Effects of a "*Healthy Relationship Development Program*" on Conflict Levels of Turkish Adolescent Girls in Relationships

"*Sağlıklı İlişki Geliştirme Programı*"nın Türk Ergen Kızların İlişkilerinde Yaşadıkları Çatışma Düzeylerine Etkileri

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Abstract: The aim of this study is to examine the effects of a "*Healthy Relationship Development Program*" on the conflict levels of female adolescents during their romantic relationships. A pre-test-post-test comparison design was used and there was also a control group. Adolescent girls (aged 18-19 years) who were in a relationship with a romantic partner were included in the study. These girls were selected among students who continued their education in the Inegol Vocational School of Uludag University in Bursa. Experimental and control groups were separately composed of 25 female adolescents. A 'Personal Information Form', 'Conflict in Female Adolescent Dating Relationship Inventory (CADRI)' and 'Healthy-Unhealthy Relationship Information Form and Program Evaluation Form' were used. The pre-test was applied to both control and experimental groups. Then, the 'Healthy Relationship Development Program' (16 sessions) was performed. After implementation of the program, the post test was carried out on the test and control groups. Relational aggression and the physical, sexual and verbal-emotional abuse levels of female adolescents decreased through the effect of the 'Healthy Relationship Development Program'. Furthermore, it was determined that adolescent girls' knowledge of healthy/unhealthy romantic relationships was improved.

Keywords: Romantic Relationship, Adolescence, Healthy Relationship Program, Abuse, Conflict

Öz: Bu araştırmanın amacı, ergen romantik ilişkisinde sağlıklı ilişkiler geliştirme programının kız ergen bireylerin romantik ilişki sürecinde yaşadıkları çatışma eğilimlerine etkisini incelemektir. Bu araştırma, kontrol gruplu öntest-sontest modeline dayalı deneysel bir çalışma olarak yürütülmüştür. Araştırmaya Bursa ilinde Uludağ Üniversitesi İnegöl Meslek Yüksek Okuluna devam eden 18-19 yaşlarında romantik ilişkisi olan kız ergen bireyler dahil edilmiştir. Deney grubunda 25 kız ergen birey, kontrol grubunda 25 kız ergen birey olmak üzere toplam 50 kız ergen birey çalışma grubunu oluşturmaktadır. Araştırmada veri toplamak amacıyla, Kişisel Bilgi Formu, Ergen Sevgili İlişkisinde Çatışma Envanteri, "*Sağlıklı-Sağlıksız İlişki Bilgi Formu ve Program Değerlendirme Formu*" kullanılmıştır. Uygulama sürecinin ilk aşamasında deney ve kontrol grubundaki kız ergen bireylere ön test uygulaması yapılmıştır. Daha sonra deney grubundaki kız ergen bireylere 16 oturumluk Sağlıklı İlişkiler Geliştirme programı uygulanmıştır. Program uygulandıktan sonar deney ve kontrol grubuna son test uygulanmıştır. Araştırmanın sonucunda Sağlıklı İlişki Geliştirme Programının kız ergen bireylerin romantik ilişkilerinde yaşadıkları çatışma çözümünde ilişkisel saldırganlığa uğrama, fiziksel, cinsel ve sözel-duygusal istismarı yapma ve istismara uğrama düzeylerini azaltmada etkili olduğu bulunmuştur. Ayrıca, kız ergen bireylerin sağlıklı-sağlıksız ilişki ile ilgili doğru bilgilerinde artış olduğu saptanmıştır.

Anahtar sözcükler: Romantik İlişki, Ergenlik, Sağlıklı İlişki Programı, İstismar, Çatışma

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Different types of abuse exist in close relationships. One of the types of abuse experienced is abuse between romantic friends/spouses. In the literature, besides abuse between romantic friends/spouses, terms such as intimate partner violence, intimate partner abuse, spousal abuse/violence and domestic violence are seen to have been used (Dost & Kılınçer 2013). Abuse and violence are considered as problems in romantic relationships and addressing these issues during the adolescent period is critical in preventing problems in any future romantic relationships of adolescents (Marquart *et al.* 2007). Individuals sometimes prefer to show violent and abusive behaviour towards their partners to solve conflicts, since they cannot find a proper solution. However, this destructive behaviour can lead to devastating consequences in relations (Saltzman *et al.* 2002). In the study conducted by Dinçyürek, Akintuğ and Beidoğlu (2013), it was found that university students, in order to resolve conflicts experienced with their romantic friends, used destructive conflict resolution strategies (coercion and evasion) more than constructive conflict resolution strategies (compliance and self-sacrifice), and that from among the destructive conflict resolution strategies, they mainly used the strategy of coercion. Violence and abuse in relationships occur with students at both high school and university (Wekerle & Wolf 1999). For this reason, they can feel the need for instruction and assistance in constructive conflict resolution. In the study carried out by Avcı (2014), it was found that in their romantic relationships, one of the most common problems experienced by university students and one of the subjects in which they most wanted instruction was that of conflict resolution (92%).

The subject of gender differences, which is associated with intimate partner violence, is a sensitive and important issue, since violence can lead to fear and injuries. The violence of men is different from the violence of women (Wolfe & Wekerle 1999 2001). When intimate partner violence was evaluated, in terms of violence and exploitation, it was found that violence is mostly carried out by men (O'Leary & Slep 2003). When the type of violence is assessed, most of the recent studies conclude that mostly women are the victims of physical violence (Clark, 2013). According to the finds made in other studies, women are more likely than men to be exposed to sexual abuse (Vezina & Hebert 2007; Foshee & Reyes 2011). Even though the abuse victimization is quite equal for both genders, women are physically and psychologically more affected when compared to men (Murphy & Smith 2010). Different studies related to abuse in romantic relationships show that the probability of suffering psychological and physical abuse is higher for female adolescents compared to males (Vezina & Hebert 2007; Foshee & Reyes 2011). Adolescent girls experience the fear of physical and sexual harm more than boys (Jouriles, Platt & Mc Donald 2009). Therefore, they show different responses in order to protect themselves against exploitation. According to the study by Barnett, Lee and Barnett, Lee and Thelen (1997), women are more likely than men to use violence since women want to protect themselves against men. Knowledge of the behaviours employed by adolescents in coping with the problems they experience in their romantic relationships with the opposite sex will assist in preventing abuse and violence and in protecting their mental health (Kalkan 2008). Recently, in other countries, relationship training has been given by government through the implementation of hundreds of relationship programs with various adolescent groups (Becky *et al.* 2011). Programs aimed at engendering reliable and healthy loving relationships or programs aimed at preventing violence and teaching healthy conflict resolution methods in adolescent romantic relationships, such as *"Safe Dates"* (Foshee *et al.* 1998), *"The Youth Relationships Project"* (Wolfe *et al.* 1996), *"Love you2"*(Pearson 2008), and *"Love Notes"*(Pearson 2009) have been put into practise. When the results of studies relating to the effectiveness of these programs were examined, it was found that they were effective in increasing knowledge among adolescent

youths of abuse and violence between romantic partners, in engendering constructive conflict resolution skills and in reducing romantic partner violence and abuse (Hanson & Gidycz 1993; Cascardi & Avery-Leaf 1998; Foshee *et al.* 1998; 2004; Wolfe *et al.* 2001; Wolfe *et al.* 2003; Rothman & Silverman 2007). However, in our country, to the authors' knowledge, no prepared programs exist that aim at preventing abuse and violence in adolescent romantic relationships or at developing healthy relationships. Unless precautions are taken, the lack of knowledge of violence and abuse, which are a common problem among adolescents, and of the suitable ways to solve this problem, becomes a threat to both individuals and to society. For the acquisition of healthy problem-solving and conflict resolution behaviours, in place of those behaviours to which adolescents are subjected in their romantic relationships but which they usually conceal for reasons such as shame, embarrassment or fear, the implementation of preventive intervention programs, such as "*Conflict Resolution Training*" and "*Prevention of Violence and Abuse in Courtship Relationships*" is proposed (Kalkan 2008).

The Aim of the Study

Unfortunately, violence against women and murder rates are increasing in Turkey. It is necessary to raise the awareness of adolescent girls in terms of violence and abuse. Adolescent girls should be well educated to have healthy relationships and they should be guided to evaluate their current relationships in a conscious way. Besides, there should be more programs in Turkey that can assist them in preventing violence and to have healthy romantic relations and gain problem solving skills in a healthier way. Therefore, the aim of this study is to examine the effects of a "*Healthy Relationship Development Program*" on the levels of conflict which adolescent girls can face. Within the scope of this study, the following hypotheses were tested:

1- The levels of physical abuse carried out and suffered by female adolescents in the test group, who received instruction in healthy relationship development, will show a decrease, in comparison with the levels of physical abuse carried out and suffered by female adolescents in the control group who did not receive this instruction.

2- The levels of sexual abuse carried out and suffered by female adolescents in the test group, who received instruction in healthy relationship development, will show a decrease, in comparison with the levels of sexual abuse carried out and suffered by female adolescents in the control group who did not receive this instruction.

3- The levels of relational aggression carried out and suffered by female adolescents in the test group, who received instruction in healthy relationship development will show a decrease, in comparison with the levels of relational aggression carried out and suffered by female adolescents in the control group who did not receive this instruction.

4- The levels of emotional and verbal abuse carried out and suffered by female adolescents in the test group who received instruction in healthy relationship development will show a decrease, in comparison with the levels of emotional and verbal abuse carried out and suffered by female adolescents in the control group who did not receive this instruction.

Methods

The design of the study

In this study, the pre-test was applied to both control and experimental groups.

The Study Group

First-year students of Uludag University's Inegol Vocational School and Child Development Department participated in this study. Students who had been in a romantic relationship for at

least 6 months were determined from the form which was prepared by researchers. The form comprised two questions in order to determine whether or not female adolescents had a romantic relationship and, if so, the duration of their relationship. In total 80 female adolescents who had been in a romantic relationship for at least 6 months were found through these survey forms which was prepared by the researcher. Then, the content of the program was explained to the students and the program was explained to those who wanted to participate in this study by performing preliminary interviews. A personal information form was used to find 68 female adolescents that were similar to each other in terms of their socio-cultural status. Adolescent girls whose socio-cultural levels were higher were excluded from this study. The control (n=25) and the study (n=25) groups were randomly selected amongst this group of 65 students.

Data Collection Tools

In this study, a 'Personal Information Form', 'Conflict in Adolescent Dating Relationships Inventory (CADRI)' and 'Healthy-unhealthy Relationship Information Form and Program Evaluation Form' were used.

Conflict in Adolescent Dating Relationships Inventory

The conflict in adolescent dating relationship inventory was developed by Wolfe, Wekerle, Scott, Jaffe, Grasley and Straatman (2001). This inventory was prepared to measure the emotional-verbal, sexual, and physical abuse, and relational aggression, which can be used by adolescents in order to solve conflicts in their romantic relationships. The inventory comprises 35 items which measure the abusive behaviours of an adolescent and another 35 items which evaluate the status of an adolescent exposed to violence. The inventory comprises 70 items in total. It has five sub-tests, namely Physical Abuse, Threatening Behaviours, Sexual Abuse, Relational Aggression, and Emotional and Verbal Abuse.

180 adolescent girls (aged 18-19 years; mean age=18.5) who had romantic relationships were included in the study and the inventory was adapted to the Turkish language. These girls were selected among students of Uludag University's Inegol Vocational School located in Bursa province. The Turkish version of the original inventory named 'Conflict in Adolescent Dating Relationships Inventory' was used to collect the data of the study.

First and second level confirmatory factor analyses (CFA) were used to determine whether or not the structure of the inventory (with 5 factors and 25 items) was confirmed. In the first confirmatory factor analysis (CFA) performed on both the "*Abuse Carried Out*" and "*Abuse Suffered*" dimensions those items having statistically insignificant t values were examined. Since no insignificant t values were found during the analysis, all the factors and items in the inventory were retained. Following the first confirmatory factor analysis (CFA), the fit indices were found to be χ^2=738.91, X^2/sd= 2.74, RMSEA= 0.070, CFI=0.91, NNFI=0.90, NFI=0.87 and GFI=0.86.

When the coefficients showing the relationship between the factors of the model with observed variables that shows the factorial structure of the inventory were examined, without discriminating between the "*Abuse Carried Out*" and "*Abuse Suffered*" dimensions, it was concluded that all coefficients were at an adequate level. When the conformity statistics calculated with the first CFA were considered, it was concluded that the five-factor structure of the inventory determined earlier generally conformed with the data gathered. In order to evaluate whether or not the five-factor, 25-item structure of the abuse carried out section of the inventory was verified, CFA was performed. In the first CFA performed, the items having statistically insignificant t values were examined. The path diagram is shown in Figure 2. In the

analysis carried out, it was determined that the "*Threatening Behaviours*" factor and the 5th, 29th, 31st and 33rd items of this factor did not have significant t values. For this reason, the "*Threatening Behaviours*" factor and relevant items were removed from the inventory. After the "*Threatening Behaviours*" factor in the carrying out abuse section of the inventory and the 5th, 29th, 31st and 33rd items belonging to this factor had been removed from the inventory, CFA was performed again, as items having insignificant t values should be removed from the model (Çokluk, Şekercioğlu & Büyüköztürk 2014). Following the repeated CFA, it was determined that all factors and items had significant t values. The relevant path diagram is shown in Figure 3. After the items had been removed, the validity of the 4-factor, 47-item actual model was examined by repeating the same analysis. The fit indices were found to be χ^2=504.77, X^2/sd= 2.73, RMSEA= 0.072, CFI=0.91, NNFI=0.90, NFI=0.86 and GFI=0.88. When the coefficients showing the relationship between the factors of the model with observed variables that show the factorial structure of the inventory were examined, it was concluded that all the coefficients were at an adequate level.

When the conformity statistics calculated with CFA were considered, it was concluded that the four-factor structure of the inventory determined earlier generally conformed with the data gathered. Since the "*Threatening Behaviours*" factor and subjacent items in the abuse carried out part of the inventory had been removed, the same factor and items were also removed from the abuse suffered part. The inventory was thus given its final shape. The inventory was confirmed with four factors and 21 items. It was determined that the obtained regression coefficients and t values were significant. Following the removal of the "*Threatening Behaviours*" factor from the inventory, second-level confirmatory factor analysis was performed on the other four factors (relational aggression, physical abuse, sexual abuse, and verbal and emotional abuse) with the aim of demonstrating that they represented the higher concept of "*abuse-oriented conflict resolution strategies*". As a basis for this examined model, the relationships between the latent variables obtained in the first-level confirmatory factor analysis were selected. In the analysis, the variances that the higher-level (second-level) variables revealed in the first-level variables were also presented. When the path coefficients and t values between the second-level latent variables and the first-level latent variables were examined, it was revealed that the relationships between all factors with higher latent variables was in a positive direction and significant ($p<0.05$). When the variances in the first-level variables revealed by the second-level variables were examined, it was revealed that of the first-level variables in the abuse carried out part, the highest factor was in "*physical abuse*" (R^2 =0.66), while the lowest was in "*relational aggression*" (R^2 =0.43); of the first-level variables in the abuse suffered part, however, the highest factor was in "*relational aggression*" (R^2 =0.77), while the lowest was in "*sexual abuse*" (R^2 =0.44). Cronbach's alpha coefficient of internal consistency was calculated in order to determine the reliability of the inventory. Since a high latent structure was attained following the application of second-level CFA, the internal consistency coefficient was calculated only according to the higher structure. The Cronbach's alpha coefficients of the sub-dimensions were found to have internal consistency coefficients of α=.42 for the "*Relational Aggression Carried Out*" sub-dimension, α=.40 for the "*Relational Aggression Suffered*" sub-dimension, α=.83 for the "*Physical Abuse Carried Out*" sub-dimension, α=.74 for the "*Physical Abuse Suffered*" sub-dimension, α=.47 for the "*Sexual Abuse Carried Out*" sub-dimension, α=.053 for the "*Sexual Abuse Suffered*" sub-dimension, α=.71 for the "*Emotional and Verbal Abuse Carried Out*" sub-dimension, and α=.69 for the "*Emotional and Verbal Abuse Suffered*" sub-dimension. Following these results, the internal consistency coefficients of the sub-dimensions of the inventory ranged from .40 to .83. Frary

(2000) states that the reliability coefficients of inventories should be evaluated according to their intended uses. He states that when personal evaluations such as staff selection or diagnoses are being conducted, the measurement tools should have reliability coefficients of .80 and above. Furthermore, in cases where there are scales available that have more than one reliability coefficients of around .60 - .79, personal evaluations may again be made, on condition that the mean of these scales is used. He states that with scales having a reliability of between .40 and .50, instead of personal evaluations being made, it is more suitable for them to be used to determine the mean point difference between groups. In this context, it can be said that sub-dimensions having low internal consistency coefficients can be used for comparisons made between groups. With regard to reliability scores, it is considered that the sub-dimensions of the inventory may be used as a whole in scientific research for the examination of differences between groups, but that at this stage it will not be suitable to make personal evaluations with the current inventory. At the same time, when considering the reasons why a low internal consistency coefficient is obtained for some subscales, it may be said first of all that the number of items in the sub-dimensions is low. Nunnally (1978) states that even the narrowest features should be measured with at least 10 items. The number of items of the sub-dimensions in the inventory range from 3 to 10. According to Karasar (1995), the reliability of items having a coefficient of less than .50 must be doubted, while according to Öner (1987) this coefficient must be over .30.

The coefficients for the total scale were found as .74, for "*showing abusive behavior*" and .79 for "*being abused*". As a result of the reliability and validity study, it was determined that the t values of the 'Threatening Behaviors' factor and its 5th, 29th, 31st and 33rd items were not statistically significant. Therefore, in total 8 items which were related to abuse and being abused were removed from the inventory. Consequently, the conflict in adolescent dating relationship inventory comprised four sub-dimensions, namely Relational Aggression, Physical Abuse, Sexual Abuse, and Verbal-Emotional Abuse and 10 positive conflict-solving items. The inventory had in total 62 items (31 "*abuse*" and 31 "*being abused*" items) (under publication).

Healthy Relationship Development Program

In the "*Healthy Relationship Development Program*", some applications were related to various skills such as positive conflict resolution, anger management, healthy communication, being able to express thoughts and feelings, being able to distinguish between healthy and unhealthy relationships, and developing healthy relationships. The aim of the program is to raise the awareness of adolescent girls about romantic relationships, abuse and violence, and to ensure that they gain skills (such as positive communication, anger management and conflict solving) which can improve their romantic relationships. Both national and international literature screening was performed before the preparation of the program. International programs of adolescent intimate partner violence and abuse prevention were researched (Aldridge *et al.* 1993; Bowman *et al.* 1994; Davies *et al.* 1994; Wolf *et al.* 1996; Cascardi & Avery-Leaf 1998, 1994; Pearson 2004; 2008; 2009; Weinstein & Rosenbloom 2005; Kamper 2009; Teten *et al.* 2009; Foshee *et al.* 2010; Martindale 2011; Nixon-Pool & Olsoon-Sigg 2011). Finally, the "*Healthy Relationship Development Program*" was composed of 16 sessions which were performed twice a week and were based on the development of conflict management skills, skills in the correction of unhealthy relationship norms, and skills focusing on gender role patterns, role-playing techniques, and the performance of individuals.

Data Collection Method

The 'Conflict in Adolescent Dating Relationships Inventory' was used to evaluate the abusive behaviours used by adolescent girls to solve conflicts in their romantic relationships.

Pre-tests

The "*Conflict Inventory of Adolescent Girls in their Romantic Relationships*" was applied as a pre-test to female adolescents in order to evaluate their abusive behaviours while trying to solve the conflicts in their relationships. The pre-test was individually applied to each of the female adolescents. During the pre-test, female adolescents sat alone at the table and they replied to the questions in line with privacy policy to ensure that they were sincere. The female adolescents replied to the questions by considering their current romantic relationships. The pre-test lasted approximately 15 minutes for each female adolescent.

The Application of the Program

The 'Healthy Relationship Development Program' was performed in Uludag University's Inegol Vocational School for 8 weeks (two days a week, 90 minutes per day).

The Application of the Post-tests

The Conflict in Adolescent Dating Relationships Inventory was given to the study and control groups after the program to evaluate abusive behaviours in their romantic relationships. Additionally, the 'Healthy-Unhealthy Relationship Information Form' and 'Program Evaluation Form' were also given after the program to the study group.

Data Analysis

The SPSS 21 software package was used to evaluate the data from the study. In the analysis of the data, $p > .001$ significance level was used and so both ANCONA and ANOVA analysis was employed. In the pre- and post-tests of the study, normal distribution in both sample and control groups was observed. In order to perform an ANCOVA analysis, the regression trend for each dimension, namely "*Relational Aggression, Physical Abuse, Sexual Abuse and Verbal-Emotional Abuse*" were investigated. In the case of the 'Sexual Abuse' dimension, split-plot ANOVA was used because there was a significant difference between the regression trends of this dimension. Normality analysis was undertaken using the Kolmogorov-Smirnov test before the statistical analysis in order to determine whether or not the data were normally distributed. Parametric tests were used because the data were normally distributed. ANCOVA and split-plot ANOVA tests were used for the comparison of the control and study groups. Further, the post-test data of the study group were compared to each other using one-way variance analysis and student-t tests were used for repeated measurements (Buyukozturk 2002; 2006).

Results

ANCOVA was implemented to test the level of the "*Being Exposed to Relational Aggression*" and "*Showing Relational Aggression*" sub-dimensions. Consequently, the mean and standard deviation values of the post-test of the 'Showing Relational Aggression' sub-dimension were found to be zero. Therefore, the 'Showing Relational Aggression' sub-dimension was excluded from analyses.

ANCOVA and Descriptive Statistical Results of the post-test of, 'Being Exposed to Relational Aggression' sub-dimension can be seen in Table 1 and Table 2.

Table 1. ANCOVA Results of the Post-test, Means Adjusted According to the Pre-test Scores of Female Adolescents Obtained from the "*Being Exposed to Relational Aggression*" Dimension

The source of the variance	Sum of Squares	Sd	Mean of Squares	F	P	η^2
Pre-test	7,78	1	7,78	7,82	0,007	0,143
Group	**13,17**	**1**	**13,17**	**13,23**	**0,001**	**0,220**
Error	46,78	47	1,00			
Corrected Sum	67,73	49				

Table 2. Descriptive Statistics of Female Adolescents Related to the Post-test "*Being Exposed to Relational Aggression*" Dimension

Group	N	Mean	Corrected Mean	Adjusted Mean Difference D-K
Study	25	0,20	0,21	-1,02
Control	25	1,24	1,23	--

The corrected mean value of the study group for "*Being Exposed to Relational Aggression*" sub-dimension, (0.21) was 1.02 less than the mean of the value of the control group (1.23) (F(1, 47)=13,23, *p<.001*). Additionally, it was concluded that the program was highly effective in this dimension since the effect size was 0.22 (η^2>0,14).

ANCOVA and Descriptive Statistics Results related to the post-test of the "*Physical Abuse*" sub-dimension can be seen in Tables 3, 4, 5 and 6.

Table 3. ANCOVA Results of the Post-test, Means Adjusted According to the Pre-test Scores of Female Adolescents Obtained from the "*Abuse Physically*" Dimension

The source of the variance	Sum of Squares	Sd	Mean of Squares	F	P	H^2
Pre-test	40,13	1	40,13	10,64	0,002	0,185
Group	**181,02**	**1**	**181,02**	**47,98**	**0,000**	**0,505**
Error	177,31	47	3,77			
Corrected Sum	398,46	49				

Table 4. Descriptive Statistics of Female Adolescents Related to the Post-test "*Abuse Physically*" Dimension

Group	N	Mean	Corrected Mean	Adjusted Mean Difference D-K
Study	25	0,68	0,50	-3,88
Control	25	4,20	4,38	--

Table 5. ANCOVA Results of the Post-test, Means Adjusted According to the Pre-test Scores of Female Adolescents Obtained from the "*Being Exposed to Physical Abuse*" Dimension

The source of the variance	Sum of Squares	sd	Mean of Squares	F	P	η^2
Pre-test	0,11	1	0,11	0,03	0,872	0,001
Group	**122,10**	**1**	**122,10**	**29,40**	**0,000**	**0,385**
Error	195,17	47	4,15			
Corrected Sum	317,38	49				

Table 6. Descriptive Statistics of Female Adolescents Related to the Post-test "*Being Exposed to Physical Abuse*" Dimension

Group	N	Mean	Corrected Mean	Adjusted Mean Difference D-K
Study	25	0,48	0,49	-3,22
Control	25	3,72	3,71	--

According to the results of the analysis, the corrected mean of the study group for the "*Physical Abuse*" sub-dimension was 0.5 and this value was 3.88 lower than the mean of the control group (the corrected mean of control group was 4.38). This difference was statistically significant ($F(1, 47)=47.98$ $p<.001$). Additionally, the effect size was 0.51 ($\eta^2>0,14$) and it was therefore concluded that the program was highly effective in this dimension. The corrected mean of the study group for the "*Being Exposed to Physical Abuse*" sub-dimension was 0.49 and this value was 3.22 lower compared to the control group (the corrected mean of control group was 3.71). This difference was statistically significant ($F(1, 47)=29.40$, $p<.001$). Further, the program was highly effective in this dimension because the effect size was 0.39 ($\eta^2>0,14$).

ANCOVA and Descriptive Statistics results related to the post-test of the "*Being Exposed to Sexual Abuse*" sub-dimension can be seen in Tables 7 and 8.

Table 7. ANCOVA Results of the Post-test, Means Adjusted According to the Pre-test Scores of Female Adolescents Obtained from the "*Being Exposed to Sexual Abuse*" Sub-dimension of the "*Sexual Abuse*" Dimension

The Source of the Variance	Sum of Squares	sd	Mean of Squares	F	P	η^2
Pre-test	40,80	1	40,80	22,20	0,000	0,321
Group	**70,38**	**1**	**70,38**	**38,29**	**0,000**	**0,449**
Error	86,40	47	1,84			
Corrected Sum	197,58	49				

Table 8. Descriptive Statistics of Female Adolescents Related to the Post-test "*Being Exposed to Sexual Abuse*" Sub-dimension of the "*Sexual Abuse*" Dimension

Group	N	Mean	Corrected Mean	Adjusted Mean Difference D-K
Study	25	0,76	0,62	-2,40
Control	25	2,88	3,02	--

According to the results of the analysis, the corrected mean of the study group for the "*Being Exposed to Sexual Abuse*" sub-dimension was (0.62) 2.40 lower than the mean of the control group (3.02). This difference was statistically significant ($F(1, 47)=38.29$, $p<.001$). Further, the effect size was 0.45 ($\eta^2>0,14$) and so it was concluded that the program was highly effective in this dimension.

ANCOVA and Descriptive Statistics results relating to the post-test of the "*Sexual Abuse*" sub-dimension can be seen in Tables 9 and 10.

Table 9. ANCOVA Results Related to the "*Sexual Abuse*" Sub-dimension of the Sexual Abuse Dimension

The Source of the Variance		KT	sd	KO	F	P	η^2
Between Samples	198,81		49				
Group (Study/Control)		18,49	1	18,49	4,92	0,031	0,09
Error		180,32	48	3,76			
in cases	108,5		50				
Measurement (Pre-test-Post-test)		28,09	1	28,09	21,78	0,000	0,31
Group*Measurement		**18,49**	**1**	**18,49**	**14,33**	**0,000**	**0,23**
Error		61,92	48	1,29			
Total	307,31		99				

Table 10. Descriptive Statistics of Female Adolescents Related to the Post-test "*Sexual Abuse*" Sub-dimension of the "*Sexual Abuse*" Dimension

	Group	Mean	S_x	N
Pre-test	Study	2,16	1,77	25
	Control	2,16	2,15	25
	Total	2,16	1,95	50
Post-test	Study	0,24	0,52	25
	Control	1,96	1,43	25
	Study	1,10	1,37	50

According to the results of the analysis, the corrected mean of the study group for the "*Sexual Abuse*" sub-dimension was 1.72 lower than the mean of the control group. This difference was statistically significant (F(1,48)=14,33, *p<.001*). In addition the effect size was 0,23 (**η^2>0,14**) and so it was concluded that the program was highly effective in this dimension.

ANCOVA and Descriptive Statistics results related to the post-test of the "*Verbal-Emotional Abuse*" sub-dimension can be seen in Tables 11, 12, 13 and 14.

Table 11. ANCOVA Results of the Post-test, Means Adjusted According to the Pre-test Scores of Female Adolescents Obtained from the "*Abuse Verbally-emotionally*" Dimension

The Source of the Variance	Sum of Squares	sd	Mean of Squares	F	P	η^2
Pre-test	118,81	1	118,81	10,79	0,002	0,187
Group	**975,11**	**1**	**975,11**	**88,54**	**0,000**	**0,653**
Error	517,59	47	11,01			
Corrected Mean	1611,51	49				

Table 12. Descriptive Statistics of Female Adolescents Related to the Post-test "*Abuse Verbally-emotionally*" Dimension

Group	N	Mean	Corrected Mean	Adjusted Mean Difference D-K
Study	25	4,32	4,21	-8,85
Control	25	12,96	13,07	--

Table 13. ANCOVA Results of the Post-test, Means Adjusted According to the Pre-test Scores of Female Adolescents Obtained from the "*Being Exposed to Verbal-emotional Abuse*" Dimension

The Source of the Variance	Sum of Squares	sd	Mean of Squares	F	P	η^2
Pre-test	93,70	1	93,70	6,38	0,015	0,119
Group	**440,14**	**1**	**440,14**	**29,96**	**0,000**	**0,389**
Error	690,54	47	14,69			
Corrected Sum	1224,38	49				

Table 14. Descriptive Statistics of Female Adolescents Related to the "*Being Exposed to Verbal-emotional Abuse*" Dimension Post-test

Group	N	Mean	Corrected Mean	Adjusted Mean Difference D-K
Study	25	5,52	5,38	-5,96
Control	25	11,20	11,34	--

According to the results of the analysis, the corrected mean of the study group (4.21) for the "*Abuse Verbally-Emotionally*" sub-dimension was 8.85 lower than the mean of the control group (13.07). This difference was statistically significant ($F(1, 47)=88.55$, *p<.001*). In addition the effect size was 0.65 ($\eta^2>0,14$) and thus it was concluded that the program was highly effective in this dimension.

According to the results of the analysis, the corrected mean of the study group (5.38) for the "*Being Exposed to Emotional-Verbal Abuse*" sub-dimension was 5.96 lower than the mean of the control group (11.34). This difference was statistically significant ($F(1, 47)=29.96$, *p<.001*). Additionally, the effect size was 0.389 ($\eta^2>0,14$) and so it was concluded that the program was highly effective in this dimension.

Furthermore, it was determined that the knowledge levels of adolescents were increased with the help of the program.

Discussion and Conclusion

The aim of this study was to examine the effects of a "*Healthy Relationship Development Program*" on conflict levels which adolescent girls can encounter during their romantic relationships. The program significantly decreased the relational aggression levels of the study group adolescents. According to the literature, there is no finding that is related to the impact of intimate partner aggression and abuse prevention programs on relational aggression. It is possible that role play and learning activities based on experiences, supporting programs for self-confidence in relationships, education on developing healthy relationships, having efficient communication, and both problem and conflict solving skills can have positive effects on adolescent girls in reducing the levels of relational aggression. In line with various studies, this program is effective in reducing the levels of physical abuse which adolescent girls encounter in their romantic relationships (Cascardi & Avery-Leaf 1998; Foshee *et al.* 1998; 2004; Wolfe *et al.* 2001; Wolfe *et al.* 2003). Women are mostly exposed to physical abuse in romantic relationships (Betz 2007; Vezina & Hebert 2007). In Turkey, physical violence against women is common (Kayı *et al.* 2000; Okutan & Erbaydar 2005; Kalkan 2010). Applying physical prevention programs in the adolescent period can decrease the possibility of physical violence in future relationships and marriages (Foshee *et al.* 1996).

The program significantly reduced the 'being exposed to sexual abuse' and 'apply sexual

abuse' levels of the study group adolescents. Our findings are similar to findings from other studies in which efficient prevention programs were applied (Hanson *et al.* 1993; Foshee *et al.* 1998; 2004; Rothman & Silverman 2007). The most frequent type of abuse is sexual abuse, which effects both young girls and women (Spencer & Bryant 2000; Kayı *et al.* 2000; Vezina & Hebert 2007; Jouriles *et al.* 2009; Antle & Sullivan 2011; Kalkan & Karadeniz 2011).

Adolescent girls mostly applied verbal-emotional abuse to their partners (Betz 2007; Swahn *et al.* 2008). The program was effective in reducing the verbal-emotional abusive behaviours of adolescent girls (Foshee *et al.* 1998; Wolfe *et al.* 2003; Adler-Baeder *et al.* 2007; Kerpelman 2009). This finding is also supported by similar studies (Foshee *et al.* 1998; Wolfe *et al.* 2003; Adler-Baeder *et al.* 2007; Kerpelman 2009).

Even though these effects were obtained as a result of the program, the effects of non-experimental factors (such as increased awareness and self-control of adolescents) should not be ignored.

Limitations of the Study

There are some limitations to this study. Firstly, data collection was done by obtaining information directly from the adolescent girls instead of observing their attitudes towards their partners while they were trying to solve conflicts in their relationships. In addition, only adolescent girls were included in the education program. Therefore, the expressions of adolescent girls can reflect their perceptions or attitudes and behaviours towards their boyfriends while they were solving problems and conflicts. It is also possible that it may not be sufficient for constructive conflict resolution when only adolescent girls are educated.

Notes of the Author

This study is part of a PhD study and the data of the study are part of a PhD thesis with the title of the Effects of a "*Healthy Relationship Development Program*" on Conflict Levels of Turkish Adolescent Girls in Their Romantic Relationships.

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