, only a small proportion of whom are seen by specialist mental health services. Furthermore, it is evident that teachers potentially have a role to play in identifying and seeking help for children's mental health problems. However, it is not clear whether teachers are equipped with the knowledge and skills necessary to perform this role, or whether they require training and support in order to fulfil the Tier One role. Furthermore, it is unclear as to whether factors such as the child's gender may affect teachers' recognition of a child's mental health problems.

The current study therefore aimed to investigate whether:

1) Teachers can distinguish between children presenting symptoms of the same disorder at different levels of severity.

2) Teachers are more concerned about a child presenting with symptoms of an emotional disorder as compared to symptoms of a behavioural disorder.

3) A number of factors (the child's gender, and teacher's experience of teaching and of mental health problems) predict the teacher's accurate recognition of the presence of a mental health problem.

Method

Design

A quantitative, cross-sectional design was used. A pen-and-paper questionnaire was created, composed of a series of vignettes, followed by a series of closed and open questions.

Measures

A series of vignettes was created (see Appendix), based on two existing measures (Day, 2002; Stein et al., 2001). Stein et al.'s vignettes cover a range of childhood mental health problems. To assess primary school teachers' ability to recognise mental health problems, it makes conceptual sense to present disorders that they are likely to encounter within the population of children they teach. The most prevalent behavioural disorder in primary schoolchildren is Oppositional Defiant Disorder (ODD) (Maughan et al., 2004) and the most prevalent emotional disorder is Separation Anxiety Disorder (SAD) (Cartwright-Hatton, McNicol, & Doubleday, 2006). Therefore these disorders were selected.

A series of vignettes was developed that described children presenting with clinical level ODD (or SAD), sub-clinical level symptomatology, and problem-free children (similar to the format used by Day, 2002). Six vignettes were presented in a random order, with three vignettes corresponding to each disorder. Each vignette varied in terms of the background information given about the child in order to make the changes to the symptomatology from one vignette to the next less transparent.

In version 1 of the questionnaire, the children described in the vignettes who displayed ODD were

boys, while the children described in the vignettes who displayed SAD were girls. In version 2, the children described in the vignettes who displayed ODD were girls and the children described in the vignettes who displayed SAD were boys.

Following each vignette, teachers were asked a series of questions (based on Stein et al., 2001) about whether they perceived there to be a problem, how serious they perceived the problem to be, what their intentions to act on the problem would be, and how concerned they would be about the child described. Demographic information, including the teacher's professional experience, experience of working with children with mental health problems, age, gender and ethnic background, was also collected.

The measure was reviewed by several clinical psychologists and subsequently piloted on a sample of trainee clinical psychologists to ensure face and content validity.

Participants
Sample size. Based on previous comparable research (Day, 2002; Maguire, 2005), a medium effect size of .5 was assumed (Cohen, 1992). In order to obtain 90% power, with a significance level of .05, a sample of 88 was required to maximise the chance of detecting an effect.

Eligibility criteria. Primary, junior and middle schools (from both the state and private sector) were invited to participate. All schools contacted were within 35 miles of Cambridge. Only qualified teachers were included.

Recruitment procedure. Primary schools ($N = 100$) in Cambridgeshire were randomly selected (using a random number generator) and invited to participate via a letter, sent to the head teacher. This correspondence was followed up by two reminder e-mails if no response was obtained.

Once a school had agreed to participate, the principal researcher arranged to meet with the staff to present the research to them. Attendees disseminated the information to any absentees. Each staff member was provided with an information sheet and a version of the questionnaire. A box for completed questionnaires was available in a communal staff area for two weeks following questionnaire distribution. Questionnaire completion was assumed to indicate informed consent.

Of the 100 schools contacted, 7 were private schools. Fourteen schools agreed to participate, 40 declined, and 46 did not respond. Those who did not participate did not appear to differ significantly from those who did participate (in terms of size and geographical location). In total, 276 questionnaires were distributed, of which 113 were returned (40.9% response rate). Response rates varied (minimum 12.5%, maximum 100%). Three schools (21.4%) who participated were private schools. Forty-eight questionnaires were returned from private schools (42.5%) and the remainder from state schools (57.5%). The response rate from private schools was 40.0%, and from state schools was 41.7%.

Subjects. The sample consisted of 113 participants, 31 males and 82 females, with a mean age of 38.3 years ($SD = 10.97$, minimum 23, maximum 59). The ethnic origin of the participants was predominantly White British (85%). The remaining participants were White European (3.5%), Asian (1.8%), and other (2.7%). Eight participants did not provide their ethnic origin (7.1%). The number of years for which participants had been teaching varied, with 28 participants (24.8%) having taught for 5 years or less and 37 participants (32.7%) having taught for more than 20 years.

Version 1 of the questionnaire was completed by 62 participants (54.9%). The remaining 51 participants (45.1%) completed version 2.

Data analysis strategy

First, a series of Wilcoxon Matched-pairs Signed Ranks tests (Wilcoxon tests) were used to explore whether teachers can distinguish between children presenting symptoms of the same disorder at different levels of severity. Second, a Wilcoxon test was used to explore differences in a teacher's degree of concern for a child with clinical symptoms of a behavioural disorder as compared to a child presenting with symptoms of an emotional disorder.

Finally, to establish whether a number of factors predict teachers' accurate recognition of the presence of a mental health problem, teachers were divided into two groups. Binary logistic regression was performed, in which the dependent variable was those teachers who accurately recognised the existence or absence of a problem in all the vignettes (accurate recognition) as compared to those teachers who did not accurately recognise the existence or absence of a problem in all the vignettes (inaccurate recognition). The independent variables were gender of the child, number of years teaching, and a teacher's self-rated experience of working with children with mental health problems.

Results

A *p* value of less than .05 was taken as statistically significant. Missing values were excluded on a test-by-test basis. An effect size of .3 was considered to be a small effect, .5 a medium effect, and .8 a large effect (Cohen, 1988).

Question 1: Can teachers distinguish between children presenting symptoms of the same disorder at different levels of severity?

Teachers who perceived that the child described in the vignette had a problem were subsequently asked to rate the severity of the problem, given the response options 'mild', 'moderate' or 'severe'. A Wilcoxon test showed a significant difference ($z = -7.22$, $p < .01$) in teachers' severity ratings for the vignette of the child with clinical ODD ($M = 2.79$, $SD = 0.53$) versus the vignette of the child with sub-clinical ODD ($M = 2.04$, $SD = 0.74$). The effect size was small ($r = .47$). There was also a significant difference ($z = -8.21$, $p < .01$) in teachers' severity ratings for the vignette of the child with sub-clinical ODD ($M = 2.04$, $SD = 0.74$) versus the vignette of the problem-free child ($M = 0.66$, $SD = 0.87$). The effect size was medium ($r = .55$). Furthermore, there was a significant difference ($z = -7.59$, $p < .01$) in the severity rating for the vignette of the child with

clinical SAD (*M* = 2.13, *SD* = 0.82) versus the vignette of the child with sub-clinical SAD (*M* = 1.28, *SD* = 0.80). The effect size was large (*r* = .50). A significant difference was found (*z* = −7.84, *p* < .01) in the rating of severity for the vignette of the child with sub-clinical SAD (*M* = 1.28, *SD* = 0.80) versus the problem-free child (*M* = 0.16, *SD* = 0.51). The effect size was medium (*r* = .52).

Question 2: Are teachers more concerned about a child presenting with symptoms of an emotional disorder as compared to symptoms of a behavioural disorder?

A Wilcoxon test was showed a significant difference (*z* = -6.78, *p* < .01) in teachers' degree of concern for the vignette of the child with clinical ODD (*M* = 3.63, *SD* = 0.74) as compared to their level of concern for the vignette of the child with clinical SAD (*M* = 2.86, *SD* = 1.06). The effect size was small (*r* = .45).

Question 3: What factors influence teachers' accurate recognition that a child has a problem?

Ninety-nine percent of participants thought that the vignette of the child with clinical ODD symptoms had a problem and 94.7% of participants thought that the vignette of the child displaying sub-clinical ODD symptomatology had a problem. For the vignette of the child presented with clinical SAD symptoms, 93.8% of participants thought that the child described had a problem. For the vignette of the child displaying sub-clinical SAD symptomatology, 79.6% of participants thought that the child described had a problem. An average of 25.7% of participants thought that the vignettes describing a problem-free child presented a child with a problem. For the clinical-level symptomatology vignettes, teachers' recognition of the presence of a problem varied according to the gender of the child presented (see Table 1).

Binary logistic regression was performed, using the enter method, and thus simultaneously including all the independent variables (number of years spent teaching, self-rated experience of working with children with mental health problems, and gender of the child in the vignette) in the model (Garson, 2008). The full model was statistically significant, $\chi 2$ (3, n = 111) = 18.10, *p* < .01, indicating that the model was able to distinguish between participants who accurately recognised the presence or absence of a problem in the

children described in the vignettes as compared to those who made at least one error. Furthermore, the full model explained between 15.0% (Cox and Snell R squared) and 20.2% (Nagelkerke R squared) of the variance in problem recognition, and correctly classified 69.4% of cases.

As shown in Table 2, one independent variable made a unique statistically significant contribution to the full model (gender of the child in the vignette). The parameter estimate for gender is positive, which indicates that participants who completed questionnaire version 1 (ODD vignettes presented as boys and SAD vignettes presented as girls) were significantly more accurate in terms of problem recognition as compared to those participants who completed questionnaire version 2 (ODD vignettes presented as girls and SAD vignettes presented as boys).

Discussion

This study aimed to examine teachers' ability to recognise common mental health problems in their pupils. Teachers' ratings of problem severity were greater for a vignette of the child presented with clinical symptomatology versus a vignette of a child with sub-clinical symptomatology. Furthermore, their ratings of problem severity were greater for the sub-clinical presentation versus the non-clinical presentation. Thus, it appears that teachers were able to distinguish problem severity, for both a common behavioural disorder and a common emotional disorder of childhood.

Teachers' degree of concern was significantly less for the vignette of the child presented with clinical symptoms of an emotional disorder as compared to the vignette of the child presented with clinical symptoms of a behavioural disorder. This is consistent with previous research, which has shown that help-seeking by teachers tends to be higher for children with behavioural disorders as compared to emotional disorders (Meltzer et al., 2003) and is also consistent with concern expressed by the Mental Health Foundation (1999) that emotional problems such as anxiety and depression were being neglected or missed. There is evidence that children with emotional disorders (anxiety disorders and depression) were perceived to be less burdensome by their parents than children with behavioural and neuro-developmental disorders (Farmer et al., 2003), and it is conceivable that this may also apply to teachers. Furthermore, this trend may be due to the visibility and impact of behavioural symptomatology in the classroom, which makes the symptoms easier to identify (Rothi et al., 2008) and also has a more disruptive impact on the class as a whole.

Table 1. Recognition accuracy for clinical vignettes by gender

Recognition accuracy (%)	Male child	Female child
ODD-clinical vignette	100	98.0
SAD-clinical vignette	92.2	96.7

Table 2. Logistic regression predicting the accuracy of problem recognition

	B	*SD*	Wald	*df*	*p*	Odds ratio	95.0% CI for odds ratio	
							Lower	Upper
Years experience teaching	−0.23	0.13	3.08	1	.08	0.80	0.62	1.03
Self-rated experience of mental health problems	−0.25	0.21	1.40	1	.24	0.78	0.52	1.18
Gender of child in vignette	1.55	0.44	12.63	1	.00	4.73	2.01	11.12
Constant	−0.17	0.55	0.09	1	.76	0.85		

Gender of the child in the vignette was the only factor that was an independent predictor of accurate problem recognition. The difference was in the predicted direction, as those teachers who were presented with vignettes describing boys with ODD symptoms and girls with SAD symptoms were significantly more accurate in terms of problem recognition compared to those who were presented with vignettes describing girls with ODD symptoms and boys with SAD symptoms.

Emotional disorders are more common in girls than boys, particularly in adolescence (Santa Lucia et al., 2000). Thus, teachers may have more experience of girls with emotional disorders and may therefore be more inclined to attribute the SAD symptomatology to an emotional disorder for girls than they do for boys displaying the same symptoms. Behavioural disorders, such as ODD, are more prevalent in boys (Maughan et al., 2004), and so the same may be true of behavioural disorders and boys. The current findings are consistent with evidence regarding teachers' perceptions of children with Attention Deficit Hyperactivity Disorder (ADHD), which have revealed evidence of gender differences (e.g. Maniadaki, Sonuga-Barke, & Kakouros, 2006; Jackson & King, 2004). However, it was not possible to establish from the data whether the findings regarding gender are the result of SAD, or of ODD, or of both.

The generalisability of these findings is constrained by the methodology used. Head teachers who agreed to participate may have represented a systematically biased sample. The generalisability of the findings is also limited by the small geographical area sampled. Furthermore, those teachers who chose to participate may have had a particular interest in mental health issues.

This questionnaire was designed specifically for this study and was not standardised. Whilst the questions and format were based on those used in previous studies, using a questionnaire with established reliability and validity should be considered in further studies. To make the vignettes as naturalistic as possible, the children described in the vignettes were of different ages (ranging from age 8 to 11). It is possible that this impacted on the decisions that teachers made about whether they believed that the child had a problem and on their degree of concern.

Given the lack of suitable data, it was not possible to compare the responses of teachers on this measure to that of other educational professionals, nor to the general public. Including a control group in future studies would enable such comparisons to be made. It would be interesting to explore how teachers' responses compare to those of other Tier One professionals, such as GPs and school nurses.

Using vignettes has several advantages, as all participants take the same vignettes under secure conditions, a uniform case description is provided to all (Norcini, 2004) and participants are not given interpretive information. Hence, the natural conditions of the classroom are mimicked. However, participants may respond to vignettes in an idealised fashion that differs from their usual course of action in a naturalistic setting (Norcini, 2004). Furthermore, the classroom setting is complex and it is unlikely that participants would ever be presented with all of the information in the vignette in such a condensed form, nor would they be prompted to reflect on it in the manner that they were in the current study.

Despite its extensive use, Lucas, Collins and Langdon (2008) illustrated the limitations of vignettes. They found that staff attributions about a child's behaviour presented in a real situation differed significantly from their attributions about the same behaviour, presented in a vignette at a later date. Therefore, it is important to acknowledge that vignettes are limited in terms of ecological validity and that teachers may not necessarily respond to real incidents of children with mental health problems in the same way that they responded to vignettes.

Conclusions

Teachers are able to recognise the existence of clinical level symptomatology of common emotional and behavioural disorders in their pupils when given vignettes of children displaying these disorders. Their reported degree of concern for such a child matches their rating of the severity of the child's problem. Teachers were more concerned about vignettes of children displaying a behavioural disorder compared to children displaying an emotional disorder.

By virtue of the fact that children attend school, schools are impacted on and impact on any mental health problems that children may develop (Appleton, 2000). Considering the findings of the current study, it seems apparent that, although in general teachers are good at recognising whether a child presents with a problem, their problem recognition is affected by both the gender of the child and the type of symptomatology displayed. Therefore, on the basis of this research, teachers could benefit from further training in terms of their ability to identify and act upon children's mental health problems in a timely manner, thus minimising the need for future intervention. Replication of the current study (with an improved methodology), and extending it to include questions concerning the process by which teachers make decisions about whether or not a child has a problem, would provide further insight into this under-researched area.

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Appendix: Study specific vignettes

Note: The vignettes provided here are from version 2 of the questionnaire. The gender of the children described in these vignettes is the reverse of that in version 1 of the questionnaire, with no other changes.

Female Oppositional Defiant Disorder (ODD) vignettes

Female ODD (clinical) vignette

Sally is a 9-year-old girl living with her mother, father and three sisters. She is in Year 4. She is often disobedient at home and school. She never seems to feel

guilty after misbehaving. She frequently destroys her things, and steals, and has run away from home at least six times. She regularly gets into fights and seems to only hang around children who get into trouble. She has physically attacked others twice her size. Sally argues with everyone. She doesn't get along with her sisters or any of the children in the neighbourhood. She is mean and cheats whenever she plays with them. She's always swearing, having temper tantrums, and threatening people. Sally frequently destroys her sister's belongings. She also breaks articles of furniture in the home and other things that don't belong to her. She's mostly irritable and stubborn.

Female ODD (sub-clinical)vignette
Naomi lives with her step-mother, her father and two step-sisters. She is 8 years old and is currently in Year 4. At times, Naomi is disobedient at school, and her father has told you that this is also the case at home. Sometimes she can be irritable, stubborn and ill-mannered. There have been times when she doesn't appear to feel guilty after misbehaving, and she was once caught stealing other people's things at school. She sometimes gets into fights and is friendly with a group of older boys who are trouble-makers. Naomi once physically attacked another pupil after school. You have noticed that she can be argumentative at times, and you are aware that she doesn't get along with her step-mother, and has been rude to her in front of you. She sometimes has tantrums and on two such occasions, she broke articles of furniture in the home.

Female (no symptomatology) vignette
Helen is a girl who has just had her 10th birthday. She is in Year 5. In class, she is very timid and quiet. She never gets into fights or hangs out with kids who get into trouble, but you are aware that children have bullied and physically attacked her in the past. She never argues with anyone, is not mean, and goes out of her way to get along with everyone. She is kind and patient, and does not tend to misbehave. She lives at home with her mother and her brother, and as far as you know, she is generally well-behaved at home too, and seems to get along well with her brother. When she has done something wrong, she seems to feel guilty and will apologise appropriately.

Male Separation Anxiety Disorder (SAD) vignettes

Male SAD (clinical) vignette
James is an 11-year old boy, and is in Year 6. He is an only child and lives with his mother and father. Since the beginning of the term, he has repeatedly expressed concerns that his mother will be killed in a car crash, or that someone will break into his house whilst he is at school, and he would not be able to protect his mother. James attends school, albeit reluctantly, and is often visibly distressed and upset when his mother drops him off at school. During the school day, he frequently complains of stomach aches. James also often requests permission to call his mother, sometimes several times a day. He is shy about making friends, and does not attend sleep-overs at other children's houses.

Male SAD (sub-clinical) vignette
Alexander is in Year 5, and is 10-years old. He is somewhat shy about making friends, and recently refused to attend a party involving a sleep-over at another child's house. Since he joined your class at the beginning of the term, he once expressed concerns that his mother would become ill whilst he was at school and that he would not be there to look after her. Alexander lives with his mother and his brother, and as far as you know, his mother has not got any health problems. Alexander attends school, but has been reluctant on some occasions, and has sometimes been withdrawn after his mother drops him off at school. During the school day, he sometimes complains of headaches. Alexander also once requested permission to return home during break-time to check on his mother.

Male (no symptomatology) vignette
Kevin is an 11-year old boy who is in Year 6, whose parents have recently separated. Since he joined your class at the beginning of the term, he has never expressed undue concerns. He happily attends school, and has not been visibly distressed when his mother drops him off at school, although he was once upset when his father dropped him off. During the school day, he has only once complained of feeling unwell. Kevin rarely requests permission to call either of his parents from school. He is sociable, and seems to make friends relatively easily, and was recently happy to go on a school trip involving spending a night away from home.