

Relationships between Anxiety Sensitivity of Academics and Some Variables such as Gender, Age and Personality

Abstract

Anxiety sensitivity (AS) has been defined as the fear of symptoms of anxiety. AS is connected with psychological and demographic variables. The author of this study sought to examine the relationships among academic staffs' gender, age and AS with a sample of 355 practicing academic staff (*female=133, male=222*). Results showed that female academic staff have greater AS than their male colleagues. Results also revealed statistically significant relationships between age, moving away from social activities and AS. Implications for research and practice are discussed.

Keywords: *anxiety sensitivity, gender, age, personality.*

Introduction

Anxiety sensitivity (AS) is about physical and emotional symptoms of anxiety considered to have harmful consequences (Reiss, Peterson, Gursky, & McNally, 1986). There are two basic approaches to AS occurrence. One of them is the trait model of AS (Reiss & Haverkamp, 1996), the other is the model which emphasizes learning processes (Schmidt, Lerew, & Joiner, 2000). The trait model emphasizes that AS may grow in time and may be observed in individuals at high or low levels. This approach shows that some condition-oriented learning processes are also effective in the development of AS. Learning based approach shows that AS is caused by stressful life events which cannot be controlled or predicted by the individual.

AS is attributed to Reiss' (1991) expectancy model of fear. Reiss' expectancy model shows that there are three fundamental fears defined as sensitivity. These are the fear of injury, the fear of anxiety, and the fear of negative evaluation. This model is defined as anxiety fear-sensitivity (Reiss, 1991). AS reinforces the fear and anxiety reactions and functions significantly in the etiology and maintenance of anxiety disorders (Taylor & Cox, 1998). There is an interesting theoretical differentiation between fear and AS. AS is defined as an excessive fear that arises from beliefs and symptoms which will be experienced by the individual (Mantar, Yemez, & Alkin, 2010). Accordingly, AS is considered as an inhibitory factor against fear and other anxiety disorders (Reiss, Peterson, Gursky, & McNally, 1986).

There is a relation between personality traits and psychopathology. The question of what kind of personality traits has vulnerability to psychopathology has been the focus of systematic research. In this context personality traits have an important function for comorbidity in psychopathology. Personality traits may be the reason for vulnerability or the results arising from a disorder. Examination of personality traits matters in terms of revealing etiology (Watson, Gamez, & Simms, 2005).

Personality traits are related to AS. It has been examined what kind of personality traits has an effect on AS. These types of studies are vital for preventing the potential risk factors regarding personalities that may cause AS. In the previous research, the relation between AS and Eysenck's personality model (Zvolensky et al., 2003) and five-factor personality traits (Naragon-Gainey, 2010) was examined and significant relations were determined in some dimensions. The study aims to examine the relationship between AS and type A personality trait.

Type A is one of the personality typologies researched in the psychology field. Individuals having this type of personality are success-oriented, aggressive, impatient with time-delay, competitive and hasty (Strickland, 2001, p.652). No reason is needed for the observation of these traits (Friedman & Rosenman, 1974). Type A involves the behaviors of emotion and activity. This type of personality is defined as continual efforts in a short time and developing reactions to other individuals or events (Jamal, 2005). When compared with other personality types, Type A people show their aggression and hostile behaviors more often (O'Connor, 2002). These individuals may show aggression in different ways in their workplace (Baron, Neuman, & Geddes, 1999). Because the workplace also involves competition, the rate of maladaptive behaviors is higher (Masters, Lacaille, & Shearer, 2003). Type A individuals consider type B, which comprises calmer people, as frustration source because type B individuals are calmer and not hasty. Unlike Type A individuals do not perceive themselves under pressure even if they work really

hard. Type B differs from Type A in three dimensions; they have a lower level of competitiveness, they do not beat the clock as Type A do and they do not show overreaction when facing obstacles (Burger, 1993).

Gender is another variable that AS is related to (Keogh & Birkby, 1999). Some studies have shown that there are differences between the AS points of males and females and these are caused by gender perception regarding social processes. Other studies have indicated that the AS points of males and females differ only in certain dimensions (e.g., physical concerns) not in all dimensions (Zvolensky, McNeil, Porter, & Stewart, 2001). Longitudinal studies prove that AS is considerably related to genetic factors (Zavos, Gregory, & Eley, 2012). There is a higher risk of developing AS among women due to their innate tendencies. (Jang, Stein, Taylor, & Livesley, 1998). The responses which have genetic bases and rely on physical, cognitive and social concerns among women are evaluated as an interaction of genetics and environment (Taylor, Jang, Stewart, & Stein, 2008).

There are some studies which focus on the relationship between AS and age. However, there are no comprehensive findings regarding observation levels of AS between adults and children. Like in adults, some scales have been developed in order to examine AS in children and adolescents. (e.g., Childhood AS Index CASI; Silverman, Fleisig, Rabian, & Peterson, 1991). Childhood is a risky period in terms of the development of AS and other problems related to that (Mattis & Ollendick, 1997). Individual differences based on innate tendencies, learning experiences and parent reinforcements have an influence on developing AS in childhood (Watt & Stewart, 2000).

The study aims to examine the relationships between type A personality traits and anxiety sensitivity of academic staff who have success orientation and work in a competitive atmosphere. Other purposes of the study are to examine whether or not AS differs depending on gender and age variables.

Method

Participants

The sample consisted of 355 academic staff (female=133, male=222) from seven universities in Turkey. The academic staff were of the mean age of 33.11 years (SD=7.83) and an average of 9.33 years of teaching experience (SD=7.51). Most of the respondents (i.e., 40.8%) were married. The level of income was assessed with a self-report screen, in which 71.5% of the sample reported low, 19.1% medium, 6.8% high and 2.0% very high.

Instruments

Personal Information Form: this form, developed by researchers, includes variables such as age, gender, marital status, degree, income level, academic title and conflict in the workplace. **AS Index-Revised (ASI-R):** the presence of AS symptoms was assessed by the ASI-R (Şafak Çakmak, 2006), a self-report questionnaire. For each of the 36 items, numerical values from 1 to 5 were assigned to indicate the severity of AS. The four-factor solution accounted for 47.63% of the total variance. The ASI-R demonstrated excellent internal consistency ($\alpha = 0.93$). Each subscale of the ASI-R also showed adequate internal consistency (Cronbach's alpha for Factors I-IV = 0.88, 0.82, 0.79, and 0.80, respectively).

Type-A Personality Inventory: the Likert-type scale developed by Batıgün and Şahin (2006), taking into account the relevant literature, consists of 25 items. For each of the 25 items, numerical values from 1 to 5 were assigned to indicate the intensity of an individual's Type-A behaviors. In the validity analysis of the scale, four factors were found (Importance attributed to work, Moving away from social activities, Importance attributed to speed and Importance attributed to timing) explaining 44.3% of the total variance. The reliability coefficient based on half of the test technique was calculated as 0.83. Cronbach's alpha reliability coefficients for the sub-factors of the scale ranged from 0.79 to 0.48. Cronbach's alpha reliability coefficient for the whole scale was .86.

Procedure

Academic staff were given the opportunity to complete the questionnaire either in the office or at home. Supervisors were informed of the nature of the study and instruments in order to help the staff with any problems. The supervisor did not give information about the specific nature of the research, but informed the staff that the study was exploring issues of individuals' perceptions about themselves. The researchers applied the assessment tools in certain programs in order to exceed time limitation by determining the availability of the academic staff. Due to being in group format, getting enough contact with each individual was an issue in the face to face assessment. Data was collected by means of applying it to the academic staff working in the same program simultaneously.

Statistical Analysis

The Statistical Package for the Social Sciences (SPSS 15.0) program was used for statistical analysis. Student's t test was used for the analysis of groups, correlation coefficient and multiple regression were used to associate the personality type, and age with AS.

Results

As shown in Table 1, the women showed a tendency to score higher than the men on global anxiety ($t_{353}=2.43, p=.016, d=0.13$) and fear of respiratory symptoms scores ($t_{353}=2.86, p=.004, d=0.15$).

Table 1. AS differences depending on gender

Variable	Male		Female		<i>t</i>	<i>df</i>	<i>p</i>	Cohen'd
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>				
FRS	2.14	.86	2.41	.84	2.86	353	.004	0.15
FCS	1.86	.71	1.99	.71	1.68	353	ns	0.09
FCD	1.75	.65	1.88	.68	1.78	353	ns	0.10
FPOAS	2.39	.74	2.53	.77	1.74	353	ns	0.09
Total	2.04	.66	2.21	.64	2.43	353	.016	0.13

FRS=Fear of respiratory symptoms, FCS=Fear of cardiovascular symptoms, FCD=Fear of lack of cognitive control, FPOAS=Fear of publicly observable anxiety symptoms

The relationships between type A behavior, age and, AS are presented in Table 2. The importance attributed to work, moving away from social activities, and the importance attributed to speed were positively associated with AS, whereas age was negatively related to AS.

Table 2. The relationship between AS, type A personality and age

Variable	1	2	3	4	5	6	Mean	SD
1. AS	–	.25**	.85**	.14*	.07	-.11*	2.10	.65
2. IAW		–	.24**	.54**	.39**	-.03	2.81	.58
3. MASA			–	.08	.04	-.07	1.92	.78
4. IAS				–	.43**	.14*	3.32	.65
5. IAT					–	.02	3.60	.79
6. Age						–	33.10	7.83

AS= AS, IAW= Importance Attributed to Work, MASA= Moving Away from Social Activities, IAS= Importance Attributed to Speed, IAT=Importance Attributed to Timing

Linear multiple regression analysis was conducted to determine how type A personality and age explain AS selected as dependent variables (Brace, Kemp, & Snelgar, 2003, p.212). The Durbin-Watson test and auto-correlation was evaluated in the analysis and the resulting value (1.86) was found within the margin of the

expected values (1.5–2.5). Multiple regression analysis was conducted using the Enter method showed that the established model was meaningful ($F_{5,349}=183.08$, $p < .001$).

Table 3. Regression model summary in which independent variables predict dependent variables

Model	R	R ²	ΔR^2	SEE	Variation Statistic				
					ΔR^2	ΔF	df_1	df_2	p
1	.85	.72	.72	.35	.72	183.08	5	349	.001

SEE=Std.Error of the Estimate.

As seen in Table 4, one personality factor (moving away from social activities, $\beta = .83$, $p < .05$) and age ($\beta = -2.27$, $p < .05$) significantly predicted AS (cf., Table 4).

Table 4. Regression Model Summary explained by independent variables

Model		UC		SC	t	P
		B	SE	edilmiş katsayılar β		
Model 1 1 1	Constant	.66	.14		4.74	.001
	IAW	.01	.04	.01	.28	.77
	MASA	.70	.03	.83	28.64	.001
	IAS	.07	.04	.07	1.84	.066
	IAT	.01	.03	.01	.27	.79
	Age	-.05	.01	-.07	-2.27	.024

UC = Unstandardized Coefficients. SC= Standard Coefficients

Discussion

One of the purposes of the study was to determine whether or not AS differs depending on gender. The total anxiety points of the women were considerably higher than those of the men in the study. The points of the women were also dramatically higher than those of the men according to fear subscales regarding the respiration, which is a dimension of AS. No significant difference among the genders in other dimensions was determined. Females have a higher level of anxiety than males according to some previous studies (e.g Keogh, 2004; Peterson

& Reiss, 1992). Studies reveal that AS is observed in the dimension of physical concerns among females when compared to males (Stewart, Taylor, & Baker, 1997). The AS profile is strongly related to self-report measures of pain in females (Keogh, Barlow, Mounce, & Bond, 2006). Consequently, a subjective part of responses based on personal expressions may be remarkable.

In a study carried out considering the subscales, while the points of females on physical concerns were lower than those of males, their global AS was higher (Keogh & Birkby, 1999). Some variables may have an effect in more widespread observation of AS in females. In a meta-analytical study, it was reported that having other anxiety disorders is one of the significant reasons for the observation of higher AS in females (Olatunji and Wolitzky-Taylor, 2009).

While it is generally accepted that there are gender-based differences in AS, some studies, although limited in numbers (i.e., Silverman, Fleisig, Rabian, & Peterson, 1991; Silverman, Goedhart, Barrett, & Turner, 2003), emphasize that there are no significant differences between the genders. In a study similar to those, no significant differences in terms of the points of general AS and fear of physical symptoms between the genders were determined (Zvolensky, McNeil, Porter, & Stewart, 2001). The studies have revealed that the relationship between AS and gender can be explained by interactions based on individual differences (Lawyer, Karg, Murphy, & Dudley McGlynn, 2002).

In this study, the relationships between AS and gender were examined. The revealed result shows that there is a negative relationship between age and AS. Namely, the older the person is, the lower their AS is. The relationship between age and AS has been put forward in studies in two different ways. Some studies show that the structures related to AS and associated variables have similar characteristics between the young and adults (Olatunji & Wolitzky-Taylor, 2009.) Nevertheless, some study findings reveal that AS differentiates within the developmental period (Bravo & Silverman, 2001).

Another aim of this study was to examine at which level the type A personality traits predict AS. The revealed result shows that only moving away from social activities among the type A personality traits significantly explains AS. The importance attributed to work, speed and timing does not significantly explain the anxiety level. This result shows that the individuals having AS have trouble in establishing close social contacts (Lilienfeld & Penna, 2001). In a study carried out on university lecturers, it was determined that the social support points decreased based on the increase in the type A personality points (Jamal & Baba, 2001). In another study conducted on a similar group, it was determined that negative emotionality situations were common between male and female lecturers

(Wright, Newman, Meyer, & May, 1993). Also, in a study conducted to examine the relationship between personality traits and aggressive behaviors, it was determined that type A behavior caused aggressive behaviors only in provocative conditions (Bettencourt, Talley, Valentire, & Benjamin, 2006).

In previous studies, AS was generally examined by associating two different personality structures. These are five-factor personality and Eysenck's personality models. Cox et al. (1999) determined that AS was correlated with the Five-Factor Personality model. Within this scope, it was determined that AS shows a positive correlation with neuroticism and a negative correlation with extraversion. In some other studies, a strong correlation was determined between AS and one of the five-factor model structure negative emotionality. In different studies, some correlations were found between AS and other dimensions of the five-factor personality structure (Naragon-Gainey, 2010).

In the study conducted in six different countries on 2785 people, AS was associated with Eysenck's personality dimensions and it was determined that it showed a significant correlation with neuroticism. Neuroticism is a personality dimension expressing negative emotions of different nature. Significant correlations were determined between AS and extraversion and social desirability dimensions. The sub-dimensions of AS showed a negative correlation with psychoticism dimensions (Zvolensky et al., 2003).

The results of these studies showed that AS has a significant correlation with the neuroticism dimension representing negative emotionality. Negative emotionality is also correlated with psychiatric symptoms and some personality traits. Anxiety, anger and such negative emotionality conditions are among the basic characteristics of type A personality structure. No study findings examining the correlation between AS and type A personality have been cited in the literature. Therefore, the discussion concerning the results of this study is limited. Both findings related to other personality traits and the findings revealed in this study show that the correlations between personality traits and AS should be examined with comprehensive and longitudinal studies.

In summary, in this study, the total AS points of the females was found higher than those of the males. A negatively significant correlation was determined between age and AS. Of type A personality traits, only the dimension of moving away from social activities significantly predicts AS. This situation shows that there is a significant correlation between some demographic variables and the AS of personality structures.

This study has some limitations. The fact that the study group is not extensive and the responses are based on self-reports is one of the limitations. The fact that

the studies examining correlations between personality traits, especially the type A personality structure, and AS are insufficient restricts the comprehensive discussion of the findings. Further studies should be carried out by taking more variables into account and in a longitudinal pattern. Furthermore, type A personality traits should also be taken into consideration in the process of prevention and treatment of AS.

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