



## Mental health of children held at a United States immigration detention center



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### ABSTRACT

**Rationale;** Children held in immigration detention may be at risk for mental health disorders due to the impacts of pre-migration factors, including exposure to violence, their displacement from their home countries, their journey between countries, and the conditions of their detention. Limited research has demonstrated high rates of clinical depression, post-traumatic stress disorder (PTSD), and anxiety disorders among detained immigrant children.

**Objective;** In this cross-sectional study, we assessed the mental health of children held at a US immigration detention center over two months in mid-2018.

**Method;** We interviewed 425 mothers about their eldest child age 4–17 using the Parent-Report Strengths and Difficulties Questionnaire (SDQ). A subset of 150 children age  $\geq 9$  completed the UCLA Post-Traumatic Stress Disorder Reaction Index (PTSD-RI).

**Results;** Among the 425 children studied, many demonstrated elevated scores for emotional problems (32%), peer problems (14%) and total difficulties (10%) on the SDQ. Younger children (age 4–8 years) demonstrated more difficulties associated with conduct, hyperactivity, and total difficulties (all  $p < 0.001$ ) compared to older children. Children who had been forcibly separated from their mothers demonstrated significantly more emotional problems (49%,  $p = 0.003$ ) and total difficulties (15%,  $p = 0.015$ ) than those who had never been separated. Of the 150 children who completed the PTSD-RI, 17% had a probable diagnosis of PTSD. In all, nearly half (44%) of all children demonstrated at least one emotional or behavioral concern.

**Conclusions;** These data demonstrate that children being held in immigration detention experience high levels of mental health distress. Results suggest they would benefit from more comprehensive mental health screening and release into the community, as well as culturally-responsive and trauma-informed mental health care.

### 1. Introduction

Immigrant children who are newly arrived in the United States demonstrate more positive developmental outcomes, such as resiliency and positive academic attitudes, than their U.S.-born peers (Marks et al., 2014). However, several environmental factors could contribute to the development of psychological distress in these children and their families once in the U.S. In addition to exposure to acculturation stressors (Alegria and Woo, 2009; Suárez-Orozco and Suárez-Orozco,

2001), immigrants may also encounter deleterious medical and mental health outcomes associated with perceived discrimination (Pascoe and Smart Richman, 2009). Latinx immigrants also face health disparities driven by state-level immigration policies (Philbin et al., 2018). Furthermore, immigration policy and fears associated with deportation may increase the risk of emotional distress among immigrants who enter the U.S. without inspection or who remain without a valid visa (Cavazos-Rehg et al., 2007; Martinez et al., 2015). The forced dislocation from family, communities, and employment associated with

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deportation from the U.S. is also related to negative mental health outcomes (Bojorquez et al., 2015; Morris and Palazuelos, 2015).

Beginning in 2014, there have been significant increases in the number of individuals and families from Guatemala, El Salvador, and Honduras seeking asylum in the U.S. (Mossaad and Baugh, 2018). Many women and children fleeing these nations have reported experiencing human rights violations in their countries of origin associated with gang-related and intimate partner violence in the context of unresponsive law enforcement and government presence (UNHCR, 2014, 2015). Asylum seekers may experience a range of mental health outcomes associated with their experiences of persecution (PHR, 2012). They may continue to be emotionally affected by trauma experienced in their home countries, as well as the dangers and violence they often encounter during migration (Temores-Alcantara et al., 2015). In addition, the very process of seeking asylum may also contribute to their psychological distress, as survivors are required to participate in potentially retraumatizing asylum interviews or adversarial immigration hearings (Schock et al., 2015).

The U.S. has also increased its capacity to detain immigrant families seeking asylum through the creation of more detention centers specifically designated for women and children over the past five years (Eagly et al., 2018). Asylum seekers in expedited removal are held in U.S. immigration detention while they await a screening interview for credible fear, where an asylum officer evaluates whether the asylum seeker has a credible fear of persecution or torture upon returning to their country of origin (HRF, 2018). This step is the first to determine eligibility for asylum. Adults and children being held in immigration detention demonstrate high rates of deleterious mental health outcomes such as depression and anxiety (Keller et al., 2003; Mares and Jureidini, 2004). Studies conducted outside the U.S. have shown that detained immigrant children present with a high prevalence of depression/anxiety (10%) and post-traumatic stress disorder (PTSD, 20%) (Buchmuller et al., 2018; Sen et al., 2017). Research findings also indicate that children held in immigration detention settings may experience social, emotional, and behavioral difficulties at higher rates than those seen in the community (Sarkar and Gupta, 2017; Zwi et al., 2018).

To our knowledge, there have been no large empirical studies that have evaluated the mental health of children in immigration detention in the U.S. Previous studies documenting the mental health of children in U.S. immigration detention, though compelling, have been largely qualitative and anecdotal (Brabeck et al., 2014), or have been from the perspective of lawyers in the field (Baily et al., 2014). Furthermore, experts assert that the controversial policy of forcibly separating children from their parents at the U.S.-Mexico border is detrimental to children's health and wellbeing (MacKenzie et al., 2017), therefore prospective research on the effects of this policy is needed. Given the significant environmental factors that may contribute to the development of psychological difficulties in these children, we sought to understand the current state of mental health in this population.

## 2. Method

We conducted a cross-sectional evaluation study of children held at an immigration detention center over two months in mid-2018. This center detains women who are accompanied by at least one child under the age of 18 in U.S. Immigration and Customs Enforcement (ICE) custody. We interviewed a convenience sample of 425 mothers who presented to the visitation center of the detention center. Mothers were eligible to participate if they spoke English or Spanish and if one of their children detained with them was between 4 and 17 years of age. The purpose of the study was stated explicitly to mothers, and they were informed that their participation and responses would not impact their legal proceedings. Mothers who volunteered to participate provided informed written consent and were interviewed in private rooms or other areas of the visitation center that ensured confidentiality. Nine

mothers refused to participate. During the time period of this study, 17% of the children included in the sample had been previously separated from their mothers. At the time of interviews, a subset of these families had been recently reunited. All consenting mothers completed a demographic survey that included items related to country of origin, age of children, and date of arrival at the detention center. Mothers were then asked questions about their eldest child with them at the detention center.

Each mother completed the English or Spanish parent-report version of the Strengths and Difficulties Questionnaire (SDQ), a 25-question screening instrument widely used internationally in children age 4–17 years (Goodman, 2001) and among refugee children (Zwi et al., 2017). The survey includes items that assess the child's behavior and possible responses are recorded as “not true” (0), “somewhat true” (1), and “certainly true” (2). Based on these responses, each participant received a score indicating total difficulties and a score for the subscales of emotional problems (e.g., feeling unhappy or having excessive fears), conduct problems (e.g., being disobedient), hyperactivity (e.g., being restless or easily distracted), and peer problems (e.g., preferring to play alone). Participants also received a prosocial score, which assesses behaviors such as sharing with other children and volunteering to help others. Consistent with the scoring of the SDQ, the resulting scores were assigned to the “normal,” “borderline,” or “abnormal” category for total difficulties and each subscale. Cutoff scores were originally designed such that roughly 80% of children's scores fall within the “normal” range, 10% within the “borderline” range, and 10% within the “abnormal” range (Goodman, 1997).

A subset of 150 children aged 9–17 years also assented to participate in the study following the informed written consent for their participation by their mothers. These children were part of a convenience sample of children who were in the visitation center at the time of their mothers' interviews. The children completed the UCLA Post-Traumatic Stress Disorder Reaction Index (PTSD-RI) Symptom Scale, a 27-question screening tool used widely to assess symptoms of PTSD in children (Steinberg and Beyerlein, 2013), including refugee children (Ellis et al., 2006). Children were asked how frequently they experienced core symptoms of PTSD in the past month, with possible responses of “none” (0), “little” (1), “some” (2), “much” (3), and “most” (4). A symptom was considered “present” with a rating of 3 or 4. Participants met the criterion for Category B (reexperiencing) if  $\geq 1$  symptom was present and for Category C (avoidance) if  $\geq 1$  symptom was present. Participants met the criterion for Category D (negative alterations in cognition and mood) if  $\geq 2$  symptoms were present and for Category E (increased arousal) if  $\geq 2$  symptoms were present. A probable clinical diagnosis of PTSD was determined by meeting the criteria for all 4 categories (Steinberg & Beyerlein, 2013). Because a clinical assessment to establish a formal diagnosis of PTSD was not included in this study, the term “probable PTSD” will be used when referring to prevalence.

We describe sociodemographic characteristics with frequencies and percentages. We examined the prevalence of outcomes for the SDQ and PTSD-RI subscales. Cronbach's alpha for the SDQ and PTSD-RI were 0.768 and 0.908, respectively. Covariates included age, gender, country of origin, and previous separation from the child's mother. We considered results to be significant if  $p < 0.05$ . All analyses were performed using IBM SPSS (version 24).

The research protocol, survey, and consent forms were reviewed and approved by the Institutional Review Board at the Icahn School of Medicine at Mount Sinai. All participants provided written, informed consent.

## 3. Results

Most mothers were from Honduras (50%), El Salvador (23%), or Guatemala (22%), which is consistent with the overall population of residents at this detention center (Table 1). The average age of the

**Table 1**  
Demographic statistics related to the mothers and children ( $N = 425$ ).

Dimension	<i>n</i>	Percentage
<b>Country of origin</b>		
Honduras	213	50%
Guatemala	92	22%
El Salvador	97	23%
Nicaragua	7	2%
Mexico	7	2%
Cuba	5	1%
Other: Venezuela, Peru, Nigeria, Brazil	4	1%
<b>Mother's age (years)</b>		
20-29	147	35%
30-39	209	49%
40-49	65	15%
50-56	4	1%
<b>Child's age (years)</b>		
4-8	155	36%
9-12	144	34%
13-17	126	30%
<b>Total number of detained children with mother</b>		
1	346	81%
2	69	16%
3	10	2%
<b>Time from arrival at detention center to interview (days)</b>		
1-9	260	61%
10-19	151	35%
20-29	8	2%
30-39	4	1%
40-44	2	1%
<b>Mothers' stated reason(s) for fleeing country of origin</b>		
Gang violence	327	77%
Domestic abuse	141	33%
Persecution due to political opinion	14	3%
Poverty or to seek a better life	9	2%
Racial or religious discrimination	5	1%
Other	20	4%
<b>Previously separated and transferred from other detention centers</b>	73	17%

mothers and children were 33 ( $SD = 7$ ) and 10 ( $SD = 4$ ) years, respectively. At the time of interviews, families had been detained at the center for between one and 44 days, with an average detention of nine ( $SD = 6$ ) days.

Based on their mothers' responses to the SDQ, the children in this study demonstrated high rates of emotional problems (32%), peer problems (14%), and total difficulties (10%) that fell within the “abnormal” range (Table 2). Rates of conduct problems and hyperactivity were each 8%. Children did not differ significantly based on gender or country of origin. Children aged 4–8 years showed higher rates of conduct problems (15%), hyperactivity (14%) and total difficulties (21%) that fell within the “abnormal” range compared to older children (all  $ps < 0.001$ ). Compared to children who never had been separated from their mothers, children who had been separated showed higher rates of emotional problems (49% vs. 29%,  $p = 0.003$ ) and total difficulties (15% vs. 9%,  $p = 0.015$ ) that fell within the “abnormal” range. Notably, the majority of participants' scores (98%) fell within the “normal” range on the prosocial scale.

Among the subset of 150 children who completed the PTSD-RI, the mean age was 13.4 ( $SD = 2$ ) and 37 (25%) had been previously separated. Many met the criteria for avoidance (57%), reexperiencing (52%), negative alterations in cognition and mood (42%), and increased arousal (22%). Based on the presence of symptoms of these 4 subscales, 17% of the children had a probable diagnosis of PTSD. An additional 19% and 18% met two and three of the criteria, respectively (Table 3). Results of the PTSD-RI did not differ significantly based on age, gender, previous separation from mother, or country of origin. Based on overall responses to both the SDQ and PTSD-RI, we found that 44% of children presented with symptoms that fell within the “abnormal” range on at least one of the SDQ subscales or a probable PTSD diagnosis.

#### 4. Discussion

The children of mothers who were interviewed at this detention center showed higher rates of emotional and behavioral difficulties, as well as PTSD, compared to children in the general U.S. population; notably, the mean emotional symptoms subscale and total difficulties scores for the participants were higher than those seen in U.S. primary care populations (Biel et al., 2015; Simpson et al., 2005; Youthmind, 2004). While approximately 5% of children in the U.S. have emotional or behavioral difficulties, the rate of abnormal total difficulties in the study population was 10% (Simpson et al., 2005). Furthermore, the lifetime prevalence of PTSD among adolescents in the U.S. is estimated at 4.7%, far below the 17% seen in this sample (see Table 3) (McLaughlin et al., 2013). Average total difficulty scores for the participants (8.90 [SD 5.88]) were higher than those seen in Spanish-speaking Latinx Americans who are not in detention (6.80 [SD 5.00]) (Strand et al., 2015). The high rates of abnormal emotional (32%) and peer problems (14%) seen in this sample are consistent with high rates of abnormal scores for these subscales in refugee children in Australia (23% and 21%, respectively) (Yalin Sapmaz et al., 2017; Zwi et al., 2017). The high rate of probable PTSD (17%) in this study group is also consistent with a high rate (20%) among children held in immigration detention in the United Kingdom (Sen et al., 2017). Of note, 98% of children had normal scores on the prosocial scale, which includes items such as being considerate of others' feelings and volunteering to help others.

Due to the cross-sectional nature of this study, we cannot draw causal connections between arrival in the U.S., time in immigration detention, and the development of behavioral or emotional difficulties. Regardless of cause, the distress seen in these children highlights the need for immediate mental health treatment, as early intervention in children who demonstrate signs of psychological difficulties is shown to improve long-term emotional health (Terr, 2013).

Of particular concern, these results demonstrate heightened distress among detained children aged 4 to 8. Young children are particularly vulnerable to the effects of their environment, and trauma experienced early in life has a significant effect on emotional and behavioral development (Oral et al., 2016). These children, especially, would benefit from early, developmentally-appropriate, and specialized interventions to address these significant stressors. Given the range of exposure to violence reported by children fleeing Honduras, Guatemala, and El Salvador (UNHCR, 2014), as well as the high rates of violence experienced by migrants from these countries during their journey to the U.S. (MSF, 2017), it is essential that these young people receive treatment specific to ameliorating the impact of posttraumatic stress.

Children who had been separated from their mothers demonstrated a significantly greater number of emotional symptoms and total difficulties when compared to detained children who had not been separated from their mothers, suggesting that separation is associated with an increase in psychological distress. When the U.S. government began separating more migrant children from their parents in May 2018, the American Academy of Pediatrics, American College of Physicians, and American Psychological Association each released statements condemning the policy (Kraft, 2018; Lopez, 2018; Stewart, 2018). These professional organizations, as well as individual clinical practitioners, warn of the deleterious mental health outcomes associated with forcibly removing children from the security of their families in both the short and long-term (MacKenzie et al., 2017). Our results, although correlational in nature, appear to confirm these findings, at least in the short-term, and reinforce expert opinion that separating immigrant children from their parents causes emotional harm.

Current published guidelines from ICE, last updated in 2007, indicate that each person held in immigration detention should receive an intake screening and referral to a mental health provider, either in the detention center or at an outside location if deemed necessary (ICE, 2007). Given that some of the children in this study expressed severe

**Table 2**  
Results of the strengths and difficulties questionnaire (N = 425).

Subscale	Mean (SD)	Category (Score)	Total n	Age (Years)				Previously Separated from Mother				
				4 to 8 (n = 155)	9 to 12 (n = 144)	13 to 17 (n = 126)	<i>p</i> *	No (n = 352)	Yes (n = 73)	<i>p</i> *		
			n	n	n	n	N	n	n	n	n	n
Emotional symptoms	3.50 (2.69)	Normal (0–3)	226	89	75	62	198	28	9	28	28	38
		Borderline (4)	62	19	22	21	53	9	9	9	12	12
Conduct problems	0.94 (1.49)	Abnormal (5–10)	137	47	47	43	101	36	36	36	49	49
		Normal (0–2)	371	118	131	122	307	64	64	64	88	88
Hyperactivity	2.85 (2.45)	Borderline (3)	20	14	5	1	17	3	3	3	4	4
		Abnormal (4–10)	34	23	8	3	28	6	6	6	8	8
Peer problems	1.61 (1.79)	Normal (0–5)	356	113	121	122	296	60	60	60	82	82
		Borderline (6)	33	20	9	4	27	6	6	6	8	8
Total Difficulties	8.90 (5.88)	Abnormal (7–10)	36	22	14	0	29	7	7	7	10	10
		Normal (0–2)	327	111	112	104	278	49	49	49	67	67
Prosocial	9.36 (1.21)	Borderline (3)	37	14	17	6	28	9	9	9	12	12
		Abnormal (4–10)	61	30	15	16	45	15	15	15	21	21
Previously Separated from Mother	0.051	Normal (0–13)	346	110	118	118	295	51	51	51	70	70
		Borderline (14–16)	35	12	16	7	24	11	11	11	15	15
Previously Separated from Mother	< 0.001	Normal (17–40)	44	33	10	1	33	11	11	11	15	15
		Abnormal (41–44)	419	150	143	126	348	71	71	71	97	97
Previously Separated from Mother	-	Normal (6–10)	2	1	1	0	2	0	0	0	0	0
		Borderline (5)	4	4	0	0	2	2	2	2	3	3
Previously Separated from Mother	-	Abnormal (0–4)	4	1	0	0	2	1	1	1	3	3
		Normal (4–5)	4	1	0	0	2	2	2	2	3	3

\* $\chi^2$  test; **bold:**  $p < 0.05$ .

**Table 3**  
Results of the UCLA PTSD reaction index ( $N = 150$ ).

Subscale	Maximum Possible Score	Mean ( <i>SD</i> )	Percent of Maximum Possible	Criterion	Criterion Met <i>n</i>	Criterion Met Percentage
Re-experiencing	20	7.27 (5.39)	36%	≥ 1 symptom	78	52%
Avoidance	8	3.37 (2.12)	42%	≥ 1 symptom	85	57%
Negative alterations in cognition and mood	28	8.39 (5.37)	30%	≥ 2 symptoms	63	42%
Increased arousal	24	4.87 (4.16)	20%	≥ 2 symptoms	33	22%
Total score	80	23.89 (14.67)	30%			
				2 criteria met	29	19%
				3 criteria met	27	18%
				4 criteria met	25	17%
Probable PTSD diagnosis						

emotional distress and anecdotally expressed difficulty obtaining further mental healthcare within the facility, current screening methods and/or current treatment services are likely inadequate in quality and scope. Therefore, further clarification from ICE is required regarding the nature of available treatment, as well as the extent to which clinicians who receive referrals have training in child psychology or psychiatry, demonstrate cultural-competence, and integrate a trauma-informed lens in their interventions. Moreover, given the continued stressors associated with detention, these children would benefit from specialized mental health treatment outside of immigration detention settings. Indeed, many experts recommend that children be placed in the community while their immigration cases proceed and we believe our findings add further credence to this position (Linton et al., 2017).

**Limitations.** Given the design of this study and the restrictions of conducting research in an immigration detention center, our results must be interpreted in the context of several limitations. The participants represent a convenience sample of the population of families, and only those mothers who presented to the visitation center could be recruited for participation. In addition, due to the nature of the setting, some mothers completed the SDQ in their child's presence, which may have influenced the mothers' responses. Additionally, only a subset of older children was asked to complete the PTSD-RI, as many were attending classes at the facility's school at the time of their mothers' interviews.

## 5. Conclusions

Despite the limitations, this is one of the first studies of the mental health of a particularly vulnerable population of children being held in immigration detention in the U.S. Our results demonstrate that detained children, and especially those previously separated from their mothers, experience significant psychological distress. Prior studies have demonstrated that detention is deleterious to the mental health of immigrants (Keller et al., 2003; Sen et al., 2017). We theorize that the trauma in this population is observed as a continuum, involving the pre-migration experiences of the subjects in their countries of origin, their migration experiences, and their subsequent detention in the U.S. Against this background of trauma, detention and denial of adequate mental health treatment are detrimental to the development of these children.

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