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**Psychosocial Care for Injured Children:
Worldwide Survey among Hospital Emergency Department Staff**

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Abbreviations and Acronyms

ED: Emergency Department

ABSTRACT

Objective: To examine Emergency Department staff's a) knowledge of traumatic stress in children, attitudes towards providing psychosocial care, and confidence in doing so; b) differences in these outcomes according to demographic, professional, and organizational characteristics; and c) training preferences.

Study design: We conducted an online survey among staff in Emergency and equivalent hospital departments, based on the Psychological First Aid and Distress-Emotional Support-Family protocols. Main analyses involved descriptive statistics and multiple regressions. Respondents were 2648 Emergency Department staff from 87 countries (62.2% physicians and 37.8% nurses; mean years of experience in emergency care was 9.5 years with an SD of 7.5 years; 25.2% worked in a low- or middle-income country).

Results: 1.2% of the respondents correctly answered all 7 knowledge questions, with 24.7% providing at least 4 correct answers. Almost all respondents (90.1%) saw all 18 identified aspects of psychosocial care as part of their job. Knowledge and confidence scores were associated with respondent characteristics (e.g. years of experience, low/middle vs. high-income country), although these explained no more than 11 % to 18% of the variance. Almost all respondents (93.1%) wished to receive training, predominantly through an interactive website or one-off group training. A small minority (11.1%) had previously received training.

Conclusion: More education of Emergency Department staff regarding child traumatic stress and psychosocial care appears needed and would be welcomed. Universal education packages that are readily available can be modified for use in the Emergency Department.

INTRODUCTION

Every year, tens of millions of children around the world sustain injuries that require hospital care¹. These injuries can cause not only physical disability but also long-term psychological consequences: approximately 1 in 6 injured children develop persistent stress symptoms that impair functioning and development²⁻⁵.

Several models have been developed to mitigate distress after injuries and other potentially traumatic events. Psychological First Aid⁶ is the most prominent model of psychosocial care, often applied after disasters. It comprises 8 core elements (e.g. ‘stabilization’ which includes calming, ‘promoting connection with social supports’, and ‘informing about coping’), tailored to the needs of the survivor. In the pediatric context, specific recommendations such as the D-E-F protocol⁷ have also been developed. This protocol builds on the A-B-C model (airway, breathing, and circulation) that is familiar to acute care clinicians providing resuscitation. After providers have attended to the ABC’s and addressed physical health needs, the protocol points them to distress of the patient (D), emotional support for the patient (E), and support for the family (F)⁴.

Although Emergency Department (ED) staff have been recognized as having a pivotal role in preventing persistent distress in injured children⁸, conscious awareness of posttraumatic stress and practices to promote psychological recovery appear not to be commonplace in the ED, and there are suggestions that specific training is needed^{2,8,9}. Our goal was to examine ED staff’s perspectives in an international context. In particular, we aimed to understand a) their knowledge of traumatic stress in children, attitudes towards providing psychosocial care, and confidence in doing so; b) differences in these outcomes according to demographic, professional, and organizational characteristics; and c) their training preferences.

METHODS

We assessed ED staff’s perspectives with a web-based self-report questionnaire. The Human Research Ethics Committee of the Royal Children’s Hospital Melbourne approved the study as primary IRB (HREC 33085).

Study population

We targeted ED physicians and nurses from hospitals around the world (allied health workers and mental health staff were also eligible to participate but represented small groups; their data are not reported in this paper). In settings where hospitals did not have separate EDs, we approached staff who were routinely providing initial hospital care to injured patients. Respondents were recruited via the association of Pediatric Emergency Research Networks in North America, Europe and Australasia (PERN)¹⁰ and national health care provider forums and associations (e.g. the DXY website for Chinese health care providers and the College of Emergency Nursing Australasia), with the request to forward the survey link to ED staff in participants’ networks. This snowball approach was chosen to obtain as many responses as possible from staff in countries where there was less organization in professional associations. Data collection took place between 1 July 2013 and 1 February 2014. To reduce any barriers to providing a frank account of hospital performance, participation in the survey was anonymous, although we did collect basic demographic information. Respondents indicated informed consent by completing the questionnaire. They could send a separate e-mail to the research team to participate in a draw for one of 20 \$15 gift vouchers.

Questionnaire

Measure development involved a) literature review^{6,7,11-13}; b) a qualitative interview study with ED staff¹⁴; c) drafting of questionnaire items, including new questions and items

adapted from two existing measures for parent knowledge and provider attitudes^{15,16}; d) review of draft questions by eight experts in emergency medicine, emergency nursing, mental health, and injury classification; and e) piloting with 12 ED staff, including the use of a ‘think-aloud’ protocol¹⁷. We solicited reviews on cultural appropriateness of the questions from staff or academics from each major language area that we were targeting. The questionnaire was translated into 12 languages (two translators per language) and accessed through SurveyMonkey.

The questionnaire consisted of 65 items in 7 main categories: personal and work characteristics (demographics, profession and work location; 12 items); individual knowledge of traumatic stress (7 multiple choice items); individual confidence in providing psychosocial care (mapped on the 8 core elements of Psychological First Aid; 18 items with a 4-point Likert scale and an option to indicate that the provider thought it was not their job); barriers to providing psychosocial care (6 items with a 3-point Likert scale); the department’s performance in providing psychosocial care (3 general questions and 8 items for each element of Psychological First Aid, all with a 4-point Likert scale and the ‘not our job’ option), training wishes and experiences (8 items with varying answer formats), and open questions to solicit further comments, in particular regarding cultural considerations. The full survey is available from the authors.

Data analysis

All analyses were conducted in IBM SPSS 22. We derived a knowledge score as a count of correctly answered knowledge questions (0 to 7). A total attitude score comprised the count of psychosocial care elements (0 to 18) seen as part of the respondent’s job. An individual confidence score was computed by averaging the confidence scores (1 to 4) of all aspects of psychosocial care that a respondent saw as their job. We computed descriptive statistics, and then used multiple regression analyses to examine which respondent characteristics were related to higher knowledge and confidence scores (we report the initial models as well as the final models with significant factors only¹⁸). Because age, experience in patient care and experience in the ED were strongly correlated ($r = .79$ to $r = .90$; $p < .001$), we included only experience in patient care in the regression models. Since visual inspection showed that confidence scores were negatively skewed, these were reversed, logtransformed, and reversed again before analysis.

RESULTS

Respondents

The sample consisted of 2648 ED staff (59.3% female, mean age 39.5 years, [range 18 to 65; SD = 9.7; Median = 38.0]) residing in 87 countries. The five countries with most respondents were China (17.3%), USA (16.2%), UK (12.5%), Australia (9.5%) and Canada (9.0%). One quarter of respondents (25.2%) operated in a low- or middle-income country. The majority of respondents (78.5%) worked in an urban setting, while 14.7% worked in suburban and 6.7% in rural settings.

About half of the respondents (48.2%) worked in a pediatric ED, while 33.5% worked in a combined adult and pediatric ED, 16.1% worked in an ED predominantly serving adults, and 2.2% worked in a setting that did not fit these criteria (e.g. emergency care in a low- or middle-income country). Three quarters (72.7%) were employed at an academic hospital as opposed to a non-academic hospital (27.3%). For 52.5% of the respondents, mental health professionals (e.g. psychologists, psychiatrists or social workers) were available in the ED at least a few hours per day. For 26.0%, these professionals were on call only. For 18.2% mental health staff were not available at all, and for the final 3.3% none of these categories applied (e.g. when there was varying availability).

The majority (62.2%) of the respondents were physicians; 37.8% were nurses. Mean years of experience in any patient care was 15.0 years (SD = 9.8 years; Median = 13.0) while mean years of ED experience was 9.5 years (SD = 7.5 years; Median = 8.0). Many respondents (88.9%) had no specific training in psychosocial care for injured children. Among those who had, for 15.7% this training took place within the past year, for 46.8% 1-5 years ago, for 20.8% 5-10 years ago, and for 16.7% over 10 years ago. Further details are provided in Table 1 (online).

Knowledge about pediatric traumatic stress

On average, respondents answered 3.2 out of the 7 knowledge questions correctly (SD = 1.7). More specifically, 1.2% answered all 7 correctly, while 7.1% had 6, 16.5% had 5, 20.2% had 4, 20.5% had 3, 17.2% had 2, 12.6% had 1, and 4.8% had 0 correct answers respectively. Table 2 shows the percentages of respondents checking the various answer options for each question and the percentages of correct answers per question. Most participants (69.3%) were aware that not only the injured children themselves but also their parents and siblings could develop posttraumatic stress. There was a fair amount of awareness that development of posttraumatic stress is related to children's own appraisal of threat to their life (59.0% correct) and not to injury severity (64.4% correct). However, relatively few respondents were aware of the risk of posttraumatic stress among very young children (only 48.5% recognized that toddlers can develop posttraumatic stress), among children who present to the ED either as calm/compliant/loud (only 33.2% recognized that children with any presentation could develop posttraumatic stress), and among children who rate their pain as severe (46.1% correct). Almost all respondents (91.6%) underestimated the percentage of children who would report acute stress symptoms.

Respondents with higher knowledge scores were more often female, from a high-income country, working in a pediatric ED, and physician. These characteristics explained 18.1% of the variance in knowledge scores (Table 3). Years of experience in patient care and working in an academic hospital (versus a non-academic hospital) were not significantly associated with knowledge.

Attitude and confidence regarding psychosocial care

The vast majority of respondents (90.1%) saw all 18 aspects of psychosocial care as part of their job. "Informing a child about an injured or deceased family member" was the aspect that was most frequently chosen as not part of the job (4.2% of respondents), followed by "liaising with staff who can provide practical assistance" such as social work (2.7%), and "educating parents or children about how to access mental health care if needed" (2.6%; see also Table 4; online). Because 98.1% regarded at least 14 aspects of psychosocial care as part of their job, further analyses into predictors of attitude were not conducted.

ED staff reported varying levels of confidence regarding providing aspects of psychosocial care. On average, they felt moderately confident (Table 5). While 74.5% felt very confident about explaining procedures to children and parents, only 14.0% felt the same way about educating children and parents about traumatic stress reactions. Similarly, only a minority felt very confident in providing information about emotional/behavioral reactions at home that indicate a need for help (16.3%), and in educating parents or children about how to access mental health care (20.8%). Four of the five lowest scoring elements for confidence were also among the 5 lowest scoring elements for attitude (Table 4; online).

Higher levels of confidence were associated with working in an academic hospital, working in a pediatric ED, being a nurse, being trained in psychosocial care in the past 5 years, and having more experience (years in patient care). These characteristics explained 11.1% of the variance in confidence scores (Table 6). Gender and working in a high- versus

low/middle income country were not significantly associated with confidence in providing psychosocial care.

Respondents rated their confidence in their own performance ($M = 3.1$; $SD = .49$) significantly higher than their department's performance ($M = 2.5$; $SD = .87$; paired samples t-test: $t = 37.16$, $df = 2615$; $p < .001$). See Table 7 (online) for more information on respondents' perceptions of their departments.

Training preferences

A large majority of the respondents (93.1%) indicated desire for more training in psychosocial care. The two most popular training modes were an interactive website (25.0% of first preferences) and one-off group training (23.4% of first preferences; Table 8; online). Several respondents commented that training material should be locally adapted and noted cultural differences in needs of patients. Of those interested in training, 47.4% indicated they would be able to commit 1-4 hours to training in the next 6 months, 31.2% 5-8 hours, and 21.4% more than 8 hours.

DISCUSSION

This is the first worldwide survey on knowledge and attitudes of ED staff regarding psychosocial care for injured children. While almost all participants viewed psychosocial care as part of their job, few had received any formal education. Knowledge and confidence in the delivery of education to pediatric patients and their families about injury related stress reactions were less than optimal, and there was an appetite for training. Although our study identified a number of associations between respondent characteristics and knowledge/confidence scores, the effect sizes were relatively small. This suggests that while education endeavors may be tailored to some extent (in particular related to cultural needs), it would be appropriate to start with a universal approach.

On average, the respondents answered 45% of the knowledge questions correctly. This diverges from the disconcertingly low knowledge scores – on different measures - in previous studies on American physicians^{9,19} and may indicate an increase in knowledge in recent years. However the findings also indicate room for further improvement. Our results suggest that training of providers needs to include information on a) stress in very young children²⁰ b) the fact that children with a range of emotional and behavioral presentations (e.g., calm, or loud) can develop stress symptoms²¹, and c) pain as a predictor of long-term difficulties in recovery¹¹. In addition, it appears important to convey that it is common for children to experience one or more symptoms of acute stress, such as nightmares or regressive behavior, in the first month after the injury²². Education packages on these topics are already available²³⁻²⁵, and could be adjusted for the ED setting.

We found a positive attitude towards psychosocial care being part of a health care provider's role. This aligns well with recent calls and support for 'trauma-informed care' in settings as diverse as child welfare, education, juvenile justice, and health care^{15,26}. In particular, it fits with a stepped care system in which there is universal psychosocial care in the acute phase, targeted preventive interventions for patients at increased risk of developing mental health problems, and treatment interventions for those who (continue to) experience severe distress⁴. In this continuum of care, ideally no patient at risk would be overlooked, while scarce treatment resources would be allocated only where needed.

Interestingly, the elements of psychosocial care that were most often viewed as 'not part of the job' were also aspects with low confidence ratings among the respondents who did see them as part of the job. The aspects that solicited low confidence scores included more advanced psychosocial care elements, such as educating children and parents about common traumatic stress responses, as opposed to more general child-centered care elements such as

using age-appropriate language. There could be various reasons for this pattern, including a relative lack of opportunity to observe or perform the more advanced elements, the fact that these elements were traditionally viewed as part of mental health care only, and professional avoidance of confronting or emotional topics⁸. Integrating the elements that respondents reported as more difficult in both initial general training and ongoing professional education, would be a feasible way of increasing staff's competence and confidence.

The two most popular training formats among the respondents were an interactive website and one-off in-person group training. Currently available education packages on psychosocial care in acute settings would lend themselves well to both these preferences. For example, an interactive 6-hour online Psychological First Aid training package²⁵, currently focused on post-disaster care, could be adapted for use in the ED. Moreover, the HealthCare Toolbox website offers a set of freely available online 1-hour training courses, designed for nurses and other health professionals in hospital and ED settings²⁴. These courses provide an introduction to traumatic stress after pediatric medical events and teach specific skills for implementing the D-E-F protocol⁷, for example how to assess help with distress (pain, fear, and worries) in pediatric patients. Both training packages have written materials that could form the basis for in-person training sessions.

This study is the first to successfully assess ED staff understanding on a topic at a global scale through PERN, the international collaboration of emergency medicine research networks. PERN provided an important platform to reach a wide spectrum of ED staff. However, several limitations of the study need to be taken into account. Because of our focus on anonymity and reaching out to low- and middle-income countries, it was not possible to assess response rates and the representativeness of the current sample. There is a risk of selection bias with this study, both by area of interest and by access to the study. With regard to the former, it is possible that the current study attracted a disproportionate number of ED staff with an elevated interest in psychosocial aspects of their work. With regard to the latter: although the survey was available in 12 major world languages and we distributed it as widely as possible, we received fewer responses from low-income countries than from high-income countries, restricting generalizations to providers in low-resource contexts. Finally, the self-report nature of the survey allowed the examination of knowledge and perceptions, but did not allow conclusions regarding the actual psychosocial care provided by the respondents.

CONCLUSION

This study shows that more education of ED staff regarding child traumatic stress and psychosocial care would be welcomed. In our view, the steps that should follow from the current findings include 1) dissemination of the training materials on psychosocial care that are readily available to medical and nursing schools, professional bodies, and individual ED's; 2) adoption of psychosocial care modules within formal training curricula at undergraduate and postgraduate levels; 3) evaluation of the effects of implementing these materials in various settings on knowledge and skills of students and staff through questionnaires, behavioral observations and patient evaluations; and 4) further research into the cultural specificities of psychosocial care²⁷, and how these can support local adaptations of education material.

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Table 1. Respondent characteristics

Characteristic	Respondents
Age, mean (SD); median	39.5 (9.7); 38.0
Gender (%)	
Female	59.3
Male	40.7
Occupation (%)	
Physician	62.2
Nurse	37.8
Years of experience, mean (SD); median	
All patient care	15 (9.8); 13.0
ED patient care	9.5 (7.5); 8.0
ED Type (%)	
Pediatric ED	48.2
Combined Pediatric and Adult ED	33.5
Adult ED	16.1
Other (did not fit criteria)	2.2
Hospital affiliation (%)	
Academic/University Hospital	72.7
Non Academic/University Hospital	27.3
Availability of mental health practitioners (%)	
Available at least a few hours per day	52.5
Available on call	26
None available	18.2
No categories applied (e.g. varying availability)	3.3
Training in psychosocial care for injured children (%)	
No training	88.9
Training in the past year	1.80
Training 1-5 years ago	5.2
Training 5-10 years ago	2.3
Training over 10 years ago	1.8
Country of employment (%)	
China	17.3
United States	16.2
United Kingdom	12.5
Australia	9.5
Canada	9.0
New Zealand	9.0
Italy	5.2
South Korea	2.4
France	2.2
Switzerland	1.4
Ireland	1.3
Netherlands	1.3
Argentina	1.2

Belgium	1.2
South Africa	.9
Other	9.4

Abbreviation: ED, Emergency Department. Note: $N = 2648$.

Table 2. Respondents' knowledge of pediatric traumatic stress

Question	% of respondents checking answer options ^a					% correct answer
	Minor (e.g. superficial laceration, dental injury) 38.1	Moderate (e.g. closed limb fracture, facial fracture) 71.9	Serious (e.g. open limb fracture, hemothorax) 83.5	Severe/critical (e.g. ruptd liver, proximal limb amputation) 80.3	Not sure 9.4	
1. What severity of injury puts children at risk of PTS?						64.4
2. Which age groups are at risk of PTS following an injury?	Toddlers 48.5	Young Children 79.6	Older children 80.3	Adolescents 69.2	10.5	42.0
3. Who is at risk of PTS following the injury of a child?	Injured child 93.7	Parents 88.7	Siblings 73.4		2.5	69.3
4. Children at risk of PTS present in the ED as ...	Frantic & distressed 72.3	Loud 55.1	Calm & compliant 40.5	Quiet/ withdrawn 71.3	12.6	33.2
5. Children who, at some point during the trauma, believe they might die are at higher risk of PTS	Agree 59.0	Only when belief was realistic 11.2	Disagree 9.9		20.0	59.0
6. Children in the ED who rate their pain as severe are at ...	Same risk of PTS as other children 29.6	Increased risk of PTS 46.1	Lower risk of PTS 2.2		22.1	46.1
7. What % of injured children and families report traumatic stress reactions within the first month after injury?	Less than 25% 29.5	25-50% 22.0	More than 50% 8.4		40.1	8.4

Abbreviations: ED, Emergency Department; PTS, Posttraumatic Stress. Note: $N = 2648$. Percentages indicate how many of the respondents checked the answer option. PTS = posttraumatic stress. ^a Answers in the light gray cells should be checked, those in dark gray cells should not be checked. The answer in the upper left white cell should be checked but not-checking was not penalized (i.e. checked/not checked both seen as correct).

Table 3. Respondents' total knowledge score in relation to their characteristics: initial and final multiple regression

Initial Model	<i>B</i>	<i>SE B</i>	β	<i>P</i> Value	95% CI for <i>B</i>	Univariate total scores per group / correlations			
Constant	1.469	.111		<.001	1.252 to 1.687	<i>Coded '0'</i>	<i>M (SD) / r</i>	<i>Coded '1'</i>	<i>M (SD)</i>
Gender	.185	.070	.055	.008	.048 to .322	Males	2.9 (1.70)	Females	3.4 (1.60)
Country income	1.462	.084	.383	<.001	1.296 to 1.627	LMIC	2.1 (1.41)	HIC	3.6 (1.56)
Academic hospital	.096	.070	.026	.170	-.041 to .232	Non-acad.	2.9 (1.69)	Acad.	3.3 (1.63)
Pediatric ED	.192	.069	.058	.006	.056 to .328	Elsewhere	2.8 (1.64)	PED ED	3.6 (1.57)
Profession	.409	.073	.120	<.001	.266 to .552	Nurses	3.3 (1.57)	Physicians	3.2 (1.70)
Recent training	.591	.115	.091	<.001	.365 to .817	No	3.2 (1.65)	Yes	3.8 (1.64)
Experience (in years)	.006	.003	.037 ^a	.043	.000 to .012		.10		

Final Model	<i>B</i>	<i>SE B</i>	β	<i>P</i> Value	95% CI for <i>B</i>
Constant	1.603	.095		<.001	1.416 to 1.790
Gender	.182	.070	.054	.010	.044 to .319
Country Income	1.495	.083	.392	<.001	1.333 to 1.658
Pediatric ED	.209	.067	.063	.002	.078 to .340
Profession	.404	.073	.118	<.001	.261 to .546
Recent training	.601	.115	.092	<.001	.375 to .827

Abbreviations: ED, Emergency Department. LMIC = low/middle income country. HIC = high income country. Non-acad. = non-academic hospital. PED ED = Pediatric ED. Yes = training in psychosocial care within the past 5 years. Note: $N = 2648$. ^aNo longer significant when 'Academic hospital' was removed from the model. Adjusted R^2 of the final model = .18, $F(5,2642) = 116.95$, $p < .001$. *B* values represent the change in knowledge scores given a one unit change in the predictor variable (i.e. the tipping point is at 0, not at 1 as is commonly seen with odds ratios). Univariate means (e.g. regarding profession) do not fully match multivariate outcomes due to interrelations.

Table 4. Respondents' view of psychosocial care aspect as part of their job.

Aspect of psychosocial care	‘not my job’ (%)
1. Respond calmly and without judgment to a child’s or family’s strong emotional distress	1.2
2. Talk with children in age appropriate language	1.0
3. Tailor your approach according to a family's cultural background	1.0
4. Assess and manage pain in children	1.4
5. Explain procedures to children and parents	1.2
6. Inform a child about an injured / deceased family member	4.2
7. Help a child / parent who is anxious to calm down by teaching relaxation (e.g. breathing) techniques	1.4
8. Assess a child’s or family’s distress, emotional needs, and support systems	1.7
9. Elicit trauma details from a child or family without them being exposed to more distress	1.2
10. Respond to a child's (or parent's) question about whether the child will die	1.6
11. Liaise with staff who can provide practical assistance to a family (e.g. Social Work)	2.7
12. Take action to get someone close (a parent, family member or friend) available to the child in the ED	1.9
13. Encourage parents to make use of their own social support system (family, friends, spiritual community, etc.)	1.1
14. Educate children and families about common traumatic stress reactions	2.2
15. Teach parents or children specific ways to cope with procedures in the ED	1.5
16. Provide information to parents about emotional or behavioral reactions that indicate that the child may need help (when back at home)	2.4
17. Educate parents or children about how to access mental health services if needed	2.6
18. Manage your own emotional responses to children's pain and trauma	0.9

Abbreviation: ED, Emergency Department. Note. $N = 2648$. The five aspects of psychosocial care that had the highest percentages, are highlighted.

Table 5. Respondents' level of confidence regarding aspects of psychosocial care

How confident are you that you can...	% Not at all (1)	% A little (2)	% Moderately (3)	% Very (4)	Mean score^a (SD)
1. Respond calmly and without judgment to a child's or family's strong emotional distress	2.4	8.0	37.7	51.9	3.4 (.74)
2. Talk with children in age appropriate language	0.0	6.4	24.9	67.8	3.6 (.65)
3. Tailor your approach according to a family's cultural background	1.7	13.2	49.8	35.2	3.2 (.72)
4. Assess and manage pain in children	1.9	7.3	31.8	59.0	3.5 (.71)
5. Explain procedures to children and parents	0.7	3.7	21.1	74.5	3.7 (.57)
6. Inform a child about an injured / deceased family member	9.3	25.2	40.0	25.6	2.8 (.92)
7. Help a child / parent who is anxious to calm down by teaching relaxation (e.g. breathing) techniques	6.4	23.4	42.8	27.3	2.9 (.87)
8. Assess a child's or family's distress, emotional needs, and support systems	3.2	19.6	48.2	29.0	3.0 (.78)
9. Elicit trauma details from a child or family without them being exposed to more distress	4.3	22.8	50.1	22.9	2.9 (.79)
10. Respond to a child's (or parent's) question about whether the child will die	5.0	21.5	45.5	28.1	3.0 (.84)
11. Liaise with staff who can provide practical assistance to a family (e.g. Social Work)	6.9	9.0	26.7	57.3	3.3 (.91)
12. Take action to get someone close (a parent, family member or friend) available to the child in the ED	1.8	5.0	29.1	64.0	3.6 (.67)
13. Encourage parents to make use of their own social support system (family, friends, spiritual community, etc.)	2.2	11.4	41.3	45.0	3.3 (.75)

14. Educate children and families about common traumatic stress reactions	11.8	37.4	36.8	14.0	2.5 (.88)
15. Teach parents or children specific ways to cope with procedures in the ED	3.1	20.7	46.2	30.0	3.0 (.79)
16. Provide information to parents about emotional or behavioral reactions that indicate that the child may need help (when back at home)	12.3	36.6	34.9	16.3	2.6 (.91)
17. Educate parents or children about how to access mental health services if needed	8.1	30.2	40.9	20.8	2.7 (.88)
18. Manage your own emotional responses to children's pain and trauma	2.4	12.4	44.9	40.4	3.2 (.75)

Abbreviations: ED, Emergency Department. Note: $N = 2538 - 2643$ respondents who perceived the aspect of psychosocial care as part of their role. Standard deviations of the mean scores are given between brackets. The five aspects of psychosocial care that had the lowest mean scores have been highlighted. ^aOverall mean score: 3.1 ($SD = .49$).

Table 6. Respondents' total confidence score in relation to their characteristics: initial and final multiple regression models.

Initial Model	<i>B</i>	<i>SE B</i>	β	<i>P</i> Value	95% CI for <i>B</i>	Univariate total scores per group / correlations			
Constant	.676	.008		<.001	.660 to .691	<i>Coded '0'</i>	<i>M (SD) / r</i>	<i>Coded '1'</i>	<i>M (SD)</i>
Gender	-.002	.005	-.009	.685	-.012 to .008	Males	3.1 (.52)	Females	3.2 (.47)
Country income	.012	.006	.044	.058	.000 to .024	LMIC	3.0 (.57)	HIC	3.2 (.45)
Academic hospital	.021	.005	.079	<.001	.011 to .030	Non-acad.	3.0 (.52)	Acad.	3.2 (.48)
Pediatric ED	.027	.005	.119	<.001	.017 to .037	Elsewhere	3.0 (.52)	PED ED	3.2 (.45)
Profession	-.017	.005	-.072	.001	-.028 to -.007	Nurses	3.2 (.46)	Physicians	3.1 (.51)
Recent training	.065	.008	.143	<.001	.049 to .081	No	3.1 (.49)	Yes	3.4 (.47)
Experience (in years)	.003	.000	.213	<.001	.002 to .003		.22		

Final Model	<i>B</i>	<i>SE B</i>	β	<i>P</i> Value	95% CI for <i>B</i>
Constant	.682	.003		<.001	.669 to .694
Academic hospital	.021	.005	.081	<.001	.011 to .031
Pediatric ED	.031	.004	.135	<.001	.022 to .040
Profession	-.020	.004	-.085	<.001	-.029 to -.011
Recent training	.065	.008	.143	<.001	.049 to .081
Experience (in years)	.003	.000	.220	<.001	.002 to .003

Abbreviations: ED, Emergency Department. PED ED = Pediatric ED. Yes = training in psychosocial care within the past 5 years. LMIC = low/middle income country. HIC = high income country. Non-acad. = non-academic hospital. Note: $N = 2643$. Adjusted R^2 of the final model = .11, $F(5,2637) = 66.74$, $p < .001$.

Table 7. Respondents' views of their Emergency Department's performance.

General aspects	Poor (1) (%)	Fair (2) (%)	Good (3) (%)	Excellent (4) (%)	Mean (SD)
1. Providing psychosocial care to injured children and their families	12.9	31.9	42.7	12.4	2.5 (.87)
2. Helping staff manage their own emotional responses to patients' pain and trauma	16.1	35.0	39.3	9.6	2.4 (.87)
3. Using scientific evidence as a basis for psychosocial care for patients and staff	26.9	39.1	28.4	5.6	2.1 (.87)
Specific aspects (8 elements of PFA)					
1. Contact and engagement	6.5	24.5	50.1	19.0	2.8 (.81)
2. Safety and comfort	5.3	24.2	48.5	22.0	2.9 (.81)
3. Stabilization	4.1	23.8	50.5	21.6	2.9 (.78)
4. Information gathering on current needs & concerns	8.1	26.8	47.8	17.4	2.7 (.84)
5. Practical assistance	8.1	28.0	45.1	18.8	2.7 (.85)
6. Connecting children/families with social supports	14.1	27.7	41.5	16.7	2.6 (.92)
7. Giving information on coping	18.0	40.7	33.7	7.6	2.3 (.85)
8. Linking children/families with collaborative services	17.5	33.1	37.3	12.2	2.4 (.92)

Abbreviation: PFA = Psychological First Aid
 Note: $N = 2566 - 2621$ respondents who perceived the aspect of psychosocial care as part of the Emergency Department's role.

Table 8. Respondents' training preferences.

Training mode	1st preference (%)	2nd preference (%)	1st or 2nd preference (%)
Online: interactive website (e.g. webinar, video examples, quizzes)	25.0	18.6	43.6
Group training in-person in one block of hours	23.4	16.9	40.3
Online: website and written information	16.0	17.0	33.0
Group training in-person spread over a number of weeks	13.1	15.6	28.7
A book on the topic	7.8	10.5	18.3
Individual mentor sessions with an experienced clinician of my own profession	9.3	7.1	16.4
Individual mentor sessions with a mental health clinician	5.6	7.4	13.0
No second preference		6.9	
<i>Total</i>	<i>100.0</i>	<i>100.0</i>	

Note: $N = 2466$ respondents who indicated a wish for training. The training modes are ordered from most to least popular as 1st or 2nd preference.