# RESEARCH





# Relationship between a history of child abuse and feelings of entrapment in Lebanese adults: the co-moderating effect of social support and religiosity

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# Abstract

**Background** This study aims to investigate the moderating influence of social support and religiosity in the association between child abuse and entrapment during adulthood. This cross-sectional study recruited 352 Lebanese adults between November 2022 and January 2023. The survey included several sociodemographic items and validated instruments like the Child Abuse Self Report Scale, the Entrapment Scale Short Form, the Centrality of Religiosity Scale, and the Multidimensional Scale of Perceived Social Support.

**Results** The moderation analysis indicates that there is a positive relationship between physical abuse, sexual abuse, and neglect with entrapment, and the intensity of this correlation may vary depending on various levels of social support and religiosity. Religiosity and social support may help mitigate the intensity of entrapment experienced, making it less severe when support or religiosity is high but not enough to lead to a negative relationship between child abuse and entrapment.

**Conclusion** This study is crucial as it recognizes the long-lasting impact of child abuse and its potential relationship with feelings of entrapment in adulthood, especially that it stresses long-term follow-up and support for survivors with regular assessments of coping strategies to help individuals navigate challenges and promote continued healing.

Keywords Child abuse, Neglect, Physical abuse, Sexual abuse, Social support, Religiosity, Entrapment, Lebanon

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# Background

Child abuse is any form of harmful mistreatment towards a person under 18 years of age that results in serious damage to their physical health and psychological wellbeing [1]. A recent systematic review revealed that up to 1 billion children experience abuse each year [2]. This can cause a plethora of consequences during adulthood, including poor health [3, 4], chronic pain [5], and psychological distress [6]. We can describe four different kinds of child abuse: sexual, emotional, physical abuse, and neglect [2]. Physical abuse is any harm caused to a person, intended, or not, due to physical hostility [7]. Sexual abuse of a child, on the other hand, is when an adult engages in any sexual activity with a kid, that includes oral sex, rape, intercourse, and inappropriate touching [8]. Emotional abuse is considered any action, attitude, or lack of response that jeopardizes a child's mental or social growth. Ranging from simple verbal abuse to severe punishments, this type is nearly always present when other types of abuse are discovered [9, 10]. Unfortunately, the latter may lead to a higher risk of long-term psychiatric conditions compared to sexual or physical abuse [11]. Neglect is a very common form of abuse, more common than physical and sexual violence combined, yet it is more difficult to identify because neglect is mainly an act of not doing something rather than doing it [9]. With that, emotional abuse and neglect get mixed sometimes [12].

Entrapment is a psychological phenomenon in which an individual becomes imprisoned in a cycle of thoughts about an issue and is unable to break free from it [13]. These people will feel confined in their reality and unable to escape it, experiencing guilt and humiliation as they feel the weight of the circumstance pressing down on them [14]. A person who is trapped may experience difficulty understanding and/or solving problems, or even hopelessness that results in suicidal thoughts as a means of escaping their predicament [15, 16]. Child abuse and its relationship with entrapment is a relatively unearthed topic in the literature. For instance, the concept of child sexual abuse accommodation syndrome has emerged. Victimized children experience five key elements of this syndrome: secrecy, helplessness, entrapment, accommodation, and delayed disclosure. Most abuse instances take place when the abuser and victim are alone explaining secrecy, and due to the victim's weakness and the perpetrator's power differential which make the victim helpless, the child experiences conditions of entrapment and accommodation. Children may feel a variety of emotions, including those that cause delayed disclosure, such as embarrassment, humiliation, guilt, and helplessness [17].

One well-established buffer of the consequences of child abuse is social support, as it can even lower the risk of negative mental health outcomes [18-20]. Social support is the assistance or comfort to others, so they can deal with several stressors. This support may come from family members, friends, the community, caregivers, or even support groups [21]. It's worth noting that there are conflicting results about the advantages of social support after childhood maltreatment. Neglected children are more likely to have an eroded support system that extends into adulthood with a tremendous impact on their lives [22-25]. A recent paper in Lebanon stresses the importance that both social and religiosity have on psychological distress and coping mechanisms [26]. In a prospective longitudinal study, people with a history of child abuse and neglect signaled lower levels of social support in adulthood, but social support also played a very important role in mediating and moderating the effects of childhood violence [19, 27].

Religiosity is also another well-known protective factor of several mental health manifestations, as multiple metaanalyses showed that religiosity had beneficial effects on people's well-being [28–30]. However, there is a scarcity of data on its potential role after child abuse, especially since other findings suggest that abuse in childhood can also weaken the protective role of religiosity [31–34].

As mentioned above, social support and religiosity mitigate the adverse effects of childhood distress and subsequently diminish its potential contribution to psychopathology. Therefore, a potential moderating role of these two variables in the association between feelings of entrapment in adulthood and childhood abuse is important to study. There is a near absence of prior research on this specific association; however, several past investigations demonstrate both social support and religiosity as strong moderators in many correlations: between psychological distress and coping strategies [26], between accumulative stress/ethnic identification and suicidal ideation [35, 36], as well within the context of psychosocial interventions [37].

Arab cultures do not heavily sanction the physical and psychological violence of children, especially since laws are not strictly followed and the prevalence of child abuse is relatively high in the region [38], where around 46 million children under the age of 5 experience various types of violence [39]. Child abuse is rampant in Lebanon, and with the deteriorating situation of the country, the risk is at records high where 1 in 2 children is at risk of violence and exploitation [40, 41]. Prevalence of child mistreatment in Lebanon is difficult to estimate given that there's a lack of disclosure of violent incidents and no robust legal systems to control its spread [42].

Religion and its expression occupy a huge portion of the Lebanese identity, as it permeates personal life, local culture, and the political sphere [43]. Furthermore, as in numerous countries with comparable sociocultural frameworks, local communities provide assistance and care to individuals and families in times of need, like safety nets, as they offer a helping hand during challenging times, such as economic hardships, health problems, or other personal struggles [44, 45]. As we aim to address critical gaps in the existing literature and provide a comprehensive understanding of the mechanisms that could either exacerbate or mitigate the impact of child abuse on adult survivors in Lebanon, grasping the intricate interaction between these variables and their potential impact on individuals facing adversity is vital for the development of effective interventions and support systems.

Given these conditions, the current investigation aims to assess how religiosity and social support moderate the association between child abuse and entrapment. This is a relatively unexplored area in existing literature. While prior studies have not directly delved into this specific relationship, it is hypothesized that social support and religiosity could potentially exert significant influence, therefore diminishing the impact of trauma or even shielding a survivor from the development of mental distress.

# Methods

# Ethical approval and consent to participate

This study's protocol has been reviewed by the Ethics and Research Committee of the Psychiatric Hospital of the Cross (HPC-040–2022). After being briefed on the goals of the research, all respondents provided their consent prior to their participation in the study.

#### Minimal sample size calculation

We employed the G\*Power tool to calculate the appropriate sample size. The analysis type employed was "Multiple regression: Fixed model,  $\mathbb{R}^2$  deviation from zero", with 15 predictors included in the model, a power of 0.9, an alpha of 0.05, and a minimal model  $r^2$  of 10%. The calculation judged that a minimum sample size of 226 participants was enough.

#### Study design and participants

Our cross-sectional study enrolled participants between the months of November 2022 and January 2023. We did not specify any inclusion or exclusion criteria, but we requested that all participants should be Lebanese citizens and above 18 years old. The survey was constructed using Google Forms and sent to potential participants via several networking platforms and messaging applications using a respondent-driven snowball sampling technique. Individuals received all relevant instructions and information online prior to participation.

## Questionnaire

The questionnaire was written in Arabic and comprised three sections. The initial segment served as an online consent checkpoint, ensuring participants' voluntary engagement, while also addressing ethical concerns like data confidentiality and response anonymity. Furthermore, this section offered an overview of the research project and provided instructions. The second part gathered sociodemographic information and included various indicators such as the Household Crowding Index (HCI), which is associated with an individual's socioeconomic status (SES) [46]. A rise in the HCI score signifies a decline in the household's SES. Participants were also asked to rate their financial pressure on a scale from 1 to 10, with 10 indicating overwhelming pressure. The third section encompassed these measures:

# The Child Abuse Self Report Scale (CASRS)

The short Arabic version that was validated in Lebanon [47] was used for detecting abuse during childhood. Four main components support this 12-item scale: physical abuse, psychological abuse, sexual abuse, and neglect. Items are rated on a 4-point Likert scale. Greater scores indicate more child abuse.

#### Entrapment Scale Short Form (E-SF)

This scale consists of four items that measure feelings of being trapped or stuck in a situation. The strength of the sense of entrapment increases with higher total scores on the 5-point Likert scale. We utilized the Arabic version that was validated in Lebanon [48].

# The Centrality of Religiosity Scale Short Version (CRS-5)

This instrument evaluated the importance and of religiosity in individuals [49]. This brief version consists of 5 items rated on a 5-point Likert scale (1 = never, 5 = very often). The more a person is committed to their religious beliefs, the greater the score on this scale. This version is also validated in Lebanon with sound psychometric properties [50].

# Multidimensional Scale of Perceived Social Support

This brief scale is made of 12 questions [51] and it's also validated within the Lebanese population [52]. It assesses perceived social support from family, friends, and significant others. Each statement is graded on a 7-point Likert scale, ranging from very strong disagreement (1) to very strong agreement (7). Higher scores indicate greater perceived social support.

## Statistical analysis

The analysis was done using the Statistical Package for the Social Sciences (SPSS) program. Since the skewness (=0.881) and kurtosis (=-0.278) values of the total entrapment score varied between -1 and +1 [53], we concluded that it was normally distributed. Hence, the Student t-test was employed to compare two means, while the Pearson test was utilized to correlate two continuous variables. For the moderation analysis, PROCESS MACRO v3.4 was utilized, with child abuse (neglect, physical abuse, and sexual abuse) as independent variables, social support and religiosity as moderators, and entrapment as the dependent variable.

Results were adjusted over sex, age, education level, marital status, and the HCI. A p value less than 0.05 was considered statistically significant.

## Results

#### Sociodemographic traits

Three hundred fifty-two adults were recruited in this study. The average age was  $25.08 \pm 9.25$  years, with nearly three-quarters of the participants identifying as women. Further information is detailed in Table 1. The mean and SD values of the scores are summarized in Table 2.

# **Bivariate analysis**

Tables 3 and 4 present a summary of the findings from the bivariate analysis examining factors associated with entrapment. Females compared to males and single participants compared to married ones had a higher mean entrapment score. Furthermore, more financial satisfaction, social support, and central religiosity were significantly associated with less entrapment, whereas more psychological abuse, neglect, physical abuse, and

**Table 1** Sociodemographic and other characteristics of the sample (N = 352)

Variable	N (%)
Sex	
Male	94 (26.7%)
Female	258 (73.3%)
Marital status	
Single	310 (88.1%)
Married	42 (11.9%)
Education level	
Secondary or less	15 (4.3%)
University	337 (95.7%)
	Mean ± SD
Age (years)	25.08±9.25
HCI (persons/room)	1.01 ±.43
Financial well-being	$5.41 \pm 2.28$

sexual abuse were significantly associated with more entrapment.

#### Moderation analysis

Table 5 provides a summary of the moderation analysis investigating the roles of social support and religiosity as moderators in the relationships between child abuse and entrapment. The interaction neglect by social support was significantly associated with entrapment; this was seen at low levels of social support and low/moderate/high levels of religiosity, as well as moderate levels of social support and low and moderate levels of religiosity where more neglect was associated with more entrapment (Table 6).

The interaction of physical abuse with religiosity was significantly associated with entrapment; this was seen at all levels of social support and all levels of religiosity where more physical abuse was associated with more entrapment (Table 6). The interaction of sexual abuse by religiosity was significantly associated with entrapment; this was seen at low levels of social support and moderate and high levels of religiosity, moderate social support and moderate-high levels of religiosity, and high levels of

**Table 2** Mean scores and standard deviations of the scales (N=352)

Variable	Mean ± SD
Sexual abuse	0.44±1.18
Physical abuse	$0.61 \pm 1.34$
Psychological abuse	$0.84 \pm 1.50$
Neglect	3.02±2.23
Central religiosity	18.76±4.41
Entrapment	5.14±4.67
Social support	63.55±18.45

Table 3	Bivariate	analysis	of	factors	associated	with	the
entrapm	ient score						

Variable	Entrapment (mean±SD)	Р
Sex		.037
Male	$4.28 \pm 4.34$	
Female	$5.45 \pm 4.75$	
Marital status		.017
Single	$5.36 \pm 4.69$	
Married	$3.52 \pm 4.23$	
Education level		.957
Secondary or less	$5.20 \pm 4.66$	
University	$5.13 \pm 4.67$	

Numbers in bold indicate significant p values

	1	2	3	4	5	6	7	8	9	10
1. Entrapment	1									
2. Age	09	1								
3. Financial pressure	26***	.13*	1							
4. Household crowding index	.09	19***	09	1						
5. Psychological abuse	.37***	02	14**	.06	1					
6. Neglect	.32***	.09	23***	.01	.31***	1				
7. Physical abuse	.35***	.06	16**	.09	.63***	.27***	1			
8. Sexual abuse	.20***	.01	13*	.19***	.37***	.20***	.39***	1		
9. Social support	39***	05	.10	10	36***	32***	27***	15**	1	
10. Central religiosity	21***	02	.10	.08	15**	16**	06	07	.14**	1

Table 4 Correlation matrix of continuous variables

<sup>\*</sup> p < .05; \*\*p < .01; \*\*\*p < .001

social support and high levels of religiosity where more sexual abuse was associated with more entrapment (Table 6).

# Discussion

As per our current awareness, this study is among the first to analyze the moderating role of social support and religiosity in the relationship between different forms of child abuse and entrapment. Moreover, this paper presents a pioneering addition to the existing literature, as it stands out as one of the early works that delve into the relationship between these variables in the cultural context of Lebanon. Our results revealed that childhood neglect and physical and sexual abuse were positively associated with entrapment. Higher levels of child abuse are linked to increased feelings of entrapment, and the strength of this relationship fluctuates depending on the level of religiosity and social support.

The relationship between child abuse and feelings of entrapment remains insufficiently examined. Abuse can profoundly affect a child, leading to harmful thought patterns and maladaptive schemas [54]. Particularly, early traumatic experiences significantly shape an individual's self-perception, perception of others, and view of the world [55]. Therefore, we can believe that when abuse occurs in relationships where the child feels powerless to escape, it can reinforce a sense of being trapped in various aspects of life. Our study further reinforces the theory behind child sexual abuse accommodation syndrome, where entrapment constitutes an integral part of this model [17]. It is also worth noting that our results show that feelings of entrapment are well-established in survivors well into adulthood, and not only limited to sexual abuse.

Neglect was significantly associated with entrapment; as this was seen at low levels of social support and low/ moderate/high levels of religiosity, as well as moderate levels of social support and low and moderate levels of religiosity where more neglect was associated with more entrapment. While the presence of moderators such as high levels of social support and religiosity may attenuate the impact of neglect on entrapment, our analysis showed that they did not completely negate the relationship. If we now take physical abuse as the focal predictor, we can find very significant results no matter the level of social support and central religiosity. At all degrees of social support and all levels of religiosity, there was a substantial relationship between physical abuse and entrapment, where more physical abuse was linked with more entrapment. Low social support levels and moderate to high levels of religiosity were associated with more significant findings than with low levels of religiosity, the same goes for moderate levels of social support associated with moderate to high levels of religiosity. Also, high levels of religiosity and social support were found to have conflicting significant results, leading to entrapment, which was surprising, given that social support played a major buffer factor for psychological distress in literature and religiosity also, in most cases, showed positive effects. The same is seen in Model 3, where sexual abuse leads to more entrapment, even in several levels of social support and religiosity.

Facing these surprising results, multiple hypotheses could be stipulated. First, social support, according to most data, comes typically from a person's tight circle of friends, family, or organizations with which they are familiar or with which they have previously been associated [56]. According to research, a significant portion of child abuse is perpetrated by those who are closest to the victim, typically from a family or friend circle [57]. This may help explain why the social support element was ineffective in this case because its results would be inconsistent. Indeed, social support is known to attenuate the association between neglect during childhood

**Table 5** Moderation analysis taking each abuse subscale as an independent variable, social support/mature religiosity as moderators and entrapment as the dependent variable

Moderator	Beta	t	Ρ	95% CI
Model 1: Psychological abuse as an independent variable				
Psychological abuse	01	02	.984	- 1.06; 1.04
Social support	08	-5.36	<.001	11;05
Interaction psychological abuse by social support	.01	.87	.384	01;.02
Central religiosity	18	- 2.95	.003	30;06
Interaction psychological abuse by religiosity	.02	.89	.372	03; .07
Age	01	22	.828	08; .06
Sex (females vs males*)	1.50	3.06	.002	.54; 2.47
Marital status (married vs single*)	- 1.22	- 1.20	.232	- 3.23; .79
Financial satisfaction	33	-3.41	.001	52;14
Household crowding index	.31	.61	.543	69; 1.31
Model 2: Neglect as an independent variable				
Neglect	1.63	3.87	<.001	.80; 2.46
Social support	04	- 1.68	.094	08; .01
Interaction neglect by social support	01	-2.19	.029	02;001
Central religiosity	04	51	.614	21;.13
Interaction neglect by religiosity	03	- 1.51	.133	07; .01
Age	02	50	.619	09; .05
Sex (females vs males*)	1.63	3.34	.001	.67; 2.59
Marital status (married vs single*)	- 1.24	-1.22	.224	- 3.24; .76
Financial satisfaction	33	- 3.38	.001	52;14
Household crowding index	.34	.67	.504	66; 1.34
Model 3: Physical abuse as an independent variable				,
Physical abuse	42	66	.509	- 1.65; .82
Social support	08	- 5.57	<.001	10;05
Interaction physical abuse by social support	.002	.32	.748	01;.02
Central religiosity	22	-4.08	<.001	33;12
Interaction physical abuse by religiosity	.06	2.37	.019	.01; .11*
Age	01	34	.738	08;.06
Sex (females vs males*)	1.50	3.09	.002	.55; 2.46
Marital status (married vs single*)	- 1.45	- 1.43	.154	- 3.43; .55
Financial satisfaction	31	- 3.29	.001	50;13
Household crowding index	.20	.39	.695	79; 1.19
Model 4: Sexual abuse as an independent variable				
Sexual abuse	53	83	.405	- 1.77; .72
Social support	09	6.54	<.001	11;06
Interaction sexual abuse by social support	01	78	.438	03; .01
Central religiosity	22	-4.07	<.001	32;11
Interaction sexual abuse by religiosity	.09	2.75	.006	.03; .15*
Age	02	40	.686	09; .06
Sex (females vs males*)	1.61	3.24	.001	.63; 2.58
Marital status (married vs single*)	- 1.00	97	.335	- 3.03; 1.03
Financial satisfaction	36	- 3.69	<.001	55;17
Household crowding index	02	03	.975	- 1.05; 1.02

\* indicates significant moderation; number in bold indicates significant *p* values

**Table 6** Conditional effects of the focal predictor at values of themoderators

Social support	Religiosity	Beta	t	p	95% CI	
Model 1: Neglect a	as the focal predicto	or				
Low (=45.10)	Low (=14.35)	.70	4.78	<.001	.41; .98	
Low (=45.10)	Moderate (= 18.76)	.56	3.85	<.001	.27; .85	
Low (=45.10)	High (23.16)	.43	2.20	.029	.05; .81	
Moderate (=63.55)	Low (= 14.35)	.49	3.89	<.001	.24; .74	
Moderate (=63.55)	Moderate (= 18.76)	.36	3.41	.001	.15; .57	
Moderate (=63.55)	High (23.16)	.22	1.49	.136	07; .52	
High (= 81.99)	Low (=14.35)	.29	1.74	.083	04; .62	
High (=81.99)	Moderate (= 18.76)	.16	1.16	.247	11;.42	
High (=81.99)	High (23.16)	.02	.13	.897	29; .33	
Model 2: Physical a	abuse as the focal p	redictor				
Low (=45.10)	Low (= 14.35)	.58	3.05	.002	.21; .96	
Low (=45.10)	Moderate (= 18.76)	.85	4.98	<.001	.52; 1.19	
Low (=45.10)	High (23.16)	1.13	5.10	<.001	.69; 1.56	
Moderate (=63.55)	Low (= 14.35)	.63	2.92	.004	.21; 1.05	
Moderate (=63.55)	Moderate (= 18.76)	.90	4.52	<.001	.51; 1.29	
Moderate (=63.55)	High (23.16)	1.17	4.80	<.001	.69; 1.65	
High (=81.99)	Low (=14.35)	.67	2.17	.031	.06; 1.29	
High (=81.99)	Moderate (= 18.76)	.95	3.14	.002	.35; 1.54	
High (=81.99)	High (23.16)	1.22	3.65	<.001	.56; 1.87	
Model 3: Sexual at	ouse as the focal pre	edictor				
Low (=45.10)	Low (= 14.35)	.33	1.53	.128	10; .75	
Low (=45.10)	Moderate (= 18.76)	.71	2.91	.004	.23; 1.19	
Low (=45.10)	High (23.16)	1.09	3.27	.001	.43; 1.75	
Moderate (=63.55)	Low (= 14.35)	.17	.73	.466	29; .63	
Moderate (=63.55)	Moderate (= 18.76)	.55	2.64	.009	.14; .96	
Moderate (=63.55)	High (23.16)	.93	3.50	.001	.41; 1.46	
High (=81.99)	Low (=14.35)	.01	.03	.973	74; .76	
High (=81.99)	Moderate (= 18.76)	.39	1.19	.236	26; 1.05	
High (=81.99)	High (23.16)	.77	2.34	.022	.11; 1.43	

Numbers in bold indicate significant p values

and psychological distress in adulthood, but this relationship is highly affected by the type of social support [19]. It is also worth noting that child neglect leads to lower levels of social support in adulthood, which could further precipitate a person's mental health deterioration [19]. Previous studies also support the buffering role of perceived social support, but its efficacy appears to be limited across populations, types of traumas, and mental health indicators [58–60].

An additional possibility is that the severity of the abuse was so great that minimizing factors like social support or religiosity were unable to adequately ease the trauma. Growing religiosity by itself may generate psychological issues in the person. A person with a high level of religiosity and a propensity for fanatical behavior may use harmful coping strategies which can result in detrimental effects on mental health, social functioning, and life quality [61]. An article published in 2018 demonstrated that child maltreatment was associated with negative views of God. So, perceiving God as punitive and unsupportive acted as a mediator in the connection between childhood emotional abuse and diminished self-esteem, as well as various domains linked to interpersonal difficulties [62]. We postulate that these "maladaptive" features of religiosity could exacerbate feelings of entrapment and defeat, as people may believe they are being punished or abandoned by a higher power.

These moderators may help mitigate the intensity of entrapment experienced, making it less severe when support or religiosity is high but not enough to lead to a negative relationship between child abuse and entrapment. Our analysis revealed that higher levels of social support weakened the association between child abuse and entrapment, but on the other hand, central religiosity did not attenuate this relationship to the same extent, suggesting that religious beliefs and practices might not offer the same degree of protection. Therefore, our findings highlight the more significant protective role of social support over religiosity as a moderator in the context of child abuse and entrapment.

This study is crucial as it can consist of the foundation of targeted intervention programs by understanding the protective role of social support and religiosity for adults who have experienced abuse as children and therefore creating tailored approaches. Additionally, clinicians and mental health professionals could incorporate the knowledge gained from this study into their practice by adopting trauma-informed care. Professionals could also assess levels of social support and religiosity to help identify those who may benefit from additional support or interventions to boost their coping mechanisms and reduce feelings of entrapment, all done in holistic patient management. Plus, considering the potential influence of cultural and religious beliefs on individuals' experiences of entrapment and coping after child abuse, interventions can be culturally sensitive, respecting diverse perspectives on social support and religiosity. Nonetheless, recognizing the long-lasting impact of child abuse and

its potential relationship with feelings of entrapment in adulthood, clinicians can consider providing long-term follow-up and support for survivors. Regular assessments of coping strategies can help individuals navigate challenges and promote continued healing.

Several limitations exist within this study that merit consideration when interpreting the findings. Given the snowball sampling method, selection bias might've weakened the quality of the sample. The results could be skewed because some people may have declined to participate in the survey. There's an uneven distribution of demographics as women were overrepresented and the sample population is relatively young. In addition, the responses were not evaluated by a health professional as they were all self-reported. This introduces the risk of misreporting and providing inaccurate data. Causality and temporality between the variables cannot be assessed, making it difficult to draw definitive conclusions about cause-and-effect relationships. Furthermore, participants may be hesitant to share their experiences of child abuse, leading to underreporting or misreporting of abuse incidents, or they could even portray themselves in a more positive manner, also known as social desirability bias. Plus, participants' memories might not accurately reflect past events, leading to potential inaccuracies in the data. Moreover, the specific scales used to assess child abuse, religiosity, social support, and entrapment might fail to encompass the entire spectrum of individual differences in these concepts. The study may not take into consideration all potential variables that could influence the association between forms of child abuse, social support, religiosity, and entrapment. While this research provides valuable insights, it is crucial to acknowledge the inherent limitations that may have influenced the findings. Researchers should consider these limitations in future investigations to enhance the depth and breadth of knowledge in this important area of study.

# Conclusion

In conclusion, this study sheds light on the significant role of religiosity and social support in mitigating the intensity of entrapment experienced by survivors of child abuse. However, we found that while religiosity and social support can ameliorate the severity of entrapment, they may not be sufficient on their own to eliminate the negative effects of child abuse. This recognition of the enduring impact of child abuse on individuals and its potential link with entrapment highlights the urgency of providing long-term follow-up and support for survivors. Thus, building upon the findings of this research, future studies should explore additional factors and interventions that could further enhance the well-being of survivors. Furthermore, longitudinal studies are essential to gain more insight into the long-term effects of child abuse and the trajectory of entrapment over an individual's lifespan. Additionally, exploring the deeper aspects of religiosity, and different types of social support, and analyzing cultural backgrounds can provide a more comprehensive understanding of how these factors interact and influence the experiences of survivors. This is a priority given that researchers and practitioners can contribute to the well-being and healing of survivors, ultimately fostering a more compassionate and supportive society.

#### Abbreviations

HCIHousehold Crowding IndexSESSocioeconomic StatusCASRSChild Abuse Self-Report ScaleE-SFEntrapment Scale Short FormCRS-5Centrality of Religiosity Scale Short VersionSPSSStatistical Package for the Social Sciences

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#### Authors' contributions

SH, SO, C-JZ, AC, and SO designed the study; Data acquisition was done by C-JZ, NT, and KJ. C-JZ and AC were responsible for writing the initial draft of the manuscript. SH conducted the analysis and provided an interpretation of the results. Each author contributed to the review of the final manuscript and granted their approval.

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#### Availability of data and materials

Data and materials included in this study can't be accessed publicly, as per guidelines set by the ethics committee, given that the data are the property of the Psychiatric Hospital of the Cross. However, the dataset supporting the study's findings can be obtained by contacting Ms. Rana Nader (rnader@naderlawoffice.com), who is a member of the ethics committee at the Psychiatric Hospital of the Cross.

#### Declarations

#### Ethics approval and consent to participate

This study's protocol has been reviewed by the Ethics and Research Committee of the Psychiatric Hospital of the Cross (HPC-040–2022). After being briefed on the goals of the research, all respondents provided their consent prior to their participation in the study.

#### **Consent for publication**

N/A.

#### **Competing interests**

All authors declare that they have no competing interests related to this research.

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#### References

 Child maltreatment [Internet]. World Health Organization. [cited 2023 Aug 5]. Available from: https://www.who.int/news-room/fact-sheets/ detail/child-maltreatment#:~:text=lt%20includes%20all%20types% 20of,of%20responsibility%2C%20trust%20or%20power. Accessed 10 Sep 2022

- Hillis S, Mercy J, Amobi A, Kress H (2016) Global prevalence of past-year violence against children: a systematic review and minimum estimates. Pediatrics 137(3):e20154079
- Affif TO, MacMillan HL, Boyle M, Cheung K, Taillieu T, Turner S et al (2016) Child abuse and physical health in adulthood. Health Rep 27(3):10–18
- Wegman HL, Stetler C (2009) A Meta-Analytic Review of the Effects of Childhood Abuse on Medical Outcomes in Adulthood. Psychosom Med 71(8):805–812
- Huffhines L, Jackson Y (2019) Child maltreatment, chronic pain, and other chronic health conditions in youth in foster care. J Child Adol Trauma 12(4):437–445
- Su Y, Meng X, Yang G, D'Arcy C (2022) The relationship between childhood maltreatment and mental health problems: coping strategies and social support act as mediators. BMC Psychiatry 22(1):359
- Kolko DJ, Berkout OV. (2017) Child physical abuse. In: Gold SN, editor. APA handbook of trauma psychology: foundations in knowledge (Vol 1). Washington: American Psychological Association; [cited 2023 Aug 5]. p. 99–115. Available from: http://content.apa.org/books/16002-006
- 8. Johnson CF (2004) Child sexual abuse. Lancet 364(9432):462-470
- 9. Jenny C (2011) Child abuse and neglect: diagnosis, treatment, and evidence, 1st edn. Saunders/Elsevier, St. Louis, Mo, p 658
- Myers JEB, American Professional Society on the Abuse of Children (eds) (2011) The APSAC handbook on child maltreatment, 3rd edn. SAGE, Los Angeles, p 449
- 11. Dye HL (2020) Is emotional abuse as harmful as physical and/or sexual abuse? J Child Adolesc Trauma 13(4):399–407
- 12. Kumari V (2020) Emotional abuse and neglect: time to focus on prevention and mental health consequences. Br J Psychiatry 217(5):597–599
- Gilbert P, Allan S (1998) The role of defeat and entrapment (arrested flight) in depression: an exploration of an evolutionary view. Psychol Med 28(3):585–598
- Martin Y, Gilbert P, McEwan K, Irons C (2006) The relation of entrapment, shame and guilt to depression, in carers of people with dementia. Aging Ment Health 10(2):101–106
- Wang C, Keilp JG, Galfalvy H, Bridge JA, Sheftall AH, Szanto K (2023) Entrapment and social problem-solving in suicidal behavior across the adult lifespan. J Affect Disord 329:176–183
- Taylor PJ, Wood AM, Gooding P, Tarrier N (2010) Appraisals and suicidality: the mediating role of defeat and entrapment. Arch Suicide Res 14(3):236–247
- 17. Summit RC (1983) The child sexual abuse accomodation syndrome. Child Abuse & Neglect. 7(2):177–93
- Caliso JA, Milner JS (1994) Childhood physical abuse, childhood social support, and adult child abuse potential. J Interpers Violence 9(1):27–44
- Sperry DM, Widom CS (2013) Child abuse and neglect, social support, and psychopathology in adulthood: A prospective investigation. Child Abuse Negl 37(6):415–425
- Scott Heller S, Larrieu JA, D'Imperio R, Boris NW (1999) Research on resilience to child maltreatment: empirical considerations. Child Abuse Negl 23(4):321–338
- Slaughter J (1988) Social Support: Theory, Research, and Intervention —by Alan Vaux. Praeger Publishers, New York, p 368 \$47.95. PS. 1990 Apr;41(4):460–460
- Barrera M (1986) Distinctions between social support concepts, measures, and models. Am J Community Psychol 14(4):413–445
- 23. Hobfoll SE (1989) Conservation of resources: a new attempt at conceptualizing stress. Am Psychol 44(3):513–524
- 24. Keyes CLM (ed) (2018) Risk and resilience in human development. Psychology Press, New York
- Schuck AM, Widom CS (2003) Childhood victimization and alcohol symptoms in women: an examination of protective factors. J Stud Alcohol 64(2):247–256
- Mahfoud D, Fawaz M, Obeid S, Hallit S (2023) The co-moderating effect of social support and religiosity in the association between psychological distress and coping strategies in a sample of lebanese adults. BMC Psychol 11(1):61
- 27. Herrenkohl TI, Jung H, Klika JB, Mason WA, Brown EC, Leeb RT et al (2016) Mediating and moderating effects of social support in the study of

child abuse and adult physical and mental health. Am J Orthopsychiatry 86(5):573–583

- 28. Bergin AE (1983) Religiosity and mental health: a critical reevaluation and meta-analysis. Prof Psychol Res Pract 14(2):170–184
- Hackney CH, Sanders GS (2003) Religiosity and mental health: a metaanalysis of recent studies. J Scientific Study of Religion 42(1):43–55
- 30. Garssen B, Visser A, Pool G (2021) Does spirituality or religion positively affect mental health? Meta-analysis of longitudinal studies. Int J Psychol Relig 31(1):4–20
- Lawson R, Drebing C, Berg G, Vincellette A, Penk W (1998) The long term impact of child abuse on religious behavior and spirituality in men. Child Abuse Negl 22(5):369–380
- Finkelhor D, Hotaling GT, Lewis IA, Smith C (1989) Sexual abuse and its relationship to later sexual satisfaction, marital status, religion, and attitudes. J Interpers Violence 4(4):379–399
- Hall TA (1995) Spiritual effects of childhood sexual abuse in adult Christian women. J Psychol Theol 23(2):129–134
- Kane D, Cheston SE, Greer J (1993) Perceptions of God by survivors of childhood sexual abuse: an exploratory study in an underresearched area. J Psychol Theol 21(3):228–237
- Kim MJ (2021) Acculturation, social support and suicidal ideation among Asian immigrants in the United States. SSM - Population Health 14:100778
- Walker RL (2003) An investigation of acculturative stress and ethnic identification as risk factors for suicidal ideation in African-American vs. Anglo-American men and women: The moderating effects of religiosity and social support. Vol. 63. [US]: ProQuest Information & Learning; p. 3945.
- Lee CC, Czaja SJ, Schulz R (2010) The moderating influence of demographic characteristics, social support, and religious coping on the effectiveness of a multicomponent psychosocial caregiver intervention in three racial ethnic groups. J Gerontol B Psychol Sci Soc Sci 65B(2):185–194
- A profile of violence against children and adolescents in the Middle East and North Africa | UNICEF Middle East and North Africa [Internet]. 2018 [cited 2023 Aug 5]. Available from: https://www.unicef.org/mena/repor ts/profile-violence-against-children-and-adolescents-middle-east-andnorth-africa. Accessed July 2018
- Child Protection | UNICEF Middle East and North Africa [Internet]. [cited 2023 Aug 5]. Available from: https://www.unicef.org/mena/child-prote ction. Accessed 2017
- 40. Usta J, Farver J (2010) Child sexual abuse in Lebanon during war and peace. Child Care Health Dev 36(3):361–8
- At least one million children in danger of violence as crisis intensifies in Lebanon – UN [Internet]. [cited 2023 Aug 5]. Available from: https://www. unicef.org/lebanon/press-releases/least-one-million-children-dangerviolence-crisis-intensifies-lebanon-un. Accessed 17 Dec 2021
- 42. Usta J, Farver JM, Danachi D (2013) Child maltreatment: the Lebanese children's experiences: Child maltreatment in Lebanese homes. Child Care Health Dev 39(2):228–236
- Faour MA (2007) Religion, demography, and politics in Lebanon. Middle East Stud 43(6):909–921
- 44. Farsoun S, Farsoun K (1974) Class and patterns of association among kinsmen in contemporary Lebanon. Anthropol Q 47(1):93
- Kazarian SS (2005) Family functioning, cultural orientation, and psychological well-being among university students in Lebanon. J Soc Psychol 145(2):141–154
- Melki IS (2004) Household crowding index: a correlate of socioeconomic status and inter-pregnancy spacing in an urban setting. J Epidemiol Community Health 58(6):476–480
- Fekih-Romdhane F, Dabbous M, Hallit R, Malaeb D, Sawma T, Obeid S, Hallit S (2022) Development and validation of a shortened version of the Child Abuse Self Report Scale (CASRS-12) in the Arabic language. Child Adolesc Psychiatry Ment Health 16(1):100. https://doi.org/10.1186/ s13034-022-00533-3
- Chabbouh A, Charro E, Al Tekle GA, Soufia M, Hallit S (2024) Psychometric properties of an Arabic translation of the short entrapment scale in a non-clinical sample of young adults. Psicol Reflex Crit 37(1):3. https://doi. org/10.1186/s41155-024-00286-2
- Huber S, Huber OW (2012) The Centrality of Religiosity Scale (CRS). Religions 3(3):710–724

- Fekih-Romdhane F, El Tawil N, El Zouki CJ, Jaalouk K, Obeid S, Hallit S (2023) Psychometric properties of an Arabic translation of the shortest version of the Central Religiosity Scale (CRS-5) in a sample of young adults. BMC Psychol 11(1):400. https://doi.org/10.1186/ s40359-023-01431-9
- Zimet GD, Powell SS, Farley GK, Werkman S, Berkoff KA (1990) Psychometric characteristics of the multidimensional scale of perceived social support. J Pers Assess 55(3–4):610–617
- Fekih-Romdhane F, Fawaz M, Hallit R, Sawma T, Obeid S, Hallit S (2023) Psychometric properties of an Arabic translation of the multidimensional social support scale (MSPSS) in a community sample of adults. BMC Psychiatry 23(1):432. https://doi.org/10.1186/s12888-023-04937-z
- 53. Hair JF (ed) (2014) A primer on partial least squares structural equations modeling (PLS-SEM). SAGE, Los Angeles, p 307
- Heim C, Shugart M, Craighead WE, Nemeroff CB (2010) Neurobiological and psychiatric consequences of child abuse and neglect. Dev Psychobiol 52(7):671–690
- 55. Beck AT (2008) The evolution of the cognitive model of depression and its neurobiological correlates. AJP 165(8):969–977
- Taylor SE (2012) Social support: a review. In: Friedman HS (ed) The Oxford Handbook of Health Psychology [Internet], 1st edn. Oxford University Press, pp 190–214. Available from: https://academic.oup.com/editedvolume/28312/chapter/215018480
- Santhosh KR. (2016) A review on the perpetrators of child abuse. RSS [Internet]. [cited 2023 Aug 5];1(3). Available from: http://www.socialscie ncejournal.org/index.php/site/article/view/25
- Evans SE, Steel AL, DiLillo D (2013) Child maltreatment severity and adult trauma symptoms: Does perceived social support play a buffering role? Child Abuse Negl 37(11):934–943
- Salazar AM, Keller TE, Courtney ME (2011) Understanding social support's role in the relationship between maltreatment and depression in youth with foster care experience. Child Maltreat 16(2):102–113
- 60. Scarpa A, Haden SC, Hurley J (2006) Community violence victimization and symptoms of posttraumatic stress disorder: the moderating effects of coping and social support. J Interpers Violence 21(4):446–469
- Chatters LM (2000) Religion and health: public health research and practice. Annu Rev Public Health 21(1):335–367
- 62. Waldron JC, Scarpa A, Kim-Spoon J (2018) Religiosity and interpersonal problems explain individual differences in self esteem among young adults with child maltreatment experiences. Child Abuse Negl 80:277–284

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