Investigation of Irrational Beliefs
According to Some Variables in Adults

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Abstract: Irrational beliefs affect individuals' emotions and behaviors from the first stages of their lives and this effect continues throughout their lives. The aim of this study was to investigate irrational beliefs in adults in terms of various variables. This study is a descriptive study performed in survey design. The study working group is consisted of the adults living in Samsun, Turkey. In the study, it was concluded that irrational beliefs do not differentiate significantly according to gender. This study was reached, 235 adult individuals aged between 27 and 50. 132 (56.17%) participants were female and 103 (43.83%) were male. The irrational beliefs of the participants were examined according to gender, age and education level. The data were collected by the Rational Beliefs Scale and personal information form. SPSS package program was used for data analysis. Data were analyzed by t test, ANOVA and Pearson Correlation Analysis. According to study, there is a significant difference in the irrational beliefs of the adults according to their education level, and the irrational belief levels of the secondary and high school graduates has been found to be significantly higher than the individuals who received undergraduate and higher education. In the literature, similar studies with the same results has been come across and as well as non-similar studies. It is recommended that qualitative studies including in-depth interviews should be conducted in order to determine exactly which factors are affecting irrational beliefs the most.

Anahtar Sözcüklər: Irrational beliefs, Education, Age, Adults.

INTRODUCTION

Ellis believes that emotional and cognitive impairment is largely irrational. If a person is able to improve his/her belief system and reduces his/her irrational thoughts, then he or she can get rid of his/her mental, emotional and behavioral disorder. According to Ellis' point of view, people's thoughts and perceptions are basically rational; so, it is possible to cope with their problems by healing people (Ellis, 2003; Kaokebisiyoki, Aminyazdi, Yousefi, & Modaresh-Ghorori, 2010).

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In the rational emotional behavioral approach, it is not the environmental conditions that disturb the mental health of the individual, but rather it is the individual himself/herself who hurts his/her mental health because of his/her emotionally and behaviorally nonsensical behaviors that exhibited in a dysfunctional way (Yurtal-Dinc, 2001). According to Ellis, emotional reactions of individuals to various situations are mostly related to their belief systems (Corsini & Wedding, 2012). People have both a form of rational and irrational belief system. While rational beliefs are flexible, moderate and rational, irrational beliefs are the ones that are unreasonable, rigid and cause a high degree of disappointment in people (Dryden & Branch, 2008). Studies have shown that irrational beliefs stem from irrational emotions (Allen, El-Cheikh, & Turner, 2017; Bridges & Harnish, 2010; Căzănescu, Tecuta, Cândea, & Szentagotai-Tătar, 2019). Moreover, irrational beliefs lead to negative behaviors (David, Schnur, & Belloiu, 2002). According to Ellis, beliefs determine people's emotional and behavioral reactions. For example, "I feel worthless if my colleagues don't respect me." "My boss is worthless if he doesn't respect me" and so on. (Gavita & Duta, 2013). It has been stated in the researches that people construct their irrational belief systems on their own (Akın, 2012; Bedel, 2014; Harris, Davies, & Dryden, 2006; Welpe, & Forsterling, 2006).

Irrational beliefs affect individuals' emotions and behaviors from the first stages of their lives and this effect continues throughout their lives both directly and also indirectly. In the researches, it has been found that irrational beliefs affect the adolescents' professional choices (Yılmaz-Erdem & Bilge, 2008) and also as far as the individual's irrational beliefs increase, the individual level of hopelessness increases (Kodan, 2013). In another study, it has been found that irrational beliefs negatively affected individuals' problem-solving abilities (Hamarta, Arslan, Saygın, & Özyesil, 2009). Moreover, in another study conducted on university students, it has been stated that students' procrastination behaviors in academy increase up if they have irrational beliefs (Berber-Çelik & Odaci, 2014). These results can be counted as proofs for the negative effects of irrational beliefs on individuals' emotions and behaviors.

When the literature is examined, it has been witnessed that intensive researches are conducted with adolescents and university students based on irrational beliefs (Bilge & Arslan, 2000; Civitçi, 2009; Sarı & Owen, 2017; Stackert & Bursik, 2003; Türkayka & İflazoğlu, 2000; Stars, Baydemir & Demirtas, 2018). On the other hand, it has been found that the studies conducted with adults are relatively limited (Bilge, Arslan, & Doğan, 2000; Güven & Sevim, 2007).

It is possible to say that irrational beliefs affect an individual's mental health. The individual's environment and self-perception have positive and negative effects on the formation of personality structure and mental health. The individual reacts, as he perceives his environment. False perceptions and interpretations can cause the individual to develop irrational beliefs. Once these irrational beliefs are formed, they can continue to affect one's life (Yurtal, 2001). Ellis believes that not all people have basic irrationalities, and that this does not depend on their level of culture and education (Gündüz, 2006). People are born with a tendency to irrationality. However, on the other hand, they gain illogical thoughts through learning from important people around them since childhood. However, on the other hand, they gain illogical thoughts through learning from important people around them since childhood (Corey, 2001). There is a limited number of studies on irrational thoughts in adults in the literature. It is thought that it will be important to examine the adults who have significant effects in raising individuals who will form their own children and thus the future by gender, education level and age variable. When the interaction of adults with their children and the individuals around them is taken into consideration, it can be said that the results of the study will add a different perspective to interpersonal relations. In this regard, it is recommended that examining irrational beliefs in adults from various perspectives will contribute to the field significantly. Determining irrational beliefs factors in adults is deemed as a one-step forward for preventative studies. Also, this will apparently benefit researchers' future meta-analysis studies. Thus, it can be interpreted that the findings obtained from the
study can contribute to the researchers working in this field. Yet, the study aims to examine irrational adult beliefs in terms of gender, education level and age. For that reason, the study targets to answer the following questions:

1. Do adults' irrational beliefs differ significantly by gender?
2. Do adults' irrational beliefs differ significantly by level of education?
3. Is there a meaningful relationship between age and irrational adult beliefs?

**METHOD**

**Research Model**

This study is a descriptive study performed in survey design. In the research, relational survey model was used to examine the relationships between independent variables and dependent variables. The survey screening pattern is a research approach that aims to describe the situation that has happened in the past or is still present (Büyüköztürk, Kılıç-Çakmak, Akgün, Karadeniz, & Demirel, 2010; Karasar, 2012).

**Universe and Sample**

The population of the study consists of adult individuals living in Atakum district of Samsun province in 2018. Easily accessible case sampling method was used to determine the research sample. In this method, the researcher chooses the situation that is close to reaching him/her (Yıldırım & Şimşek, 2008). In this context, the researchers informed adults about the study that they could easily reach. Face to face interview technique is used in the study. 235 participants who agreed to participate in the study were asked to complete the measurement tools after obtaining their verbal consent. It was determined that each participant completed the measurement tools in approximately 10 minutes. After filling the measurement tools, it was noticed that 7 measurement tools were filled incorrectly and were not evaluated. In this way, the sample number of the study was determined as 235. Out of the 235 participants of the research, 132 (56,17%) were female and 103 (43,83%) were male. 43 (18,30%) of the participants are primary education graduates, 49 (20.85%) of participants are secondary education graduates, 34 (14,47%) have associate degree and 109 (46,38%) are university and above graduates. The ages of the participants ranged from 27 to 50 ($\bar{x} = 38,02$; $sd = 6,75$).

**Measurements**

**Personal Information Form:** The form created by the researchers, included questions about gender, age and educational variables to determine the demographic characteristics of the participants.

**The Rational Belief Scale Short Form (RBSSF):** The Rational Belief Scale Short Form (RBSSF) is developed by Türküm (2013) to measure the irrational beliefs of individuals and it consists of 15 items. The points taken from the Likert type scale can be 15 at the minimum and 75 at the maximum. Higher scores indicate higher irrational belief levels. The Cronbach's alpha coefficient of the scale was calculated as .75 (Türküm, 2013). Also in this study, Cronbach Alpha is calculated and it found to be .75.

**Data Analysis**

The SPSS 20 software is used for analyzing study data. With regards to study questions Independent Sample t-test was used to compare the two groups. One Way Variance Analysis (ANOVA) was used if more than two groups will be compared. The relationship between variables is examined by Pearson Correlation Analysis (Can, 2013).
FINDINGS

The results of the t-test which performed to determine whether the irrational beliefs of the participants differ (or not) according to gender are given in Table 1.

Table 1. 
T-test Results for Examining the Irrational Beliefs of the Participants in terms of Gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>n</th>
<th>x̄</th>
<th>sd</th>
<th>df</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>132</td>
<td>52,76</td>
<td>7,31</td>
<td>233</td>
<td>574</td>
<td>567</td>
</tr>
<tr>
<td>Male</td>
<td>103</td>
<td>52,22</td>
<td>6,78</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As shown in Table 1, the means of rational belief scores of the participants [t (235) =, 574; p =,567; p> .05] do not differ significantly based on the gender. Table 2 shows the ANOVA test results to determine whether the participants' irrational beliefs differ according to their educational level or not.

Table 2. 
Results of ANOVA Results Test for Irrational Beliefs of Participants According to Educational Level

<table>
<thead>
<tr>
<th>Variance source</th>
<th>Sum of squares</th>
<th>df</th>
<th>Squares Averages</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Irrational beliefs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>910,496</td>
<td>3</td>
<td>303,499</td>
<td>6,490</td>
<td>.000**</td>
</tr>
<tr>
<td>Within Groups</td>
<td>10802,125</td>
<td>231</td>
<td>46,762</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>11712,621</td>
<td>234</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**p<.001

As recognized in the Table 2, the irrational belief levels of the participants [F(3,231)= 6,490; p=.000; p <.001] differentiate critically according to their educational level. The results of Scheffe test which applied to identify the source of the difference are given in Table 3.

Table 3. 
Scheffe test Analysis for the Source of Differences in Participants' Irrational Beliefs

<table>
<thead>
<tr>
<th>Education level</th>
<th>N</th>
<th>x̄</th>
<th>sd</th>
<th>Differences</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)Secondary school</td>
<td>43</td>
<td>55,56</td>
<td>8,15</td>
<td>1&gt;3,4</td>
</tr>
<tr>
<td>(2)High school</td>
<td>49</td>
<td>54,39</td>
<td>6,98</td>
<td>2&gt;4</td>
</tr>
<tr>
<td>(3)Associate degree</td>
<td>34</td>
<td>50,97</td>
<td>6,41</td>
<td></td>
</tr>
<tr>
<td>(4)Undergraduate and above</td>
<td>109</td>
<td>50,97</td>
<td>6,32</td>
<td></td>
</tr>
</tbody>
</table>

When Table 3 is examined, it has been approved that the irrational belief levels of the secondary school graduates were found to be significantly higher than the individuals who received undergraduate and higher education. Also, it has been determined that the irrational belief levels of the high school graduates dramatically increase when compared to the postgraduates and higher ones.

Pearson Correlation analysis was conducted for the relationship between age and irrational beliefs of the participants and the results are given in Table 4.

Table 4. 
Pearson Correlation Analysis for the Relationship between Irrational Belief and Age

<table>
<thead>
<tr>
<th>Irrational beliefs</th>
<th>Age</th>
<th>r</th>
<th>p</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Age</td>
<td>.17*</td>
<td>.011</td>
<td>235</td>
</tr>
</tbody>
</table>

*p<.05

Table 4 shows that the relationship between the participants' irrational beliefs and their ages is slightly low and positive (r =.17, p <.05).
DISCUSSION, CONCLUSIONS AND SUGGESTIONS

Irrational beliefs are improper solutions developed by the person himself for his personal problems. They occur in person’s mind. These beliefs affect person’s life (Özer & Akgün, 2015). This study, it was aimed to the investigate irrational beliefs in adults in terms of different variables. In the study, it was concluded that irrational beliefs do not differentiate significantly according to gender. In the literature review, the finding of the study has similarities with that of researches in the literature. Özer and Akgün (2015) in their research was determined that irrational beliefs do not pose any difference in terms of the gender. In addition, finding is consistent with the finding obtained by Civitci’s (2006) research regarding gender. In the same way, Kartol (2013) did not find a significant difference between the mean score of irrational beliefs of male students and the total mean score of irrational beliefs of female students. Similarly, in the study conducted by Bilge and Arslan (2000) on university students, it was concluded that the level of irrational belief did not differ significantly by gender. On the other hand, there are studies indicating that irrational belief varies by gender. In a study conducted by Khaledian et al. (2013) on university students in Iran, it was observed that female students experienced more anxiety than male students as a result of irrational beliefs. In another study, there was a difference between male and female students in the tendency to blame themselves because of irrational beliefs. The tendency to blame themselves in the male students is found to be higher than the female students (Yurtal, 2001). Also, it has been reached out that the irrational beliefs of girls are higher than boys in some studies (Altıntaş, 2006; Lakes, 2010). The irrational beliefs of female teachers were found to be higher than male teachers (Gündüz, 2006).

One of the most debated issues in the field of interpersonal relations is the realistic and dysfunctional relationship beliefs. It is wondered how this irrational form of belief affects people's lives (Sarı & Owen, 2016). The development of irrational beliefs can be explained by the positive and negative interactions that adults have with children during childhood, and upbringing of boys and girls with different manners and biased societal gender roles given to both groups. For these reasons, it has been thought that different conclusions are reached out between irrational beliefs and gender variable in the literature. According to another study, there is a significant difference in the irrational beliefs of the adults according to their education level, and the irrational belief levels of the secondary and high school graduates has been found to be significantly higher than the individuals who received undergraduate and higher education. However, in a literature review of Bilge, Arslan and Doğan (2000), it has been found that there was no significant difference according to education level in the irrational beliefs of women who were subjected to violence.

As it is known, according to Rational Emotional Therapy, people are actually born both with rational and irrational tendencies. In other words, individuals’ rational tendencies such as protecting themselves, being happy and loving or irrational beliefs like procrastination, repetition of mistakes and avoidance are innate with individual characteristics (Corey, 2001). Even though, the level of irrational beliefs of individuals with high educational level is examined as low, it has been thought that education alone is not sufficient for improving their rational or irrational beliefs in a positive way. Basically, Ellis (1998) believes that common irrationalities can be found in all people and this does not depend on their cultural level and the education they get. In addition to that, in this study, it was found that there was a low-level positive relationship between the participants' irrational beliefs and their ages. In the Köksal and Gazioglu literature review (2007) it has been reported that adolescents make rational decisions as their ages increase. In a study by Bilge, Arslan and Dogan (2000) on women exposed to violence, no significant difference has been found between irrational belief and age variable. Therefore, it can be claimed that age variable alone does not have a critical influence on rational or irrational beliefs so there should be some other factors affecting it.
In the research findings, it was determined that irrational beliefs in adults showed significant differences according to their education level and their age, and there was no significant difference caused by gender. From the result of this study some suggestion can be made for further practices. In the literature review, similar studies with the same results has been come across and as well as non-similar studies. For this reason, it is recommended that qualitative studies including in-depth interviews should be conducted in order to determine exactly which factors are affecting irrational beliefs the most.

REFERENCES


Yetişkinlerde Akılcı Olmayan İnançların Bazı Değişkenlere Göre İncelenmesi

Genişletilmiş Özet
Ellis, duygu ve bilişsel bozukluğun büyük ölçüde mantıksuz ve irrasyonel bir sonuç olduğunu inanmaktadır. Bir insanın inançları ve rasyonel inancını artırmayı ve mantıksız düşünceleri azaltmayı öğrenirse, o zaman zihinsel, duyguşal ve davranışsal bozuklukta kurtulabilir. Ellis’ın bakış açısına göre, insanların düşünceleri ve algıları kökten rasyoneldir; insanları iyileştirecekleri ve onların sorunları ile başa çıkmanın mümkün olувur (Kaobesiyoki, Aminazdi, Yousefi ve Modareschn-Ghorori, 2010).


Araştırılmada akılcı olmayan inançların cinsiyete göre anlamlı farklılıklar sonucuna ulaşılmıştır. Yapan alanyazın cinsiyetinde araştırma sonucuna benzerlik gösteren çalışma...


Anahtar Kelimeler: Akılcı olmayan inançlar, Eğitim, Yaş, Yetişkinler.