



Parents' and Teachers' Knowledge of Trauma and Post-Traumatic Stress Disorder in Children and Adolescents and Their Agreement Towards Screening

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Accepted: 10 March 2022
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Abstract

Background Trauma exposure is common in children and adolescents. Parents and other key adults, such as teachers, are necessary to facilitate help-seeking behavior, which involves recognizing trauma and adverse reactions and awareness of accessing treatments. Where screening measures in schools are used to detect post-traumatic stress disorder (PTSD), the attitudes of parents and teachers towards screening need to be considered.

Objective To examine whether parents and teachers can accurately detect trauma events, symptoms and effective treatments. In addition, to assess how supportive parents and teachers are towards PTSD screening in schools.

Method A total of 439 parents and 279 teachers completed online questionnaires assessing PTSD knowledge across three domains: traumatic events, PTSD symptoms and evidence-based treatments. Responses of acceptability of using PTSD screening tools in schools were elicited.

Results Teachers and parents were accurate in recognizing trauma events and PTSD symptoms. However, understanding was inclusive, with events not considered traumatic and non-PTSD diagnostic criteria being endorsed. Trauma-Focussed Cognitive-Behavioral Therapy was recognized as an effective treatment for PTSD, but Eye-Movement Desensitization and Reprocessing was not. Treatments not recommended by health guidelines were frequently endorsed. The majority of participants were supportive of PTSD screening in schools, but a minority were not.

Conclusions Parents and teachers are able to recognize trauma events and symptoms of PTSD, although this tends to be overly inclusive. Schools could be targeted to promote understanding trauma among parents and teachers. Agreement with screening is encouraging and further research is warranted to understand barriers and facilitators.

Keywords Children · Parents · PTSD · Screening · Teachers · Trauma

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Introduction

Trauma exposure among children and adolescents is common (Lewis et al., 2019; Taylor & Weems, 2009). While many children naturally recover from trauma exposure in the first few weeks post-trauma (Hiller et al., 2016; Meiser-Stedman et al., 2017), a significant minority will develop persistent post-traumatic stress disorder (PTSD; Lewis et al., 2019; Meltzer, Gatward, Goodman & Ford, 2000; Orozco, Borges, Benjet, Medlina-Mora & Lopez-Carrillo, 2008).

Early identification of PTSD in children is paramount, and early intervention is important for treatment outcomes (Kearns, Ressler, Zatzick & Rothbaum, 2012). If untreated, PTSD has significant costs to the child living with this debilitating disorder, which can impede their schooling (Giaconia et al., 1995). Co-morbidities of anxiety and depression are common (Lewis et al., 2019; McLaughlin et al., 2013; Spinhoven, Penix, van Hemert, de Rooij & Elinga, 2014). In addition, the wider familial (Horesh & Brwon, 2018) and educational (Greenberg et al., 2003) systems can be impacted.

Children and adolescents rely on their parents to act as gatekeepers for health related behavior (Stiffman, Pescosolido & Cabassa, 2004; Sayal, 2006). The term 'parent' is used hereafter, referring to all primary caregivers. Parents are required to understand potentially traumatic events, have an awareness of trauma responses in children and know where and how to seek help (Mott, Stanley, Street, Grady, & Teng, 2014; Palazzo, Dell'Osso, Altamura, Stein & Baldwin, 2014; Pratt et al., 2005; Watts et al., 2015). Evidence suggests that a lack of mental health knowledge can prevent help-seeking behavior (Fox, Blank, Rovnyak & Barnett, 2001; Gulliver, Griffiths & Christensen, 2010; Mojtabai, 2009; Rickwood, Deane & Wilson, 2007; Rickwood, Deane, Wilson & Ciarrochi, 2005). Although some research suggests problem detection does not necessitate help-seeking (Shanley, Reid & Evans, 2008), it would be crucial for adults to identify trauma reactions and potential PTSD among children and adolescents.

Schools are increasingly relied upon to detect and respond to signs of emotional distress (Jorm, Kitchener, Sawyer, Scales & Cvetkovski, 2010; Rickwood et al., 2005). With regard to PTSD, it would be important for teachers to know what can lead to PTSD and how to identify symptoms. Teachers have mixed views on their confidence in working with traumatized children (Alisic, 2012; Alisic, Bus, Dulack, Pennings & Splinter, 2012). Children are more likely to be known to schools than to mental health services (Adelman & Taylor, 1998, 2012) and therefore it is important teachers have knowledge of PTSD too.

Evidence suggests young people with mental health problems typically seek help from friends (Rickwood et al., 2005) and within primary care (Rickwood et al., 2007), although primary care detection of mental health problems can be poor (Gulliver et al., 2010; Sayal, 2006). Parents are similar in seeking out information about mental health from informal sources and primary care (Jorm & Wright, 2007).

Knowledge of PTSD among the general population and those with PTSD symptoms has been found to be poor, particularly around treatments (Harik, Matteo, Hermann & Hamblen, 2017). Currently, little is known regarding parents and teachers understanding of PTSD in children and adolescents. As outlined above, these adults in the child's life are paramount for the identification of PTSD and promoting help-seeking behaviors. To the authors' knowledge, no previous research has been conducted to seek out what parents and teachers understand about PTSD in children and adolescents. Previous research found teachers' recognition of depressive symptoms in children to be poor (Taggart &

McMullen, 2007), although whether this is a lack of personal knowledge or training within schools is unknown.

Research Questions and Hypotheses

We sought to identify what events parents and teachers would endorse as traumatic events, what symptoms they thought were associated with PTSD in children and what effective treatments are offered within the National Health Service in England. We hypothesized, based on the study by Harik et al. (2017), that participants would be better at detecting ‘actual’ items compared to ‘distractor’ items (please see measures section below for an explanation of how items differed). We hypothesized that participants would have improved detection for trauma events and symptoms of PTSD compared to treatments. We also wanted to identify whether certain demographic and participant characteristics would predict PTSD knowledge across each domain. Given the results of the Harik study, we predicted that those with a military background would be better at identifying trauma events than those without a military background. Furthermore, we predicted there could be enhanced predictions of trauma symptoms from those participants with a history of mental health difficulties. We made no further hypotheses regarding demographics, however, given the different samples of the currently study to Harik’s, we undertook exploratory analyses to identify whether other demographic variables predicted PTSD knowledge.

We also sought to understand whether teachers and parents would agree with PTSD screening being undertaken in schools. Given the lack of research into the acceptability of mental health screening in schools, we based our hypothesis on other school-based public health initiatives, in particular vaccination initiatives (e.g., for Human papillomavirus, HPV; Brabin, Roberts, Farzaneh, & Kitchener, 2006). While vaccines and mental health screening are very different health initiatives, given the general acceptance of this public health intervention, we predicted good acceptability of mental health screening around trauma, particularly if there had been a local community wide trauma.

Method

Participants

Participants were recruited from schools that were contacted at random in three counties in the East of England. Parents and teaching staff (including both teachers and teaching assistants, hereafter referred to as ‘teachers’) were recruited through 13 schools (four primary schools, five secondary schools, and two Pupil Referral Units [PRUs]). In addition, the Health and Safety Working Group of the National Union of Teachers (NUT; $n = 200$) were contacted and agreed to participate. The total number of teachers across all schools and the NUT was 965. The total number of participating teachers was 310, yielding a response rate of 24.9%. This response rate excludes 69 additional teachers recruited through social media (Twitter and Facebook).

The total number of children across all schools was 5960. Only one parent for each child received information about the study, however both parents were invited to take part. The total number of parents participating was 487, yielding a response rate of 8.2%. However, this could be an over-estimation as the number of two-parent households was unknown.

Seven parents and three teachers chose not to complete the study after reading the participant information sheet. A further 38 parents and 28 teachers were excluded from analysis due to missing data. Three parents were excluded due to their eldest child being under the age of seven. Therefore, the final sample consisted of 439 parents and 279 teachers.

Parents were expected to have one or more school aged child between the ages of seven and 17 who attended one of the participating schools. Teachers were required to be currently working and have at least five hours of direct contact each week with children aged seven to 17.

Measures

Demographic Data

The questionnaire included questions concerning age, gender, previous/current military background (including a spouse in the military) and current mental health difficulties. Parents were also asked the number of children in the family, age of eldest child, and marital, employment and residential status. Teachers were asked their length of time teaching, number of hours working directly with children per week, type of school, whether they have taught a child with PTSD and whether they had received PTSD/trauma training.

Recognition Task

A recognition task, completed online, was developed to measure PTSD knowledge across three domains: trauma events, symptoms and effective treatments. With permission, this was based on Harik et al. (2017) recognition task to measure adult veterans' knowledge of PTSD. Some changes were applied to reflect PTSD presentations in children and treatment guidelines for PTSD in England. Due to the study aiming to understand PTSD knowledge only and concerns around overburdening participants, general mental health literacy and knowledge scales were avoided.

On the questionnaire, participants were asked to select from three lists what they endorsed as traumatic events, PTSD symptoms and evidence-based treatments for PTSD. Each list included 'actual' items, which the research team felt were the correct answers and 'distractor' items which were deemed a priori incorrect responses. A PTSD knowledge score was calculated from a combined percentage of correctly selecting the actual items and correctly not selecting the distractor items. Traumatic events were considered to be an actual item if they satisfied the Diagnostic and Statistical Manual of Mental Disorders, 5th Edition (DSM-5) *Criterion A* for PTSD (American Psychiatric Association, APA, 2013). Symptoms were considered an actual item if they satisfied *Criterion B-E* of the DSM-5 criteria for PTSD (APA, 2013). Treatments were considered to be actual items if they were recommended by national guidance on treating PTSD (National Institute of Health and Care Excellence, NICE, 2005); the recognition task was developed before the revised 2018 guideline was published. Trauma-Focussed Cognitive Behavioral Therapy (TF-CBT) and Eye-Movement Desensitization and Reprocessing (EMDR) were considered actual items. At the time of the current study, EMDR was not featured in the NICE guidelines for children, however research suggested it can be effective for treating PTSD among children and adolescents.

In addition, participants were asked to rate their attitude to PTSD screening tools being used in schools using a five-point Likert scale from "Strongly Disagree" (1) to "Strongly

Agree” (5). Attitudes in two contexts were considered: as part of a wider mental health screening process or following a major incident in the community.

Procedure

Data collection took place from March 2018 to October 2018. Participating schools circulated two study advertisements: one for pupils’ parents (typically by email, text or newsletter) and one for the internal staff team of teachers (usually by email). The research advertisement included a brief explanation of the study and a link to the online information sheet, consent form and questionnaire. Following completion of the online questionnaire, participants were given the opportunity to enter into a raffle prize draw to win a £20 online gift voucher.

Ethical Considerations

The Faculty of Medicine and Health Sciences Research Ethics Committee at the University of East Anglia approved the project on 13th March 2018 (2017/18–85). Informed consent was obtained from all individual participants included in the study through the online questionnaire.

Data Analysis

Descriptive data was used to present percentages for agreement with actual and distractor items for each participant group. The knowledge scores of both groups were not normally distributed. Mann-Whitney U tests were used to identify whether parents or teachers scored differently on each PTSD domain.

A series of linear regression models were conducted with each PTSD knowledge domain as the dependent variable and participant demographics and characteristics as independent variables. Separate linear regressions were conducted for parents and teachers, with demographic characteristics entered as potential predictors. Pearson correlations of the regression models have been provided to understand associations between demographic variables and knowledge scores. For parents, relationship status collapsed married and cohabiting into *two-parent families* and not-cohabiting and single into *one-parent families*. Employment status was categorized as *working* (full or part time) or *not working* (full-time education and unemployed). Residential status was categorized into *ownership* or *non-ownership* (i.e., renting and living with parents). For teachers, time working as a teacher was categorized into 0–10 and 11-plus years. Hours working with children was categorized into 5–20 h or 21 plus per week. With regard to whether a teacher had worked with a child with PTSD before, those stating, ‘not sure’ were categorized as ‘no’ and those selecting ‘prefer not to say’ were excluded from regression analysis. With regard to receiving trauma training, those stating ‘not sure’ were categorized as ‘no’. For all participants selecting ‘do not wish to say’ regarding psychiatric history were excluded from regression analysis. Finally, descriptive statistics were used to explore the frequency of parent’s and teacher’s agreement with PTSD screens.

An α of .05 was used to determine statistical significance. Analyses were performed using SPSS, version 25.0.

Results

Sample Characteristics

Table 1 provides information on participant characteristics. Parents were predominantly mothers (87.5%) with an average age of 45.16 ($SD = 6.88$). The majority of parents were biological parents, married, employed and owned their own home. A minority of parents reported having a military background or a current mental health difficulty.

Teachers were predominantly female. A minority of them identified as teaching assistants. The majority of teachers worked at least 21 hours per week with children (75.3%). Regarding the type of school, the majority were from primary (30.5%) or secondary schools (47.3%). Of the teaching group, 46 (16.5%) reported having worked with a child with PTSD, 134 (48.0%) had not and 96 (34.4%) were unsure. Only 19 (6.8%) teachers reported having received PTSD/trauma training. Similarly, to parents, small proportion of teachers reported a military background or experiencing a current mental health difficulty.

PTSD Knowledge

Parents

Parents had a mean accuracy score for trauma events of 79.35% ($SD = 15.04$). On average, parents correctly designated 11.1 trauma event items (see Table 2). Parents were accurate in selecting the 'actual' trauma events (accuracy $M = 91.94\%$; $SD = 14.85$) however, were less accurate at *not* selecting the 'distractor' items (accuracy $M = 66.77\%$; $SD = 30.66$), i.e., they endorsed items that were not designated traumas in advance by the authors.

Parents had a mean accuracy score for PTSD symptom recognition of 61.42% ($SD = 14.23$). On average parents correctly designated 8.6 trauma symptom items (see Table 3). Participants were accurate in selecting 'actual' items (accuracy $M = 90.81\%$; $SD = 14.60$), however when *not* selecting the 'distractor' items participants had poorer accuracy (accuracy $M = 39.42\%$; $SD = 28.71$), frequently selecting 'distractor' items (e.g., drug and alcohol abuse, decreased appetite and scratching self) as PTSD symptoms.

Parents had a mean accuracy score for PTSD treatments of 42.39% ($SD = 17.17$). On average, parents correctly designated three treatment items. Correct identification of the two recommended PTSD treatments for children and adolescents varied from 17.5% for EMDR and 81.9% for TF-CBT (see Table 4). The majority of participants endorsed treatments (e.g., medication, counseling or group therapy) which are not currently recommended by NICE guidelines.

Teachers

Teachers had a mean accuracy score for trauma events of 81.41% ($SD = 13.80$). On average, teachers correctly designated 11.4 trauma event items (Table 2). Teachers were more accurate at selecting 'actual' traumatic events ($M = 93.07\%$; $SD = 12.66$) compared to 'distractor' items ($M = 69.76\%$; $SD = 28.94$). Teachers had a mean

Table 1 Sample characteristics for parents and teachers

Variable	Parents (<i>n</i> = 439)				Teachers (<i>n</i> = 279)			
	<i>n</i>	<i>M</i>	<i>SD</i>	% or Range	<i>n</i>	<i>M</i>	<i>SD</i>	% or Range
Female	384			87.5	241			86.4
Age		45.16	6.89	25–73		41.99	11.30	21–71
Military background (yes)	33			7.5	26			9.3
Current mental health difficulty (yes)	103			23.5	69			24.7
No. of children		2.37	0.96	1–5				
Teaching Assistant					69			24.7
Received PTSD training (yes)					19			6.8
Age of eldest child								
6–10	8			1.8				
11–15	230			52.4				
16–20	127			28.9				
21–25	44			10.0				
26+	30			6.8				
Relationship status								
Married	309			70.4				
Relationship living together	50			11.4				
Relationship living apart	22			5.0				
Single	56			12.8				
Employment Status								
Full-time	176			40.1				
Part-time	180			41.0				
Education	4			0.9				
Unemployed	21			4.8				
Other	55			12.5				
Residential status								
Homeowner	348			79.3				
Renting	87			19.8				
Living w/ parents	2			0.5				
Other	2			0.5				
Years worked								
0–5					73			26.2
6–10					55			19.7
11–15					65			23.3
16–20					41			14.7
21+					45			16.1
Hours worked with child/week								
0–10					15			5.4
11–20					52			18.6
21.30					138			49.5
31+					72			25.8
Type of school								
Primary					85			30.5
Secondary					132			47.3
SEN/PRU					44			15.8
Other					13			4.7
Worked with child with PTSD								
Yes					46			16.5
No					134			48.0
Not sure					96			34.4
Prefer not to say					3			1.1

PTSD = Post-traumatic stress disorder, *SEN* = Special educational needs, *PRU* = Pupil referral unit

Table 2 Recognition of trauma events that could lead to PTSD

	% endorsing the event as potentially leading to PTSD	
	Parents (<i>n</i> = 439)	Teachers (<i>n</i> = 279)
No current knowledge	1.4	1.8
Sexual abuse (a)	95.9	96.4
Serious car accident (a)	94.5	96.8
A terrorist attack (a)	92.3	95.7
Sudden death of family member (a)	91.6	90.7
Hearing domestic violence (a)	90.9	90.7
Physically bullied at school (a)	88.6	82.8
An earthquake (a)	81.1	86.7
Parents divorcing or separating (d)	82.5	78.1
Being lied to by parents (d)	40.3	34.4
Arguing with a best friend (d)	23.2	14.7
Watching a scary cartoon (d)	22.3	25.4
Falling off a swing (d)	21.6	20.1
Being sent home from school (d)	20.5	18.3
Losing money (d)	19.8	16.8

a = ‘actual’ items, *d* = ‘distractor’ items, *PTSD* = post-traumatic stress disorder

accuracy score for PTSD symptom recognition of 62.57% ($SD = 15.20$). On average teachers correctly designated 8.8 trauma symptom items (Table 3). Teachers were accurate at identifying the symptoms of PTSD ($M = 92.13\%$; $SD = 13.35$). However, similar to the parental group, teachers frequently selected ‘distractor’ symptoms ($M = 40.40\%$; $SD = 29.94$). The teaching group had a mean accuracy score for PTSD treatments of 44.16% ($SD = 19.59$). On average teachers correctly designated 3.1 treatment items (Table 4).

Parents and teachers did not differ on their overall PTSD trauma event knowledge ($U = 55,004.5$, $p = .106$), PTSD symptom knowledge ($U = 55,174$, $p = .440$) or PTSD treatment knowledge ($U = 35,781$, $p = .204$).

Predictors of PTSD Knowledge

No significant predictors of PTSD knowledge were identified from the six linear regression models. Correlations of the regression models are displayed in Table 5. For parents, number of children and whether they were a homeowner negatively correlated with trauma event recognition (homeowners had higher PTSD trauma knowledge). Employment status negatively correlated with symptom recognition, with working parents having more accurate PTSD symptom knowledge. For teachers, a current mental health difficulty was negatively correlated with effective treatment recognition. However, all statistically significant effects were “small” (Cohen, 1988).

Table 3 Recognition of PTSD symptoms in children and adolescents

	% endorsing item as a PTSD symptom	
	Parents (<i>n</i> = 439)	Teachers (<i>n</i> = 279)
No current knowledge	2.3	4.3
Nightmares (a)	96.1	94.3
Sleep problems (a)	95.9	92.1
Angry outbursts (a)	94.1	91.0
Avoid people/places associated with trauma (a)	89.7	87.8
Avoiding talking/thinking of trauma (a)	88.4	86.0
Re-enacting trauma in play (a)	67.7	77.8
Drug and alcohol abuse (d)	86.1	79.6
Decreased appetite (d)	77.2	75.6
Scratching self (d)	72.9	68.1
Hoarding (d)	55.1	54.1
Talking constantly about the event (d)	51.7	54.5
Hearing voices to hurt other people (d)	47.6	45.5
Constantly washing hands (d)	44.4	38.0
Hyperactivity for over 3 days (d)	38.5	40.9

a = 'actual' items, *d* = 'distractor' items, *PTSD* = post-traumatic stress disorder

Table 4 Recognition of effective treatment for PTSD in children and adolescents

	% endorsing item as an effective PTSD treatment	
	Parents (<i>n</i> = 439)	Teachers (<i>n</i> = 279)
No current knowledge	16.9	25.1
TF-CBT (a)	68.1	59.5
EMDR (a)	14.6	12.2
Counseling or Psychotherapy (d)	80.0	69.5
Medication (d)	57.9	47.7
Group Therapy (d)	48.1	36.6
Relaxation techniques (d)	40.3	36.6
Animal-Assisted Therapy (d)	25.5	24.4

a = 'actual' items, *d* = 'distractor' items, *PTSD* = post-traumatic stress disorder, *EMDR* = Eye-movement desensitization and reprocessing, *TF-CBT* = Trauma focussed cognitive behavioral therapy

Screening

Parents' and teachers' agreement to PTSD screens can be found in Table 6. Over half of parents (59.9%) and teachers (71.6%) agreed (i.e., somewhat agree or strongly agree) for PTSD screening to be undertaken in schools as part of a wider screening process. When participants were asked if they would consider this following a major incident in the local

Table 5 Correlations from regression analyses between PTSD knowledge domain and demographic variables

Variable	Parents			Teachers		
	Trauma event (<i>n</i> = 363)	Symptoms (<i>n</i> = 359)	Treatments (<i>n</i> = 308)	Trauma event (<i>n</i> = 244)	Symptoms (<i>n</i> = 237)	Treatments (<i>n</i> = 190)
Age	.007	.001	-.018	-.021	-.069	.013
Gender	.029	-.077	.025	.019	-.062	.036
Military background	-.050	.072	.021	.098	.018	.046
Mental health difficulty	.074	.011	.024	.007	-.082	-.123*
Eldest child	.036	.007	-.013			
Relationship status	-.083	.018	.054			
Employment status	-.050	-.094*	-.025			
Residential status	-.130**	.012	.013			
Teaching status				.013	-.096	-.115
Years working				-.004	.002	.021
Hours working/ week				.013	.088	-.051
child with PTSD				.057	.075	.030
PTSD training				.079	.064	-.046
Type of school				.059	.020	-.094

*Significant at the $p < .05$ level

**Significant at the $p < .01$

PTSD = Post-traumatic stress disorder

Table 6 Parents' and teachers' attitude towards PTSD screening in schools

	As wider mental health screen (Q1)				Following major incident (Q2)			
	Parents		Teachers		Parents		Teachers	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Strongly Agree	128	30.2	79	28.4	253	60.2	163	58.4
Somewhat Agree	126	29.7	120	43.2	110	26.2	79	28.3
Neither agree/ disagree	80	18.9	45	16.2	20	4.8	14	5.0
Somewhat Disagree	45	10.6	20	7.2	9	2.1	5	1.8
Strongly Disagree	45	10.6	14	5.0	28	6.7	18	6.5

Q1: Parents $n = 424$, Teachers $n = 278$; Q2: Parents $n = 420$, Teachers $n = 279$. PTSD = Post-traumatic stress disorder

area, both parents' and teachers' agreement increased to 86.4% and 86.7, respectively. On the other hand, 21.2% and 12.2% of parents and teachers respectively disagreed (strongly or somewhat disagree) for a PTSD screen as part of wider mental health screening. This level of disagreement decreased to 8.8% and 8.3% for parents and teachers, respectively, if a major incident occurred in the local area.

Discussion

Parents and teachers were more knowledgeable around traumatic events and symptoms associated with PTSD, compared to knowledge of effective treatments. These results are similar to that of Harik et al. (2017), who investigated PTSD knowledge among veterans and participants with PTSD symptoms. Although the current research sought to categorize traumatic events into ‘actual’ and ‘distractor’ items, it was noteworthy how commonly participants endorsed each item. Across the ‘actual’ events there was high recognition for parents and teachers. Participants had a broader understanding of what constitutes “trauma”, as they frequently selected events the study team decided would not meet diagnostic criteria for PTSD. One obvious example was that parental divorce was considered traumatic by many participants, although would unlikely meet Criterion A of DSM-5 (APA, 2013). Only a small proportion (<2%) of both teachers and parents reported having no knowledge of traumatic events.

Parents and teachers accurately identified symptoms associated with PTSD. Re-enactment of the trauma through play was the lowest endorsed symptom, although was still high (68% of parents and 77% of teachers). All other ‘actual’ symptom items reached endorsement rates of at least 85%.

Symptoms categorized as ‘distractor’ items were also frequently endorsed by both groups. Participant rates of endorsement of distractor symptoms were similar to that found from Harik et al. (2017). Substance abuse was the highest rated symptom not typically associated with PTSD; it is noteworthy that PTSD has been found to be co-morbid with alcohol dependence in children and adolescents (Lewis et al., 2019). Symptoms more commonly associated with other mental health presentations were also frequently endorsed by participants as PTSD symptoms. Again, only a small proportion of parents (2%) and teachers (4%) reported having no knowledge of PTSD symptoms.

First line treatments, TF-CBT, were highly endorsed by both parents and teachers. This may have been due to the treatment having the word ‘trauma’ in the title. Other interventions, including counseling and medication, which have little, or no evidence base were endorsed by parents. These treatment options are neither recommended by NICE. Both parents and teachers had less knowledge regarding PTSD treatments compared to trauma events and PTSD symptomology.

No predictors of PTSD knowledge were found within the current study. Mostly demographic factors were entered into the regression models and therefore alternative variables could be considered for future research. A small effect was found for a correlation between teaching sample having no current mental health difficulty and increased knowledge of treatments for PTSD. A military background was not correlated with increased trauma knowledge across both samples and all three domains.

Both parents and teachers generally agreed with screening measures to be used in schools, particularly following a major incident in the local area. This was as predicted based on other public health initiatives in schools having parental support. However, as part of a general mental health screen, over 20% disagreed with PTSD screening; it is unclear whether mental health screening was objectionable or specifically a PTSD element, but this suggests some caution is warranted when considering such programmes in the future. More research into barriers and facilitators of this would be needed.

Clinical Implications

Results suggest that parents and teachers readily identify wide ranging experiences as potentially traumatic and can recognize symptoms of PTSD in children and adolescents. However, their definitions of what constitutes trauma or PTSD symptoms may be broader than the views of the mental health research and the clinical community. While encouraging in some regards, as this may support efforts to refer children to appropriate sources of intervention, it is also important to note this may interfere with efforts to identify other issues that warrant support or treatment in their own right, such as self-harm. This implies that parents and teachers have an understanding of mental ill health but lack an understanding of specific mental health diagnoses, and possibly overattribute the causes of mental health difficulties to trauma.

Considering trauma exposure is high among children and a relatively high proportion develop traumatic stress responses, it is important that key adults are aware of PTSD. Signposting to appropriate services may be crucial. However, parents and teachers seem to be unaware of what evidence-based treatments exist, and therefore may not approach the most appropriate services for help.

PTSD screening could be undertaken at a relatively low cost. It is encouraging both parents and teachers agree with potential screening programmes. However, we would still encourage that further work is needed around the acceptability and utility of school-based screening for trauma and PTSD.

Limitations

The current study has several limitations which should be taken into account. A school-based online questionnaire was undertaken across three rural counties in the East of England, which comprises a predominantly White British population. Therefore, the results may not be generalizable to other contexts (e.g., more urban areas and other countries). Participants were more likely to be female and over the age of 40, and parents were more likely to be married, working and be homeowners. This again limits the generalizability of the findings. The questionnaire was designed for this study and thus had no prior data regarding its validity. Moreover, its design does not lend itself to being assessed for reliability. This study had a low parental response rate and therefore participants may have been more motivated to complete it, biasing the results. This also limits the generalizability of the findings. The assessment of current mental health difficulty relied upon self-report of participants which could encompass a myriad of emotional and psychological difficulties.

PTSD can be comorbid with other psychological difficulties and therefore participants may not be thinking solely about PTSD when completing the online questionnaire and thinking of other comorbid presentations such as depression and substance abuse. This could account for the broader endorsement of symptoms found in the present study.

Future Research

The current research recruited both teachers and teaching assistants, however other adults within the school environment can be responsible for the welfare of children (Atkins, Hoagwood, Kutash & Seidman, 2010). Therefore, understanding their PTSD

knowledge may be valuable. Many adolescents may also self-refer to health services. Therefore, it is important to understand their own knowledge of PTSD. Other environments outside of education where children and young people seek support may also need to be considered (e.g., youth groups, social care).

Further research would be valued using other methodologies such as the use of vignettes to understand PTSD knowledge and responses to trauma. This approach could lead to understanding some of the disparities between patients and professionals' views on trauma, such as parental divorce as a traumatic event. In addition, facilitators and barriers to screening can be ascertained.

Conclusion

Parents and teachers are accurate at recognizing trauma events and PTSD symptoms in children. However, over-recognition tends to occur, and many events not considered traumatic, and symptoms not associated with diagnostic criteria of PTSD were endorsed. Regarding treatment, parents and teachers may identify TF-CBT as an effective treatment, however many interventions lacking an evidence base for the treatment of PTSD were also endorsed. Further education for teachers and parents on PTSD in children and adolescents is warranted, particularly with trauma exposure being highly prevalent. Agreement to screening of PTSD in schools was broadly positive but not universal.

Acknowledgements We would like to thank all the participants who supported this research.

Authors contribution Aaron Burgess and Richard Meiser-Stedman contributed to the study conception and design based on previous research. Material preparation, data collection and analysis were performed by Aaron Burgess. The first draft of the manuscript was prepared by Aaron Burgess. All authors commented on previous versions of the manuscript. Richard Meiser-Stedman and Imogen Rushworth provided supervision of the project. All authors read and approved the final manuscript.

Funding No funding was received for conducting this study.

Data Availability The data that support the findings of this study are available from the corresponding author, [AB], upon reasonable request.

Code availability Not applicable.

Declarations

Conflict of interest The authors have no conflicts of interest to declare that are relevant to the content of this article.

Ethical approval The questionnaire and methodology for this study was approved by The Faculty of Medicine and Health Sciences Research Ethics Committee of the University of East Anglia (UEA) on 13th March 2018 (Ethics approval number: 2017/18–85).

Consent to participate Informed consent was obtained from all individual participants included in the study.

Consent for publication Not Applicable.

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