

Effect of Adverse Childhood Experiences on Marital Status and the Mediating Role of Early Maladaptive Schemas

Çocukluk Çağında Yaşanan Olumsuz Yaşantıların Evlilik Durumu Üzerindeki Etkisi ve Erken Dönem Uyum Bozucu Şemaların Aracı Rolü

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ABSTRACT

Objective: The present study aimed to analyze the effect of adverse childhood experiences (ACE) on marital status in adulthood and whether there is a mediating role for early maladaptive schemas (EMS).

Method: The study was conducted with 304 volunteer participants. The participants were administered the Sociodemographic Data Form, the Adverse Childhood Experiences Questionnaire (ACE-Q), the Young Schema Questionnaire Short Form-3 (YSQ), and the Golombok Rust Inventory of Marital State (GRIMS). A multivariate structural equation model was constructed for the purpose of statistical evaluation and subsequently subjected to route analysis for testing.

Results: The average age of participants was 44.31 ± 12.09 years, with females comprising 59.2% (n=180) of the total. Based on GRIMS results, participants were categorized into two groups: those without marital problems (44.4%, n=135) and those facing marital issues (43.8%, n=133). Significant statistical differences were observed between the groups regarding marriage duration and reasons. Additionally, substantial variations existed between groups across ACE subscales such as emotional deprivation, failure, pessimism, social isolation/mistrust, emotional inhibition, enmeshment/dependency, abandonment, and defectiveness. ACE-Q score emerged as an independent predictor of marital problems (OR: 1.403, 95% CI: 1.209–1.628). Adverse childhood experiences not only directly impacted marital status but also indirectly influenced it through YSQ mediation.

Conclusion: The study underscores ACE's predictive role in marital problems, with EMS mediating the relationship between ACE and marital status. These findings suggest a link between marital issues and both ACE and EMS.

Keywords: Adverse experiences, childhood, marital status, marriage, schema, trauma

ÖZ

Amaç: Bu çalışmada, Çocukluk çağı olumsuz yaşantıları (ÇÇOY) yetişkinlik döneminde evlilik durumu üzerindeki etkisi ve ve erken dönem uyum bozucu şemaların (EDUBŞ) aracı rolünün olup olmadığını incelemesi amaçlanmıştır.

Yöntem: Çalışma 304 gönüllü katılımcı ile gerçekleştirilmiştir. Katılımcılara Sosyodemografik Veri Formu, Çocukluk Çağı Olumsuz Yaşantılar Ölçeği (ÇÇOYÖ), Young Şema Ölçeği Kısa Form-3 (YŞÖ) ve Golombok-Rust Evlilik Durumu Envanteri (GREDE) uygulanmıştır. İstatistiksel değerlendirmede çok değişkenli bir yapısal eşitlik modeli oluşturulmuştur ve yol analizi ile model test edilmiştir.

Bulgular: Araştırmaya katılan katılımcıların yaş ortalaması $44,31 \pm 12,09$ yıl olarak bulunmuştur. Kadın katılımcılar toplamın %59,2'sini (n=180) oluşturduğu görülmüştür. GREDE sonuçlarına göre katılımcıların çalışmanın amacına göre evlilikte sorun yok (%44,4, n=135) ve evlilikte sorun var (%43,8, n=133) olarak iki gruba ayrılmıştır. Buna göre iki grup arasında evlilik süresi ve evlilik nedeni değişkenlerinde istatistiksel olarak farklılık saptanmıştır. Ayrıca iki grup arasında ÇÇOYÖ, duygusal yoksunluk, başarısızlık, karamsarlık, sosyal izolasyon/güvensizlik, duyguları bastırma, iç içe geçme/bağımlılık, terk edilme ve kusurluluk alt ölçeklerinde istatistiksel olarak fark saptanmıştır. ÇÇOYÖ skoru evlilikte sorun varlığının bağımsız yordayıcısı olarak bulunmuştur (OR:1.403 %95 GA 1.209-1.628). Katılımcılarda çocukluk çağı olumsuz yaşantıları, evlilik durumu üzerine direkt ve YŞÖ üzerinden dolaylı olarak etki etmektedir.

Sonuç: ÇÇOY'nin evlilikte problemin bir yordayıcısı olduğu ve EDUBŞ'ların ÇÇOY ile evlilik durumu arasındaki ilişkiye aracılık ettiği gösterilmiştir. Bu sonuçlar evlilik ile ilgili sorunların ÇÇOY ve EDUBŞ ile ilişkili olabileceğini düşündürmektedir.

Anahtar sözcükler: Travma, çocukluk çağı, olumsuz yaşantılar, şema, evlilik, evlilik durumu

Introduction

Adverse childhood experiences (ACE) are a major public health problem that has long-term negative consequences and impairs the health and well-being of children and adolescents (WHO 1999). Studies indicate that parents, relatives, or friends are responsible for almost 80% of child maltreatment cases (Gilbert et al. 2009). However, the repercussions of these adverse encounters in children persist beyond their formative years (McGloin and Widom 2001). An individual with ACE is unable to adequately adapt to adult life and may have difficulties with the tasks of adulthood, such as independence, establishing intimacy with others, self-care, cognition, memory, identity, and stable relationships (Herman 2019). Poor relationships are believed to be rooted in a lengthy and concealed history of conflict (Simeone- DiFrancesco et al. 2017). Individuals who possess a family model characterized by negative features such as insecurity, anger, neediness, abandonment, or blame are prone to replicating these patterns (Wolynn 2020). Studies have revealed that persons who undergo physical abuse, rape, severe physical assault, or violence during their youth have a higher likelihood of experiencing marriage dissolution (Whisman 2006). Hence, the detrimental consequences of the ACE on individuals' marriages are readily apparent.

The term "Schema" refers to a notion that emerges throughout early life and is believed to be influenced by childhood events. It is considered to have a significant influence on life experiences (Young et al., 2019). Therefore, he defined the subsets of the schemas he called "Early Maladaptive Schemas" (EMS). EMS, or negative cognitive distortions, are maladaptive patterns of thinking and feeling that originate in early life and persistently recur (Young and Klosko 2016). There are a total of 18 schemes, of which four are particularly potent and detrimental. These are Abandonment, Social Isolation/Mistrust, Emotional Deprivation and Defectiveness schemas. Individuals exhibiting this schema typically experienced abandonment, abuse, neglect, and rejection throughout their early developmental stages (Young et al. 2019). Specifically, people with these schemas may have encountered adverse experiences throughout their formative years (Young et al. 2019). Adult interpersonal interactions are influenced by the presence of EMS, which originates and remains consistent during infancy (Young and Klosko 2016). It is assumed that when a person's schema is triggered, they re-experience the same emotions, evaluations, and reactions they experienced as a child (Simeone-DiFrancesco et al. 2017). Consequently, the adult is compelled to repeatedly experience adverse recollections from their early years. According to Hargrave (2000), an individual who has experienced abuse and neglect may exhibit a lack of initiative in seeking the necessary care and attention while in a relationship (Simeone-DiFrancesco et al. 2017). They may even exhibit manipulation, threatening, and abusive behaviors (Simeone-DiFrancesco et al. 2017). EMS can also impact sexual relationships and married life. Interestingly, people with EMS may unknowingly trigger scenarios from their childhood that caused injury, leading to their re-occurrence in adulthood (Young et al. 2019). Such consequences might detrimentally impact the institution of marriage, which serves as a fundamental pillar of society.

Evidence suggests that child abuse is prevalent on a global scale, as indicated by the World Health Organization in 2006 (WHO 2006). As far as we know, there is a lack of research demonstrating the impact of negative childhood events on marital status and the influence of early maladaptive schemas. Therefore, it is considered that therapists and researchers can benefit from the results of this study by investigating the effect of ACE on marital status and the presence of the mediating role of EMS on marital status. The aim of the present study, which was planned with the hypothesis that childhood adverse experiences will negatively affect marital status and early maladaptive schemas will mediate this negative effect, is to determine whether the ACE has an effect on marital status in adulthood. It is also to explore the mediating role of early maladaptive schemas.

Method

Sample

The present cross-sectional study consisted of 304 married individuals. The inclusion criteria were as follows: consenting to the informed consent form, being under 70 years of age, volunteering to participate in the study, not having a psychiatric disorder diagnosed by a psychiatrist, and being in a heterosexual marriage. The exclusion criteria were being under 18 and over 70 years of age, having a physician-diagnosed physical illness, and not volunteering. The online survey method was implemented using Google Forms, while snowball sampling was chosen as the preferable method for sampling. The reason for preferring this sampling method is its efficiency in disseminating the questionnaire by initially contacting a limited number of individuals within the community and subsequently reaching other individuals through a cascading network. The questionnaire was distributed via e-mail, social media, and messaging applications in the virtual environment. Prior to the study, all necessary

information was given to her, and she was notified of her eligibility to participate. A digital invitation form, designed to align with the study's objectives, was distributed to a total of 900 married people. A total of 345 participants successfully filled out the form, while 41 individuals were rejected due to not meeting the specified inclusion requirements. The study was concluded with a total of 304 participants, including 180 women (59.2%) and 124 men (40.8%). Volunteers were included in the study using a simple random sampling model. Participants were invited to collaborate with the communication groups they typically engage with in their professional settings. Prior to participating in the study, the volunteers were required to carefully review the informed consent form. This document explicitly stated that participation in the study was optional and that the volunteers had the freedom to withdraw at any point. Additionally, the form assured that no personal data would be collected and provided contact information for the researcher in case further clarification regarding the study's objectives was necessary either immediately or in the future. Only individuals who provided explicit consent were allowed to go to the subsequent phase, which entailed the fulfillment of the assessments. Duplicate participation is prevented by the system.

As a result of the power analysis using the G power program, when effect size = 0.2 and $t = 1.97$, the minimum sample size calculated for Power = 0.80 and $\alpha = 0.05$ was determined to be 266. A total of 304 participants were planned to be included in the study in order to increase its power.

Procedure

The study was approved by the Istanbul Kent University Social Sciences and Humanities Research and Publication Ethics Committee on March 23, 2020, pursuant to the decision numbered 2020/02. The study's stages were all developed in compliance with the requirements of the Declaration of Helsinki.

The study was conducted using an online method. A link was sent to those who agreed to participate in the study. Participants were initially prompted to give their approval to the Informed Consent Form via this website. Consenting individuals were administered the Sociodemographic Data Form, the ACE, the YSQ, and the GRIMS. Duplicate entries were prevented through the system for the reliability of the study. The data obtained were scored in accordance with the instructions of the questionnaires. In accordance with the literature, the participants were divided into two groups according to their GRIMS scores. By taking a cut-off value of 33, the group below the cut-off value was classified as "having marital problems," and the group above the cut-off value was classified as "having no marital problems" (the median value of GRIMS scores was 33 and the mean value was 33.48). In another study Whisman 2006; Kronmüller et al. (2011), a new classification was put forward based on the original classification in the current study, and after excluding 36 (11.8%) participants who were considered "undefined" according to the original classification, a comparison of sociodemographic, marital characteristics, and psychometric measurements of the groups with and without marital problems was made.

Data Collection Tools

Sociodemographic Data Form

The researchers designed a questionnaire based on existing literature to collect demographic information from the study participants. The form included inquiries about variables such as sex, age, place of upbringing, educational level, spouse's educational level, employment status, marital status of parents, age at marriage, duration of marriage, kinship relationship with spouse, family approval of marriage, type of marriage, and number of children. Situations such as participants' economic status and addictions were evaluated according to their own statements.

Adverse Childhood Experiences Questionnaire (ACE-Q)

The scale was developed by CDC-Kaiser Permanente in 1997 to measure childhood traumas experienced before the age of 18. The questionnaire has been translated into many languages. The study was translated into Turkish by Ulukal et al. in 2013; however, no assessment of its validity and reliability was performed. In 2018, Gündüz et al. conducted a study to assess the validity and reliability of a Turkish adaptation. The original scale's value of Cronbach's Alpha was calculated to be 0.81 (Bagby et al. 1994).

Young Schema Questionnaire Short Form-3 (YSQ)

The scale was developed by Young et al. in 1991 to assess early maladaptive schemas. The subscales are Emotional Deprivation, Failure, Pessimism, Social Isolation/Mistrust, Emotional Inhibition, Approval-Seeking, Enmeshment/Dependence, Entitlement/Insufficient Self-Control, Self-Sacrifice, Abandonment, Punitiveness,

Defectiveness, Vulnerability to Harm, Unrelenting Standards, Impaired Autonomy, Disconnection, Other-Directedness, and Impaired Limits (Soygüt et al. 2009). The study on validity and reliability in Turkey was conducted by Soygüt et al. in 2009. Cronbach's alpha value of the scale ranged between $\alpha=0.63-0.80$ for schema domains and $\alpha=0.53-0.81$ for schema dimensions. The test-retest reliability of the scale ranged between $r=0.66-0.83$ ($p<0.01$) for schema domains and $r=0.66-0.82$ ($p<0.01$) for schema dimensions (Soygüt et al. 2009).

Golombok Rust Inventory of Marital State (GRIMS)

The scale was developed by Rust et al. (1990) to measure marital satisfaction. It was adapted into Turkish, and its validity and reliability study were conducted by Duyan and Duyan (2014). The inventory has a single dimension encompassing the realms of satisfaction, communication, mutual interests, trust, and respect. The total of these areas consists of 28 items. The total score range is between 0 and 84 points, with low scores indicating high marital satisfaction and high scores indicating low marital satisfaction. Scores between 17 and 21 were determined as "very good," between 22 and 25 as "good," between 26 and 29 as "above average," between 30 and 33 as "average," between 34 and 37 as "poor," between 38 and 41 as "bad," between 42 and 46 as "serious problems," and above 47 as "very serious problems." The Cronbach alpha value of the scale was found to be 0.877 (Duyan and Duyan 2014).

Statistical Analysis

The data obtained in the study were analyzed with SPSS-22 (Statistical Package of Social Sciences). Descriptive statistics are presented as mean \pm standard deviation and minimum-maximum for numerical variables and as number (n) and ratio (%) for categorical variables. Following the control of the continuous variables to meet the parametric assumptions, the Student-t test was employed for the comparison of two groups, and the Pearson Chi-square test was employed for the comparison of categorical variables. The Pearson correlation test was employed in the correlation analysis of two continuous variables. Basic statistical analyses (variables with significant differences in Student-t tests, Pearson Chi-square tests, and Pearson correlation tests) and a logistic regression model were created and tested in light of the literature to identify predictors. A multivariate model was created in the light of basic statistical analyses (variables with significant differences in the Student-t test, Pearson Chi-square test, and Pearson correlation tests), taking into account the literature and clinical information, and the model was tested with path analysis. AMOS 24 was employed for the analysis. Chi-square/degree of freedom, Goodness-of-Fit Index (GFI), Comparative Fit Index (CFI), and Root Mean Square Error of Approximation (RMSEA) values were used as model fit criteria. $P < 0.05$ was considered statistically significant in all analyses.

Results

The mean age of the participants was 44.31 ± 12.09 years. Women participants constituted 59.2% ($n = 180$) of the total, while male participants constituted 40.8% ($n = 124$). Based on GRIMS classification values, 11.8% ($n = 36$) of the participants' scales were evaluated as undefined. The marital status of the participants was categorized as 10.5% ($n = 32$) very good, 12.5% ($n = 39$) good, 9.2% ($n = 28$) above average, 11.8% ($n = 36$) average, 8.6% ($n = 26$) poor, 8.6% ($n = 26$) bad, 9.2% ($n = 28$) serious problems, and 17.4% ($n = 53$) very serious problems. After discarding those who were classified as undefined based on the scale scores, the remaining participants were categorized into two groups: those without marital issues (44.4%, $n = 135$) and those with marital problems (43.8%, $n = 133$), as per the study's objective.

Table 1 presents the sociodemographic information distribution of the 304 participants participating in the study, as well as the comparison between the study groups. Accordingly, no statistically significant difference was found in the comparison of the variables of age, sex, place of growth, educational status, employment status, parental marital status, spouse's educational status, and spouse's employment status between the two groups. There was a statistical difference between the two groups in the number of children variable ($t = -2.050$, $p = 0.041$).

Table 2 presents the distribution of marital characteristics among the participants and provides a comparison between the study groups. There was a significant statistical difference between the two groups in terms of the duration of marriage ($t=-2.124$, $p=0.035$) and the reason for marriage ($X^2=16.935$, $p=0.005$). Nevertheless, there was no significant disparity observed in the factors of age at marriage, period of dating, intimacy with a spouse, family approval for marriage, spousal family approval for marriage, kind of marriage, and first marriage ($p>0.05$).

Table 1. Distribution of sociodemographic information of participants and comparison between study groups

Variable	Total	Without marital problems (n=135)	With marital problems (n=133)	t/X ² value	p value
Age (year) (Mean±SD)	44.31±12.09	43.46±12.42	46.24±11.82	-1.876	0.062
Gender (%)				0.811	0.368
Female	180 (59.2)	78 (57.8)	84 (63.2)		
Male	124 (40.2)	57 (42.2)	49 (36.8)		
Educational status (%)				0.445	0.931
Primary education	11 (3.6)	6 (4.4)	5 (3.8)		
High school	47 (15.5)	22 (16.3)	19 (14.3)		
University	178 (58.6)	77 (57.0)	76 (57.1)		
Graduate	68 (22.4)	30 (22.2)	33 (24.8)		
Employment status (%)				0.147	0.929
Working	193 (63.5)	85 (63.0)	82 (61.7)		
Not working	49 (16.1)	21 (15.6)	23 (17.3)		
Retired	62 (20.4)	29 (21.5)	28 (21.1)		
Spouse's educational status (%)				3.832	0.280
Primary education	31 (10.2)	9 (6.7)	18 (13.5)		
High school	51 (16.8)	24 (17.8)	24 (18.0)		
University	165 (54.3)	72 (53.3)	67 (50.4)		
Graduate	57 (18.8)	30 (22.2)	24 (18.0)		
Spouse's employment status (%)				0.755	0.686
Working	212 (69.7)	92 (68.1)	90 (67.7)		
Not working	43 (14.1)	22 (16.3)	18 (13.5)		
Retired	49 (16.1)	21 (15.6)	25 (18.8)		
Number of children (Mean±SD)	1.32±1.01	1.21±1.04	1.46±0.95	-2.050	0.041

Table 2. Distribution of participants' marriage characteristics and distribution among study groups

Variable	Total	Without marital problems (n=135)	With marital problems (n=133)	t/X ² value	p value
Age at marriage (year) (Mean±SD)	27.72±5.73	27.85±5.74	27.48±5.28	0.538	0.591
Duration of marriage (year) (Mean±SD)	16.49±12.79	15.34±12.84	18.70±13.09	-2.124	0.035
Period of dating (year) (Mean±SD)	0.37±1.44	0.43±1.44	0.33±1.47	0.596	0.552
Intimacy with a spouse (%)				2.889	0.089
Not relatives	283 (93.1)	129 (95.6)	120 (90.2)		
Relative	21 (6.9)	6 (4.4)	13 (9.8)		
Family approval for marriage (%)				0.299	0.585
No	19 (6.3)	7 (5.2)	9 (6.8)		
Yes	285 (93.8)	128 (94.8)	124 (93.2)		
Spousal family approval for marriage (%)				0.614	0.433
No	18 (5.9)	7 (5.2)	10 (7.5)		
Yes	286 (94.1)	128 (94.8)	123 (92.5)		
Kind of marriage (%)				2.310	0.805
Arranged marriage	24 (7.9)	10 (7.4)	12 (9.0)		
By meeting oneself	172 (56.6)	77 (57.0)	74 (55.6)		
By meeting in a virtual environment	16 (5.3)	7 (5.2)	9 (6.8)		
Meeting through family	30 (9.9)	11 (8.1)	13 (9.8)		
Meeting through friends	55 (18.1)	28 (20.7)	21 (15.8)		
Other	7 (2.3)	2 (1.5)	4 (3.0)		
First marriage (%)				0.559	0.455
No	21 (6.9)	8 (5.9)	11 (8.3)		
Yes	283 (93.1)	127 (94.1)	122 (91.7)		

Variable	Total	Without marital problems (n=135)	With marital problems (n=133)	t value	p value
Golombok Rust Inventory of Marital State	33.51±14.44	25.44±4.80	45.99±9.28	-22.700	<0.001
Adverse Childhood Experiences Questionnaire	1.73±2.02	1.31±1.81	2.36±2.22	-4.227	<0.001
Young Schema Questionnaire					
Emotional Deprivation	9.78±4.97	8.32±3.89	12.12±5.43	-6.563	<0.001
Failure	11.85±5.36	11.16±4.90	13.23±5.75	-3.171	0.002
Pessimism	11.79±5.46	11.17±5.44	12.99±5.43	-2.730	0.007
Social Isolation/Mistrust	16.58±6.76	15.20±5.86	18.79±7.35	-4.414	<0.001
Emotional Inhibition	11.85±5.32	10.76±4.27	13.73±5.89	-4.718	<0.001
Approval-Seeking	20.35±5.51	20.25±5.12	20.68±5.63	-0.657	0.512
Enmeshment/Dependency	16.03±6.84	14.74±6.31	18.07±7.19	-4.031	<0.001
Entitlement/Insufficient Self-Control	23.66±6.42	23.65±6.18	24.18±6.50	-0.692	0.490
Self-Sacrifice	16.86±4.95	16.88±4.98	17.33±4.73	-0.756	0.450
Abandonment	9.03±4.35	8.65±4.21	9.90±4.57	-2.328	0.021
Punitiveness	20.67±5.50	20.80±5.35	20.42±5.46	0.584	0.559
Defectiveness	10.11±5.15	9.19±4.41	11.60±5.84	-3.803	<0.001
Vulnerability to Harm	12.30±4.75	11.94±4.61	13.07±4.86	-1.958	0.051
Unrelenting Standards	9.25±3.64	5.91±3.74	12.12±5.43	0.242	0.809

		GRIMS	ACE-Q
ACE-Q	r	0.343	1
	p	<0.001	
Young Schema Questionnaire			
Emotional Deprivation	r	0.488	0.544
	p	<0.001	<0.001
Failure	r	0.218	0.329
	p	<0.001	<0.001
Pessimism	r	0.167	0.296
	p	0.003	<0.001
Social Isolation/Mistrust	r	0.304	0.469
	p	<0.001	<0.001
Emotional Inhibition	r	0.297	0.311
	p	<0.001	<0.001
Approval-Seeking	r	0.076	0.177
	p	0.184	0.002
Enmeshment/Dependency	r	0.207	0.298
	p	<0.001	<0.001
Entitlement/Insufficient Self-Control	r	0.093	0.303
	p	0.107	<0.001
Self-Sacrifice	r	0.125	0.112
	p	0.029	0.050
Abandonment	r	0.189	0.400
	p	0.001	<0.001
Punitiveness	r	-0.066	0.165
	p	0.251	0.004
Defectiveness	r	0.233	0.395
	p	<0.001	<0.001
Vulnerability to Harm	r	0.185	0.321
	p	0.001	0.000
Unrelenting Standards	r	0.063	0.145
	p	0.273	0.011

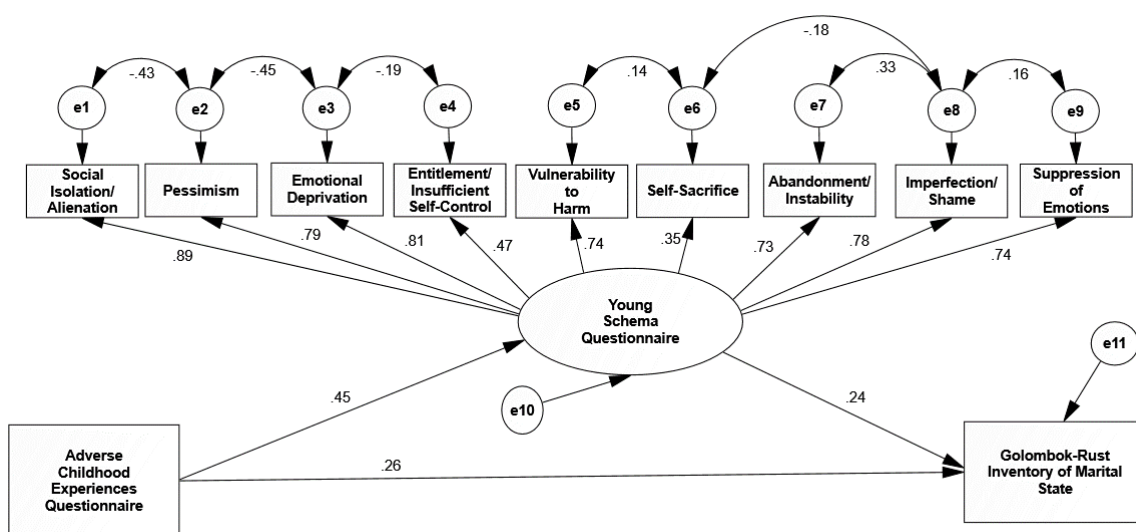
The psychometric test results of the subjects in both groups are displayed in Table 3 for comparison. There was a statistical difference between the GRIMS ($t=-22.700, p<0.001$) and the ACE-Q ($t=-4.227, p<0.001$) scores of the participants between the two groups. A statistical difference was found in emotional deprivation ($t=-6.563, p<0.001$), failure ($t=-3.171, p=0.002$), pessimism ($t=-2,730, p=0,007$), social isolation/mistrust ($t=-4,414, p<0,001$), emotional inhibition ($t=-4,718, p<0,001$), enmeshment/dependency ($t=-4,031, p<0,001$), abandonment ($t=-2,328, p=0,021$), and defectiveness ($t=-3,803, p<0,001$) subscales of the YSQ between the two groups. However, there was no statistical difference between the two groups in the subscales of approval-seeking, entitlement/insufficient self-control, self-sacrifice, punitiveness, vulnerability to harm and, unrelenting standards.

Table 4 presents the correlations of the participants' YSQ subscales with GRIMS and the ACE-Q. A statistically significant and positive correlation was found between the GRIMS and the ACE-Q. ($r=0.343, p<0.001$) There was a statistically significant and positive correlation between GRIMS and the YSQ subscales of Emotional Deprivation, Failure, Pessimism, Social Isolation/Mistrust, Emotional Inhibition, Enmeshment/Dependence, Self-Sacrifice, Abandonment, Defectiveness and Vulnerability to Harm. A statistically significant positive correlation was found between ACE and the YSQ subscales Emotional Deprivation, Failure, Pessimism, Social Isolation/Mistrust, Emotional Inhibition, Approval Seeking, Enmeshment/Dependency, Entitlement/Insufficient Self-Control, Self-Sacrifice, Abandonment, Punitiveness, Defectiveness, Vulnerability to Harm, and Unrelenting Standards.

Table 5. Logistic regression model created to determine the predictor of marital problems

Variable	β	p value	Odds ratio	95% Confidence interval	
				Lower	Upper
Age (each unit increase)	0.003	0.968	1.003	0.887	1.134
Sex (Woman)	-0.264	0.381	0.768	0.426	1.386
Education (Primary education)					
High school	0.616	0.409	1.851	0.429	7.988
University	1.097	0.127	2.996	0.732	12.263
Graduate	1.455	0.060	4.283	0.943	19.453
Employment States (Working)					
Not working	-0.137	0.726	0.872	0.405	1.877
Retired	-0.671	0.130	0.511	0.215	1.217
Duration of marriage (each unit increase)	0.058	0.355	1.059	0.938	1.197
Age at marriage (each unit increase)	0.032	0.625	1.033	0.907	1.175
Family approval for marriage	-0.178	0.759	0.837	0.269	2.609
ACE-Q score (each unit increase)	0.339	<0.001	1.403	1.209	1.628

ACE-Q: Adverse Childhood Experiences Questionnaire, GRIMS: Golombok-Rust Marital Status Inventory.



CMIN	Df	CMIN/Df	GFI	CFI	RMSEA
107.608	36	2.989	0.930	0.947	0.080

Figure 1. Testing and fit parameters of the model created with the Structural Equation model leri

A logistic regression model was tested to predict the presence of marital problems using the independent variables of age, sex, education, employment status, duration of marriage, age at marriage, presence of marital family approval, and ACE score. The model revealed that the ACE score (OR: 1.403, 95% CI: 1.209–1.628, $p < 0.001$) was identified as a significant and separate predictor of marital issues. Logistic regression values are presented in Table 5.

A multivariate structural equation model was created to test the hypothesis of the study, and the model was tested with path analysis. Chi-square/degree of freedom, GFI, CFI, and RMSEA values were employed as model fit criteria. Figure 1 depicts the model derived from the correlation study and the underlying theoretical framework. According to the model, Adverse Childhood Experiences has a positive, significant, and moderate effect on the YSQ (Standardized regression coefficient: 0.44, $p < 0.001$) and GRIMS (Standardized regression coefficient: 0.26, $p = 0.002$). YSQ (Standardized regression coefficient: 0.24, $p < 0.001$) has a positive, significant, and moderate effect on GRIMS. Adverse childhood experiences directly impact marriage status among individuals and also indirectly influence marital status through the mechanism of YSQ.

Discussion

The most prominent finding of this study, which aims to evaluate the relationship between adverse experiences in childhood and marital status, is that ACE-Q is a predictor of marital problems. Another major finding is the result indicating that EMS mediates the relationship between ACE and marital status. These results are significant since they may guide therapeutic interventions for individuals with marital problems.

It is known that individuals who are exposed to negative behaviors in childhood are likely to continue these negative behaviors in their own lives (Wolynn 2020). It was also shown that people who have been abused have difficulty in maintaining stable relationships (Herman 2019). This shows why people with abuse-neglect experiences cannot have satisfying marriages. They may lack proper guidance from their families on cultivating a good relationship, or they may consciously select an unhealthy partner that resembles their family dynamics. In this regard, it can be said that the relationship between marital satisfaction and ACE found in the present study is compatible with the literature. Wang et al. (2018) also obtained conclusions that support these theories and the author's research. They analyzed the effects of emotional abuse experienced in childhood on marital satisfaction. Emotional maltreatment negatively affects marital satisfaction according to the results obtained from 312 individuals (Wang et al. 2018). Additionally, the most probable reason for this result may be that these individuals continue the negative behaviors they learned in childhood in their romantic relationships, and another reason may be that they have difficulty in maintaining stable relationships. Furthermore, Whisman (2006) studied the impact of seven childhood traumas on marriage. This study revealed that individuals who experienced physical abuse, rape, serious physical assault or assault may have more marital breakdown. Additionally, people who experienced rape or sexual harassment in childhood had lower marital satisfaction (Whisman 2006). A study analyzed the level of satisfaction in marriages of women who had experienced childhood sexual trauma. The findings indicated a connection between sexual trauma and discontent within the marital relationship (Liang et al. 2006, Nguyen et al. 2017). Due to the lack of a separate analysis of various types of adverse childhood experiences in our study, we were unable to establish a correlation between specific types of adverse experiences and marital satisfaction.

Out of 304 participants in the current study, 133 had marital problems. These issues may encompass, for instance, a lack of awareness and empathy towards the partner's needs, displaying inattentiveness, engaging in infidelity, experiencing dissatisfaction with the relationship, feeling isolated, encountering conflicts, lacking shared interests, struggling to express affection, harboring doubts about the relationship, and experiencing a lack of interaction. Approximately 50% of the participants reported difficulties in their interpersonal connections. Given the rising divorce rates since 2016 (TUIK 2019), it is crucial to understand the key aspects that contribute to marital satisfaction. One of the reasons for such high results may be the increasing economic hardship and poverty in the country and the fact that part of the study coincided with the COVID-19 pandemic.

Marital satisfaction is seen as a version of relationship satisfaction. Paradis and Boucher (2010) analyzed the correlation between childhood trauma and relationship satisfaction. The study was conducted on an online platform with 1,728 respondents. It was observed that emotional abuse of women and physical abuse of men in the past led to deterioration in couple relationships (Paradis and Boucher 2010). Various studies have demonstrated that individuals who have endured childhood sexual abuse encounter difficulties in achieving satisfactory relationships. People with a history of sexual abuse in the past were found to have lower relationship satisfaction (DiLillo and Long 1999, Walker et al. 2009, Watson and Halford 2010). Furthermore, a study conducted by Walker et al. (2011) revealed that individuals who have experienced sexual abuse tend to exhibit

more demeaning and defensive responses within their intimate relationships. There are numerous studies that demonstrate the impact of childhood traumatic experiences on marriage attitudes, readiness for marriage, and perception of a spouse (Larson and LaMont, 2005; Busby et al., 2011). Each of these studies concluded that relationships were adversely impacted. Furthermore, DiLillo et al. (2007) show that psychological and relational challenges in women can be attributed to a previous experience of childhood trauma.

The study revealed a correlation between childhood unpleasant experiences and early maladaptive schemas, aligning with the theoretical postulations of Young and colleagues (2019). Schemas consist of destructive emotional and cognitive structures that begin early in life and repeat themselves continuously. They are generally thought to develop as a result of adverse childhood experiences. Individuals who were abandoned, abused, neglected, and rejected during childhood were shown to have abandonment, mistrust, emotional deprivation, and defectiveness schemas (Young et al. 2019). Considering the findings of the present study, there was a statistically significant positive correlation between childhood trauma experiences and emotional deprivation, failure, pessimism, social isolation/mistrust, emotional inhibition, approval-seeking, enmeshment/dependency, entitlement/insufficient self-control, self-sacrifice, abandonment, punitiveness, defectiveness, vulnerability to harm and unrelenting standards. The significant relationship between childhood traumas and emotional deprivation, abandonment and social isolation/mistrust schemas found in the study conducted by Young et al. (2019) was also found to be significant in the findings of the present study. All three of these are schemas from the field of disconnection and rejection. This indicates that the results of our study are consistent with the literature. Lee et al. (2013) conducted a study analyzing the relationship between trauma experiences and schemas. Accordingly, traumatized individuals scored higher in all five schema domains than non-traumatized individuals. The most significant schema area was disconnection and rejection (Lee et al. 2013).

The indirect relationship between early maladaptive schemas and marital satisfaction in the current study is consistent with the views of Young and Klosko (2016). According to this view, early maladaptive schemas harm relationships, and the attachments of people with especially disconnection and rejection domains to other people cannot be satisfactory (Young and Klosko 2016). Especially people with "abandonment" schema have more inconsistent relationships. The reason is that abandonment anxiety can lead to increased inconsistency in behaviors, and the strain resulting from worry can impact their relationships. They can be more attached to people who treat them inconsistently (Young and Klosko 2016). This leads to a vicious circle, repeating the same process over and over again. One chooses a partner who fits one's schema chemistry, not a relationship in which one is happy. Based on the findings of the current study, statistically significant results were found between emotional deprivation, failure, pessimism, social isolation/mistrust, emotional inhibition, enmeshment/dependence, self-sacrifice, abandonment, defectiveness, and vulnerability to harm and marital satisfaction. Yoosefi et al. (2010) also demonstrated the effects of early maladaptive schemas on marital stability. According to the results of the study, it was determined that the individuals who demanded divorce the most were those who had Mistrust schema. Among these, those with the lowest mean were those with the Approval Seeking schema. Consequently, they proved that divorce has a relationship with early maladaptive schemas (Yoosefi et al. 2010). Although this was not included as an outcome variable in our study, it strengthens the view that early maladaptive schemas may be related to marital satisfaction and divorce.

The findings of the present study suggest that there is an indirect effect of early maladaptive schemas on the relationship between ACE and marital satisfaction. A review of the literature reveals that there is no study analyzing the effect of these variables on marital satisfaction. The findings of Tezel et al. (2015), consistent with the results of the present study, showed the mediating role of early maladaptive schemas in the effect of childhood traumatic experiences on maladaptive interpersonal styles. Disconnection and rejection and impaired autonomy and performance, which are among the early maladaptive schema domains, were found to have a significant relationship with maladaptive interpersonal styles (Tezel et al. 2015). Gay et al. (2013) also proved the mediating role of Disconnection and Rejection, which are among the schema domains, in the relationship between childhood emotional abuse and intimate partner violence (Gay et al. 2013). The effect of psychological abuse on interpersonal conflicts and the mediating role of the mistrust, abandonment, and defectiveness schemas have been shown (Messman-Moore and Coates 2007). Atmaca and Gençöz (2016) proved the effect of child abuse and neglect on spousal violence and the effect of emotional deprivation and vulnerability to harm schemas, which have a mediating role (Atmaca and Gençöz 2016). The structural equation model of our study revealed that childhood adverse experiences, directly and indirectly through early maladaptive schemas, had an effect on marital satisfaction in line with the literature.

The results of the present study should be evaluated within limitations, taking into account some unfavorable conditions. Above all, the fact that the study was conducted in an online environment is an important limitation.

This may affect who participates in the study and the results. Another important limitation is that the study consists of self-administered forms, which makes the results open to manipulation by the participants.

Conclusion

The present study revealed that ACE was a predictor of marital problems, and EMS mediated the relationship between ACE and marital status. These results are of great importance as they are the first in literature. Furthermore, it can be thought that these results will guide therapists working with couples and trauma to plan therapeutic interventions. It is possible to argue that couples' marital problems may also be caused by trauma and that individual trauma treatments may be an alternative to solving the problems. Additionally, the results of the present study are of great importance as they show that the effect of adverse childhood experiences on EMS has an impact on adulthood experiences. The fact that early maladaptive schemas have marital effects may provide information for the therapeutic interventions of therapists using the schema therapy approach. It will be crucial for future studies to increase the population and sample size in terms of comprehensiveness.

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