Prevalence and Correlates of Posttraumatic Stress in Parents of Young Children Postburn

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This study examined the prevalence and correlates of posttraumatic stress symptoms (PTSS) in the parents of very young children who sustained a minor to moderate size burn injury. Although prior research has explored this relationship in families of children with major burns, only minimal research has focused on children with minor to moderate injuries. Forty-five parents of young children (<6 years) with a burn injury (mean TBSA = 2.67%, SD = 2.40) completed questionnaires regarding PTSS and demographics at an outpatient burn clinic. Injury-related information was collected from medical records. Parents reported clinically significant levels of PTSS, although in most cases, full diagnostic criteria for posttraumatic stress disorder were not met. The amount of distress was related to the age of the child at burn, child PTSS, and the source of burn. Variables such as size of burn, days spent as inpatient, or parental presence at the time of burn were not found to be related to parental distress. PTSS assessment should be made mandatory for all parents of young children experiencing a burn injury, regardless of size and severity of burn or parental presence at the time of burn. (J Burn Care Res 2013;34:299–306)

Parents of children experiencing a burn injury have been shown to be at risk for psychological maladjustment, including symptoms of posttraumatic stress.[1,2] The rates of parental posttraumatic stress disorder (PTSD) have been found to range between 12 and 52% following their child's burn injury,[2,3] and these rates are higher compared to parents of children experiencing other types of injury.[4] Additionally, Hall and colleagues[1] found that nearly one-half of parents whose children experienced a burn injury, with an average 16.9% TBSA burned, reported some posttraumatic stress symptoms (PTSS) 3 months postinjury. The presence of PTSS among parents of children with moderate to large size burns, more than 10% TBSA, has been well documented in past studies. However, research on PTSS among parents of children with smaller burns, less than 10% TBSA, has been lacking, which represents more than 85% of pediatric burn admissions.[5]

Past research has suggested several factors as predictors of parental PTSS following a child's burn injury.[2,6] For example, Rizzone and colleagues[2] suggested that TBSA is the strongest predictor of symptoms, and the influence of this variable is greater than either the parent's physical proximity to the child during the event or the parent's perceived social support and stress. However, this association between size and severity of burn and PTSS has not been universally supported, and research regarding the broad spectrum of traumatic events has suggested that the severity of the traumatic event may not significantly affect parental adjustment following an event.[7] Therefore, further research is needed to identify whether parents of children with minor to moderate size burns may still be at risk for development of PTSS. Furthermore, prior research has suggested that additional familial stressors such as child behavior problems[8] may affect parental adjustment following a child's burn injury. Therefore, further research is also needed to identify whether other additional stressors

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or protective factors such as parental stress prior to the child's burn injury or social support are related to parental development of PTSS.

Parental PTSS has been found to be related to child levels of PTSS.[1,9] For example, Saxe and colleagues[9] suggest that parental symptoms of acute stress following the child's injury may lead to the development of later child PTSS. Additionally, Hall and colleagues[1] suggest that child symptoms serve as the pathway to the development of parental symptoms. Regardless of directionality, the presence of PTSS in parents or children following a burn injury may complicate medical treatment. For example, parental distress has been related to nonadherence in pediatric medical conditions,[10] and parental PTSS has been suggested to affect mothers' perceived capability to care for a child with a burn injury.[2]

The current study contributes to knowledge regarding PTSS in parents of children who have experienced burns by assessing symptoms in a sample with burns less than 10% TBSA, a group that is typically understudied. This group represents the largest burn demographic, and understanding the experiences of these families is necessary for establishing comprehensive knowledge of the adjustment of parents whose children sustained a burn injury.[5] The current study explored whether the relationships previously demonstrated in samples of pediatric patients with larger burn sizes could be replicated in a sample with less severe burns (eg, association between parent and child PTSS, relationship between TBSA and PTSS). Additionally, the relationship between familial support and familial stress prior to the burn injury and parental PTSS was assessed. This study is also unique in that it focuses specifically on very young children, who represent upward of 50% of burn cases in the United States.[11,12]

METHODS

Procedures

Participants were recruited while attending outpatient appointments at an American Burn Association–certified burn clinic located in a large midwestern children's hospital. Eligible participants were parents with a child under the age of 6 years who experienced a burn injury covering less than or equal to 10% TBSA at least 2 weeks but no more than 1 year prior to study recruitment. Participants also needed to have an understanding of the English language to complete study measures. Parents meeting eligibility criteria were approached in the burn clinic's waiting room and were presented with information regarding the study. If more than one parent was present with a single child, only one parent was asked to complete study measures, and the researcher suggested that the parent spending a greater amount of time with the child complete the forms. After informed consent was obtained, participants completed all study measures, and information regarding medical variables (eg, size of burn, cause of burn) was obtained from the child's medical records. Completion of the parent measures took approximately 60 minutes. Parents were encouraged to complete measures at the clinic while the children were waiting for their services, although two parents chose to mail their completed forms to researchers. Parents were given $10 on completion of study measures to compensate them for their time. Study procedures were approved by the institutional review boards of the hospital at which data collection occurred and the university affiliation of the principal and coprincipal investigators.

Sample Characteristics

Sixty parents met the criteria for study participation, of which 56 caregivers (93.33%) consented to study participation in a larger study. Of these participants, 11 (19.64%) caregivers chose not to complete the measures used in the current analysis. Therefore, data from 45 of the 60 (75%) families present at the burn clinic, and who were eligible for this study during the data collection period, were used to complete the data analysis. Data collection occurred an average of 53.96 (SD = 72.53) days following the burn injury.

Thirty-seven mothers (82.22%) and eight fathers (17.78%) completed the study measures (mean age = 27.68, SD = 6.73). The children experiencing burns were 14 (31.11%) females and 31 (68.89%) males, with a mean age of 21.85 months (SD = 12.50, range = 2.79–55.06 months) at the time of burn. Twenty children (44.44%) experienced a contact burn, 12 (26.67%) a scald burn, 9 (20.00%) a friction burn, and 4 (8.89%) a flame burn. TBSA for the sample ranged from less than 1 to 9% with a mean of 2.67% (SD = 2.40). Children spent an average of 3.51 (SD = 5.94) days as inpatients following their injuries. Regarding injuries that potentially resulted from abuse or parental neglect, information on whether injuries were reported to the Child Protective Services or further investigated was not collected for each participant to protect patient confidentiality. However, the hospital at which data collection occurred has very few cases where the injury is suspected to be the result of abuse. For example, of all cases seen in the inpatient burn unit in 2011,

only 152 were referred for further evaluation by a child abuse evaluation team to identify the potential of abuse. The child abuse evaluation team was able to rule out the potential of abuse in 142 of these cases, and only 10 cases could not be ruled out as potential abuse. No incidents were reported to Child Protective Services. No cases that were seen only in the outpatient clinic were reported as abuse. Table 1 summarizes additional demographic characteristics and medical variables of the study participants.

Measures

PTSD Checklist Stressor-Specific Version. The PTSD Checklist Stressor-Specific version (PCL)-S was used to assess parental symptoms of posttraumatic stress following their child's burn injury.[13] The PCL-S consists of 17 items that assess symptoms of PTSD as described by the *Diagnostic and Statistical Manual of Mental Disorders*, 4th edition (*DSM-IV-TR*). For each item, participants rated how much they have been bothered by a particular symptom in the past month on a scale of 1 (not at all) to 5 (extremely). The measure consists of three subscales—reexperiencing, avoidance, and hyperarousal—as well as a total score. High internal consistency has been demonstrated in previous studies for all subscales with Cronbach's α coefficients ranging from 0.85 to 0.87 for subscales and an α coefficient of 0.94 for the total score.[14] In the current study, Cronbach's α was 0.93 for the total symptom score. Convergent validity has been demonstrated for the PCL-S through high correlations between the PCL-S and the Impact of Event Scale[15] and the Mississippi Scale for PTSD, civilian version,[16] as well as a significant positive correlation between the total PCL-S score and the number of traumatic events experienced. Test–retest reliabilities have been calculated for 1 hour, 1 week, and 2 weeks, and coefficients were 0.92, 0.88, and 0.68, respectively.[14] This measure has been used previously to assess PTSS in parents of children experiencing a burn.[1]

In the current study, parents completed the PCL-S within 14 to 360 days following the burn event. Those who completed the PCL-S within 1 month of the event could be more accurately described as experiencing symptoms of acute stress disorder (ASD) as opposed to symptoms of PTSD.[17] The size of the current sample prevented the need for a separate analysis for each group. However, group mean comparisons were conducted between those participants less than 31 days postburn (experiencing ASD symptoms) and those equal to or greater than 31 days postburn (experiencing PTSD symptoms). No differences were found between the groups on the average number of parental PTSS experienced as measured by the total symptom score of the PCL-S (F (1, 43) = 2.84, P = .10), and the correlation between the number of days postburn and parent symptoms was also nonsignificant (r = –.17, P = .28). Therefore, for simplicity of reporting results, all stress reactions measured by the PCL-S will be referred to as "posttraumatic stress symptoms."

Child Stress Disorders Checklist. The Child Stress Disorders Checklist (CSDC) was completed by parents to assess PTSS in their child experiencing the burn.[18] The checklist consists of 36 items regarding child behavior that the parents rated as either 0 (not true), 1 (somewhat or sometimes true), or 2

Table 1. Demographic characteristics and medical variables of participants (N = 50)

	n	%
Family variables		
Child ethnicity		
Caucasian	26	57.78
African American	12	26.67
Biracial	7	15.56
Parent ethnicity		
Caucasian	30	66.67
African American	11	24.44
Biracial	2	4.44
Asian American	1	2.22
Missing values	1	2.22
Parent education		
Some high school	6	13.33
High school diploma	9	20.00
Trade school	1	2.22
Some college	14	31.11
College degree	10	22.22
Graduate school	4	8.89
Missing values	1	2.22
Family income		
Under $30,000	15	33.33
$30,001–$60,000	8	17.78
$60,001–$90,000	7	15.56
Above $90,001	6	13.33
Missing values	9	20.00
Medical variables		
Hospitalized		
Yes	26	57.78
No	19	42.22
Body location of burn		
Face	7	15.56
Hands	28	62.22
Location where burn occurred		
Child's home	29	64.44
Home of family/friends	10	22.22
Campground	5	11.11
Cookout	1	2.22

(very true or often true). The items of the CSDC create scores for immediate response, reexperiencing, avoidance, numbing and dissociation, increased arousal, impairment in functioning, and a total posttraumatic symptom score. Internal consistency of the total symptom score, as measured by Cronbach's α, was 0.84 in the validation sample[18] and 0.88 in the current sample. The CSDC has been used previously to assess PTSS in young children experiencing a burn.[19]

Psychosocial Adjustment to Burn Questionnaire. The Psychosocial Adjustment to Burn Questionnaire is a 35-item unpublished parent-report screener designed to measure child and parent distress following a burn event.[20] Items are rated on a 5-point Likert scale: 1 (not at all), 2 (a little bit), 3 (moderately), 4 (quite a bit), and 5 (extremely). Two items from the Psychosocial Adjustment to Burn Questionnaire were used in the current study to assess the relationships between parent PTSS and level of family distress prior to the burn event (ie, my friends and/or extended family provide support during difficult times and before the burn event, my family was stressed).

Demographic Form. Parents completed demographic questions regarding socioeconomic status, gender, race, age, family medical and mental health history, and burn injury factors (eg, location where burn occurred, who was present with the child at the time of burn). This information was used to describe the sample and as correlates in data analysis. Information regarding family mental health history was collected via the question, Do you or anyone in your family experience a mental health or behavior-related concern? Participants were then asked to endorse any diagnoses (ie, depression, mental handicap, anxiety, bipolar disorder, PTSD, borderline personality disorder, other) experienced by family members. The number of diagnoses selected was summed to create a composite family mental health variable used in data analysis.

Burn Injury Data. Burn injury information was recorded from the medical records by the researchers to ensure reliability of this information. Burn data retrieved included variables such as TBSA burned, cause of the burn, injury date, and the number of days hospitalized for the injury.

Data Analyses

Analyses to identify the prevalence of clinical level PTSS in the sample and to identify variables associated with the level of parental distress were conducted. Bivariate correlations were computed between total parental PTSS and the following variables: number of days the child spent as inpatient, TBSA burned, number of days since the burn, parent and child age at burn, PTSS of the child experiencing the burn, and family mental health history. One-way between-groups analyses of variance (ANOVAs) were conducted to investigate whether parent gender, parent ethnicity, income, cause of burn (ie, scald, contact, flame, friction), marital status (ie, single, married, divorced/separated), parental presence at the time of the burn injury, or participant ethnicity were associated with the level of symptoms. A one-way between-groups ANOVA was also conducted to investigate the potential relationship between the highest level of participant education and PTSS. To improve the clarity of data analysis, participant education was collapsed before running analyses. As assessed on the demographic form, participants described their highest level of education as "some high school," "high school degree," "trade school," "some college," "college degree," "graduate school," or "other." Given the small sample size and the low number of values within each cell, these categories were collapsed into the following four categories: 1) attended some or completed high school or trade school, 2) attended some or completed an undergraduate college degree, 3) graduate school, and 4) other. Further with regard to the variable of parental ethnicity, the two categories of "biracial" and "Asian American" were collapsed into an "other" ethnicity category when used in data analysis because of the small number of participants in these categories.

Prior to data analysis, the normality of variables was examined, with test statistics of skewness more than 2.58 being deemed as severe skewness warranting transformation of the variable. Using this standard, TBSA, days since injury, parent and child age, days as inpatient, child and parent PTSD, and family mental health history composite score were all skewed. Therefore, these variables were all transformed either through a square root or logarithm, depending on the strength of transformation needed.

RESULTS

Mean parental rating of PTSS on the PCL-S was 23.85 (SD = 9.90), with scores ranging between 17 and 60. A symptom cluster approach had been used in previous research making use of the PCL-S to assess PTSS in parents of children with burns,[1] and so, this method was used in the current study. In this approach, symptoms are identified as clinically significant if the participant is at least "moderately bothered" by at least one reexperiencing cluster symptom, three avoidance cluster symptoms, or two

arousal cluster symptoms, following *DSM-IV-TR* criteria for PTSD. Using these cutoffs, 24.44% of parents experienced clinically significant reexperiencing, 4.44% of parents reported clinically significant avoidance, and 17.78% of parents endorsed clinically significant arousal symptoms. Overall, 28.89% of parents experienced clinically significant symptoms on at least one symptom cluster, and 13.04% of participants had clinically significant symptoms on at least two symptom clusters. Additionally, 4.44% of parents experienced clinically significant symptoms of reexperiencing, avoidance, and arousal, and therefore, met diagnostic criteria for PTSD.

Parental PTSS was found to be associated with child age at the time of burn injury (r = –.38, P = .01) and child PTSS (r =.49, P < .01). Younger child age at burn injury and greater child PTSS were associated with greater parental PTSS. Moreover, parental PTSS was associated with a greater number of family mental health diagnoses (r =.44, P = .01). Total parent PTSS was also found to be significantly related to level of familial stress prior to the burn event, and greater PTSS was associated with greater stress (r =.36, P = .03).

The relationship between the cause of the burn (ie, scald, flame, contact, or friction) and PTSS was statistically significant (F (3, 41) = 3.99, P = .01). Mean symptom scores by cause of burn were as follows: contact (mean = 28.55, SD = 12.99), flame (mean = 23.50, SD = 1.73), scald (mean = 19.75, SD = 3.60), and friction (mean = 19.00, SD = 3.61). One-way ANOVAs were conducted to compare symptoms between particular groups and to identify which sources of burn were related to greater symptoms of distress. Contact burns were related to greater symptoms than both scald burns (F (1, 30) = 5.21, P = .03) and friction burns (F (1, 27) = 4.62, P = .04). Flame burns were also found to have significantly greater symptoms than friction burns (F (1, 11) = 5.46, P = .04). All other Student' t-tests examining differences between groups based on cause of burn were nonsignificant.

Several variables were not found to be related to PTSS. The burn variables of number of days the child spent as inpatient (r = –.12, P = .43), TBSA (r = –.01, P = .93), days since the burn injury (r = –.17, P = .28), and parental presence at the time of injury (F (1, 43) = 2.30, P = .14) were not found to be significantly related to parental PTSS. The demographic variables of parent age at burn (r = .09, P = .59), parent gender (F (1, 43) = .80, P = .38), parent ethnicity (F (2, 41) = 1.67, P = .20), income (F (7, 28) = .63, P = .73), parent education level (F (3, 41) = .91, P = .44), and marital status (F (2,41) = .78, P = .47) were also not found to be associated with symptoms of distress. No association was found between parent PTSS and the level of support received from friends and family (r = .23, P = .14).

DISCUSSION

Overall, about 29% of parents with young children experiencing a burn of less than 10% TBSA experienced clinically significant PTSS on at least one symptom cluster (ie, reexperiencing, avoidance, arousal), and about 13% experienced clinically significant symptoms on at least two clusters. Additionally, about 4% of the participants met the cutoff score on all three symptom clusters, meaning they met diagnostic criteria for PTSD based on *DSM-IV-TR* criteria. The percentage of parents in this sample meeting diagnostic criteria for PTSD was less than the rates of PTSD demonstrated among parents of children with larger burns[2,3] and less than estimates of PTSD in parents of children with other health conditions.[21,22] However, study results also make clear that while parents of children experiencing smaller burns may not necessarily meet diagnostic criteria for PTSD, they are certainly experiencing a fair amount of distress as evidenced by clinically significant symptoms on particular symptom clusters. The most frequently experienced symptom cluster of PTSS was reexperiencing, followed by arousal symptoms. Experiencing clinically significant symptoms of avoidance was found to be rare in this sample.

Therefore, attention to PTSS in parents of children with burns less than 10% TBSA is warranted, and these findings have implications for screening, assessment, and treatment in parents of children with burns. Screening and assessment materials of PTSS for this population should be modified for greater sensitivity to the fact that parents may be experiencing clinically significant symptoms on some symptom clusters, yet not currently meeting overall PTSD *DSM-IV-TR* criteria. Therefore, current screeners for PTSD may be inadequate for identifying maladjustment and distress in this population. Additionally, given the large number of parents who experienced elevated symptoms on at least one of the three PTSS clusters and the importance of early intervention in addressing mental health issues, providing psychoeducation to all parents about PTSS, such as raising their awareness to recognize if they are experiencing symptoms or where services can be received if they begin to experience symptoms, may be critical for ensuring positive parental adjustment following child burn injury.

Consistent with the idea that parents of children with even relatively small burns are still at risk for development of PTSS, injury variables related to severity and size of injury (ie, TBSA burned, days spent as inpatient) were not found to be associated with levels of posttraumatic stress. However, the relationship between cause of burn and parental adjustment was significant, with parents of children who sustained a contact burn experiencing more symptoms than those whose child sustained a scald or friction burn. The cause of the burn may affect parents' interpretation of the injury event, as well as the extent to which the event is perceived as traumatic or threatening to the child's well-being.

The present study also provided support for the association between parent and child PTSS. While this relationship has been previously demonstrated in samples with predominantly larger size burns,[1,3] the current study extends these findings by providing support for this relationship in a sample with burns less than 10% TBSA. Although the correlation found between parent and child PTSS was strong, the current study design did not allow identification of the causal direction of this relationship. Past studies have suggested both that parent symptoms of ASD serve as a pathway for the development of child ASD symptoms[23] and that child PTSS serve as a pathway for parent symptoms.[1] Therefore, further investigation of this relationship would be helpful in the development of interventions to treat PTSS in young pediatric burn patients and their families from a family systems perspective. In addition to the possibility of a causal link between parent and child PTSS, in which development of symptoms by one individual affects adjustment of the other individual, there is also the possibility that parent and child PTSS are highly correlated due to the role of genetic vulnerability in the development of anxiety. Research has suggested that genetic influences may make a person more likely to develop PTSS in response to exposure to a trauma.[24] Therefore, parents and children may share genetic vulnerabilities that make them have a similar likelihood of developing PTSS following the child's burn.

Parent PTSS was also related to the age of the child at the time of burn. Specifically, greater parental PTSS was associated with a younger age of the child at the time of burn injury. One explanation for this relationship is that younger children require greater supervision, and therefore, parents may feel a greater responsibility for injury in very young children. Epidemiological research has identified actions of caregivers as primarily responsible for injuries in infancy,[25] but as children age, they begin to participate in more self-initiated activity and play a greater role in their risk for injury.[26] In young children, adult supervision plays a critical role in injury prevention.[27] Likewise, young children may be more likely to experience a burn due to parental behavior (eg, parent leaving a hot stove on) in comparison to their own behavior (eg, child turns on the stove). As a result, parents may feel greater guilt or responsibility for injury in infants and toddlers, which has been associated with greater PTSS in prior research.[6] However, this explanation is speculative and was not examined by this study.

Family history of mental illness was found to be correlated with parental level of PTSS, with a greater number of reported diagnoses in the family associated with greater symptoms of distress. This relationship suggests that a predisposition or risk for the development of poor mental health functioning may play a role in the development of parental PTSS following the burn of their child and should be investigated in future research.

Level of familial stress prior to the child's burn was also associated with parental PTSS. Parents perceiving greater levels of familial stress displayed greater PTSS following the injury. Therefore, development of PTSS may not be solely because of the child's burn injury, but rather due to a broader spectrum of stressful events experienced by the parent. Also, with regard to the cause of PTSS, parents who had previously experienced a traumatic event may have been more likely to develop symptoms after their child's burn injury, and prior research has found prior trauma experiences to be related to the development of PTSD in parents of children experiencing an injury.[28] The traumatic event of the burn injury may have triggered stress originating from previous experiences. Therefore, future research should examine the role of prior trauma in the development of PTSS following a child's burn injury.

Although prior research has examined PTSS in parents of children with larger burns, the current study offers new information about PTSS in parents of children who have experienced smaller burns. Our findings support that some factors related to the development of PTSS are consistent across parents of children with all burn sizes, although the impact of others factors may vary based on burn severity. For example, our finding that the presence of a parent at the time of burn is not associated with parental PTSS is consistent with research with parents of children with larger burns that has found proximity of the parent to the child at the time of injury is also not related to parental PTSS.[2] It appears that regardless of the size of the burn, parental presence at the

time of burn does not influence their adjustment. On the contrary, our findings suggest that the influence of time since injury on PTSS may differ based on the size of the child's injury. Our study did not find that time since burn was related to parental PTSS, whereas other research with parents of children with larger burns has suggested that PTSS decrease with time.[6] The percentage of parents of children with smaller burns developing PTSS is smaller than the percentage of parents of children with larger burns experiencing symptoms, and therefore, it may be the case that those parents of children with smaller injuries who do develop PTSS are those more prone to persistent maladjustment. Although this finding may suggest that time since burn is less influential on PTSS in parents of children with smaller burns, this discrepancy may also be an artifact of the fact that we only assessed parent adjustment up to 1 year postburn, whereas other studies have measured parent adjustment up to 10 years postburn.[6] Although PTSS may decrease with time, this trend may not begin to occur until a certain point in time postburn.

Limitations and Future Directions

The current study establishes that the parents of young pediatric burn patients with a small to moderate size burn injury are at risk for the development of PTSS. Additionally, correlates of symptoms were identified, which can be used for identification of parents who may be able to benefit most from mental health referrals. That said, this study is not without its limitations. Information regarding both parental and child posttraumatic stress was collected through parental report, and therefore, it is important to note that these variables capture parent perception of symptoms and may differ from symptoms that may have been observed through more objective measurement, such as observation of parent or child behaviors. Additionally, the correlation found between parent and child PTSS may have been inflated by parent reporting of both variables or perception bias. Another limitation was the calculation of the family mental health history variable, which did not include frequency of each diagnosis or level of impairment in the computation of this variable. Additionally, information was not collected on whether the participants themselves or another family member had experienced the illness.

Research with pediatric illness and injury populations often use samples of small to moderate size, and this was also the case in the current study. Although the sample size of this research project appears to be adequate, given the population and the high response rate, the sample size may not have been large enough to provide the statistical power necessary to identify some relationships between variables. Moreover, although participants were ethnically diverse, several families (n = 7) who presented at the clinic were not eligible for study participation because they were not fluent in English, and therefore, could not complete study measures. Although barriers may be present for including such families in research studies (eg, need for interpreters), it is important that future studies investigate the adjustment and needs of these families. Language barriers may create unique needs for these families that may affect adjustment or development of PTSS. Furthermore, cultural differences, such as differences in expressing feelings of stress or differences in feelings of guilt, may also affect the development of PTSS. Therefore, future studies should seek to eliminate language barriers to study participation.

Additionally, the sample used in the current study contained a limited number of paternal participants (n = 8). The lack of paternal involvement in pediatric research has been identified as problematic in the field.[29] In the current study, children were more frequently accompanied to their burn clinic appointments by their mothers. Because of the small number of fathers in the sample, differences in paternal and maternal PTSS or specific paternal or maternal effects could not be assessed. This limitation is of concern because research has suggested that fathers of pediatric burn patients may experience less PTSS, and that maternal and paternal symptoms may be related to different factors.[30]

Despite these limitations, current study findings contribute to the field by providing information regarding parents of young children experiencing burns less than 10% TBSA, which represent the majority of burn cases seen in pediatric clinics.[5] Therefore, these findings have the opportunity to affect the identification of a significant portion of parents in clinical settings at risk for PTSS following pediatric burn injury. Although parents are not likely to meet diagnostic criteria for PTSD, this population still experiences a significant amount of stress, and burn center protocol should be modified to appropriately detect and address such symptoms.

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