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Financial crisis and its association with parental stress and children's mental health in Lebanon

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Abstract

Background Lebanon has experienced a series of devastating crises that continue to have significant adverse effects on the mental health of parents and their children, especially those who are unemployed, burdened with debt or financial difficulties, and have pre-existing mental health conditions. Accordingly, this study aimed to assess the effect of financial insecurities on parents in Lebanon amid the multiple crises, and the impact of parents' mental health on their children's emotional and behavioral wellbeing.

Methods A cross-sectional study including 589 parents in Lebanon was performed using convenience sampling of parents of any gender with children aged 4 to 18 from the five Lebanese governorates. The study collected the sociodemographic data of the participants and incorporated supplementary measures such as the Parental Stress Scale (PSS), Pediatric Symptom Checklist (PSC), and the InCharge Financial Distress/Financial Well-Being (IFDFW) scale. Statistical tests included bivariate analysis, ANOVA test, linear regression, and mediation analyses.

Results A total of 589 parents, primarily mothers, participated in this study. Most children were males in elementary school. Bivariate analyses revealed that parents with non-Lebanese nationality, primary education, employment, or children in technical schools reported significantly higher PSS and PSC scores. Negative correlations were observed between the IFDFW scale and both PSS ($r=-0.200, p<0.001$) and PSC scores ($r=-0.086, p=0.038$), indicating lower stress and symptoms with improved financial well-being. Multivariable analysis showed that higher PSC scores, age, complementary education, and Lebanese nationality were associated with increased parental stress, while unemployment, lower age, and higher IFDFW were associated with reduced stress. Similarly, higher PSC scores were linked to increased parental stress, age, non-Lebanese nationality, and IFDFW, whereas university education, higher GPA, and residence outside Beirut/Mount Lebanon were associated with reduced PSC scores. Mediation analysis indicated that parental stress fully mediated the relationship between IFDFW and PSC scores, underscoring the impact of financial well-being on a child's psychological symptoms via parental stress.

Conclusions The study revealed significant financial distress and low financial well-being among participants amid Lebanon's economic crisis, with a notable mediated association between financial well-being, parental stress, and

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child mental health symptoms. Parental stress was heightened among those with lower education levels, non-Lebanese nationality, and employment in low-wage jobs, with children from these families exhibiting elevated mental health symptoms. Additionally, regional factors and socioeconomic status played a role, as children in urbanized areas and technical schools reported higher distress. Targeted interventions are urgently recommended to alleviate financial and emotional burdens on families and ensure improved mental well-being for both parents and children.

Keywords Financial crisis, Parental stress, Children well-being, Parents, Lebanon

Background

Mental well-being enables individuals to manage life's pressures and respond effectively to unusual or damaging situations [1]. Central to mental well-being is the balance between certainty and uncertainty, with financial insecurity posing a significant risk to mental health [2, 3]. Economic instability, especially among low-income families, can create material hardships for parents without liquid assets to buffer against income changes. This instability may also negatively impact children's development [4].

Financially stressed parents often struggle with responsiveness, nurturing, and discipline, which can lead to children experiencing low confidence, poor academic performance, depression, and health issues [5]. Additionally, as Solantaus et al. (2004) note, financial stress can weaken family connections [6]. Studies in the United Kingdom have shown that working parents, particularly mothers, experience mental well-being drawbacks due to financial instability, often disproportionately affecting women and low-income families [7]. Also, a massive effect is imposed mainly on the weakest during times of financial insecurity and economic crisis, and this is where children suffer the most while adults manage to survive the crisis [8]. In the Middle East, Bruno et al. (2023) demonstrated that low income exacerbates depression in both parents and children, highlighting the significant role of financial stability in mental resilience [9].

Lebanon, a middle-income nation, has recently endured multiple crises, including economic collapse, the COVID-19 pandemic, and the Beirut port explosion in 2020 [10]. These overlapping challenges have significantly increased financial insecurity and impacted mental health in Lebanon. Certain groups were particularly susceptible to and disproportionately affected by the consequences of the economic recession, including low-income families, children with unemployed parents, those in financially insecure households, and individuals with pre-existing mental health issues [11, 12]. The United Nations International Children's Emergency Fund (UNICEF) reports that in addition to Lebanese children, Palestinian and Syrian children residing in Lebanon are likely suffering from physical and mental health challenges, largely due to economic constraints that limit their parents' ability to meet essential needs [13].

Study objectives

While the effects of financial stress on parental mental health and family dynamics have been extensively documented in studies worldwide, a critical gap remains in understanding the interaction of these associations in the unique sociopolitical and economic context of Lebanon. Moreover, limited research has investigated how financial insecurity affects parental mental health, and consequently, children's emotional and behavioral well-being.

This study aims to address the gap in understanding the effect of financial insecurities on parents in Lebanon amid the multiple crises. The primary objectives of this study are to explore whether there exists an association between financial insecurity and the mental health of parents, and whether or not this association has influenced the children's emotional and behavioral well-being.

Methods

Conceptual framework

A conceptual framework based on the Family Stress Model underpins this study, positing that economic hardship can indirectly affect children's well-being through increased parental stress [14]. This model suggests that financial stress leads to psychological distress in parents, which may reduce their ability to provide consistent care, consequently impacting children's mental health. In this study, we hypothesize that increased financial distress will correlate with higher levels of parental stress and, in turn, lead to elevated mental health symptoms in children. This theoretical basis guided our choice of variables in this study.

Study design and sampling method

In this study, a quantitative research methodology was used to examine the mental health of parents of diverse nationalities, having children between the ages of 4 and 18 years, and residing in different regions of Lebanon. We employed a convenience sampling method by disseminating an anonymous online survey via Google Forms across various social media platforms. The data collection phase took place from 19 May 2023 to 4 July 2023. All parents, irrespective of their gender, were eligible to participate and no exclusion criteria were imposed. Each parent has also shared information on their child.

Population and sample size

The final sample constituted a total of 589 parents of both genders. Each participating parent has filled out the survey information about themselves and reported information regarding their children.

Study tool

The online survey was available and distributed in Arabic, the native language in Lebanon, to reach a wider range of participants. In the context of the present study, the structure of the survey included sociodemographic data for parents and children, InCharge Financial Distress-Financial Well-Being Scale (IFDFW), Parental Stress Scale (PSS), and the Pediatric Symptom Checklist (PSC).

The sociodemographic questions of parents aimed to evaluate various aspects, including age, gender, nationality, place of residence, marital status, number of children, level of education, and employment status. The sociodemographic questions of children focused on assessing the children's age, gender, level of education, and grade point average (GPA).

InCharge financial distress/financial well-being scale (IFDFW)

The financial stress of parents was assessed using the validated Arabic version InCharge Financial Distress/Financial Well-Being scale (IFDFW). This self-assessment tool contains 8 items that measure an individual's perception of financial well-being or distress, ranging from 1 (extreme financial distress) to 10 (highest financial well-being) for each item [15]. Each question on the scale is assigned a number from 1 to 10. The sum of the number of points for each of the eight items was obtained and the total was then divided by 8 to calculate a total IFDFW score, with decimal precision to reflect nuanced financial perceptions. The final score ranged from 1 to 10, where 1 = overwhelming financial distress/lowest financial well-being and 10 = no financial distress/highest financial well-being. Higher scores indicate better financial well-being. The scale has been validated among Lebanese populations [16]. The Cronbach alpha value for the scale in this study was 0.924, indicating high internal reliability.

Parental stress scale (PSS)

The Parental Stress Scale (PSS) is an 18-item self-report measure developed by Berry and Jones (1995) to evaluate parents' emotional responses and perceived stress related to their caregiving role [17]. Each item is rated on a five-point Likert scale, ranging from [1] "Strongly Disagree" to [5] "Strongly Agree." To calculate the total PSS score, responses to eight items [1, 2, 5, 6, 7, 8, 17, and 18] are reverse-scored to ensure consistency across positive and negative responses. Summing all item scores yields a total score ranging from 18 (low stress) to 90 (high stress). This scale has been validated in Arabic among Lebanese

parents, making it suitable for use in this study [18]. The Cronbach alpha value for the scale in this study was 0.822, indicating high internal reliability.

Pediatric symptom checklist (PSC)

The Pediatric Symptom Checklist (PSC) is a 35-item checklist designed to assess children's cognitive, emotional, and behavioral problems. Parents rate each item as "Never," "Sometimes," or "Often," corresponding to scores of 0, 1, and 2, respectively. Total PSC scores are calculated by summing these individual scores, with a cutoff score of 24 for children aged 4–5 and 28 for those aged 6–16 or higher, indicating potential psychological concerns [19, 20]. Positive scores suggest the need for more comprehensive clinical evaluations by qualified healthcare (e.g., Doctor of Medicine (M.D.), Registered Nurse (R.N.)) or mental health professional (e.g., Doctor of Philosophy (Ph.D.), Licensed Independent Clinical Social Worker (L.I.C.S.W.)) professional [21, 22]. The Arabic version of the PSC has been validated in previous studies in Lebanon [23]. The Cronbach alpha value for the scale in this study was 0.966, indicating high internal reliability.

Data analysis

Data was analyzed on SPSS software version 25. A descriptive analysis was performed using absolute frequencies and percentages for categorical variables and means and standard deviations (SD) for quantitative measures. The sample was normally distributed as verified by the visual inspection of the histogram, while the skewness and kurtosis were below |1.96|.

A bivariate analysis was then conducted using the Student's independent t-test to compare continuous variables in two groups and the ANOVA test to compare between three or more means. Pearson correlation was used for linear correlation between continuous variables.

Two separate linear regression analyses were conducted using the stepwise method. The first model considered the Parental Stress Scale as the dependent variable and in the second model, the Pediatric Symptoms Checklist was considered as the dependent variable. The stepwise method was used to remove the weakest correlated variables. At the beginning of the model, we have included all the variables at one time then SPSS inspects which of these predictors really contribute to predicting our dependent variable and excludes those who do not. We usually end up with fewer predictors than we specify. However, those that remain tend to have solid, significant b coefficients. All variables that showed a $p < 0.2$ in the bivariate analysis were considered important variables to be entered into the model to eliminate potentially confounding factors as much as possible [24]. A P -value of less than 0.05 was considered significant.

In addition, a mediation analysis using the PROCESS SPSS Macro version 3.4 [25] was done. Three pathways were considered, pathway A determined the regression coefficient for the effect of the InCharge Financial Distress/Financial Well-Being Scale on the Parental Stress Scale, pathway B examined the association between the Parental Stress Scale on Pediatric Symptom Checklist (PSC) and Pathway C estimated the total and direct effect of InCharge Financial Distress/Financial Well-Being Scale on Pediatric Symptom Checklist. The Macro generated bias-corrected bootstrapped 95% confidence intervals (CI) to test the significance of the indirect effect. Mediation was deemed significant when the CI around the indirect effect did not include zero.

Ethical considerations

This study obtained approval from the Ethics Committee of the Modern University of Business and Science (MU-20230519-41, dated May 19th, 2023). Parents read an explanation of the study, and those who agreed to participate signed a written informed consent to fill out an anonymous online survey, ensuring their confidentiality and anonymity were protected. The data collected was exclusively used for scientific and research purposes.

Results

Sample description

The sociodemographic and other characteristics of the participants are displayed in Table 1. A total of 589

Table 1 Sociodemographic characteristics of the participants (N= 589)

Variables	Parents N (%)	Children N (%)
Gender		
Female	463 (78.6%)	252 (42.8%)
Male	126 (21.4%)	337 (57.2%)
Nationality		
Lebanese	551 (93.5%)	
Syrian	28 (4.8%)	
Palestinian	10 (1.7%)	
Area of living		
Beirut	49 (8.3%)	
Mount Lebanon	385 (65.4%)	
North	10 (1.7%)	
South	89 (15.1%)	
Bekaa	56 (9.5%)	
Marital status		
Married	541 (91.9%)	
Widowed	12 (2.0%)	
Divorced	31 (5.3%)	
Separated	2 (0.3%)	
Missing partner	3 (0.5%)	
Parent Education Level		
Primary and below	95 (16.1%)	
Intermediate	134 (22.8%)	
Secondary	93 (15.8%)	
University	267 (45.3%)	
Employment status		
Employed	429 (72.8%)	
Unemployed	160 (27.2%)	
Children Education Level		
Nursery/ Kindergarten		65 (11.1%)
First to Nine class		339 (57.8%)
Secondary		143 (24.4%)
Technical		21 (3.6%)
University		19 (3.2%)
	Mean ± SD	Mean ± SD
Age	40.61 ± 9.08	11.92 ± 4.20
Number of children	2.22 ± 1.27	-
GPA Level	-	15.21 ± 2.50

parents in Lebanon participated in the survey and the majority of the responses were filled out by the mother (78.6%). Considering the parents, the majority of them were Lebanese (93.5%), married (91.9%), employed (72.8%), with a secondary and university education level (61.1%), and living in Mount Lebanon (65.4%). The mean age of the parents was 40.61 ± 9.08 years and the mean number of children was 2.22 ± 1.27 . As for the children, more than half of them were males (57.2%), mostly in the primary and secondary grades (first to nine class; 57.8%), the mean age was 11.92 ± 4.20 years and the mean GPA level was 15.21 ± 2.50 .

Description of the scales used

Table 2 describes the median, mean, SD, and range of the scales used in this study.

Bivariate analysis: correlation of the parental stress scale and pediatric symptom checklist scales

The bivariate analysis taking the Parental Stress Scale and the Pediatric Symptom Checklist scales as the dependent variables are displayed in Table 3. A significantly higher mean score on the Parental Stress Scale was found in those who have other nationality than the Lebanese (50.78 vs. 45.85, $p=0.002$), had a primary education level as compared to the other groups, were employed as compared to unemployed (46.81 vs. 44.44, $p=0.006$) and having children in the technical class as compared to the other groups. In addition, a significant negative correlation was found between the InCharge Financial Distress/Financial Well-Being scale and the Parental Stress Scale ($r=-0.200$, $p<0.001$). However, a positive correlation was found between age ($r=0.103$, $p=0.012$), Pediatric Symptom Checklist ($r=0.634$, $p<0.001$), and the Parental Stress Scale.

When considering the Pediatric Symptom Checklist as the dependent variable, the results showed that a significantly higher mean score of Pediatric Symptom Checklist was found in those who have other nationality than the Lebanese (35.86 vs. 22.92, $p<0.001$), living in Beirut and Mount Lebanon area as compared to other regions (24.92 vs. 20.50, $p=0.001$), being married as compared to another marital status (24.07 vs. 20.18, $p=0.046$), having a primary education level as compared to the other groups, being employed as compared to unemployed (24.83 vs. 20.87, $p=0.004$) and having a child in the technical class as compared to the other groups. In addition, a significant negative correlation was found

between the InCharge Financial Distress/Financial Well-Being scale and the Pediatric Symptom Checklist ($r=-0.086$, $p=0.038$). However, a positive correlation was found between parents' age ($r=0.264$, $p<0.001$), number of children ($r=0.189$, $p<0.001$), and PSS ($r=0.634$, $p<0.001$) and the Pediatric Symptom Checklist scale.

Multivariable analysis

A first linear regression model was performed taking the Parental Stress Scale as the dependent variable. The results showed that a high Pediatric Symptom Checklist score (Beta=0.34) and having a complementary level of education (Beta=1.88) were significantly associated with a higher Parental Stress Scale. While higher age (Beta=-0.11), high Financial Distress/Financial Well-Being scale (Beta=-0.70), and being unemployed (Beta=-1.41) were significantly associated with a lower Parental Stress Scale (Table 4, model 1).

A second linear regression model was performed taking the Pediatric Symptom Checklist (PSC) as the dependent variable showed that higher Parental Stress Scale (Beta=1.02), higher age (Beta=0.30), having other nationality than the Lebanese (Beta=6.24), higher Financial Distress/Financial Well-Being scale (Beta=0.74) were significantly associated with higher Pediatric Symptom scores. However, having a university education level (Beta=-5.45), a higher GPA level (Beta=-0.47), and living in another region than Beirut and Mount Lebanon (Beta=-2.60) were significantly associated with lower Pediatric Symptom scores (Table 4, model 2).

Mediation analysis

The association between the IFDFW scale and PSC mediated by the PSS is presented in Table 5. The results showed that in the first step (Path A), the IFDFW Scale was negatively related to PSS (Beta = -0.91, $p<0.001$). In the second step (Path B), the PSS was related to PSC (Beta=1.19, $p<0.001$). In the third step (Path C (total effect), the effect of the IFDFW Scale on the PSC was significant (Beta = -0.76, $p=0.037$) (Fig. 1). The direct effect between the relation of the IFDFW Scale and PSC was not significant (Beta=0.33, $p=0.251$). However, the indirect effect was significant between them demonstrating full mediation.

Table 2 Description of the scales used in the study

	Median	Mean	SD	Minimum	Maximum
Parental Stress Scale	47.00	46.16	9.32	20.00	66.00
Pediatric Symptom Checklist (PSC)	18.00	23.76	17.10	0.00	70.00
InCharge Financial Distress/Financial Well-Being Scale (IFDFW)	4.00	4.04	1.92	1.00	10.00

Table 3 Bivariate analysis of factors influencing parental stress taking the psychological scales as the dependent variables

	Parental Stress Scale (Mean $\pm$ SD)	p-value	Pediatric Symptom Check- list (PSC)	p-value
Gender				
Mother (Female)	46.23 $\pm$ 9.33	0.752	23.68 $\pm$ 16.98	0.827
Father (Male)	45.93 $\pm$ 9.31		24.05 $\pm$ 17.59	
Nationality				
Lebanese	45.85 $\pm$ 9.29	0.002	22.92 $\pm$ 16.75	< 0.001
Other (Syrian, Palestinian)	50.78 $\pm$ 8.55		35.86 $\pm$ 17.79	
Area of living				
Beirut / Mount Lebanon	46.56 $\pm$ 9.57	0.071	24.92 $\pm$ 18.32	0.001
Other region	45.07 $\pm$ 8.50		20.50 $\pm$ 12.60	
Marital status				
Married	46.28 $\pm$ 9.22	0.324	24.07 $\pm$ 17.44	0.046
Widowed/ Divorced / Separated / Missing partner	44.89 $\pm$ 10.39		20.18 $\pm$ 12.15	
Parent Education Level				
Primary and below	50.42 $\pm$ 8.89	< 0.001	34.43 $\pm$ 21.04	< 0.001
Intermediate	49.66 $\pm$ 8.58		30.26 $\pm$ 19.20	
Secondary	44.30 $\pm$ 8.74		22.82 $\pm$ 14.12	
University	43.55 $\pm$ 8.95		17.02 $\pm$ 11.36	
Employment status				
Employed	46.81 $\pm$ 9.38	0.006	24.83 $\pm$ 18.27	0.004
Not employed	44.44 $\pm$ 8.96		20.87 $\pm$ 13.09	
Children Education Level				
Nursery/ Kindergarten	45.27 $\pm$ 9.25	0.018	17.09 $\pm$ 11.26	0.001
First to Nine class	45.97 $\pm$ 9.43		23.72 $\pm$ 17.60	
Secondary	46.62 $\pm$ 9.12		25.34 $\pm$ 17.14	
Technical	51.85 $\pm$ 9.07		36.52 $\pm$ 18.81	
University	42.47 $\pm$ 7.32		20.31 $\pm$ 13.33	
	Correlation coefficient	p-value	Correlation coefficient	p-value
Parents Age	0.103	0.012	0.264	< 0.001
Children age	0.071	0.088	0.189	< 0.001
Number of children	0.015	0.720	-0.002	0.958
InCharge Financial Distress/Financial Well-Being Scale (IFDFW)	-0.200	< 0.001	-0.086	0.038
GPA	-0.203	< 0.001	-0.275	< 0.001
Pediatric Symptom Checklist (PSC)	0.634	< 0.001	-	-
Parental Stress Scale	-	-	0.634	< 0.001

Discussion

This study is the first in Lebanon to examine the impact of financial distress on parental stress and child mental health amid severe economic hardship. The mean score for the IFDFW scale (4.00) reflects significant financial distress among participants, which aligns with Lebanon's current economic landscape, including high unemployment, currency devaluation, and extensive poverty rates [26].

Interestingly, while a higher IFDFW scale score, indicative of greater financial well-being, was weakly associated with lower PSC scores in the bivariate analysis, this relationship became more complex in the multivariable and mediation models. The mediation analysis clarified that the link between financial well-being and child symptom scores is indirect and operates through parental stress

levels. Specifically, higher financial well-being appears to reduce parental stress, which in turn, is associated with lower PSC scores, demonstrating that financial well-being indirectly benefits children's psychological symptoms by alleviating parental stress. These findings align with global literature, such as studies in African and Western countries, suggesting that parental stress serves as a key pathway through which financial strain impacts a child's mental health [27, 28].

Our data also indicated that parents' socioeconomic factors, including employment, educational attainment, and nationality, significantly influenced parental stress levels. PSS scores were notably higher among non-Lebanese families, who often reside in informal settlements with limited access to essential services, further exacerbating financial and emotional strain [29, 30].

Table 4 Multivariable linear regression analysis of factors influencing parental stress and Pediatric Symptom Checklist scores

Model 1: taking the Parental Stress Scale as the dependent variable

	Unstandardized Beta	Standardized Beta	p-value	Confidence interval	
				Lower Bound	Upper Bound
Pediatric Symptom Checklist	0.346	0.633	< 0.001	0.309	0.382
InCharge Financial Distress/Financial Well-Being Scale (IFDFW)	-0.706	-0.141	< 0.001	-1.026	-0.385
Age	-0.110	-0.106	0.002	-0.180	-0.039
Education level (Complementary vs. primary*)	1.883	0.085	0.012	0.422	3.345
Employment status (unemployed vs. employed*)	-1.414	-0.066	0.045	-2.798	-0.029

Model 2: taking the Pediatric Symptom Checklist (PSC) as the dependent variable

	Unstandardized Beta	Standardized Beta	p-value	Confidence interval	
				Lower Bound	Upper Bound
Parental Stress Scale	1.027	0.561	< 0.001	0.911	1.144
Education level (University vs. primary*)	-5.453	-0.158	< 0.001	-7.761	-3.145
Age	0.306	0.161	< 0.001	0.184	0.427
Nationality (Others vs. Lebanese*)	6.240	0.087	0.006	1.811	10.669
InCharge Financial Distress/Financial Well-Being Scale (IFDFW)	0.741	0.081	0.011	0.170	1.311
Area of living (Others vs. Beirut/Mont Lebanon*)	-2.600	-0.066	0.033	-4.990	-0.211
GPA	-0.470	-0.068	0.040	-0.917	-0.022

*Reference group

Table 5 Mediation analysis taking the InCharge Financial Distress/Financial Well-Being Scale (IFDFW) as the independent variables, the Parental Stress Scale as mediator, and the Pediatric Symptom Checklist (PSC) scale as the dependent variable

	Direct effect			Indirect effect		
	Beta	SE	p-value	Beta	Boot SE	Boot CI
InCharge Financial Distress/Financial Well-Being Scale	0.33	0.28	0.251	-1.09	0.24	-1.58; -0.60*

* Significant full mediation.

SE: Standard error; CI: confidence Level

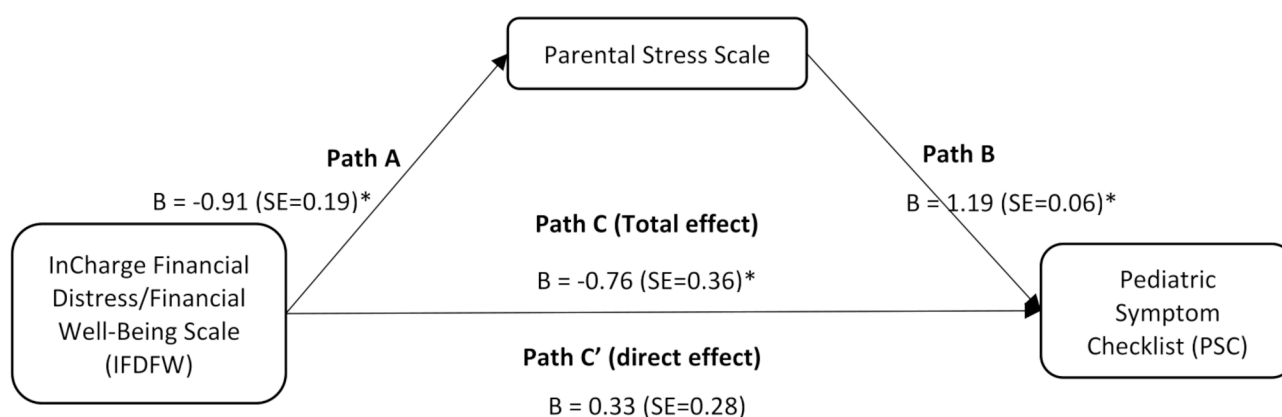


Fig. 1 The association between InCharge Financial Distress/Financial Well-Being Scale (IFDFW) and Pediatric Symptom Checklist (PSC) mediated by Parental Stress Scale. Values are presented as Beta (Standard Error). (* significant values $p < 0.05$)

Additionally, parents with lower education levels, specifically those with only primary education, reported greater stress. This finding aligns with studies linking higher educational attainment to improved employment opportunities, greater financial stability, and reduced parenting stress [31, 32]. However, while education and stable

employment generally reduce stress by providing higher stability and financial security, the dual demands of caregiving and work responsibilities may limit parental availability and increase stress among employed parents [33, 34], as reflected by our findings.

The study also found that higher PSC scores were significantly associated with children of parents who had higher parental stress and lower financial well-being, were employed, had lower educational attainment, or belonged to non-Lebanese families, suggesting that financial and social disadvantages compound stress within families and impact child mental health [35]. Children of married parents showed slightly elevated PSC scores, contrary to some studies suggesting that single parents experience higher stress [36], which could reflect unique cultural or socioeconomic pressures faced by married parents in Lebanon [37].

While urbanization may contribute to higher stress levels, the association between living in Beirut/Mount Lebanon and increased parental stress was minimal, yet children living in these regions showed higher PSC scores (24.92 vs. 20.50, $p=0.001$), likely reflecting the mental health challenges associated with urbanization, as Beirut is predominantly urban [38]. In this study, Beirut and Mount Lebanon were grouped in the analysis. Future research could explore regional socioeconomic disparities in more depth to determine if location-specific factors further exacerbate family stress in Lebanon's complex economic environment.

Limitations

This study has several limitations to be addressed. First, it relies on a cross-sectional design, which restricts the ability to establish causation between parental financial distress and children's mental health outcomes. Second, convenience sampling may limit the generalizability of our findings to all parents in Lebanon. Third, since data was self-reported by parents, there may be inherent biases, such as social desirability bias, which could affect the reliability of responses, particularly on sensitive topics like financial stress and mental health. Additionally, while we included both Lebanese and non-Lebanese families, more in-depth qualitative assessments are required to understand contextual variations within these groups.

Conclusions

This study sheds light on the influence of Lebanon's economic crisis on family mental health, revealing that financial distress significantly affects both parental stress and child mental health symptoms. A notable negative relationship was observed between financial well-being and both pediatric symptom levels and parental stress. These findings emphasize the critical need for financial stability and mental health support among Lebanese families, particularly those in lower socioeconomic groups and among non-Lebanese populations who face added challenges.

The study identifies education, employment, and socioeconomic status as core factors influencing parental

stress and child mental health outcomes. Addressing these factors through community, educational, and policy initiatives could alleviate some of the stressors faced by parents and improve overall family resilience in Lebanon's challenging economic landscape.

Recommendations and future directions

This study contributes valuable insights into the interconnected challenges of financial distress, parental stress, and child mental health in Lebanon, underscoring the need for targeted interventions. Recommended interventions include:

1. **Parenting and Financial Stability Programs:** Educational initiatives could be tailored to enhance parental coping mechanisms and financial literacy, particularly for parents in non-Lebanese and lower-income groups. These programs should address financial stress management and strengthen parenting skills.
2. **School-Based Mental Health Programs:** For children, early childhood education and school-based mental health initiatives, such as peer support groups and anti-bullying programs, could mitigate the impacts of family financial stress, especially in vocational and technical schools where students face additional socioeconomic pressures.
3. **Policy and Community Support:** Policymakers should expand access to mental health services for families, ensuring affordable resources are available to both parents and children. Creating safe community spaces for children to engage in recreational and social activities may further support children's emotional well-being.

Moreover, future studies might benefit from longitudinal designs and larger, randomized samples to address these limitations comprehensively. The study recommends qualitative research to gain deeper insights and address the gaps in understanding related to the study's results. This includes examining the relationship between geographic location and children's mental health, the cultural and social influences, and the lack of a relationship between marital status and parental stress scores.

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Author contributions

RN, ES, JK provided literature searches and reviews and prepared the main outline of the manuscript. All authors (RN, SAS, NR, CH, ES, SI, JK) contributed substantially to the acquisition of data or analysis and interpretation of data. All authors revised the article critically for important intellectual content. All authors approved the final version to be published.

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Data availability

No datasets were generated or analysed during the current study.

Declarations**Ethics approval and consent to participate**

This study obtained approval from the Ethics Committee of the Modern University of Business and Science (MU-20230519-41, dated May 19th, 2023). Parents read an explanation of the study, and those who agreed to participate signed a written informed consent to fill out an anonymous online survey, ensuring their confidentiality and anonymity were protected. The data collected was exclusively used for scientific and research purposes.

Consent for publication

Not applicable.

Competing interests

The authors declare no competing interests.

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