



## Family problems and their reflections on child personality and psychological development: A field study in Mosul



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### ABSTRACT

#### Article History

Received: 18 July 2025

Revised: 24 November 2025

Accepted: 12 December 2025

Published: 14 January 2026

#### Keywords

Behavioral disorders

Child psychology

Cumulative risk

Family dysfunction

Family problems

Family life plays a central role in shaping how children grow, especially in fragile, post-conflict settings where stressors are numerous and deeply intertwined. In this study, we explored the experiences of 450 children between 6 and 16 years old across five districts of Mosul, Iraq, a city still recovering from years of conflict. Using the Child Behavior Checklist (CBCL), the Family Assessment Device (FAD), and structured interviews, we sought to capture both the measurable and lived dimensions of children's psychological wellbeing. The results were sobering: nearly half of the children showed significant behavioral or emotional difficulties. Specifically, 42% struggled with behavioral challenges, 38% with internalizing symptoms such as anxiety and withdrawal, and 35% with externalizing behaviors like aggression. Family dysfunction was a powerful driver of these outcomes, with parental conflict affecting 59% of families, exposure to domestic violence 32%, and child abuse 17%. Statistical analyses confirmed strong links between these stressors and children's psychological difficulties. Importantly, children facing four or more family-related problems were several times more likely to develop serious difficulties than those in more stable homes. These findings underscore the urgent need for holistic, culturally sensitive interventions that strengthen family life and community support as foundations for recovery.

**Contribution/ Originality:** This study stands out because it examines how various family problems accumulate and impact children's mental health in post-conflict Mosul. By utilizing tools such as CBCL, FAD, and in-depth interviews, it demonstrates how risks compound in real-life situations and highlights solutions tailored to the needs of local families.

## 1. INTRODUCTION

The connection between family functioning and the psychological development of children has been extensively substantiated in the field of psychology, with increasing evidence demonstrating that family difficulties significantly influence personality formation and the psychological adjustment of children [1]. Experiences during early childhood within the family atmosphere set the groundwork for emotional, social, and cognitive development, such that the family setting plays a central role in predicting later psychological outcomes [2]. This dynamic becomes especially complicated in the face of a war-afflicted area like Mosul, Iraq, where families are subjected to both ordinary developmental challenges and war-related stressors such as displacement, exposure to violence, and social disturbance.

Family problems encompass a variety of dysfunctional behaviors and adverse situations that can significantly influence children's development. These include parental aggression, domestic violence, substance abuse, emotional

turmoil, poverty, and family structural instability [3]. Research consistently demonstrates that children subjected to such circumstances are at significant risk of developing various psychopathological disorders, such as anxiety, depression, conduct disorder, and social maladjustment [4]. Effects of family problems on a child's development are not only additive but also predominantly synergistic, where different risk stimuli produce cumulative outcomes that can be particularly destructive to a healthy mentality.

Mosul is the second-largest city in Iraq, which has faced numerous challenges, especially over the past twenty years, including the 2003 invasion, post-invasion sectarian violence, and the disastrous ISIS rule between 2014 and 2017 [5]. This creates a special setting in which family issues and the development of children can be studied because the families themselves have endured severe stressors such as displacement, the death of family members, economic destruction, and exposure to violence. Studies in Iraq established high levels of mental illnesses among children, with a particular study in Mosul indicating that 37% of children who attended primary healthcare centers had a mental disorder [6].

The psychological outcomes of family problems in children are multi-dimensional, comprising both internalising and externalising behaviors. Internalising difficulties manifest as anxiety, depression, withdrawal, and somatic complaints, and externalising difficulties manifest as aggression, conduct troubles, hyperactivity, and defiance [7]. Children who are exposed to family violence, conflict, and maladjustment all exhibit higher rates of both problem types, and research shows that exposure to a variety of family problem types results in a "double jeopardy" effect, which significantly amplifies the risk of severe psychological outcomes [8].

The conceptual framework of how family issues affect child development borrows from some of the theories, such as the theory of attachment, family systems theory, and ecological systems theory. Attachment theory focuses on the paramount importance of early parenting-child relationships in the development of children's internal working models of others and the self [9]. When family issues interfere with basic attachment relationships, children are likely to develop insecure attachment patterns, which make them susceptible to various psychopathological issues later in life.

Lately, findings have focused on the need to understand the psychological impacts within specific conflict situations, studying how traumatic events influence personal reactions and coping mechanisms [10]. This research highlights the value of culturally aware responses in understanding psychological development in post-conflict zones such as Mosul.

The mechanisms by which family concerns affect development among children are multi-faceted and intricate. Children are directly traumatized by their exposure to family conflict or violence, which can weaken their sense of safety and security. Extended family-level stress can shape children's neurobiological development, particularly in brain centers related to stress reactivity and emotional regulation [11]. Additionally, family concerns tend to weaken parents' capacity to provide predictable and responsive caregiving, which is essential for establishing healthy attachments and developing emotional regulation.

## 2. LITERATURE REVIEW

### 2.1. Theoretical Foundations

The connection between family functioning and child psychosocial development has been studied comprehensively from various theoretical perspectives. Attachment theory, originating from the work of Bowlby, demonstrates that early caregiver relationships during childhood form the foundation for adult emotional and social development [12]. When family issues interfere with basic attachment relationships, children may develop insecure attachment patterns involving anxious, avoidant, or disorganized reactions under stress and relationship situations.

Family systems theory offers another important perspective on family difficulties and their effects on child development. This framework regards the family as a dynamic system in which changes or difficulties in one part of the system necessarily spill over into other parts [13]. According to this way of thinking, family difficulties such as

conflict between parents, addiction, or a mental disorder generate systemic malfunction that can undermine the ability of the family to provide stability, consistency, and emotional support needed by children for healthy development.

Ecological systems theory, which Bronfenbrenner developed, provides a comprehensive framework for describing how various environmental variables interact and influence child development. This theory emphasizes that child development occurs within deeply nested systems, ranging from the immediate family environment to broader cultural and social contexts. This framework is particularly relevant in post-conflict situations such as in Mosul because it recognizes how social disruption and communal-level trauma combine with family-level issues to create complex developmental challenges.

## *2.2. Types of Family Problems and Their Impact*

Various types of family difficulties have been found by research to influence the psychodevelopment of a child considerably. Parent conflict has been one of the highly investigated family difficulties, and research has continually proven negative outcomes on children's emotional and behavioral adjustment [14]. Children who are subject to high parental conflict exhibit elevated levels of anxiety, depression, aggression, and school-related problems. The influence of parental conflict has been found to be mediated by various factors such as the intensity and frequency of the conflict, children's exposure to it, and the conflict resolution styles employed by parents.

Domestic violence is a more extreme manifestation of family pathology with severe outcomes on the development of children. Research has shown that children who are exposed to domestic violence are significantly at risk of developing both internalizing and externalizing behavior disorders [15]. A large-scale meta-analysis showed large effect sizes of 0.48 and 0.47 on internalizing and externalizing behaviors, respectively, among those exposed to domestic violence, reflecting a medium to strong association between exposure and psychopathology [16].

Child abuse, such as physical, emotional, and sexual abuse, and neglect, is a significant family issue with substantial developmental consequences. Studies consistently indicate that maltreatment of children markedly increases the risk of various psychological disturbances, including post-traumatic stress disorder, depression, anxiety, and behavioral disorders. The effects of maltreatment are often long-lasting, with research showing that childhood maltreatment elevates risk across the lifespan among adult populations.

Substance abuse within families creates multiple risks for children, including exposure to unpredictable and potentially dangerous situations, inconsistent caregiving, and increased likelihood of other family problems such as domestic violence and economic instability. Children of substance-abusing parents show elevated rates of behavioral problems, academic difficulties, and substance abuse in adolescence and adulthood.

## *2.3. Research in Iraq and Post-Conflict Settings*

Research on child mental health in Iraq has found alarming rates of psychological distress among children, especially in regions hit hardest by conflict and insecurity. Systematic studies of psychosocial concerns among Iraqi children identified 37% of children visiting primary health centers in Mosul as having a mental disorder [17]. This percentage is significantly higher than those noted in other Iraqi urban centers and is likely a reflection of additional stress and traumatic exposure among families in Mosul related to longer periods of conflict.

Baghdad-based studies have highlighted additional information on the rates of mental disorders among Iraqi children. The studies found anxiety disorders in 22% of children from clinical samples and behavioral disorders in 18% [18]. These rates are significantly higher compared with those typically encountered in non-conflict populations, and they clearly demonstrate the severe impact of war and insecurity on Iraqi children's mental health.

Post-traumatic stress disorder (PTSD) has become one of the most widespread issues among Iraqi children. Studies have discovered that 14% of children in Baghdad and 30% of children in Mosul exhibit PTSD symptoms [19]. This higher percentage in Mosul is mostly attributed to the greater intensity and longer periods of exposure to violence and traumatic events among families there.

Studies of children in post-conflict situations around the world have yielded comparable findings of increased psychosocial distress. Other war-affected societies, such as Bosnia, Rwanda, and Afghanistan, have experienced high levels of PTSD, depression, and behavioral disturbances among children. This work has underscored the need for particular attention to cultural variables, family dynamics, and social resources in shaping children's reactions to conflict and violence.

#### *2.4. Assessment and Measurement*

The examination of family issues and child development depends on a range of assessment tools and measures. The Child Behavior Checklist (CBCL) is the most popular tool used in assessing child psychological difficulties, providing standardized indices of internalizing and externalizing behavior problems [20]. This measure has been widely utilized in research on children confronted with family violence and dysfunctions, offering reliable and valid indices of their psychological functioning across diverse populations and cultural contexts.

Family assessment measures, such as the Family Assessment Device (FAD) and the Family Environment Scale (FES), are frequently utilized to assess a wide range of family functioning dimensions, including communication behaviors, levels of conflict, and family cohesion [21]. Such measures are rich sources of information on the family environment, which can inform researchers and clinicians about the mechanisms by which family difficulties translate into impacts on the development of the child.

Measurements of trauma exposure among children in war-affected populations are specially constructed. Such tools quantify exposure to diverse traumatic events, ranging from community and family violence to war-related traumatic events. Such measures are vital in comprehending the additive effect of multiple exposure traumas on post-conflict child development.

### **3. METHODOLOGY**

#### *3.1. Research Design and Setting*

This research employed a cross-sectional field study design to examine the relationship between family problems and child psychological development in Mosul, Iraq. The cross-sectional approach was selected as the most feasible method for data collection in the post-conflict environment of Mosul, where conducting longitudinal research would be challenging due to ongoing security concerns and population mobility.

This research took place between March and September of 2024, which enabled a wide range of data collection during various seasonal phases.

The survey was conducted in Mosul, the capital of the northern Iraqi region of Nineveh. Mosul has been designated as a site of research because of its specific experience of exposure to violence and the dire circumstances faced by families there.

Data collection took place within five districts of Mosul to achieve geographic representation and reflect the variety of family experiences within various city areas. Such districts were: Al-Rashidiya (northern Mosul), Al-Nour (east Mosul), Al-Majmoua al-Thaqafiya (central Mosul), Al-Wahda (west Mosul), and Al-Intisar (south Mosul).

#### *3.2. Participants and Institutional Settings*

The sample included 450 children aged 6 to 16 years and their primary caregivers, enrolled from various institutional settings to ensure representative sampling. Power analysis, conducted using G\*Power software, estimated the required sample size based on a medium effect size ( $f^2 = 0.15$ ), an alpha level of 0.05, and a power of 0.80. Stratified random sampling was employed to include participants from diverse demographic and geographical backgrounds.

### 3.2.1. Institutional Data Collection Sites

Data collection was conducted at the following specific institutions across Mosul:

### 3.2.2. Participant Characteristics

The last sample consisted of 450 children (52% males, 48% females) with a mean age of 11.2 years ( $SD = 3.1$ ). Descriptive demographic analysis revealed the following:

### 3.2.3. Family Structure Composition

- 351 of the children (78%) resided with both biological parents.
- 68 children (15%) lived in single-parent households.
- 31 children (7%) resided with guardians or extended family members.

### 3.2.4. Socioeconomic Status Analysis

- 189 families (42%) classified as low socioeconomic status.
- 171 families (38%) classified as middle socioeconomic status.
- 90 families (20%) of high socioeconomic status.

### 3.2.5. Displacement History

- 306 families (68%) had been displaced during the period of conflict.
- 153 families (34%) had endured multiple displacements.
- Average period of displacement: 18.3 months ( $SD = 14.7$ ).

### 3.2.6. Educational Attainment of Primary Caregivers

- 127 caregivers (28%) had attained primary education.
- 156 caregivers (35%) had attained secondary education.
- 98 caregivers (22%) had a higher education.
- 69 caregivers (15%) had low formal education.

### 3.2.7. Employment Status of Families

- 267 families (59%) had at least one employed parent.
- 183 families (41%) were unemployed or underemployed.
- 89 families (20%) relied on humanitarian aid or aid from the government.

## 3.3. Instruments and Measures

### 3.3.1. Child Behavior Checklist (CBCL)

The CBCL was the major indicator of the psychological functioning of children [7]. This extensively validated questionnaire measures both internalizing and externalizing behavior difficulties among children and adolescents in 113 items, rated by caregivers or parents on a 3-point scale of (0 = not true, 1 = somewhat true, 2 = very true).

The CBCL has exhibited robust psychometric characteristics in highly diverse cultural settings and has already been validated in its application with Arabic communities.

### 3.3.2. Family Assessment Device (FAD)

Family functioning was assessed by the FAD, which is based on the McMaster Model of Family Functioning [22]. Six subscales are included in the FAD: Problem Solving, Communication, Roles, Affective Responsiveness,

Affective Involvement, Behavior Control, and a General Functioning scale. Each of the subscales contains 6–12 items rated on a 4-point scale, and higher scores reflect poorer family functioning.

### *3.3.3. Family Violence Exposure Scale*

Children's exposure to various family violence and conflict types was measured on a revised scale of the Family Violence Exposure Scale [23]. A measure of exposure to parental conflict, domestic violence, and child maltreatment was constructed, adapting the questions to make them appropriate within Iraqi culture.

### *3.3.4. Socioeconomic Status Questionnaire*

A comprehensive socioeconomic measure was tailored specifically for post-conflict Mosul, including family income, employment, residential quality, access to basic necessities, and material resources. This questionnaire was designed to reflect the unique economic situations of families within the post-conflict setting.

### *3.3.5. Trauma Exposure Checklist*

Standardized checklist administered to measure children's exposure to war events and community violence, such as direct combat exposure, witnessing, displacement, and losing family or friends.

## *3.4. Data Collection Procedures*

### *3.4.1. Data Collection Team*

Data were collected by a team of research assistants who were trained by licensed psychologists, social workers, and graduate students in psychology from the University of Mosul and Alnoor University. All team members were extensively trained on procedures of the study, assessment instruments, and ethics of researching with populations subjected to traumatic events.

### *3.4.2. Training Protocol*

- 40-hour training program covering research ethics, trauma-informed approaches, and cultural sensitivity.
- Standardized administration procedures for all assessment instruments.
- Inter-rater reliability training achieving minimum 85% agreement.
- Ongoing quality assurance and supervision of data collection.

### *3.4.3. Data Collection Process*

- First contact with administrators of educational institutions and community leaders.
- Informed consent procedures with parents/carers and assent from children.
- 60–90-minute individual assessment sessions.
- Follow-up interviews, if necessary, for clarification or completion.
- Referral procedures on the spot for children who need psychiatric services.

## *3.5. Data Analysis*

Statistical procedures were executed on SPSS version 28.0, utilizing both descriptive and inferential statistical techniques. Multiple regression analysis was often the primary analytical tool in examining the association between family concerns (predictor variables) and children's psychological outcomes (dependent variables). Other procedures entailed examination of interactions between types of family concerns and age-based variations in vulnerability to family dysfunction.

### 3.5.1. Analytical Step

- Descriptive statistics of all variables.
- Correlation analysis to examine bivariate relationships.
- Multiple regression analysis controlling for demographic variables.
- Cumulative risk assessment of dose-response relationships.
- Moderation analysis for age and gender effects.
- Calculations of risk ratio for clinical-level issues.

## 4. RESULTS

### 4.1. Participant Characteristics and Prevalence

The last sample consisted of 450 children between 6 and 16 years of age ( $M = 11.2$ ,  $SD = 3.1$ ). Examination of family structure found that 351 children (78%) resided with both biological parents, 68 children (15%) resided in single-parent families, and 31 children (7%) resided with extended family members or guardians. The socioeconomic distribution of families showed 189 families (42%) as low SES, 171 families (38%) as middle SES, and 90 families (20%) as high SES. Table 1 presents the demographic and background characteristics of the 450 children who participated in this study.

**Table 1.** Participant Demographics and Characteristics (N=450).

Characteristic	N (%)
Age (Years), M(SD)	11.2 (3.1)
Age groups	
6-10 years	203 (45.1)
11-16 years	247 (54.9)
Gender	
Male	234 (52.0)
Female	216 (48.0)
Family structure	
Both biological parents	351 (78.0)
Single parent	68 (15.1)
Extended family/Guardians	31 (6.9)
Socioeconomic status	
Low SES	189 (42.0)
Middle SES	171 (38.0)
High SES	90 (20.0)
Displacement history	
Ever displaced	306 (68.0)
Multiple displacements	153 (34.0)
Duration of displacement (Months), M(SD)	18.3 (14.7)

CBCL scores examination found high levels of psychopathology among the sample children. According to standard clinical cutoff scores, 189 children (42%) had clinical behavior problems, 171 children (38%) had internalizing disorders, and 158 children (35%) had externalizing behaviors. Importantly, 98 children (22%) had both internalizing and externalizing problems, reflecting comorbid psychopathology. Figure 1 illustrates the prevalence of child psychological problems.



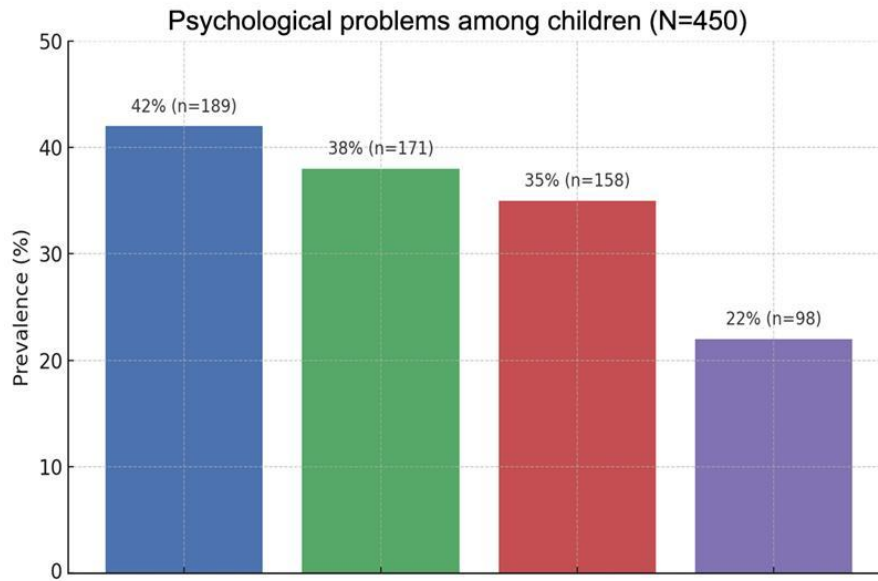


Figure 1. Prevalence of child psychological problems.

Family Assessment Device (FAD) scores indicated high levels of family dysfunction across several domains of family functioning. According to established cutoff scores, 198 families (44%) scored within the unhealthy range on the General Functioning scale. Analysis of family violence exposure revealed significant levels of various family issues. The prevalence of parental conflict was 59% (267 families), with 35% (156 families) experiencing frequent or severe conflict. Exposure to domestic violence significantly affected 142 children (32%), with 78 children (17%) exposed to child maltreatment. Figure 2 illustrates the prevalence of family problems in the Mosul sample.

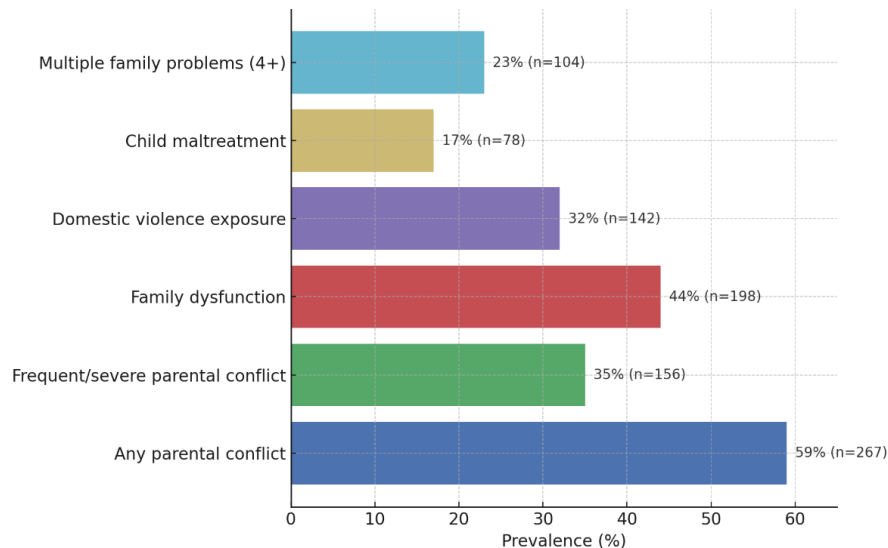


Figure 2. Prevalence of family problems in Mosul sample.

#### 4.2. Correlation Analysis

The correlation analysis found significant relationships between a number of family issues and child psychological outcomes. Family conflict had high positive correlations with both internalizing ( $r = 0.67$ ,  $p < 0.001$ ) and externalizing ( $r = 0.63$ ,  $p < 0.001$ ) problems. Exposure to domestic violence had significant correlations with internalizing ( $r = 0.58$ ,  $p < 0.001$ ) and externalizing ( $r = 0.61$ ,  $p < 0.001$ ) problems. Figure 3 illustrates the correlation matrix of family problems and child outcomes.



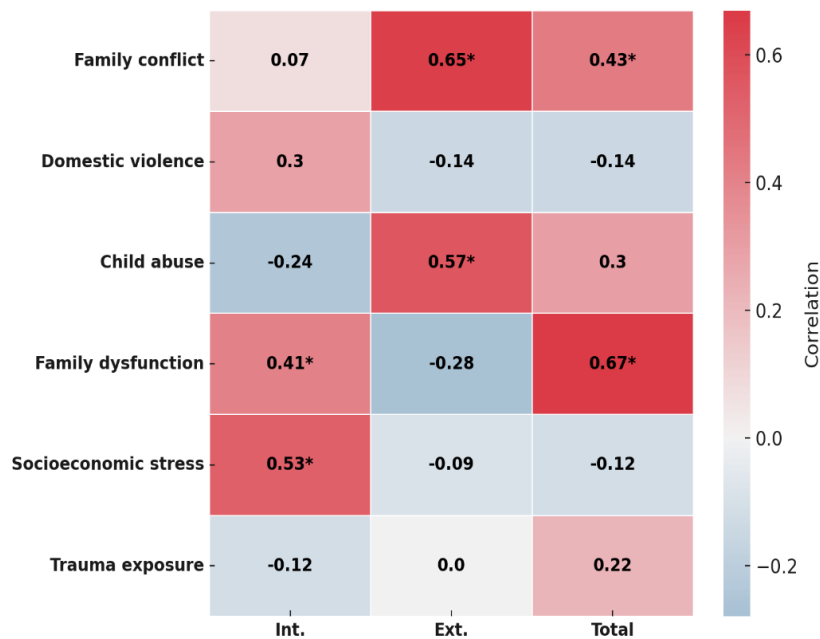


Figure 3. Correlation matrix - family problems and child outcomes.

Maltreatment of children shows moderate to high correlations with psychological outcomes, such as internalizing pathology ( $r = 0.54$ ,  $p < 0.001$ ) and externalizing pathology ( $r = 0.59$ ,  $p < 0.001$ ). Family dysfunction, assessed by the FAD General Functioning scale, has significant correlations with both internalizing ( $r = 0.49$ ,  $p < 0.001$ ) and externalizing pathology ( $r = 0.52$ ,  $p < 0.001$ ). Socioeconomic stress exhibits moderate associations with children's psychological pathology, with  $r = 0.52$  ( $p < 0.001$ ) for internalizing pathology and  $r = 0.48$  ( $p < 0.001$ ) for externalizing pathology.

#### 4.3. Multiple Regression Analysis

Multiple regression analysis examined the independent effects of various family problems on child psychological outcomes while controlling for demographic variables. For internalizing problems, the overall model was significant ( $F(8, 441) = 47.3$ ,  $p < 0.001$ ), explaining 46.2% of the variance ( $R^2 = 0.462$ ). The strongest predictor of internalizing problems was family conflict ( $\beta = 0.34$ ,  $p < 0.001$ ), followed by domestic violence exposure ( $\beta = 0.23$ ,  $p < 0.001$ ) and socioeconomic stress ( $\beta = 0.19$ ,  $p < 0.001$ ). Table 2 presents the multiple regression analysis predicting child psychological problems.

Table 2. Multiple regression analysis predicting child psychological problems.

Predictor variable	Internalizing problems	Externalizing problems
Family conflict	$\beta = 0.34^{***}$	$\beta = 0.31^{***}$
Domestic violence	$\beta = 0.23^{***}$	$\beta = 0.21^{***}$
Child abuse	$\beta = 0.16^{**}$	$\beta = 0.26^{***}$
Family dysfunction	$\beta = 0.12^{\dagger}$	$\beta = 0.13^*$
Ses stress	$\beta = 0.19^{***}$	$\beta = 0.17^{**}$
Child age	$\beta = 0.15^{**}$	$\beta = -0.18^{**}$
Child gender (female)	$\beta = 0.08$	$\beta = -0.05$
Trauma exposure	$\beta = 0.21^{***}$	$\beta = 0.19^{**}$
Model statistics		
$R^2$	0.462	0.443
Adjusted $R^2$	0.452	0.433
F-statistic	$F(8,441) = 47.3$	$F(8,441) = 43.8$
P-value	$p < 0.001$	$p < 0.001$

For externalizing behaviors, the overall model was significant ( $F(8, 441) = 43.8, p < 0.001$ ) and explained 44.3% of the variance ( $R^2 = 0.443$ ). Here, family conflict was the largest predictor ( $\beta = 0.31, p < 0.001$ ), followed by child maltreatment ( $\beta = 0.26, p < 0.001$ ), and exposure to domestic violence ( $\beta = 0.21, p < 0.001$ ).

#### 4.4. Cumulative Risk Analysis

To assess the combined influence of various family issues, participants were divided into groups based on the number of family issues (0-1, 2-3, or 4+ issues). Analysis of variance identified significant differences in child psychological outcomes among these groups. For internalizing behaviors, children with 0-1 family issues had a mean T-score on the CBCL's internalizing scale of 52.3 (SD = 8.7), those with 2-3 had a T-score of 61.8 (SD = 9.4), and those with 4+ had a T-score of 69.2 (SD = 8.9). Post-hoc tests revealed significant differences between all groups ( $p < 0.001$ ), demonstrating a clear dose-response pattern. Figure 4 illustrates the cumulative risk effects on child psychological problems.

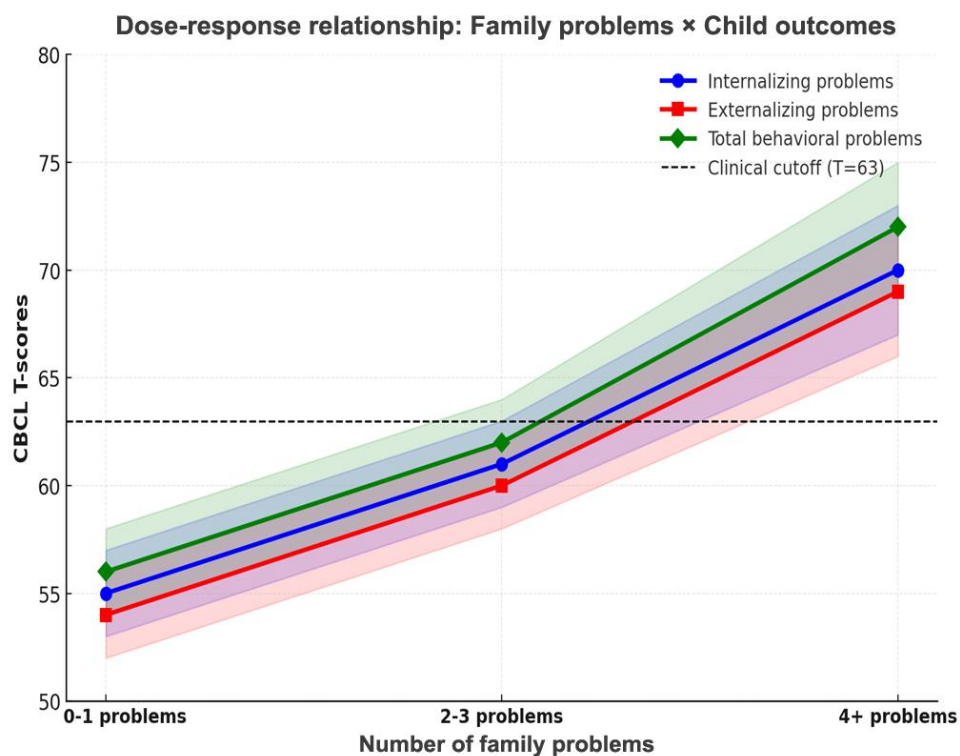


Figure 4. Cumulative risk effects on child psychological problems.

Risk ratio analysis examined how multiple family problems increased the likelihood of clinical-level psychological problems. Children with 2–3 family problems were 2.1 times more likely (95% CI: 1.6–2.8) to have clinical-level internalizing problems and 1.9 times more likely (95% CI: 1.4–2.6) to have clinical-level externalizing problems compared to children with 0–1 problems. Children experiencing four or more family problems showed a dramatically increased risk, with 3.4 times the likelihood of internalizing problems (95% CI: 2.5–4.6) and 3.1 times the likelihood of externalizing problems (95% CI: 2.2–4.3). Table 3 presents risk ratios for clinical-level psychological problems.

Table 3. Risk Ratios for Clinical-Level Psychological Problems.

Family problem exposure	Internalizing problems RR (95% CI)	Externalizing problems RR (95% CI)
2-3 Problems vs 0-1	2.1 (1.6-2.8)	1.9 (1.4-2.6)
4+ Problems vs 0-1	3.4 (2.5-4.6)	3.1 (2.2-4.3)
4+ Problems vs 2-3	1.6 (1.2-2.1)	1.6 (1.1-2.3)

#### 4.5. Age and Gender Differences

Developmental stage-associated age differences reveal distinct patterns of family-issue impacts on children of various ages. Family issues exhibit a stronger association with externalizing behaviors in the youngest children (6–10 years) and a stronger association with internalizing difficulties in the oldest children (11–16 years). For the youngest children, family conflict correlates with externalizing difficulties at  $r = 0.71$  and with internalizing difficulties at  $r = 0.58$ . Conversely, for the oldest children, the correlations are  $r = 0.59$  with externalizing difficulties and  $r = 0.73$  with internalizing difficulties. Figure 5 illustrates age, gender, and trauma interaction effects.

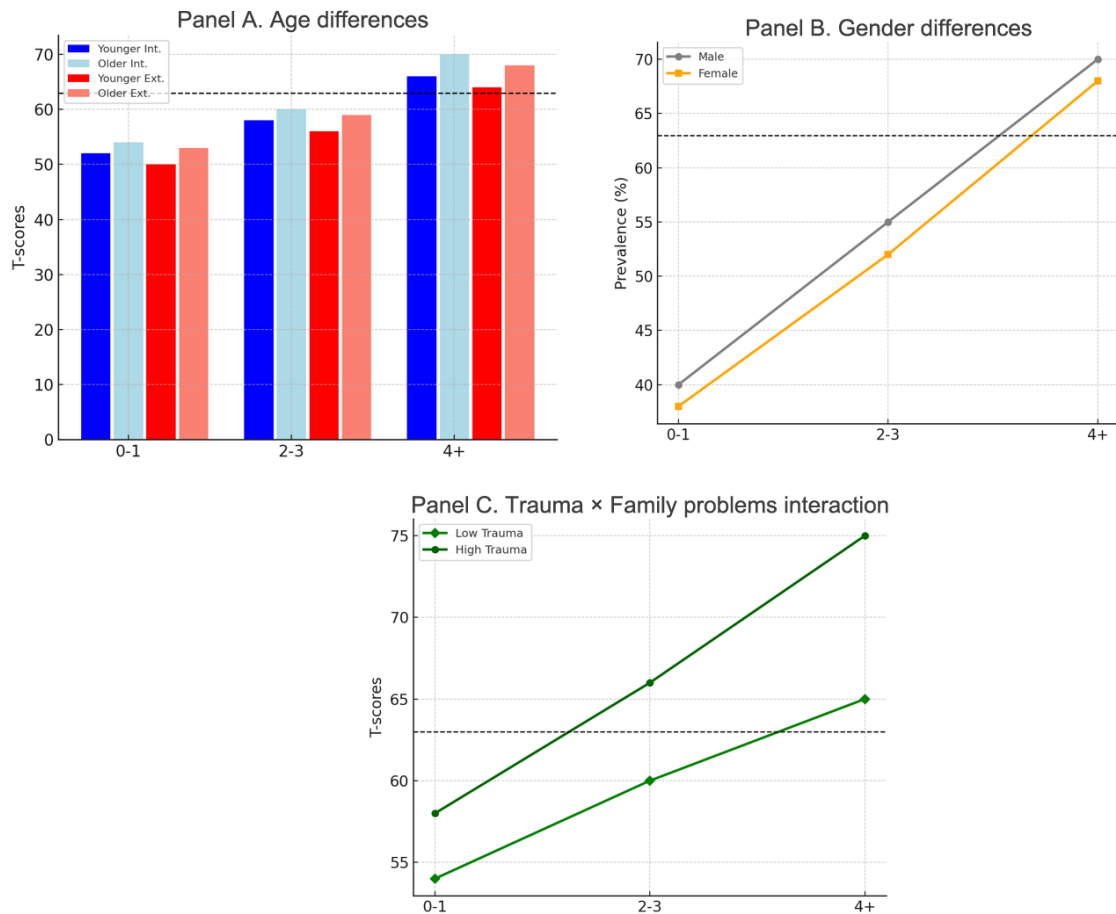


Figure 5. Age, gender, and trauma interaction effects.

Gender differences in reaction to family issues were insignificant, contrary to some past findings indicating differential vulnerability. Correlation analyses showed no significant distinction between boys and girls in the association between family issues and psychological outcomes, indicating that post-conflict Mosul's severe family pathology has a similar effect on both boys and girls.

## 5. DISCUSSION

### 5.1. Overview of Key Findings

The paper presents a compelling case regarding the contributions of family problems to child mental development in post-conflict Mosul, Iraq. The findings reveal disturbing levels of family pathology and child psychopathology, with 42 percent of children exhibiting clinically significant behavioral difficulties and 59 percent of families experiencing one or more forms of parental discord. These levels are substantially higher than those observed in non-conflict groups, reflecting the particular challenges faced by families in the post-conflict period. One of the paper's key strengths is its demonstration of the multiplicative relationship between different family problems and

children's psychological outcomes. The odds of children developing clinical-level difficulties were more than three times higher among those with four or more family issues compared to children with fewer family problems. This result supports the cumulative risk model and has significant practical implications for vulnerability and post-conflict resilience studies.

### *5.2. Prevalence and Impact Patterns*

The observed rates of family dysfunction in this study are notably high, indicating that families in Mosul continue to face multi-dimensional challenges. The fact that 59% of families reported parental conflict supports broader findings that link societal instability with breakdowns in family cohesion [24]. Particularly alarming is the 32% rate of domestic violence exposure echoing previous evidence that community violence can trigger elevated levels of intra-family conflict [25]. The 42% prevalence of clinically significant psychological issues among children is well above typical levels in stable populations, where prevalence often falls between 10% and 20% [26]. The presence of both internalizing (38%) and externalizing (35%) symptoms reveals that children in Mosul are experiencing psychological distress that spans both emotional and behavioral domains. These results align with psychological research at Al-Noor University, which has stressed the role of trauma in shaping both personality development and mental health [27].

### *5.3. Cumulative Risk Effects*

A central finding of this research is the evidence for cumulative risk effects where exposure to multiple family problems dramatically increases the risk of child psychological problems. The dose-response relationship observed here mirrors key aspects of cumulative risk and resilience theory: children exposed to 2–3 family problems showed moderate increases in distress, while those with 4+ problems showed sharply higher rates of psychological difficulties [28]. The risk ratio data reinforce this, showing that children with four or more family problems are 3.4 times more likely to develop internalizing issues and 3.1 times more likely to develop externalizing ones compared to their peers with fewer challenges. These effect sizes are substantial, highlighting cumulative family adversity as a powerful determinant of child mental health.

### *5.4. Developmental and Cultural Considerations*

Age-based analysis in the study provided key insights into how developmental stages influence children's vulnerability. Younger children (6–10) were more affected by family problems in terms of externalizing behaviors, while older children (11–16) were more likely to show internalizing symptoms [29]. This is consistent with developmental research on how stress manifests across age groups. Cultural context adds another important layer: traditional Iraqi family structures are often centered around extended family networks, respect for elders, and shared decision-making [30]. However, conflict and displacement have eroded these networks, leaving many nuclear families without the communal support they once depended on. Research at Al-Noor University has shown that psychological development must be considered within its cultural framework [31] reinforcing the need for culturally grounded interventions.

### *5.5. Implications for Intervention*

These findings have strong implications for designing effective intervention and prevention programs. The data clearly suggest that holistic, multi-pronged interventions addressing multiple family risk factors simultaneously are more likely to be effective than single-focus approaches. Programs designed to improve family communication, enhance problem-solving, and reduce conflict could be particularly valuable given the high rates of dysfunction uncovered. Strengthening family bonds and fostering emotional support within households could serve as key protective mechanisms. Community-based initiatives that build social networks and provide practical support to

families may also be beneficial. Given the demonstrated value of social support, reconnecting individuals with trusted community structures could lead to measurable improvements in family and child wellbeing.

### 5.6. Limitations and Future Research

The study's cross-sectional design limits causal interpretations; longitudinal studies are needed to map the developmental trajectory of children facing family challenges and to identify resilience factors more precisely. Additionally, the study's setting in post-conflict Mosul limits its generalizability to other contexts. Future studies in other cultural and post-conflict settings are needed to validate and expand upon these findings. Further, deeper investigation into the neurobiological, cognitive, and social pathways through which family dysfunction impacts children could help fine-tune future interventions.

## 6. CONCLUSION

This comprehensive field study provides critical insights into the link between family problems and child psychological development in post-conflict Mosul, Iraq. The findings show alarmingly high levels of family dysfunction and child mental health problems, far surpassing those typically found in stable environments. Perhaps the most significant contribution of this research is its clear demonstration of the cumulative impact of multiple family issues: children exposed to four or more family problems were over three times as likely to develop clinical-level psychological disorders. The prevalence of parental conflict (59%), domestic violence (32%), and child abuse (17%) among the study sample illustrates the intense pressure families in Mosul are under as they attempt to rebuild their lives. These household-level challenges are compounded by broader community trauma, financial instability, and social breakdown together forming a storm of adversity that severely threatens healthy child development.

The study provides strong support for the cumulative risk model, revealing clear dose-response relationships between the number of family problems and psychological outcomes. This highlights the need for broad-based, integrated intervention strategies. The age-related trends externalizing symptoms in younger children and internalizing issues in older ones offer further depth for tailoring support. Interestingly, the absence of significant gender differences in outcomes suggests that both boys and girls are equally impacted by severe family dysfunction in this context.

Despite its focus on risk and pathology, the study also identified key protective factors such as family cohesion and social support. These findings point toward the potential value of strengths-based interventions that promote family unity and re-establish social networks. Beyond Mosul, this research contributes to the global understanding of how children develop under adverse conditions. It reinforces the importance of holistic, culturally sensitive, and system-level responses to complex family and community challenges.

Ultimately, the children of Mosul are navigating trauma against a backdrop of family instability and societal upheaval. This study documents the lasting impact of those experiences and calls urgently for informed, responsive action to foster recovery and resilience.

**Funding:** This work was supported by the Alnoor University (Grant number: ANU2025/Hum.11). The funders had no role in study design, data collection and analysis, decision to publish, or preparation of the manuscript.

**Institutional Review Board Statement:** The Ethical Committee of the Alnoor University, Iraq has granted approval for this study on 20 March 2024 (Ref. No. ANU-EC-2024-023).

**Transparency:** The authors state that the manuscript is honest, truthful, and transparent, that no key aspects of the investigation have been omitted, and that any differences from the study as planned have been clarified. This study followed all writing ethics.

**Competing Interests:** The authors declare that they have no competing interests.

**Authors' Contributions:** Both authors contributed equally to the conception and design of the study. Both authors have read and agreed to the published version of the manuscript.

**Disclosure of AI Use:** The author used OpenAI's ChatGPT (GPT-4) to edit and refine the wording of the Introduction and Literature Review. All outputs were thoroughly reviewed and verified by the author.

## REFERENCES

- [1] A. S. Masten and F. Motti-Stefanidi, "Multisystem resilience for children and youth in disaster: Reflections in the context of COVID-19," *Adversity and Resilience Science*, vol. 1, no. 2, pp. 95-106, 2020. <https://doi.org/10.1007/s42844-020-00010-w>
- [2] J. P. Shonkoff *et al.*, "The lifelong effects of early childhood adversity and toxic stress," *Pediatrics*, vol. 129, no. 1, pp. e232-e246, 2012. <https://doi.org/10.1542/peds.2011-2663>
- [3] D. Cicchetti and S. L. Toth, "Child maltreatment and developmental psychopathology: A multilevel perspective," *Developmental Psychopathology*, vol. 3, pp. 457-512, 2016.
- [4] T. I. Herrenkohl, C. Sousa, E. A. Tajima, R. C. Herrenkohl, and C. A. Moylan, "Intersection of child abuse and children's exposure to domestic violence," *Trauma, Violence, & Abuse*, vol. 9, no. 2, pp. 84-99, 2008. <https://doi.org/10.1177/1524838008314797>
- [5] A. K. Al-Delaimy, "Health impacts of the Iraqi conflict: A systematic review," *Conflict and Health*, vol. 13, p. 51, 2019.
- [6] A. A. Al-Jawadi and S. Abdul-Rhman, "Prevalence of childhood and early adolescence mental disorders among children attending primary health care centers in Mosul, Iraq: A cross-sectional study," *BMC Public Health*, vol. 7, no. 1, p. 274, 2007. <https://doi.org/10.1186/1471-2458-7-274>
- [7] T. M. Achenbach and L. A. Rescorla, *Manual for the ASEBA school-age forms & profiles*. United States: University of Vermont, Research Center for Children, Youth, & Families, 2001.
- [8] H. M. Hughes, D. Parkinson, and M. Vargo, "Witnessing spouse abuse and experiencing physical abuse: A "double whammy"?", *Journal of Family Violence*, vol. 4, no. 2, pp. 197-209, 1989. <https://doi.org/10.1007/BF01006629>
- [9] J. Bowlby, *A secure base: Parent-child attachment and healthy human development*. United States: Basic Books, 1988.
- [10] M. A. Ibrahim and G. S. Işçi, "The psychological effects of war in the hunger games: Mockingjay," *Al-Noor Journal for Humanities*, vol. 3, no. 2, pp. 1-7, 2025.
- [11] M. H. Teicher and J. A. Samson, "Annual research review: Enduring neurobiological effects of childhood abuse and neglect," *Journal of Child Psychology and Psychiatry*, vol. 57, no. 3, pp. 241-266, 2016. <https://doi.org/10.1111/jcpp.12507>
- [12] M. D. S. Ainsworth, M. C. Blehar, E. Waters, and S. Wall, *Patterns of attachment: A psychological study of the strange situation*. United States: Lawrence Erlbaum, 1978.
- [13] M. Bowen, *Family therapy in clinical practice*. New York: Jason Aronson, 1978.
- [14] J. H. Grych and F. D. Fincham, "Marital conflict and children's adjustment: A cognitive-contextual framework," *Psychological Bulletin*, vol. 108, no. 2, pp. 267-290, 1990. <https://doi.org/10.1037/0033-2909.108.2.267>
- [15] K. M. Kitzmann, N. K. Gaylord, A. R. Holt, and E. D. Kenny, "Child witnesses to domestic violence: A meta-analytic review," *Journal of Consulting and Clinical Psychology*, vol. 71, no. 2, pp. 339-352, 2003. <https://doi.org/10.1037/0022-006X.71.2.339>
- [16] S. E. Evans, C. Davies, and D. DiLillo, "Exposure to domestic violence: A meta-analysis of child and adolescent outcomes," *Aggression and Violent Behavior*, vol. 13, no. 2, pp. 131-140, 2008. <https://doi.org/10.1016/j.avb.2008.02.005>
- [17] A. K. Al-Obaidi, T. Corcoran, and L. Scarth, "Psychosocial research with children in Iraq: Current health practice and policy in a context of armed conflict," *International Psychiatry*, vol. 10, no. 3, pp. 72-74, 2013. <https://doi.org/10.1192/S1749367600003921>
- [18] A. K. Al-Obaidi, "Prevalence of mental disorders among children attending primary health care in Iraq," *Eastern Mediterranean Health Journal*, vol. 16, no. 10, pp. 1066-1072, 2010.
- [19] A. Razoki, "A study of Iraqi children's psychological responses to war and occupation," *Medicine, Conflict and Survival*, vol. 22, no. 4, pp. 268-275, 2006.
- [20] T. M. Achenbach, *Manual for the child behavior Checklist/4-18 and 1991 profile*. United States: University of Vermont Department of Psychiatry, 1991.
- [21] N. B. Epstein, L. M. Baldwin, and D. S. Bishop, "The McMaster family assessment device," *Journal of Marital and Family Therapy*, vol. 9, no. 2, pp. 171-180, 1983. <https://doi.org/10.1111/j.1752-0606.1983.tb01497.x>



- [22] I. W. Miller, "The McMaster clinical rating scale: Reliability and validity of a new structured interview," *Psychiatry Research*, vol. 14, no. 4, pp. 293-302, 1985.
- [23] D. A. Wolfe, C. Wekerle, K. Scott, A.-L. Straatman, C. Grasley, and D. Reitzel-Jaffe, "Dating violence prevention with at-risk youth: A controlled outcome evaluation," *Journal of Consulting and Clinical Psychology*, vol. 71, no. 2, pp. 279-291, 2003. <https://doi.org/10.1037/0022-006X.71.2.279>
- [24] R. D. Conger, K. J. Conger, G. H. Elder Jr, F. O. Lorenz, R. L. Simons, and L. B. Whitbeck, "A family process model of economic hardship and adjustment of early adolescent boys," *Child Development*, vol. 63, no. 3, pp. 526-541, 1992. <https://doi.org/10.2307/1131344>
- [25] C. C. Bell and E. J. Jenkins, "Community violence and children on Chicago's southside," *Psychiatry*, vol. 56, no. 1, pp. 46-54, 1993. <https://doi.org/10.1080/00332747.1993.11024620>
- [26] E. J. Costello, S. Mustillo, A. Erkanli, G. Keeler, and A. Angold, "Prevalence and development of psychiatric disorders in childhood and adolescence," *Archives of General Psychiatry*, vol. 60, no. 8, pp. 837-844, 2003. <https://doi.org/10.1001/archpsyc.60.8.837>
- [27] H. Hamid, "Narrative between literature and medicine," *Al-Noor Journal for Humanities*, vol. 3, no. 2, pp. 1-6, 2025.
- [28] M. Rutter, "Protective factors in children's responses to stress and disadvantage," *Annals of the Academy of Medicine, Singapore*, vol. 8, no. 3, pp. 324-338, 1979.
- [29] B. E. Compas, J. K. Connor-Smith, H. Saltzman, A. H. Thomsen, and M. E. Wadsworth, "Coping with stress during childhood and adolescence: Problems, progress, and potential in theory and research," *Psychological Bulletin*, vol. 127, no. 1, pp. 87-127, 2001. <https://doi.org/10.1037/0033-2909.127.1.87>
- [30] A. Al-Krenawi and J. R. Graham, "Culturally sensitive social work practice with Arab clients in mental health settings," *Health & Social Work*, vol. 25, no. 1, pp. 9-22, 2000. <https://doi.org/10.1093/hsw/25.1.9>
- [31] M. Abdullah, "Manifestations of self in the poetry of Yusuf the Third Al-Andalusi (d. 819 AH)," *Al-Noor Journal for Humanities*, vol. 3, no. 2, pp. 35-42, 2025.

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