

ARTICLE

THE EFFECTS OF THE CONFLICT TACTICS ON THE RELATIONSHIP BETWEEN ADHD SYMPTOM LEVELS AND DYADIC ADJUSTMENT

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ABSTRACT

Attention Deficit Hyperactivity Disorder (ADHD) is a neuropsychiatric disorder which is generally diagnosed in childhood. It is suggested that the adults with ADHD have lower levels of romantic relationship satisfaction than the ones without ADHD. The main aim of this study is to examine the relationships among ADHD symptom levels, conflict tactics and romantic relationship satisfaction. During data collecting process three standard scales such as The ADHD self-report scale, the Revised Conflict Tactics Scale and the Dyadic Adjustment Scale were employed and significant relationships among all three variables were found and the level of the ADHD symptoms was clearly related to dyadic satisfaction. From regression analysis it became possible to assert that conflict tactics mediated the relationship between the ADHD symptom levels and the dyadic satisfaction of the sample group composed of 384 participants.

INTRODUCTION

Attention Deficit Hyperactivity Disorder (ADHD) is a neuropsychiatric disorder. The estimated prevalence of clinical adult ADHD has been determined to be 3% in the general population. On the other hand, the sub-clinical prevalence has been reported to be at 16.4% [3,4]. ADHD is a disorder which is generally diagnosed in childhood, although it has been accepted that some of the symptoms persist into adulthood [12][13]. The executive functions of the brain help individuals to organize their behaviours and motivations toward their goals. Children with ADHD are often found to suffer from executive function impairments [29] Adults with ADHD have also been found to be impaired in terms of executive functioning [34][27]. Beyond executive impairments, some other non-executive cognitive domains have also been found to be impaired in adults [18]. King et al. [14] reported that adults with ADHD exhibit inefficient cognitive control when compared to normal adults. Scientists have concluded that adult ADHD is a heterogeneous condition with various cognitive functioning difficulties. Beyond cognitive impairment, Wilbertz et al., [31] have also reported that adults with ADHD often exhibit impulsivity. Impulsivity can be described as the tendency to act without considering the consequences in various situations. It does not seem to be a coincidence that the prevalence of ADHD among prisoners has been found to be significantly higher when compared to the normal population (10.5%) [9][23].

Evidence suggests that many of the core symptoms of childhood ADHD persist into adulthood and these continue to cause drastic impairments in terms of daily functionality [21, 24]. Researchers have reported that adults with ADHD often experience many difficulties in occupational and social situations [8]. It can be argued that these difficulties also result in emotional deficits [10, 28]. Sobanski et al. [26] found that adults with ADHD are more likely to suffer from eating disorders, depressive disorders and substance-related disorders. They showed that adults with ADHD were more impaired in several areas of psychosocial functioning when compared to adults without ADHD. Salomone, Fleming, Bramham, O'Connell and Robertson, [24] claimed that cognitive weaknesses and attention difficulties in particular underlie the functional impairments that adults with ADHD experience. Fredriksen et al. [8] determined that the severity of the symptoms experienced during childhood is related to increased school dropout rates. Furthermore, they found that the severity of the symptoms were also related to occupational impairment and unemployment in the future. Some studies have investigated the comorbidity between ADHD and various other disorders. It has been discovered that there is a high rate of comorbidity between ADHD and depression [17]. Philipsen [20] reported that there is an association between ADHD and borderline personality disorder. Reviewed empirical evidence suggests that ADHD is a serious condition that causes various tragic difficulties in daily-life.

Interpersonal relationships are an important aspect of both childhood and adult life. Quality relationships enable people to prosper. On the other hand, problematic relationships result in psychological problems and despair. Over the years, many scientists have reported that children with ADHD experience difficulties, both with significant adults and peers [11]. Symptoms of ADHD have also been reported to cause functional impairments in romantic relationships in adulthood. This raises the important question of why adults with ADHD experience interpersonal difficulties more than other people. Overbey, Snell, and Callis [19] reported that the level of the ADHD symptoms affects the quality of the romantic relationships in university students and the authors advised that guidance services in the universities should provide assistance to these students. Eakin et al. [6] reported that married adults with ADHD also revealed poorer marriage adjustment and increased family dysfunction.

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It appears that the level of the ADHD symptoms is related to romantic relationships as an impairing factor. However, the underlying reasons behind this phenomenon have not been discovered. Recently, Bell [1] attempted to identify one of the possible reasons that contribute to the poorer satisfaction levels. In the study, ADHD symptoms, social communication skills and relationship satisfaction were investigated. It was hypothesized that higher ADHD symptom levels are related to poorer romantic relationship satisfaction. Furthermore, they proposed that communication skills play a mediating role in this relationship. The results of the study showed that there was a negative correlation between the adults' ADHD symptoms and their partner's relationship satisfaction. On the other hand, the study results revealed that social communication skills were not a good indicator of the romantic relationship satisfaction. Discovering the mediating factors is very important in terms of understanding the reasons behind the problem. The spouses of adults with ADHD often appear as a neglected section of the population. It is important that future studies investigate the psychological well-being of these vulnerable adults. Ben-Naim, Marom, Krashin, Gifter and Arad [2] investigated the mediating role of intimacy. The spouses of adults with ADHD have reported lower marital satisfaction and the degree of intimacy appeared as a mediating factor in the satisfaction. Recently, Wymba, Dawson, Suhr, Bunford, and Gidycz, [32] revealed that the experience of the spouses of the adults with ADHD is worse than one would expect. They found that college students with greater ADHD symptom severity have reported higher rates of intimate partner violence perpetration. Consequently, it appears that this is an urgent issue. It is crucially important to determine the causes and prepare appropriate prevention programs. Emotional self-regulation difficulties have been reported in children with ADHD and it is speculated that this plays a role in the frustration tolerance levels and the violent behaviour of some adults with ADHD [25, 30]. Recently, Lopez [15] investigated the relationship between ADHD symptom severity, emotion regulation and romantic relationship satisfaction. The results revealed a significant negative relationship between the emotional regulation difficulties and relationship satisfaction. Bruner, Kuryluk, and Whitton [5] investigated the mediating role of the hostile relationship conflict on romantic relationship quality. They found that the ADHD symptom severity was positively related to the hostile relationship conflict. Importantly, as expected, the hostile relationship conflict was negatively correlated to the relationship quality. Evidence suggests that the individual's approach to the conflicts that arise in a romantic relationship has significant potential to affect the relationship quality. For this reasons, it is important to determine the effects of the different conflict tactics on romantic relationships.

In the current study it has been hypothesized that the ADHD symptom level of an individual should be related to his/her partner's conflict tactic and marital satisfaction in a marriage. Furthermore, these conflict tactics should play a mediating role between the ADHD symptom level and the romantic relationship satisfaction in the married couples. Higher ADHD levels should be positively linked to negative types of conflict resolution tactics (like psychological aggression, physical assault, and injury), and higher levels of these negative types of conflict resolution tactics should be negatively linked to adults' dyadic adjustments in their marriage relationship.

Aims and hypotheses

The present research mainly aims to determine the links between married adult participants' ADHD measures, their partner's conflict tactics and their dyadic adjustments. In general, it was expected that ADHD would be a negative predictor for positive types of conflict resolution, such as negotiation, and lower levels of negotiation would also be negatively linked to dyadic adjustments in marriage relationships. In contrast, it was expected that higher ADHD levels would be positively linked to negative types of conflict resolution tactics (like psychological aggression, physical assault, and injury), and higher levels of these negative types of conflict resolution tactics would be negatively linked to adults' dyadic adjustments in their marriage relationships. The hypotheses of the present research are given below.

Hypothesis 1: Higher levels of ADHD in an individual should predict the spouse's negotiation level negatively, and lower negotiation levels as a mediator variable should reduce the participants' dyadic adjustments.

Hypothesis 2: Higher levels of ADHD in an individual should predict psychological aggression levels of the spouse in a positive way, and higher psychological aggression levels as a mediator variable should predict participants' dyadic adjustment in a negative way.

Hypothesis 3: Higher levels of ADHD in an individual should predict the spouse's physical assault level in a positive way, and higher physical assault levels as a mediator variable should predict participants' dyadic adjustment in a negative way.

Hypothesis 4: Higher levels of ADHD in an individual should predict the spouse's injury level in their conflict resolution in a positive way, and a higher injury level as a mediator variable should predict the participants' dyadic adjustment in a negative way.

MATERIALS AND METHODS

Participants

The sample was composed of 403 married individuals. After eliminating 19 univariate and multivariate outliers from the data set, a total of 384 married adult participants (274 women - 71%; 110 men - 29%) remained for analysis. The mean age of the participants was 37 (SD = 10.3) and the age range was between 19 and 67. The participants' mean duration of their present marriage was 23 years (Range = 18-

45, SD = 4.5). They predominantly originated from middle socio economic status families from Turkey (Family income: M = 4305 TL, \$1500). The majority of the participants (46%) had an undergraduate or graduate degree, some of them (28%) had a high school degree, and a smaller proportion (26%) had a secondary or primary school education. In October and February of 2016 some senior psychology students at Near East University were chosen as volunteer interviewers to apply the questionnaires in 19 cities of Turkey in which their families lived. Using the snowball technique each student applied nearly 15 questionnaires.

Measures

Demographic Questionnaire: This questionnaire contained various questions about gender, age, marital age, educational level, individual monthly income, and monthly household income of the participants.

ADHD Self-Report Scale (ASRS Screener): The original scale was developed by Kessler et al. [13]. The items of the scale were based on the listed adult ADHD symptoms in DSM-IV. The ADHD Self-Report Scale, measures adult participants' ADHD levels by asking a total of 18 questions that define some behaviours related to (1) attention-deficit (e.g.: "How often do you make careless mistakes when you have to work on a boring or difficult project?"), and (2) hyperactivity-impulsivity (e.g.: How often do you fidget or squirm with your hands or your feet when you have to sit down for a long time?). Participants were asked to evaluate each of the items in a 5-point Likert type scale (1 = never, to 5 = very often). The reliability scores of the original scale were found to be satisfactory (internal consistencies ranged between .63 - .72, and the test-retest reliabilities ranged between .58 - .77.). The ADHD Self-Report Scale's Turkish translations and reliability-validity analyses were conducted by Dogan, Oncu, Varol-Saracoglu and Küçükgöncü [41]. The Turkish version of the scale exposed the two factor structure of the 18-item scale by explaining 41.6% of the total variance. Internal consistency reliabilities were high (Cronbach's alphas: Total scale = .88, attention-deficit = .82, and hyperactivity-impulsivity .78). Test- retest reliabilities were also high for two week intervals (r = .85 for the total scale, r = .73 for attention-deficit subscale, and r = .89 for hyperactivity-impulsivity).

The Revised Conflict Tactics Scales (CTS2): The scale was developed by Straus, Hamby, Boney-McCoy, and Sugarman [35] CTS2 has a total of 39 items and measures the partner relationships for five main conflict resolution tactics (1. negotiation: e.g., "Showed respect for my feelings.", 2. psychological aggression: e.g., "Shouted or yelled at me.", 3. physical assault: e.g., "Threw stuff at me that could hurt.", 4. sexual coercion: e.g., "Used force to make me have sex.", and 5. Injury: e.g., "I went to the doctor because of a fight."). Participants evaluated their partners' conflict resolution tactics that were used against them in the last twelve months in an eight-point scale (1- only one, 2- two times, 3- three or four times, 4- six to 10 times, 5- eleven to twenty times, 6- more than twenty times, 7- not happened in last twelve months but happened many times previously, 0- never happened). The original scale's construct validity was good. Its internal consistency reliability scores were satisfactory (Cronbach's alphas ranged from .79 to .95). The CTS2's Turkish translations, back translations, and reliability-validity analyses were conducted by Aba and Kulakac (2016). In that study, the test-retest reliabilities of CTS2 were very high, and ranged between .97 - 1.00. CTS2's internal consistency scores were also satisfactory ($\alpha = .88$ for negotiation, $\alpha = .85$ for psychological aggression, $\alpha = .89$ for physical assault, $\alpha = .79$ for sexual coercion, and $\alpha = .76$ for injury, and $\alpha = .92$ for the total scale). In the present study, all subscales of CTS2 were used, except for sexual coercion.

The Dyadic Adjustment Scale- DAS: The scale has a total of 32 items and was developed by Spanier [36] in order to measure partners' satisfaction in their relationships in four main dimensions (1. dyadic satisfaction: e.g., "How often do you discuss or have you considered divorce, separation, or terminating your relationship?", 2. dyadic cohesion: e.g., "Do you and your spouse engage in outside interests together?", 3. dyadic consensus: e.g., "Handling family finances", and 4. affectional expression: e.g., "Demonstration of affection"). Each subscale has a different Likert type grading. DAS's construct validities (r = .86 to .88 between DAS and a similar marital adjustment scale), and internal consistencies ($\alpha = .94$ for dyadic satisfaction, $\alpha = .86$ for dyadic cohesion, $\alpha = .90$ for dyadic consensus, $\alpha = .73$ for affectional expression, and $\alpha = .96$ for the total scale) were at a very satisfactory level. Higher scores represent higher levels of dyadic adjustments in each dimension and also for the total scale. DAS's Turkish translations, back translations, and reliability-validity analyses were conducted by Fisiloglu and Demir (2000). In that study which was carried with married Turkish couples, the construct validity of DAS was relatively high (r = .82 between DAS and a similar marital adjustment scale). In the Turkish version of DAS, researchers also found some satisfactory Cronbach alpha scores for the four subscales and for the total scale ($\alpha = .83$ for dyadic satisfaction, $\alpha = .75$ for dyadic cohesion, $\alpha = .75$ for dyadic consensus, $\alpha = .80$ for affectional expression, and $\alpha = .92$ for the total scale).

Procedure

Interviewers visited participants at their homes and before beginning the interview they informed participants clearly about the content and objectives of the research. Later, they asked them to sign the document of ethical confirmation. Participants completed the questionnaires on their own in a separate place from where their spouses were. In this way, they did not see the answers of their spouses. Each participant filled ADHD Self-Report Scale, The Revised Conflict Tactics Scale and Dyadic Adjustment Scale and returned the forms back to the interviewers in a closed envelope. Data was analyzed in SPSS 20.

RESULTS

Descriptive statistics

Before testing the four main hypotheses of this study, various descriptive statistics such as correlations, means and standard deviations for the male and female participants, and group comparisons based on participants' ADHD levels are given at the beginning of the results section. Correlation analyses revealed see [Table 1] relatively low but significant negative links between the three ADHD measures and spouses' negotiation tactics in conflict resolution ($r = -.10$ to $-.12$). The links between ADHD measures and psychological aggression ($r = .23$ to $.27$), ADHD measures and physical assault ($r = .17$ to $.19$), and ADHD measures and injury ($r = .11$ to $.16$) are positively and moderately related to each other. The correlational results also illustrate the negative and moderate relationship between ADHD measures and dyadic satisfaction ($r = -.18$ to $-.23$), ADHD measures and dyadic cohesion ($r = -.12$ to $-.18$), ADHD measures and dyadic consensus ($r = -.19$ to $-.29$), ADHD measures and affectional expression ($r = -.16$ to $-.22$), and ADHD measures and total dyadic adjustment scores ($r = -.20$ to $-.28$).

Relatively moderate and significant positive links between negotiation scores and all dyadic adjustment measures ($r = .17$ to $.34$) were present, as can be seen in [Table 1]. Psychological aggression ($r = -.36$ to $-.56$), physical assault ($r = -.25$ to $-.39$), and injury ($r = -.10$ to $-.22$) had relatively moderate and negative correlations between both measures of dyadic adjustment.

Table 1: Correlations among the ADHD, Conflict Resolution Tactics, and Dyadic Adjustment Measures

Variables	1	2	3	4	5	6	7	8	9	10	11	12
1.Attention deficit	-	.59**	.90**	-.10*	.26**	.17**	.16**	-.18**	-.12**	-.19**	-.16**	-.20**
2.Hyperactivity-impulsivity		-	.89**	-.11*	.23**	.17**	.11*	-.23**	-.18**	-.29**	-.22**	-.28**
3.ADHD total			-	-.12*	.27**	.19**	.15**	-.23**	-.17**	-.27**	-.21**	-.27**
4.Negotiation				-	.06	.08	.05	.30**	.34**	.20**	.17**	.31**
5.Psychological Aggression					-	.66**	.42**	-.53**	-.36**	-.49**	-.46**	-.56**
6.Physical Assault						-	.80**	-.39**	-.27**	-.28**	-.25**	-.37**
7.Injury							-	.22**	.17**	.13*	.10*	.20**
8.Dyadic Satisfaction								-	.57**	.61**	.62**	.86**
9.Dyadic Cohesion									-	.54**	.45**	.76**
10.Dyadic Consensus										-	.79**	.89**
11.Affectional Expression											-	.80**
12.Dyadic Adjustment Total												-

**p<.01, *p<.05

In order to represent descriptive values (means and standard deviations) for the main variables in this present study, and to determine if there were any gender differences for these measures, various descriptive analyses and independent sample t tests were conducted. As can be seen in [Table 2], there were no significant gender group differences for any of the measures of this present research.

Table 2: Means, Standard Deviations and Group (Gender) Comparisons for Variables of the Study

Variables	Women (n = 274)		Men (n = 110)		t	p
	M	SD	M	SD		
Attention-deficit	22.7	5.2	22.3	5.4	.64	.526
Hyperactivity-impulsivity	20.9	5.2	20.5	4.7	.72	.471
ADHD total	43.6	9.3	42.8	9	.76	.448
Negotiation	26.1	8.6	25.7	7.5	.44	.656
Psychological Aggression	10.9	12.1	8.4	11	1.85	.065
Physical Assault	5.9	13.8	3.4	11	1.7	.090
Injury	1.2	4	0.5	3.2	1.5	.147
Dyadic Satisfaction	39.2	8.1	39.5	7.7	-.35	.725
Dyadic Cohesion	14.8	5.1	14.8	5.8	.02	.986
Dyadic Consensus	52.6	8.3	51.7	10	.86	.390
Affectional Expression	11.6	2	11.8	2.3	-.64	.523
Dyadic Adjustment Total	118.2	20	117.8	21.6	.173	.863

Participants were grouped according to their ADHD levels (high, moderate, and low), and were compared in terms of their spouses' conflict resolution tactics, and their dyadic adjustment measures. The mean score for the entire research sample's (n = 384) ADHD total score was 43.4 (SD = 9.2). Participants who were located in 1 standard deviation higher than the ADHD mean score (n = 64) were coded as the high ADHD group. Participants who were located in 1 standard deviation lower than the ADHD mean score (n = 69) were coded as the low ADHD group. The majority of the participants who scored between low and high ADHD groups were defined as the moderate ADHD group (n = 251). These three ADHD groups' descriptive scores for spouses' conflict resolution tactics and dyadic adjustments are illustrated in [Table 3], along with the group comparison test scores. One-way ANOVAs (three ADHD group comparisons) were applied for the spouses'

Conflict resolution tactics and dyadic adjustment measures. As can be seen in [Table 3], there were no significant group differences in terms of the negotiation scores of low, moderate, and high ADHD group participants. Apart from the negotiation measure, all other measures significantly located the participants into the three different ADHD groups. The ADHD group had a significant effect on spouses' psychological aggression ($F(2, 381) = 18.4, p < .01$), physical assault ($F(2, 381) = 6.4, p < .01$), and injury ($F(2, 381) = 3.4, p < .05$). The Scheffe tests for group comparisons revealed that the high ADHD group had higher mean scores than the low and moderate ADHD groups. The ADHD group had also a significant effect on dyadic satisfaction ($F(2, 381) = 8.4, p < .01$), affectional expression ($F(2, 381) = 9.8, p < .01$), and dyadic adjustment total scores ($F(2, 381) = 13.4, p < .01$). Scheffe tests for group comparisons showed that the low and moderate ADHD groups had higher mean scores when compared to the high ADHD group. The low ADHD group also had higher mean scores than the moderate ADHD group according to these three dyadic adjustment measures. For dyadic cohesion ($F(2, 381) = 7, p < .01$) and dyadic consensus ($F(2, 381) = 12.5, p < .01$) measures, the ADHD group main effect was found to be significant. Scheffe tests for group comparisons showed that the low ADHD group had higher mean scores than the high ADHD group. Furthermore, the moderate ADHD group had lower mean scores when compared to the low ADHD group.

Table 3: Means and Standard Deviation (in Parentheses) Scores of Low, Moderate, and High ADHD Level Participants for Conflict Resolution Tactics, and Dyadic Adjustment Measures

Variables	Low ADHD	Moderate ADHD	High ADHD	F	p	Group Difference
Negotiation	26.9 (7.5)	25.9 (8.4)	25.2 (8.6)	.70	.496	n.s.
Psychological Aggression	7.3 (11.4)	9 (10.7)	17.9 (13.7)	18.4	.000	L<H, M<H
Physical Assault	3 (11.2)	4.5 (11.4)	10.3 (19)	6.4	.002	L<H, M<H
Injury	0.62 (3.1)	0.81 (3.4)	2.1 (5.6)	3.4	.035	L<H, M<H
Dyadic Satisfaction	42 (6.4)	39.2 (8.1)	36.5 (7.8)	8.4	.000	L>H, M>H, M<L
Dyadic Cohesion	16.9 (5.1)	14.5 (5.3)	13.8 (5.1)	7	.001	L>H, M<L
Dyadic Consensus	56.5 (8.6)	52 (8.5)	49.3 (8.7)	12.5	.000	L>H, M<L
Affectional Expression	12.5 (1.7)	11.7 (2)	10.9 (2.4)	9.8	.000	L>H, M>H, M<L
Dyadic Adjustment Total	127.9 (17.7)	117.3 (20.1)	110.4 (20.5)	13.4	.000	L>H, M>H, M<L

Results predicting dyadic adjustments

In order to test the predictor roles of the participants' ADHD scores and spouses' conflict resolution tactics in their general dyadic adjustment scores, a series of Hierarchical Regression Analyses were conducted. In Hierarchical Regression Analysis 1, as the first step of the analysis, the ADHD total score was entered, and then the spouses' negotiation score was entered to predict the general dyadic adjustment scores. The ADHD total score ($\beta = -.27$) had predictor role in dyadic adjustment in the first step of the analysis ($R^2 = .27$, $\Delta R^2 = .07$, $F(1, 383) = 30$, $p < .01$). In the second step, the ADHD total score's contribution to the dyadic adjustment scores was reduced ($\beta = -.24$) but remained significant, and negotiation ($\beta = .28$) predicted the dyadic adjustment in a positive way ($R^2 = .39$, $\Delta R^2 = .15$, $F(2, 383) = 33.4$, $p < .01$). In the first step of the Hierarchical Regression Analysis 2, the ADHD total score was entered, and then the spouses' psychological aggression score was entered to predict the general dyadic adjustment scores. The ADHD total score ($\beta = -.27$, $p < .01$) had a predictor role in dyadic adjustment in the first step of the analysis ($R^2 = .27$, $\Delta R^2 = .07$, $F(1, 383) = 30$, $p < .01$). In the second step, the ADHD total score's contribution to dyadic adjustment scores was reduced ($\beta = -.13$, $p < .01$) but remained significant, and the spouses' psychological aggression ($\beta = -.53$, $p < .01$) predicted the dyadic adjustment in a negative way ($R^2 = .57$, $\Delta R^2 = .33$, $F(2, 383) = 93$, $p < .01$). In the first step of the Hierarchical Regression Analysis 3, the ADHD total score was entered, and then the spouses' physical assault score was entered to predict the general dyadic adjustment scores in the second step of the analysis. The ADHD total score ($\beta = -.27$, $p < .01$) had a predictor role in dyadic adjustment in the first step of the analysis ($R^2 = .27$, $\Delta R^2 = .07$, $F(1, 383) = 30$, $p < .01$). In the second step, the ADHD total score's contribution to the dyadic adjustment scores was reduced ($\beta = -.21$, $p < .01$) but still remained significant, and the spouses' physical assault ($\beta = -.33$, $p < .01$) predicted the dyadic adjustment in a negative way ($R^2 = .42$, $\Delta R^2 = .18$, $F(2, 383) = 40.5$, $p < .01$). In Hierarchical Regression Analysis 4, in the first step the ADHD total score was entered, and in the second step, the spouses' injury score was entered to predict the general dyadic adjustment scores. The ADHD total score ($\beta = -.27$, $p < .01$) had a predictor role in dyadic adjustment in the first step of the analysis ($R^2 = .27$, $\Delta R^2 = .07$, $F(1, 383) = 30$, $p < .01$). In the second step, the ADHD total score's contribution to the dyadic adjustment scores was reduced ($\beta = -.25$, $p < .01$) but remained significant, and injury ($\beta = -.16$, $p < .01$) predicted the dyadic adjustment in a negative way ($R^2 = .31$, $\Delta R^2 = .09$, $F(2, 383) = 20.1$, $p < .01$).

Mediational regression analysis

The results of the correlational analyses see [Table 1] revealed a significant and relatively moderate correlational relationship between the ADHD total score, and all spouses' conflict resolution tactic measures. The ADHD total score was also significantly and negatively linked to the participants' total dyadic adjustment score. Furthermore, the spouses' conflict resolution tactic measures were significantly linked to the participants' total dyadic adjustment score. These correlational results and the four hierarchical regression results given above demonstrate the necessity to test the mediational links between these variables. In the results of the hierarchical regression analyses, there were also some remarkable Beta score decreases for the ADHD measure when conflict resolution tactic measures were entered in the second step of the analyses. Baron and Kenny (1986) introduced some criteria for testing mediational relations between three measures: (1) The independent variable must have a significant impact on the dependent measure; (2) The independent variable must have an impact on the variable that is suggested to be the mediational variable; (3) The mediational variable must have an impact on the dependent variable; (4) The

independent variable's predictor role on the dependent variable must be reduced when the meditational variable is entered in the analyses together with the independent variable. The hierarchical regression analyses results satisfied all of the aforementioned mediational regression criteria. Resultantly, a series of simple regression analyses were performed between ADHD, conflict resolution tactics, and dyadic adjustment variables according to the suggested meditational links between these variables.

As can be seen in [Fig. 1], ADHD total ($\beta = -.12, p < .05$) significantly and negatively predicted participants' spouses' negotiation scores ($R^2 = .02, \Delta R^2 = .01, F(1, 383) = 5.7, p < .05$). Negotiation scores ($\beta = .31, p < .01$) predicted dyadic adjustment in a positive way ($R^2 = .09, \Delta R^2 = .09, F(1, 383) = 39.7, p < .01$). Only ADHD total predicted ($\beta = -.27, p < .01$) dyadic adjustment significantly, but when the spouses' negotiation variable was added to the basic regression analyses, the ADHD's contribution was reduced ($\beta_1 = -.27^{**}$ to $\beta_2 = -.24^{**}$). The Sobel z test results revealed that this reduction in Beta values was significant and reflected the mediational role of negotiation measure (a partial mediation) between ADHD and dyadic adjustment (Sobel z = 2.22, $p < .05$).

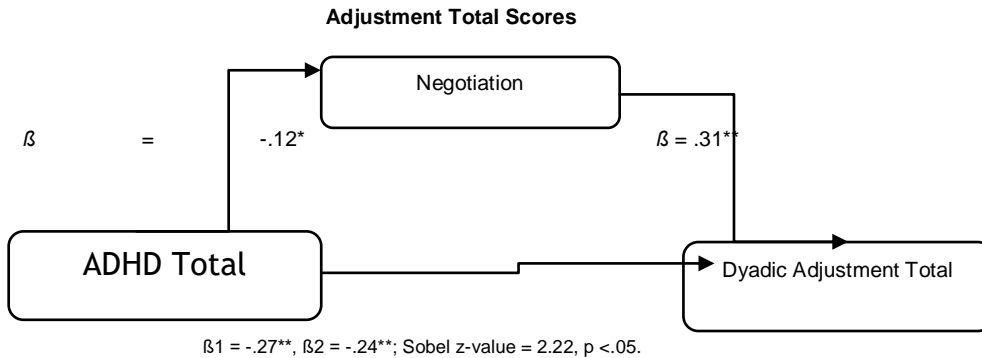


Fig. 1: Mediator Role of Negotiation between ADHD Measure and Dyadic Adjustment Total Scores.

In [Fig. 2], it can be seen that ADHD total ($\beta = .27, p < .01$) significantly and positively predicts the participants' spouses' psychological aggression scores ($R^2 = .07, \Delta R^2 = .07, F(1, 383) = 30.4, p < .01$). Spouses' psychological aggression scores ($\beta = -.56, p < .01$) predict dyadic adjustment in a negative way ($R^2 = .33, \Delta R^2 = .33, F(1, 383) = 93, p < .01$). Only the ADHD total by itself predicts ($\beta = -.27, p < .01$) dyadic adjustment significantly, but when the spouses' psychological aggression variable was added to the basic regression analyses, then the ADHD's contribution was reduced ($\beta_1 = -.27^{**}$ to $\beta_2 = -.13^{**}$). The Sobel z test results show that this reduction in Beta values was significant and reflected the mediational role of spouses' psychological aggression variable (a partial mediation) between the participant's ADHD levels and dyadic adjustment (Sobel z = 5.12, $p < .01$).

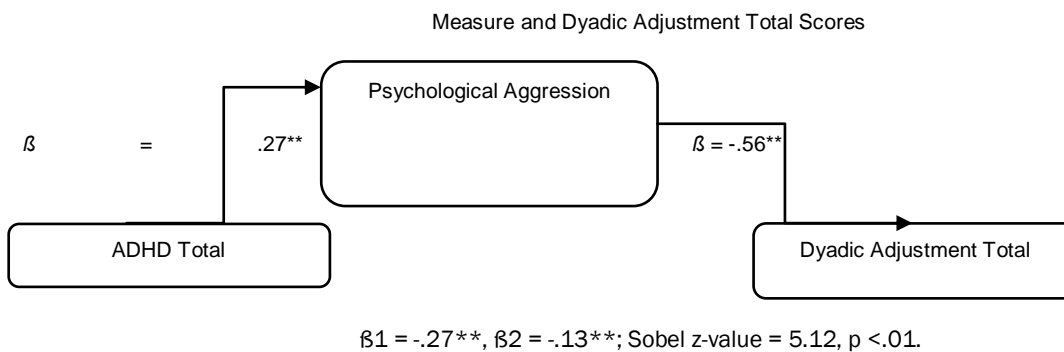
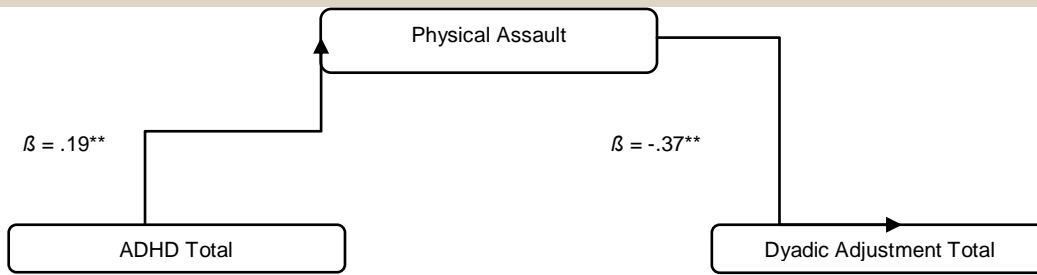


Fig. 2: Mediator Role of Spouses' Psychological Aggression between ADHD Measure and Dyadic Adjustment Total Scores

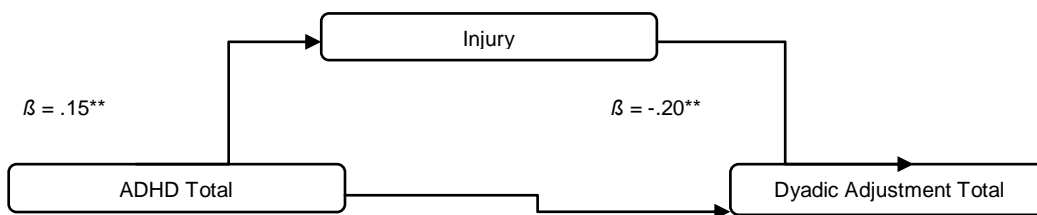
From [Fig. 3], it can be seen that the ADHD total ($\beta = .19, p < .01$) significantly and positively predicted participants' spouses' physical assault scores ($R^2 = .04, \Delta R^2 = .03, F(1, 383) = 14.4, p < .01$). Spouses' physical assault scores ($\beta = -.37, p < .01$) predicted dyadic adjustment in a negative way ($R^2 = .13, \Delta R^2 = .13, F(1, 383) = 59, p < .01$). Only the ADHD total by itself predicted ($\beta = -.27, p < .01$) dyadic adjustment significantly, but when the spouses' physical assault variable was added to the basic regression analyses, the ADHD's contribution was reduced ($\beta_1 = -.27^{**}$ to $\beta_2 = -.21^{**}$). Sobel z test results showed that this reduction in Beta values was significant and reflects the meditational role of the spouses' physical assault variable (a partial mediation) between ADHD and dyadic adjustment (Sobel z = 3.4, $p < .01$) variables.



$\beta_1 = -.27^{**}$, $\beta_2 = -.21^{**}$; Sobel z-value = 3.38, $p < .01$.

Fig. 3: Mediator Role of Spouses' Physical Assault between ADHD Measure and Dyadic Adjustment Total Scores

The final series of Basic Regression Analyses were conducted to investigate the mediational links among ADHD, spouses' injury and the participants dyadic adjustment measures. As can be seen from [Fig. 4], the ADHD total ($\beta = .15$, $p < .01$) significantly and positively predicted the participants' spouses' injury scores ($R^2 = .02$, $\Delta R^2 = .02$, $F(1, 383) = 8.6$, $p < .01$). The spouses' injury scores ($\beta = -.20$, $p < .01$) predicted dyadic adjustment in a negative way ($R^2 = .04$, $\Delta R^2 = .04$, $F(1, 383) = 15.4$, $p < .01$). Only the ADHD total by itself predicted ($\beta = -.27$, $p < .01$) dyadic adjustment significantly, but when the spouses' injury measure was added to the basic regression analyses, the ADHD's contribution was reduced ($\beta_1 = -.27^{**}$ to $\beta_2 = -.25^{**}$). Sobel z test results revealed that this reduction in Beta values was significant and reflected the mediational role of the spouses' injury measure (a partial mediation) between the ADHD and dyadic adjustment (Sobel $z = 2.36$, $p < .05$) variables.



$\beta_1 = -.27^{**}$, $\beta_2 = -.25^{**}$; Sobel z-value = 2.36, $p < .05$.

Fig. 4: Mediator Role of Physical Injury between ADHD Measure and Dyadic Adjustment Total Scores

DISCUSSION

In the present study it was hypothesized that the higher levels of ADHD should predict the participants' spouses' negotiation levels (aggression, physical assault, and injury) in a positive way. It was also hypothesized that the levels of negotiation, aggression, physical assault, and injury as mediator variables should affect the participants' dyadic adjustment. These hypotheses are supported.

Overall, the study findings are consistent with those which found in the literature [6, 37, 38, 39]. Eakin et al. [6] found that spouses reported that ADHD behaviour often interfered with areas of marital functioning and adjustment. It can be argued that because adults with ADHD have poor listening skills, communication skills and behavioural control, this leads to insufficient affective responsiveness, which could reflect on their spouses' behaviours and ultimately their relationship satisfaction. This exactly reflects the findings of the present study. Study findings showed that there is a correlation between conflict resolution tactics and dyadic adjustment. The study supports the notion that couples with positive conflict resolution tactics tend to have higher marital satisfaction. The study also supports the notion that couples with negative conflict resolution tactics tend to have lower marital satisfaction.

An individual with higher levels of ADHD symptoms could experience many difficulties in his/her practical life. When the tasks are not addressed efficiently, then the partner may respond negatively, which escalates the conflict and this results in decreased marital satisfaction. However, when an individual has less ADHD symptoms and he/she is efficient in the tasks that he/she is responsible for, then the partner may respond positively, thereby decreasing the conflict and positively impacting the marriage. Therefore, when the participants in the study perceived that his or her partner were not cooperating during arguments and used psychological aggression, physical assault, and injury to resolve the conflict instead, then they were less likely to have a satisfying dyadic relationship. Bruner et al. [5] reported that the ADHD symptom severity was positively related to the hostile relationship conflict in the college students. Present study's results support this finding and further extend it to the married couples. ADHD symptom level in the general population determines the tactic which will be used in a dispute. It was particularly interesting to find out how participant's ADHD levels affected their spouses' approaches to the disputes. It can be speculated that ADHD symptoms relates to individuals' certain behaviours. In the literature there are studies which relates ADHD symptoms to the certain personality dimensions and traits [40]. It has been reported that some

Symptoms of ADHD relates to the negative emotionality and low conscientiousness. It can be argued that this particular tendency in the personality affects the spouses in negative way and underlie the choice of more disruptive tactics as the intensity of symptoms increase.

CONCLUSION AND RECOMMENDATIONS

The participants' ADHD score directly predicted his/her marital satisfaction. It also appeared that the spouses' choice of conflict tactic (positive or negative) had an important effect on the participant's dyadic adjustment. These results would implicate to emotional dysregulation that often been reported in the ADHD population. Motivation could be an important factor that causes individuals with higher ADHD symptoms to be less functional. It is imperative for future studies to address this question in order to identify possible points of intervention. The limitation of this research is the fact that the relational descriptions are of a correlational quality and data are cross-sectional and presented on the base of self-reported measures. Future investigations are needed to establish better the relationship between ADHD and marital adjustment.

CONFLICT OF INTEREST

There is no conflict of interest.

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FINANCIAL DISCLOSURE

None

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