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Relationship of Adolescents' Just World Beliefs with Childhood Trauma and Attachment Styles

Ergenlerin Adil Dünya İnançlarının Çocukluk Çağı Travmaları ve Bağlanma Stilleri ile İlişkisi

Burçin Çolak[1], Gencay Koç[2], Rıfat Serav İlhan[3], Bedriye Öncü[1]

[1]Ankara University Faculty of Medicine, Department of Psychiatry, Adolescence Unit, Ankara, Turkey
[2]Ministry of Health, Ankara City Hospital, Clinic of Child and Adolescent Psychiatry, Ankara, Turkey
[3]Ankara University Faculty of Medicine, Department of Psychiatry, Ankara, Turkey

ABSTRACT

Objectives: Adolescence is an important period of life when some basic cognitive constructs are formed so that a person can understand himself and others to comprehend the world as a whole. Just world belief (JWB) is one of these cognitive constructs that indicate whether one sees the world as a just or an unjust place. In this study, we aimed to explore the JWB of adolescents from a clinical sample and its relations with psychiatric disorders, attachment styles, and childhood traumas.

Materials and Methods: We included 250 adolescent outpatients in the study. Diagnoses were categorized as internalizing and externalizing disorder groups. The participants completed JWB-scales self (S) and JWB-general (G) for assessing their attitudes toward belief in a just world, the Childhood Trauma Questionnaire-Short Form for assessing the type and severity of childhood traumas, and the Experiences in Close Relationships-Revised scales for assessing attachment styles. Relations and group comparisons between internalizing and externalizing disorder groups within these variables were assessed.

Results: Adolescents with internalizing disorders had lower JWB-S and JWB-G scores than the externalization disorder group. Adolescents with a secure attachment style had the highest scores in both JWB-G and JWB-S. Adolescents with a fearful attachment style had the lowest score on JWB-S, and adolescents with an anxious attachment style had the lowest score on JWB-W. Childhood trauma was inversely associated with both JWB-S and JWB-G.

Conclusion: Adolescents' attitude seems to differ for JWB dimensions in the internalizing and externalizing disorder groups. Secure attachment style is related to the perception of the world as a just place, whereas insecure attachment styles were not. Childhood trauma negatively affects the JWB of adolescents. Further studies are needed to understand the role of JWB in psychiatric disorders and psychotherapeutic approaches.

Keywords: Adolescence, just world beliefs, internalizing disorders, externalizing disorder childhood trauma, attachment styles

ÖZ

Amaç: Ergenlik dönemi kişilerin kendileri ve dünyayı bütünlüklü olarak anlamakta temel ve önemli bilişler geliştirdiği bir dönemdir. Adil dünya inancı (ADİ) bu bilişlerden biri olup, kişinin dünyayı adil veya adaletsiz bir yer olarak algılayıp algılamadıkları ile ilgidir. Bu çalışmada, klinik örneklemdeki ergenlerde adil dünya inancının, bağlanma biçimleri ve çocukluk çağı travmaları ile ilişkilerinin araştırılması amaçlanmıştır.

Gereç ve Yöntem: Çalışmaya bir üniversite hastanesinin ergen ünitesine başvuran 250 ergen hasta dahil edildi. Tanılar içselleştirme ve dışsallaştırma bozukluk grupları olarak kategorize edildi. Katılımcılar, adil dünya inancını değerlendirmek için ADİ-özel (Ö) ve ADİ-genel (G), çocukluk çağı travmalarını tipini ve şiddetini değerlendirmek için Çocukluk Çağı travmaları Ölçeği-Kısa Formu ve bağlanma tiplerini ölçmek için Yakın İlişkilerde Yaşantılar Envanteri-Revize Formu kullanıldı. Ölçekler arası ilişkiler ve gruplar arası karşılaştırmalar yapıldı.

Bulgular: İçselleştirme bozukluğu olan ergenlerde dışsallaştırma bozukluğu grubuna göre ADİ-Ö ve ADİ-G skorları düşük olarak saptandı. Güvenli bağlanma stiline sahip ergenlerin hem ADİ-Ö hem de ADİ-G'de en yüksek puanlara, korkulu bağlanma stiline sahip ergenlerin ADİ-Ö'de en düşük puanlara ve endişeli bağlanma stiline sahip ergenlerin ADİ-Ö'de en düşük puanlara sahip olduğu saptandı. Çocukluk çağı travmaları hem ADİ-Ö hem de ADİ-G ile ters ilişkili olarak saptandı.

Sonuç: İçselleştirme ve dışsallaştırma bozukluğu olan ergenlerin genel ve özel adil dünya inançlarının farklılık gösterdiği görülmektedir. Güvenli bağlanmanın dünyanın daha adil bir yer olarak algılanması ile ilişkisinin olduğu söylenebilir. Ayrıca çocukluk çağı travmalarının ergenlerin adil dünya inançlarını olumsuz yönde etkilediği görülmektedir. Adil dünya inancının psikiyatrik bozukluklarda ve psikoterapötik yaklaşımlardaki rolünün anlaşılması için ileri çalışmalara ihtiyaç bulunmaktadır.

Anahtar Kelimeler: Ergenlik, sadece dünya inançları, içsel bozukluklar, dışsal bozukluk çocukluk travması, bağlanma stilleri

Yazışma Adresi/Address for Correspondence: Burçin Çolak, Ankara University Faculty of Medicine, Department of Psychiatry, Adolescence Unit, Ankara, Turkey

Tel.: +90 544 763 91 64 **E-posta:** bcolak@ankara.edu.tr **ORCID:** orcid.org/0000-0002-1691-2886

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Introduction

Adolescence is an important stage in the psychosocial developmental period in one's lifetime. Adolescents need basic cognitive constructs to comprehend their relations with themselves, other people, and the world in general. Just world belief (JWB) is one of these constructs.

JWB is a very basic orientation to the world. People want to believe that the world is a just place. This idea means that when we encounter either positive or negative results of our behaviors, we tend to think that we deserved those results, whether they are relevant or not. As expected, this cognitive stance is somewhat illusionary and delusional when the harsh reality of the world is considered.[1,2] JWB is a kind of defense mechanism that helps people cope with the unpleasant realities of life. Although first-line studies focused on its negative effects, such as the creation of negative and distant attitudes toward disadvantaged groups, its positive effects on mental health, well-being, and life satisfaction were defined.[3] Believing in a just world leads people to see the world as more stable and predictable.[4] This style of thinking has significantly positive impacts on mental health.[5,6]

JWB has two constructs. JWB-general (G) is about other people, their gainings, and their losses. JWB-G enables one to understand and explain the world outside their life circle. JWB-self (S) is about whether life is just or unjust to himself. JWB-S was defined later as a more stable and important aspect of JWB.

Childhood traumas can have some negative and persistent effects that emerge in a later period of life. Therefore, it can be an important mediator for the developmental trajectory of JWB.[7] Literature indicates that people who experience traumatic events tend to lose their belief in a just world and show deviant behaviors.[8]

Another potential mediator for JWB is attachment styles. The relationship between childhood traumas and JWB has been studied with adolescents in prison.[9] Results showed a significant inverse relation between JWB and exposure to childhood trauma.

Although the literature lacks enough studies to convey any generalizability for clinical samples, some significant differences exist among depressive symptoms, deviant behavior, psychosis, and JWB scores both in adults and adolescents.[9-11]

Adolescents' perception of the world as just or unjust may be important in both the prognosis and treatment of these disorders. Also, the effects of childhood trauma and attachment styles may have important relations with JWB. Therefore, the aim of this study was to investigate the relations between JWB, childhood traumas, and attachment styles in adolescents and emerging adults who were diagnosed with a psychiatric disorder. The individuals were grouped under the internalizing (IG) or externalizing disorder groups (EG).

Materials and Methods

Participants

Participants aged 16-21 were recruited to our cross-sectional study from an outpatient adolescent psychiatry clinic at the Faculty of Medicine of Ankara University. The sample size was calculated via G*Power Statistical Power Analyses for Windows according to a previous study that investigated JWB in adolescents.

The inclusion criteria were as follows: a) meeting a DSM-V diagnosis that can be grouped under IG or EG such as depression, anxiety disorder, or attention deficit hyperactivity disorder (ADHD), among others. Exclusion criteria were as follows: a) meeting a diagnosis with psychotic conditions such as schizophrenia or bipolar disorder, b) having mental retardation, and c) having a current problem of substance abuse. Patients who met co-morbid disorders from the opposite group of disorders (for example, having ADHD and depressive disorder or obsessive and compulsive disorder and conduct disorder) were excluded from the study.

Written informed consent was collected from the participants or from their parents/guardians if the participants were under 18 years old. Ethical approval for the study was obtained from the Ankara University Human Research Ethics Committee (08-611-197/2019).

Measures

Sociodemographic Data Form

The sociodemographic characteristics of participants such as age, gender, education level, number of siblings and marital status, and socioeconomic status of their parents were collected.

Just World Belief Scales (Self and General)

JWB-S and JWB-G scales were created as six-point Likert scales, which were developed by Dalbert[12] and translated into Turkish by Göregenli.[13] JWB-S reflects the belief that the events in one's own life are just and that they have what they deserve. JWB-S includes items such as "Mostly, I found what I deserved." JWB-G reflects how one perceives the world as a just place and includes items such as "I believe that people strive to be fair in making important decisions." JWB-S consists of 7 items and JWB-G consists of 6 items; lower scores indicate a higher unjust world view. The Cronbach's alpha for JWB-S was 0.84 in the original and 0.85 in the Turkish version. The Cronbach's alpha for JWB-G was 0.78 in the original and 0.69 in the Turkish version. The scales have validity and reliability in adolescents over 15 years of age.[14,15]

Childhood Trauma Questionnaire-Short Form (CTQ-S)

The Childhood Trauma Questionnaire-Short Form is a five-point Likert self-assessment scale of 28 items that contains subscales of emotional, physical, sexual abuse, and emotional and physical neglect. The Cronbach's alpha values ranged from 0.79 to 0.94 with high internal consistency for each subscale.[16]

Experiences in Close Relationships-Revised (EiCR-R)

Experiences in Close Relationships-Revised is a 36-item and 7-point Likert scale that measures attachment styles. The inventory was developed by Brennan et al.[17] The validity and reliability of the Turkish version of EiCR-R were verified by Sumer and colleagues.[18] The Cronbach's alpha coefficients for the two dimensions of avoidance and anxiety were .90 and .86, respectively. The test-retest reliability values for anxiety were .82 and those for avoidance were .81. Participants can be evaluated based on these two dimensions or they can be categorized into one of the four categories (secure, dismissing, preoccupied, and fearful) determined by cluster analysis.[19]

Statistical Analyses

Descriptive variables were given as mean standard deviation (SD), n (%), or median (range). Normality tests were processed so that parametric or non-parametric methods can be chosen whenever necessary. Chi-square tests were conducted to compare the demographic differences between IG and EG. Independent samples t-tests were performed to compare the two groups, and One-Way ANOVA was conducted for multiple groups. Post-hoc Scheffe and Tamhane's T2 tests were performed when appropriate. K-mean cluster analysis was applied to obtain four dimensions of the attachment styles proposed above. MANCOVA was used to control covariates if necessary. Multiple linear regression analysis was applied to explore the relations between sociodemographic and clinical risk factors such as gender, diagnostic groups, CTQ-S, and EiCR-R as the predictors of JWB-S or JWB-G with the enter method after controlling the confounding problem of multicollinearity. A p value of <0.05 was considered statistically significant with a 95% confidence interval. All analyses were conducted with SPSS version 20 and Jamovi.

Results

A total of 250 participants (165 adolescents and 85 emerging adults) were enrolled. Among them, 130 participants met a DSM-V diagnosis and were thus grouped under IG, while 120 participants met a DSM-V diagnosis and were thus grouped under EG. Table 1 shows the sociodemographic characteristics of the participants.

Diagnoses for the adolescents included unipolar depression (n=62, 24.8%), anxiety disorder (n=48, 19.2%), and obsessive-compulsive disorder (n=20, 8%) for IG. For EG, the diagnoses for the adolescents were ADHD (n=111, 44.4%), conduct disorder (n=5, 2%), oppositional defiant disorder (n=3, 1.2%), and impulse control disorder (n=1, 0.4%).

A significant difference was found between JWB-S and JWB-G scores for the two groups (2.94±.81 and 3.19±77 t=-2.53, p=.012 for IG and 2.76±.69 and 2.99±.77 t=-2.56, p=.011 for EG). MANCOVA was applied to conduct a covariate analysis for gender. Tests of between-subjects effects showed a non-significant effect for JWB-S [F=2.296 (2), p=.104] but a significant effect for JWB-G [F=4.073(2), p=.018]. The significant differences remained between the two groups after covariate analysis (Table 2).

One-way ANOVA results indicated significant differences for JWB-S [F(3,246)=4.52, p=.004], JWB-G [F(3, 246)=3.170, p=.025], CTQ-S (total) [F(3, 246)=11.94, p <.001], CTQ-S (emotional neglect) [F(3,246)=2.91; p=.035], and CTQ-S (sexual abuse) [F(3,246)=31.829; p<.001] for attachment styles (Table 3). According to the post-hoc analysis, a significant difference exists between secure and fearful attachment patterns for JWB-S and secure and anxious attachment styles for JWB-G scores. CTQ-S (total) scores differed between disorganized and anxious, disorganized and fearful, secure and anxious, and secure and fearful attachment patterns. CTQ-S (emotional neglect) scores differed significantly between secure and anxious attachment

Table 1. Sociodemographic characteristics of participants

	Internalizing disorder group (n=130)	Externalizing disorder group (n=120)	X^2, t, p
Age	17.95±1.36	18.02±1.28	t=-0.422, p=0.674
Gender (M/F)	36 (27.7%)/94 (72.3%)	60 (50.0%)/60 (50.0%)	X^2=13.12, p<0.001
Education (%)	Middle school 7.7% High school 73.1% College 19.2%	Middle school 7.5% High school 78.3% College 13.2%	X^2=1.43, p=0.502
Socioeconomic status (%)	Lower 18.5% Middle 64.6% Higher 16.9%	Lower 15.8% Middle 60.8% Higher 23.3%	X^2=1.67, p=0.242
Marital status of parents (%)	Together 77.7% Divorced 17.7% Widow 4.6%	Together 86.7% Divorced 8.3% Widow 5.0 %	X^2=4,73, p=0.354
Siblings (%)	Yes 80.8% No 9.2%	Yes 86.7% No 12.5%	X^2=1.81, p=0.188

*Mean ± SD and rate (%) are given as appropriate, SD: Standard deviation, M: Male, F: Female

patterns. Lastly, CTQ-S (sexual abuse) scores differed between anxious and disorganized, disorganized and fearful, secure and anxious, and secure and fearful attachment patterns.

Significant correlations were found between JWB-S and CTQ-S total (r=.427; p<.001), JWB-S and EiCR-R anxious subscale (r=.196; p=.002), JWB-G and CTQ-S total (r=.256; p <.001), and JWB-G and EiCR-R anxious subscale (r=.154; p=.014) for all participants. JWB-S but not JWB-G had significant correlations with CTQ-S total (r=.411; p<.001) in İG. JWB-S and JWB-G had significant correlations with CTQ-S total (r=.453; p<.001 and r=.352; p<.001, respectively) in EG. A mild correlation was found between the EiCR-R anxious subscale and JWB-S (r=.260; p=.004) in EG (Table 4).

Multiple regression analyses were performed to explore the independent associations between each risk variable as a predictor of JWB by using the enter method (Table 5). First, gender, diagnosis group, CTQ-S, EiCR-R (avoidance), and EiCR-R (anxiety) were added to the model. These variables significantly predicted JWB-S [F (5.244)=13.477; p<.001] and explained 20% of the variance (R=0.465; R^2=.216; Adj. R^2=.200). Psychopathology dimensions and CTQ-S were important predictors in the regression model. Multiple regression analyses were performed with CTQ-S' subscales because of the strong effect of CTQ-S on JWB-S. This model also significantly predicted JWB-S [F (5.244)=11.520; p<.001]. These variables explained 17.4% of the variance (R=0.437; R^2=.191; Adj. R^2=.172). Only the CTQ-S (emotional neglect) subscale significantly added to the model.

The same analyses were performed for JWB-G. The first model predicted JWB-G scores but explained a smaller (8%) variance (R=0.322; R^2=.103; Adj. R^2=.080). The regression model with CTQ-S subscales did not hold for JWB-G.

Discussion

In this study, we aimed to explore JWB-S and their relations with attachment styles and childhood trauma of adolescents with IG and EG disorders.

Both JWB-S and JWB-G scores were lower in IG than EG. These results are in line with previous studies.[20] Depressive people see the world and the self as more negative.[21] Adolescents with psychiatric disorders can also have negative attitudes toward themselves and the world in general. These results can also be

Table 2. Comparison of JWB, childhood trauma scale, and attachment styles

	Internalizing disorder group (n=130)	Externalizing disorder group (n=120)	t, U, p
JWB-self	2.94±.81	3.19±77	t=-2.53, p=0.012
JWB-general	2.76±.69	2.99±,77	t=-2.56, p=0.011
EiCR-R (avoidance)	3.57±1.14	3.58±1,06	t=-0.030, p=0.976
EiCR-R (anxiety)	3.99±1.17	3.79±1.28	t=1.24, p=0.215
CTQ-S (total)	53.04±15.227	52.28±13.181	t=0.420, p=0.675
CTQ-S (emotional abuse)	8.78±4.636	8.67±4.171	U=7581.0, p=0.698
CTQ-S (physical abuse)	6.26±3.356	6.04±2.277	U=7307.0, p=0.267
CTQ-S (physical neglect)	6.93±2.389	6.88±2.484	U=7717.5, p=0.881
CTQ-S (emotional neglect)	11.24±5.034	11.43±4.745	U=7494.5, p=0.593
CTQ-S (sexual abuse)	19.82±5.471	19.27±6.014	t=0.763, p=0.446

JWB: Just world belief, EiCR-R: Experiences in close relationships-revised, CTQ-S: Childhood trauma questionnaire-short form

Table 3. Comparations of JWB and trauma scales according to attachment styles

	Secure (n=95)	Anxious (n=49)	Disorganized (n=47)	Fearful (n=59)	F	Sig.
JWB-S	3.27±.73	3.03±.70	2.99±.82	2.81±.82	4.519	0.004
JWB-G	3.00±.74	2.63±,63	2.96±.73	2.79±.77	3.169	0.025
CTQ-S (total)	47.33±13.12	58.61±13.01	50.45±12.27	58.14±15.51	11.948	0.001
CTQ-S (emotional abuse)	7.95±4.04	9.80±4.80	8.53±3.82	9.25±5.04	2.296	0.078
CTQ-S (physical abuse)	5.88±2.63	5.90±2.26	6.15±2.19	6.81±4.18	1.441	0.231
CTQ-S (physical neglect)	6.48±2.28	7.61±2.75	6.77±1.99	7.12±2.78	2.584	0.054
CTQ-S (emotional neglect)	10.22±5.47	12.49±4.76	11.81±4.60	11.76±4.71	2.919	0.035
CTQ-S (sexual abuse)	16.79±5.65	22.82±5.02	17.19±4.86	23.19±4.12	31.829	0.001

JWB: Just world belief, CTQ-S: Childhood trauma questionnaire-short form

Table 4. Correlation matrix of the JWB, childhood trauma, and attachment style variables

	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9
1.CTQ-S (Total)	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.CTQ-S (Emotional Abuse)	,805**	-	-	-	-	-	-	-	-	,828**	-	-	-	-	-	-	-	-	,774**	-	-	-	-	-	-	-	-
3.CTQ-S (Physical Abuse)	,606**	,597**	-	-	-	-	-	-	-	,654**	,592**	-	-	-	-	-	-	-	,527**	,621**	-	-	-	-	-	-	-
4.CTQ-S Physical Neglect)	,625**	,427**	,241**	-	-	-	-	-	-	,581**	,368**	0,155	-	-	-	-	-	-	,684**	,498**	,387**	-	-	-	-	-	-
5.CTQ-S (Emotional Neglect)	,816**	,647**	,399**	,559**	-	-	-	-	-	,822**	,655**	,421**	,521**	-	-	-	-	-	,811**	,638**	,378**	,603**	-	-	-	-	-
6.CTQ-S (Sexual Abuse)	,602**	,200**	0,102	,205**	,241**	-	-	-	-	,670**	,330**	,251**	,296**	,327**	-	-	-	-	,533**	0,059	-0,113	0,119	0,154	-	-	-	-
7.EICR-R (Avoidance)	,228**	,140*	-0,023	,180**	,232**	,196**	-	-	-	,217*	0,109	-0,115	0,166	,297**	,236**	-	-	-	,243**	,180*	0,137	,196*	0,15	0,156	-	-	-
8.EICR-R (Anxiety)	,440**	,208**	,130*	,201**	,188**	,624**	-0,017	-	-	,496**	,338**	,292**	,270**	,210*	,603**	-0,004	-	-	,382**	0,065	-0,105	0,134	0,172	,641**	-0,029	-	-
9. JWB-Self	-,427**	-,349**	-,271**	-,270**	-,398**	-,205**	-0,121	-,196**	-	-,411**	-,318**	-,289**	-,309**	-,453**	-0,146	-0,094	-0,116	-	-,453**	-,394**	-,243**	-,231*	-,349**	-,256**	-0,158	-,260**	-
10. JWB-General	-,256**	-,233**	-,155*	-,156*	-,227**	-0,119	-0,105	-,154*	,405**	-0,172	-0,132	-0,137	-0,139	-,176*	-0,061	-0,118	-0,157	,345**	-,352**	-,346**	-,182*	-0,172	-,295**	-0,159	-0,095	-0,133	,437**

All Participants Internalizing Group Externalizing Group
* 0.05 level (two-tailed), ** 0.01 level (two-tailed), JWB: Just world belief, CTQ-S: Childhood trauma questionnaire-short form, EiCR-R: Experiences in close relationships-revised

about the cognitive schemas of EG. JWB is a way of relating to the world and others. In EG disorders, one can engage in risky behaviors because of their unrealistic attitudes toward the world and self. Previous studies showed that adolescents who exhibited delinquent behavior had higher JWB-S and JWB-G scores compared with controls.[9] Higher scores for JWB-G may create a risk-taking behavior pattern where higher JWB-S scores can make one see himself as more resilient to probable risky events.

Moderate correlations exist between JWB-S and CTQ-S total in IG and JWB-S, JWB-G, and CTQ-S total in EG. This result may indicate the importance of childhood trauma for the development of both IG and EG disorders, which is in line with clinical practice.[22,23]

Anxious attachment pattern was correlated with JWB-S and JWB-G. These relations did not occur for IG, but a weak correlation existed between anxious attachment pattern and JWB-G in EG. Anxious attachment can shape the world view of adolescents by creating threat signals from the world. These results indicate the importance of childhood trauma and the anxious attachment for the alterations in JWB-S and JWB-G in adolescents.

Emotional neglect is an important developmental distress that can give way to IG and EG disorders in adolescents and emerging adults.[24] Adolescents with emotional neglect can create a more negative worldview toward themselves.[25,26] A previous study found that emotional neglect was related to paranoid thoughts.[27] In another study, patients with schizophrenia showed lower JWB-S scores than controls.[11] Paranoia can be accepted as a delusional ending of JWB. Paranoid people believe that the whole world is not fair to themselves and even that others try to harm them through different means. Therefore, our findings on the importance of emotional neglect and lower JWB-S relation are consistent with these results.

Table 5. Regression analysis with significant predictors for JWB

	Predictors	B	SE. B	t	β
JWB-Self	Gender	-0.186	0.099	1.880	-0.113
	Diagnoses	0.195	0.094	-2.076	**0.121***
	CTQ-S	-0.024	0.004	6.528	**-0.429*****
	EiCR-R (Avoidance)	0.001	0.044	-0.017	0.001
	EiCR-R (Anxiety)	0.001	0.042	-0.024	0.002
JWB-Self	Emotional Abuse	-0.016	0.016	1.019	-0.089
	Physical Abuse	-0.027	0.020	1.335	-0.096
	Physical Neglect	-0.016	0.023	0.677	-0.047
	Emotional Neglect	-0.041	0.014	2.998	**-0.250****
	Sexual Abuse	-0.015	0.008	1.805	-0.108
JWB-General	Gender	0.965	0.585	1.650	-0.106
	Diagnoses	-1.130	0.555	-2.035	**0.127***
	CTQ-S	0.071	0.022	3.261	**-0.229****
	EiCR-R (Avoidance)	0.124	0.260	0.475	0.031
	EiCR-R (Anxiety)	0.162	0.247	0.657	0.045
JWB-General	Emotional Abuse	0.127	0.094	1.350	-0.126
	Physical Abuse	0.038	0.119	0.317	-0.024
	Physical Neglect	0.041	0.137	0.299	-0.022
	Emotional Neglect	0.099	0.081	1.221	-0.109
	Sexual Abuse	0.047	0.050	0.949	-0.061

Notes. ***p<.001 **p< .01 *p<.05; B=unstandardized regression coefficient; S.E.=standard error; β=standardized regression coefficient. JWB: Just world belief, CTQ-S: Childhood trauma questionnaire-short form, EiCR-R: Experiences in close relationships-revised,

Cognitive styles that were shaped according to attachment styles can also create a similar worldview in general.[25] For example, it is logical to expect adolescents with fearful attachment styles to have fearful attitudes toward those around them. A previous study found that attachment styles were related to worldviews.[28] Adolescents with a secure attachment style can be expected to be more positive about themselves and the world. Our results are in line with these other results in this respect. Both the JWB-S and JWB-G scores were highest in patients who showed secure attachment.

According to Bartholomew and Horowitz's theoretical model, fearful attachment would be the worst pattern of relating to one's self and others.[29] According to our study, JWB-S scores are lowest in adolescents with a fearful attachment style, thus confirming this hypothesis. The difference between secure and fearful attachment styles for JWB-S was statistically significant, but the same pattern was not true for JWB-G. Adolescents with an anxious attachment style had the lowest score in these constructs, and fearful attachment style followed an anxious style. Mean differences between secure and anxious, but not fearful, attachment styles were significant for JWB-G. This discrepancy (higher JWB-S and lower JWB-G) for anxious attachment style needs explanation.

In a previous study, maternal and paternal warmth predicted adolescents' JWB.[30] Anxious adolescents have a tendency to cling to their parents, peers, or romantic partners. They will seek support when confronted with a problem that becomes intrusive and demanding, which can overwhelm their significant others. Through this pattern of relations, an anxious adolescent may create a secure sphere in which they feel that they are secure. However, this style of coping cannot be helpful when related to the world in general. This reality may create a tendency to see the world as dangerous, unpredictable, and unfair, which could explain the lowest JWB-G scores. Future studies with controlling social and emotional support variables will give valuable insight to explain this condition.

Although the findings should be interpreted with caution, this study has several strengths. First, most of the JWB studies in adolescents were collected from non-clinical populations such as high schools or colleges. However, as a basic orientation toward self and world, JWB interferes with many psychological problems, such as disturbed interpersonal relations or low self-esteem. Also, by comparing IG and EG groups, our study provides valuable guidance for understanding the basic cognitions of adolescents and planning interventions.

Study Limitations

The cross-sectional methodology of our study limits the inference of any causality. Moreover, some mediators that will be of importance to JWB constructs may also exist. The scope of this study was limited to understand JWB attitudes in adolescents from a clinical sample; however, we did not further focus on psychiatric disorders one by one. Depression, anxiety disorders, or ADHD may have some different effects on JWB. Although the combination of these conditions is a well-accepted clinical entity, they were not collected into two dimensions in this study. Medication or admission status (the first admission or follow-up visits) could also interfere with the results. Also, this study did not include a different group of adolescents that were diagnosed with schizophrenia or bipolar disorder. Therefore, caution is needed with regard to the generalizability of these findings to whole adolescents from a clinical population. Another limitation was the lack of a control group. Our results indicate lower mean scores for JWB-S and JWB-G including a control group in our cross-sectional design would ensure more accurate results.

Conclusion

The main results of this study were that attachment styles and childhood traumas were important for JWB across adolescents from a clinical sample. JWB-S and JWB-G scores differed between IG and EG. To our knowledge, this is the first study that probed the relations of childhood trauma and attachment patterns with JWB. Future research will shed light on JWB and its effect on clinical variables to advance understanding of the matter.

Ethics

Ethics Committee Approval: Ethical approval for the study was obtained from the Ankara University Human Research Ethics Committee (08-611-197/2019).

Informed Consent: Informed consent was obtained from all the patients and from the parents of participants under 18 years old.

Peer-review: Externally and internally peer-reviewed.

Authorship Contributions

Concept: B.Ç., B.Ö., Design: B.Ç., R.S.İ., B.Ö., Data Collection or Processing: G.K., Analysis or Interpretation: B.Ç., R.S.İ., B.Ö., Literature Search: B.Ç., G.K., Writing: B.Ç., G.K., R.S.İ., B.Ö.

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