Analysis of the Relations between Obsessive Compulsive Symptoms and Anxiety Sensitivity in Adolescents with Structural Equation Modeling

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Abstract

The purpose of this study is to analyze the predictive effect of anxiety sensitivity on obsessive compulsive symptoms. The sample of the study consists of 542 students selected with appropriate sampling method from the secondary and high schools in Erzurum city center. Obsessive Compulsive Inventory and Anxiety Sensitivity Index were used in the study to collect data. The data obtained through the study was analyzed with structural equation modeling. As a result of the study, it was determined that there is a significant relationship between obsessive compulsive disorder (OCD) and anxiety sensitivity, and anxiety sensitivity has direct and indirect meaningful effects on the latent variable of OCD in the sub-dimensions of doubting-checking, obsessing, hoarding, washing, ordering and mental neutralizing, and also anxiety sensitivity is a significant predictor of obsessive compulsive symptoms.

Introduction

Obsessive compulsive disorder (OCD) had been considered as a disorder which can only be seen in adolescents until recently, but with the new studies it has been proved that this is not the case (Douglass, Moffitt, Dar, McGee & Silva, 1995; Flament, Whitaker, Rapoport & Davies, 1988; Heyman, Fombonne, Simmons, Ford & Meltzer, 2003). Also, Swedo, Leonard and Paraport (19929 and Türkbay, Doruk, Erman and Söhmen (2000) suggested that because adolescents fear that they would be embarrassed or ridiculed, they tend to hide OCD symptoms for many years or when they apply for treatment, they are diagnosed with depreesion or anxiety disorder as they do not mention about OCD symptoms. Thus, it gets difficult to understand the real prevalence of OCD in adolescents.

As OCD is a continuous and stubborn disorder which limits the life of the individual, affects psychological adaptation and socialization, decreases his productivity and prevents him to establish healthy relationships in his environment, it is a psychiatric disorder which causes significant corruptions in individual's social life and professional functions (American Psychiatric Association, 1994; Gölçakan, 2005). American Psychiatric Association-APA (1994) defines obsessive compulsive disorder as a psychiatric disorder which causes corruption in individual's social life and professional functions, disrupter, ego dystonic, repetitive and depressing and the repetitive behavior to get rid of this depressing thoughts or mental actions.

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Although obsessive compulsive disorder is known as a disorder generally peculiar to adultery, the number of the findings showing that a significant amount of OCD symptoms have occurred since childhood is increasing gradually. Douglass et al., (1995), Flament at al. (1988), Heyman et al. (2003) and Piacentini, Bergman, Keller and McCracken (2003) state that OCD can be seen in one child or adolescent out of every hundred can leave serious negative effects in academic, social and family life of an individual. Similarly, Öner and Aysev (2001) and Valderhaug ve Ivarsson (2005) stated that OCD is a disorder which is can occur in childhood,can leave serious negative effects in the individual's social and academic life, and can affect the adaptation process of the individual. Moreover, it can be seen that there are research findings showing that the first symptoms of OCD first occur before the age of fifteen in almost half of those who are diagnosed with OCD in their adulthood (Pauls et al. 1995). Stewart, Geller, Jenike, Pauls, Shaw and Mullin (2004) found out that 41 % of those who were diagnosed with OCD during childhood have been diagnosed with OCD in their adulthood, Karno, Golding, Sorenson, Burnam (1988) found out this rate to be % 50, therefore it can be said that OCD experienced in childhood is an important and mental-health-threatening problem that can also continue in adulthood.

It can be said that there is consistency between the research results that aim to determine the extensity of OCD among adolescents. Geller, Biederman, Jones, Park and Shapiro (1988) and Leonard, Lenane, Swedo, Rettew and Gershon (1992) determined that the frequency of OCD is higher in boys in prepuberty and it is higher in girls in post-puberty, in spite of that, they determined that there is not a differentiation in terms of gender during puberty. Flament (1990) determined that the prevalence of OCD in adolescents is 2 %, and Zohar (1999) determined that this rate is 4 %.

Although it was determined that OCD symptoms in childhood generally show similarities with OCD symptoms in adulthood, it can be said that researches that aim to determine the factors related to OCD are quite limited, and researches in this field have been increased recently (Barrett, Healy-Farrell & March, 2004; Foa, Kozak, Salkovskis, Coles & Amir, 1998; Foa, Coles, Huppert, Pasupuleti, Franklin & March, 2010; Storch, Geffken, Merlo, Mann, Duke & Munson, 2007).

Anxiety sensitivity can be shown among the important factors that is thought to be related to OCD. Calamari, Rector, Woodard, Cohen and Chick, (2008), Tolin, Woods and Abramowitz (2006) and Wheaton, Mahaffey, Timpano, Merman and Abramowitz, (2012) suggest that anxiety sensitivity is a significant risk factor in the occurrence and continuation of OCD. Anxiety sensitivity was explained by Reiss and McNally (1985). It was defined as an excessive fear situation related to senses and symptoms about the anxiety under the skin of avoidance behavior of a situation causing specific fear. In other words, anxiety sensitivity can be defined as "*fearing of fear*". Mantar, Yemez and Akın (2011) suggested that anxiety sensitivity is a continuing fear that exists in personality structure of an individual. Taylor, Koch and Woody (1996) defined anxiety sensitivity as a severe reaction tendency with fear towards the basic anxiety symptoms that the individual experience.

However the number of the studies dealing with the relation between anxiety sensitivity and OCD are limited (Cox, Endler and Swinson, 1991; Freeston, Rhéaume and Ladouceu, 1996; Grant, Beck and Davila, 2007; Wheaton, Deacon, McGrath, Berman and Abramowitz, 2014), recent researches present the negative effects of anxiety sensitivity on obsessive compulsive disorder, panic attack, agoraphobia, depression and other anxiety and mood disorders. Mantar et al. (2011), Cox, Endler and Swinson (1991) and Grant, Beck and Davila (2007) stated that anxiety sensitivity has a negative effect on the occurrence and continuity of many disorders such as panic attack, agoraphobia and especially obsessive compulsive disorder. Freeston, Rhéaume and Ladouceur (1996) suggested that anxiety sensitivity, especially its cognitive dimension, can have a negative role in the occurrence and continuity of obsessive compulsive disorder. The findings of the research by Zinbarg, Barlow and Brown'un (1997) support this. The related research findings show that there is not a significant difference between individual with OCD and individual without OCD in the physical and social sensitivity dimensions of anxiety sensitivity, in spite of that, there is significant difference between individual with OCD and individual without OCD in its cognitive dimension, and the cognitive sensitivity scores of the individuals diagnosed with OCD are significantly higher. Calamari et al. (2008) determined that there are positive relation between the obsessions of washing, and between the compulsions of checking and aggression.

Reiss and Mcnally (1985) suggest that the individuals with higher anxiety sensitivity are on the alert for fear in case they slightly experience anxiety, and thus the experienced anxiety become stronger. The research finding by Ghasempour, Akbari, Azimi, Ilbeygi and Hassanzadeh (2012) support this view, which determined that there is a positive relationship between anxiety sensitivity and OCD in undergraduates and individual with higher anxiety sensitivity can present more avoidance, checking behaviors and feel more threat perception. In the direction the data related to literature, it can be said that individual with higher anxiety sensitivity have an important risk for OCd and anxiety sensitivity has a negative role on the occurrence and continuity of OCD.

Although the negative effect of anxiety sensitivity that causes OCD symptoms to occur and continue in adults has been determined with a number of researches, it can be said that the effect of anxiety sensitivity on OCD symptoms in adolescents haven't been adequately dealt yet. However, studies conducted on children and adults show that OCD is a very common disorder among adolescents (Flament, 1990; Foa et al. 1998; Zohar, 1999,), and OCD symptoms first occurred in childhood can continue in adulthood as well (Karno et al., 1988; Stewart et al., 2004). Similarly, research findings about anxiety sensitivity show that individuals with higher anxiety sensitivity have the risk of having OCD (Cox et al., 1991; Freeston et al. 1996; Garnt et al. 2007). In spite of that, it can be said that the researches analyzing the relation between anxiety sensitivity and OCD deals generally with adults and studies conducted on adolescents are quite limited (Raines, Oglesby, Capron and Schmidt, 2014; Wheaton et al. 2012). Accordingly, it is thought that presenting the relation between anxiety sensitivity and OCD in adolescent will provide a tremendous source of information for pedagogues, parents and experts working on children's mental health (psychological counselors, counselors, child psychologists). In this direction, the purpose of this study is to analyze the predictive effect of anxiety sensitivity on OCD symptoms in adolescents. For this purpose, the hypotheses below were tested during the study.

1. There is a significant relationship between anxiety sensitivity and OCD symptoms in adolescents.
2. Anxiety sensitivity in adolescent is a significant predictor of OCD.

Method

Research Model

This study is a correlational descriptive survey. Correlational descriptive surveys are the surveys in which the correlations between two or more variables are determined and analyzed deeply. Correlational descriptive survey does not provide a real cause-effect relationship, however it enables to predict a situation of other variable or variables through the information obtained from a variable (Karakaya, 2011; Karasar, 2006). For this purpose, structural equation modeling was used to determine the relations between anxiety sensitivity and OCD. Structural equation modeling is a statistical analyzing method which enables us to define observed and unobservable variables based on a specific theory in a causal and associational model, and to test the direct and indirect effects of observed and unobservable variables through a single model. As is, the structural equation modeling can also be defined as a multiple regression analysis applied at the same time (Bayram, 2011, Şimşek, 2007). As the structural equation modeling also enable us to calculate error-free linear relations between the variables, it provides more reliable results than regression analysis and path analysis (Meydan and Şeşen, 2011). Multiple fit indices were used for the structural equation model in this study. Hu and Bentler, (1999), Marcoulides and Schumacher (2001) and Schumacher and Lomax (2004) suggested that ≥ .90 is accepted as acceptable fit for RFI, CFI, NFI, NNFI and IFI of model fit indices in structural equation model and ≥ .95 is for perfect fit; ≥ .85 for acceptable fit for GFI and AGFI, and ≥ .90 for perfect fit; and ≤ .08 for acceptable fit for RMR, REMSEA and SRMR, and ≤.50 for perfect fit.

Sample

The sample of the study was formed of 542 students selected with appropriate sampling method among students from different secondary and high schools in Erzurum city center in 2013-2014 academic years. In appropriate sampling, the researcher starts creating the group from the most available responders until he/she reaches the group as big as he/she needs or works on the most available case or sample that makes maximum saving (Büyüköztürk, Çakmak, Akgün, Karadeniz & Demirel, 2013).The sample group consisted of 291 school girls and 251 school boy, the age range of the sample is between 13 and 17, average of age is 15,75, and the standard deviation is 1.60.

Data Collection Tools

Child Version of Obsessive Compulsive Inventory: A likert scale developed by Foa et al. (2010) and adapted into Turkish by Seçer (2014) to determine the symptoms of obsessive compulsive disorders in adolescents by self-report. The original form of the scale consists of 21 items explaining the 49,95 % of the total variance and six dimensions. The internal consistency coefficient of the scale is .79. The adaptation process of the scale into Turkish was conducted on 1187 secondary and high school students. Experts' opinions were asked for language validity, and the latent structure of the scale was analyzed with confirmatory factor analysis (CFA). The fit indices of the six-dimension structure of the scale were found at adequate level in CFA. CFA fit indices were found as $\chi2/$ Sd =1.69, RMSEA=.046, RMR: .046 , SRMR; .048, CFI=.98. Besides, coefficient of internal consistency was found as .86 for the total of scale, and .73, .76, .81, .78, .78 and .78, respectively, for the sub-dimensions. The sub-dimensions of the scale are doubting-checking, obsessing, hoarding, washing, ordering and mental neutralizing. The scale is graded between 0 and 4, and it is thought that OCD symptoms increase as the scores gotten from each sub-dimension increase.

Anxiety Sensitivity Index for Children: Developed by Silverman, Fleisig, Rabian and Peterson (1991) and adapted into Turkish by Seçer and Gülbahçe (2013). The 18-item likert scale was developed to determine anxiety sensitivity of adolescents by self-report. As a result of EFA, it was found out that the scale has a three-factor structure and the model fit of the scale is adequate (REMSEA: .023, RMR: .032, CFI:.99, SRMR: .023, $\chi2/$ Sd =1.06). For criterion related validity, the correlation between the Child Version of OCI and Children's Depression Inventory and State-Trait Anxiety Inventory was analyzed, and significant correlations were found. It was obtained that the internal consistency of the scale is .86 and the reliability of test-retest is .84.

As part of this study, the factor structure of Anxiety Sensitivity Index for Children was reviewed and it was found that the three factor structure explains 57.21 % of the variance and the model fit indices related to the two factor structure were found as REMSEA: .037, RMR: .035, CFI: .95, SRMR: .037, χ2/df= 1.95. Besides, in terms of reliability values the internal consistency was found as .85 and half split reliability was found as .83.

Process

In the process of the study, firstly necessary permissions from the institutions were granted, then the applications were started, and at the beginning of the study, all the participants were informed that participation to the study were based on voluntariness. Scales were applied on 572 students, at total. During the process of transferring the data to the computer, it was decided to remove 15 scales from the data set as they had lost/missing data. In the data set, the tolerable missing scales were filled with arithmetic means. In the analysis process, it was first analyzed whether the data set met the necessary basic assumptions for parametric tests. For this purpose, Skewness and Kurtois values were primarily analyzed to check extreme values, and it was determined to remove data of 9 students as they had extreme values. In addition, Mahalanobis and Cook's distance values were calculated and scales of 6 students which were likely to affect the multivariate normal distribution of the data set were removed from the data set. After removing the scales from the data set, the data set consisting of 542 students were analyzed whether it met the requisite assumptions for the parametric tests. To do so, Kolmogorov-Smirnov normality test was done and it was seen that the data set had normal distribution. The homogeneity of the data set and whether there were linear relations between variables were also analyzed and it was found out that the data set met the necessary basic criterions for parametric analyses.

After determining that the data set had normal distribution, the relations between OCD symptoms and anxiety sensitivity were analyzed with Pearson Product-Moment Correlation and the predictive effect of anxiety sensitivity on OCD symptoms were analyzed with structural equation modeling, and for this purpose path analysis was done with confirmatory scale model and latent variables. Multiple fit indices - χ2, RMR, RMSEA, CFI and SRMR- were used in structural equation modeling.

Findings

Findings gathered from data analysis at the end of the research have been explained below in accordance with the research problem.

Relationship between anxiety sensitivity and obsessive compulsive symptoms

To define the relationship between students' anxiety sensitivity marks and obsessive compulsive symptoms Pearson Moment Multiple Correlation has been used and the results have been given in Table 1.

Table 1. Relationships between Anxiety Sensitivity and Obsessive-Compulsive Symptoms

		Anxiety Sensitivity		
		Physical sensitivity	**Psychological sensitivity**	**social sensitivity**
OCD	Doubting-checking	.431**	.395**	.340**
	Obsessing	.384**	.415**	.356**
	Hoarding	.297**	.311**	.265**
	Washing	.364**	.370**	.286**
	Ordering	.255**	.252**	.191**
	Mental neutralizing	.229**	.213**	.266**

When table 1 is studied in detail, it can be said that there is a medium level and positive relation between the doubting-checking sub-dimensions of OCD and physical sensitivity, psychological sensitivity, and social sensitivity. According to this, it can be said that as the anxiety sensitivity in adolescent increases, doubting-checking and obsessing will also increase. It can be seen that there is a positive and low level relation between the hoarding and mental neutralizing dimensions and physical and psychological sensitivity, and between hoarding and mental neutralizing and social sensitivity. That is, an increase physical and psychological sensitivity in adolescents would considerably affect hoarding and mental neutralizing, but the effect of social sensitivity is relatively lower. It can also be said that there is a low level and positive relation between washing and ordering dimensions and physical, psychological and social sensitivity, and anxiety sensitivity has a limited effect on washing and ordering obsessions.

After defining meaningful relations between anxiety sensitivity and obsessive compulsive symptoms, effect of interpretation of anxiety sensitivity on obsessive compulsive symptoms has been tested with structural equity model. For this aim firstly corrective measure model related to model adaptation of anxiety sensitivity and obsessive compulsive symptoms has been set and the model is indicated in Figure 1.
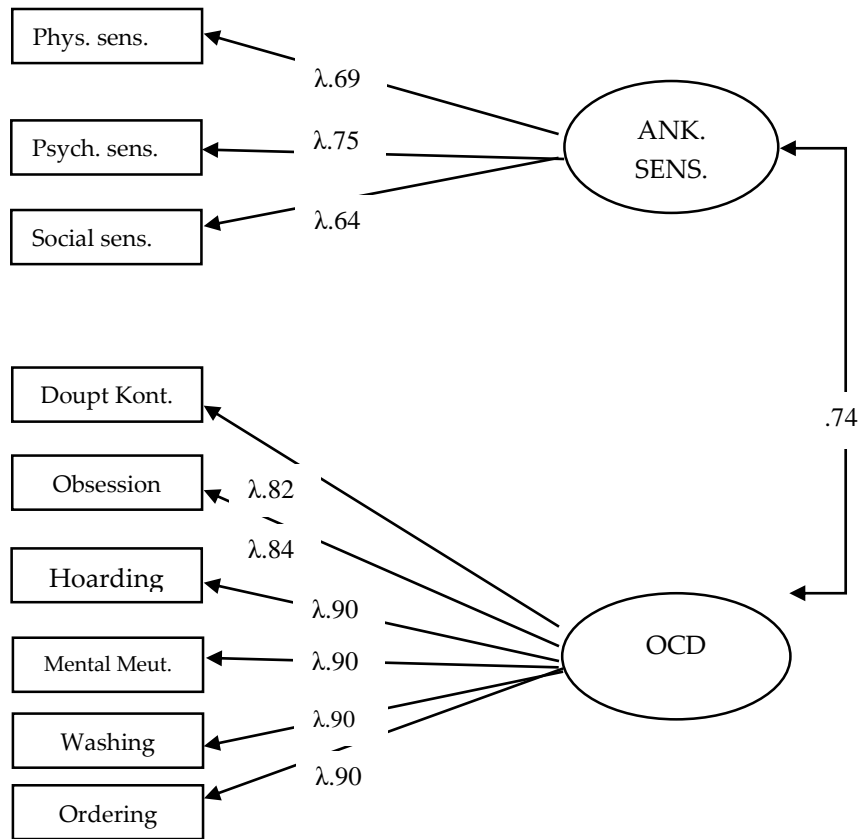
Figure 1. Corrective Measure Model between Anxiety Sensitivity and OCD Symptoms

Table 2. The Goodness of Fit Indices of Measurement Model

χ^2	Sd	$\chi^2/$ Sd	CFI	SRMR	RMR	REMSEA
41,45	26	1,59	.99	.034	.039	.041

When Figure 1 and Table 2 are examined, model adaptation indexes of corrective measure model set between anxiety sensitivity and OCD symptoms have been seen meaningful. Additionally, it has been found that there is a positive and meaningful relationship (r=74) between anxiety sensitivity and obsessive compulsive symptoms. After model adaptation indexes of measure model have been found meaningful, two latent variables for anxiety sensitivity and obsessive compulsive symptoms have been defined. If anxiety sensitivity latent variable (ANKSDUY) variables observed physical, psychological and social sensitivity and obsessive compulsive symptoms are latent variable, (OCI) doubting-checking, obsessing, hoarding, mental neutralizing have been measured with variables observed washing and ordering. Findings related to structural equity model are given in Figure 2 and findings related to adaptation indexes of the model are given in Table 3.
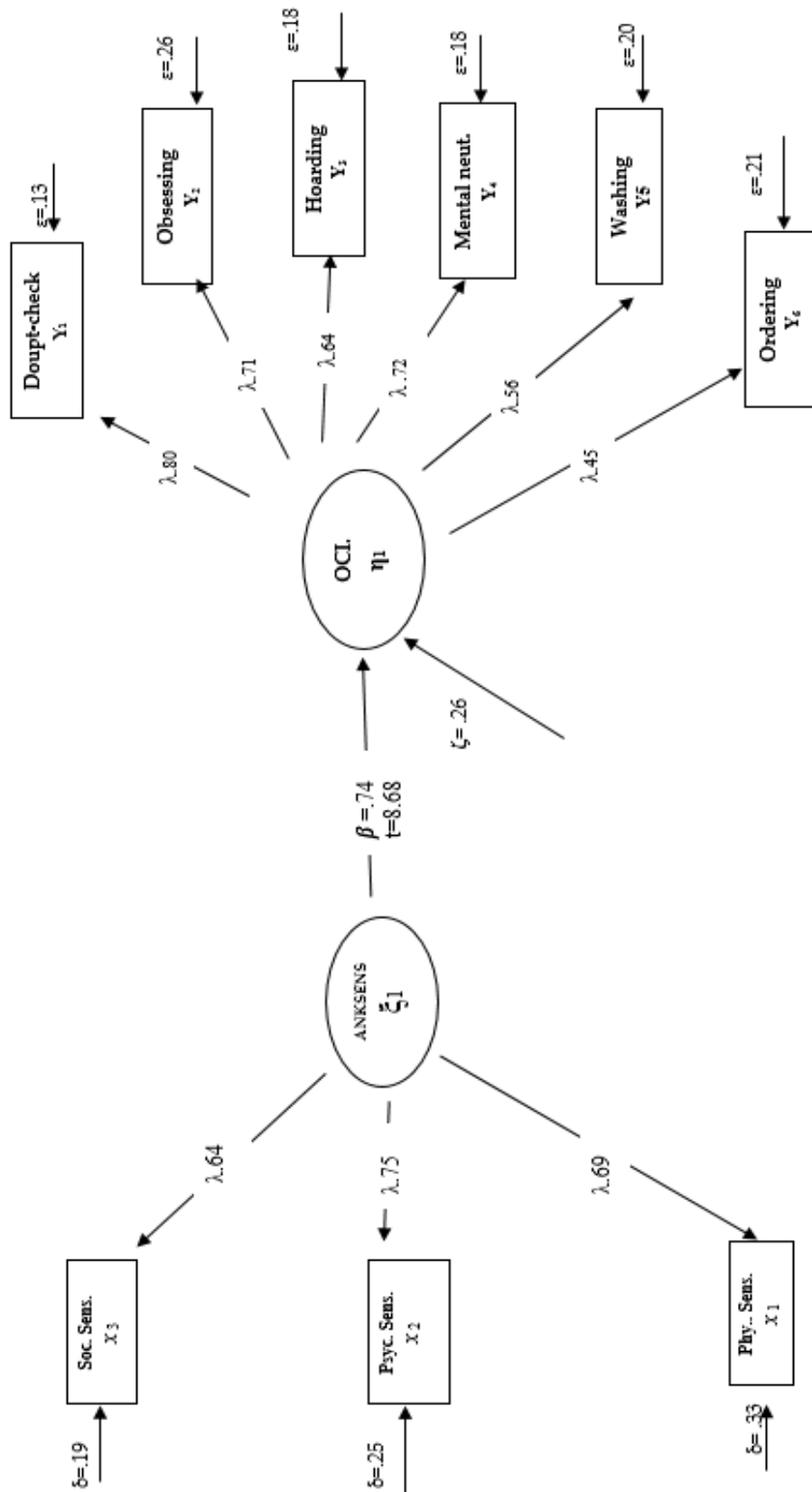
Figure 2. Standardized Equational Model Dealing with the relationship between OCD Symptoms and Sensitivity of Anxiety

Table 3. Structural Equation Model of the Model Goodness of Fit Indices

χ^2	Sd	$\chi^2/$Sd	CFI	SRMR	RMR	REMSEA
24.03	26	0,92	.99	.020	.029	.016

On analyzing the fit indices and the model which was tested and set to analyze and the predictive effect of anxiety sensitivity on OCD symptoms, it can be said that the model was approved and the model showed good fit. When Figure 2 is analyzed, it can be said that the latent variable of anxiety sensitivity (ANX-SEN) which includes physical, psychological and social sensitivity predicts the latent variable of OCD symptoms (OCD) including doubting-checking, obsessing, hoarding, mental neutralizing, washing and ordering sub-dimensions in positive way and high level (β=.52 t=8.68). This obtained evidence can be evaluated that anxiety sensitivity has a significant effect on the OCD symptoms in adolescents. Moreover, it is seen from the latent variable of OCD that the latent variable of anxiety sensitivity (ANX-SEN) has significant effects on OCD sub-dimensions. Accordingly, it can be seen that anxiety sensitivity has a high level relation with doubting-checking, obsessing, hoarding and mental neutralizing while it has a low level relation with washing and ordering. According to the obtained evidence related to the structural equation modelling, it can be said that anxiety sensitivity has positive relation with OCD symptoms in adolescents.

Defining Coefficients Related To Structural Equity Model

Defining coefficient in structural equity model shows how much interpreting variables explain the variant of interpreted variable. Defining coefficient can be between 0 and 1. Findings related to explaining variant coefficient of anxiety sensitivity in OCI have been given in table 4.

Table 4. Coefficients of Determination for Structural Equation Modeling

Fit parameter	Coefficient value
X_1: Physical sensitivity	.48
X_2: Psychological sensitivity	.57
X_3: social sensitivity	.41
Y_1: Doubting-checking	.64
Y_2 Obsessing	.50
Y_3 Hoarding	.41
Y_4 Mental neutralizing	.52
Y_5 Washing	.32
Y_6 Ordering	.25
ξ_1:η_1	.52

When Table 4 is examined, it has been seen that anxiety sensitivity explains 52 % of the variance in obsessive compulsive symptoms. In the measure model related to anxiety sensitivity, anxiety sensitivity (ANX-SEN) explains 48 % variance of physical sensitivity, 57 % variance of psychological sensitivity, and 41 % variance of social sensitivity. Obsessive compulsive symptoms (OCD) in the measure model related to obsessive compulsive symptoms explain 64 % of variance of doubting-checking, 50 % of the variance of obsessing, 41% of the variance of hoarding, 52% of the variance of mental neutralizing, 32% of the variance of washing, and 25 % of the variance of ordering.

Findings Related to Total and Indirect Effects in Structural Model

Total and indirect effects on anxiety sensitivity and physical sensitivity, psychological sensitivity, social sensitivity, doubting-checking, obsessing, ordering, washing, ordering and mental neutralizing of OCI are shown in Table 5.

Table 5. Total and Indirect Effects in Structural Model

	Total effect		Indirect Effect
	Anxiety sensivity	Obsessive-compulsive symptoms	Anxiety sensivity
Physical sensitivity	.69		
Psychological sensitivity	.75		
Social sensitivity	.64		
Doubting-checking		.80	.24
Obsessing		.71	.23
Hoarding		.64	.15
Washing		.72	.15
Ordering		.56	.17
Mental neutralizing		.45	.17

It has been seen that the latent variable of anxiety sensitivity (ANX-SEN) has affected *physical, psychological, social* sensitivity directly and it has effected *doubting-checking, obsessing, ordering, mental neutralizing, washing and ordering* indirectly through the latent variable of obsessive compulsive symptoms (OCD. Additionally, the latent variable of obsessive compulsive symptoms affect directly d*oubting-checking, obsessing, ordering, mental neutralizing, washing and ordering*. When table 5 is examined, it has been seen that latent variable of anxiety sensitivity affects the indicator variables of latent variable of obsessive compulsive symptoms indirectly and this effect is not directly.

Results and Discussion

The predictive effect of obsessive compulsive symptoms of anxiety sensitivity on adolescents has been investigated in this study. For this purpose, two hypotheses were tested in the process of the study. It has been suggested that physical, psychological and social anxiety sensitivity has positive relation with doubting-checking, obsessing, hoarding, mental neutralizing, washing and ordering, and anxiety sensitivity predict the OCD symptoms in adolescents. The finding obtained through the study show that the hypotheses were both approved and the fit indices of structural equation modelling are in adequate levels (Hu and Bentler, 1999).

Findings of the study have shown that anxiety sensitivity predict obsessive compulsive symptoms positively. Index values related to coefficient goodness have shown that the model has coefficient values in adequate level and the constituted structural equity model can adequately explains the relationship between indicator and latent variables (Hu and Bentler, 1999).

Findings gathered from the study have shown that anxiety sensitivity predict OCI positively on adolescents, and this relationship is also valid for physical, psychological and social sensitivity sub-dimensions of anxiety sensitivity. Moreover, the findings of the study show that anxiety sensitivity has a high level relation with the symptoms of doubting-checking, obsessing, hoarding and mental neutralizing particularly; and a low level relation with washing and ordering symptoms. It can be said that anxiety sensitivity can be an important risk factor particularly for doubting-checking, obsessing, hoarding and mental neutralizing; adolescents with physical, psychological and social anxiety sensitivity have an important risk to experience doubting-checking, obsessing, hoarding and mental neutralizing.

According to the findings obtained through the study, it can be said that physical, psychological and social anxiety sensitivity are a strong indicator for OCD symptoms in adolescents, and in case of anxiety sensitivity increases, OCD symptoms will also increase. These obtained findings show parallelism with many research findings (Calamari et al. 2008; Freeston et al. 1996; Robinson and Freeston, 2014; McLaughlin, Stewart and Taylor, 2007; Muris, 2007; Raines et al. 2014; Tolin et al. 2006; Zinbarg, Barlow and Brown, 1997; Wheaton et al. 2012; Wheaton et al. 2014) which present that anxiety sensitivity can be a negative risk factor for OCD and as anxiety sensitivity increases, OCI symptoms can also increases. In this way anxiety sensitivity can be showed as an experiment of OCI lives of adolescents. Many research findings conducted in recent years have showed that anxiety sensitivity is an important risk factor in the aspect of OCI and has a negative effect on many anxiety and mood disorders besides OCI (Mantar et al. 2011; McLaughlin et al. 2007; Muris, 2007, Raines et al. 2014; Tolin et al. 2006 and Wheaton et al. 2012; Wheaton et al. 2014). Additionally, Mantar, Yemez and Alkın (2011) and Reiss, Peterson, Gursky and McNally, (1985) have asserted that individuals whose anxiety sensitivity is high can be in an alarm situation even when they live the smallest anxiety and for this reason, intensity of anxiety lived increase more and more. Cox et al. (1991), Freeston et al. (1996), Grant et al., (2007) and Ghasempour et al. (2012) have determined that individuals who have higher anxiety sensitivity show more control behaviors, more threat perception, more avoiding behaviors. In this aspect, anxiety sensitivity has a negative role on appearing and resisting OCI symptoms in adolescents.

Findings gathered from this research present crucial knowledge related to the relationship between anxiety sensitivity and OCD in adolescents. It is thought that physical, psychological and social anxiety sensitivity previously interprets OCD symptoms in adolescents and regarding variables which are the reason of appearing and sustaining of OCI and planning needed recovery processes can help parents, specialists and other related people how to behave in these matters. Results of the research show that adolescents whose anxiety sensitivity is higher are at higher risks than others in the view of OCI. For this reason, in the process of defining, diagnosing and treating adolescents who are thought to have risks in view of OCD, anxiety sensitivity can have an important role. It is thought that it would be better for mental health experts to consider the anxiety levels of the adolescents while dealing with doubting-checking, obsessing, hoarding and mental neutralizing in the process of diagnosis and treatment. In addition with repeated studies made on different groups it is proposed to investigate the relationships between anxiety sensitivity and OCI in a detailed way.

Lastly, the limitedness of the study should also be considered when interpreting the findings of the study. The first limitedness of the study is choosing adolescent at the ages of 13-18 getting educated in secondary and high schools in Erzurum as the target group of the study. Thus, it is necessary for the actuality of the findings to re-conduct the study on the children under the age 13 and on different samples from different cities and regions.

The second limitedness of the study is that this study only includes a population who does not have OCD (normal). So, it is also necessary for the findings of the study to be generalized by the future researches that should aim presenting the relation between the anxiety sensitivity and OCD symptoms on the adolescents diagnosed with OCD and to compare the predictive effect of anxiety sensitivity levels of the individual without OCD on OCD symptoms.

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