THE ACCEPTANCE OF DISABILITY SCALE:

ADAPTATION AND PSYCHOMETRIC ANALYSIS

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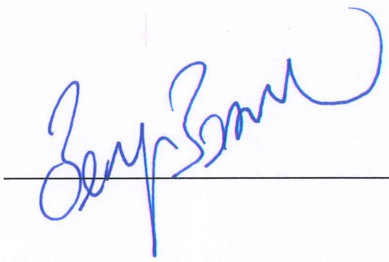
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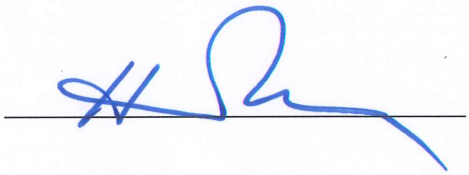
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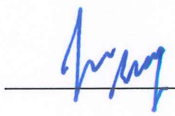
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ABSTRACT

The Acceptance of Disability Scale:

Adaptation and Psychometric Analysis

The present study was conducted in order to adapt the Acceptance of Disability Scale (ADS) into Turkish. The original scale based on the medical model of disability (Linkowski, 1971) was revised by adding new items based on the social model of disability. After conducting a field study that consisted of eight cognitive interviews, unclear, confusing and offensive items were corrected before the validation study. In the validation study, the scale was administered to 252 participants with disabilities. In order to establish validity of the score obtained with the ADS, content, construct and criterion related evidence was sought. Confirmatory factor analysis showed a three-factor model had an average goodness of fit statistics. The factors were called containment, transformation and enlargement. Known group analyses showed the participants' acceptance of disability score increases as their income and education level increase. The score was also higher for younger individuals, individuals with congenital disabilities and individuals who were employed. Moreover, the scale scores were positively correlated with resiliency and overall functioning, and negatively correlated with anxiety. The scores obtained with the Turkish ADS were reliable. Cronbach's alpha coefficients were .85, .76, .84 for containment, transformation and enlargement respectively. The scale can be used as an effective tool to measure acceptance of disability for individuals with disabilities. Additional data analyses showed that after controlling functioning, resilience and anxiety could still explain the variability in acceptance of disability (AD) scores. Also, individuals with visual disabilities had higher AD than individuals with other disabilities.

ÖZET

Engelliliği Kabul Ölçeği:

Adaptasyonu ve Psikometrik Analizi

Bu çalışma Engelliliği Kabul Anketi'ni Türkçeye uyarlamak amacıyla yapıldı. Tıbbi model temel alınarak yapılmış olan ölçeğin orijinali (Linkowski, 1971), sosyal modeli temel alan maddeler eklenerek revize edildi. Sekiz bilişsel görüşmeyi içeren saha çalışması sonrası, geçerlilik çalışması öncesi yeterince açık olmayan, kafa karıştırıcı ve rahatsız edici maddeler düzeltildi. Geçerlik çalışması sırasında anket 252 engelli bireye uygulandı. Engelliliği Kabul Ölçeği ile elde edilen skorun geçerliğini sağlamak adına içerik, yapı ve kriter geçerlikleri sağlandı. Doğrulayıcı faktör analizi üç faktörlü modelin orta model uyumu olduğunu göstermiştir. Faktörlere dönüşüm (transformation), sınırlama (containment) ve genişleme (enlargement) isimleri verildi. Bilinen grup ile karşılaştırma analizi katılımcıların gelir seviyesi ve eğitim seviyesi yükseldikçe engelliliği kabul seviyelerinin yükseldiğini gösterdi. Ayrıca engelliliği kabul skoru genç, engelliliği doğuştan oluşmuş ve çalışan bireylerde daha yüksekti. Öte yandan ölçek skorlarıyla psikolojik sağlamlık ve işlev durumu arasında pozitif, kaygıyla ise negatif korelasyon bulundu. Türkçe Engelliliği Kabul Anketi'yle elde edilen skorların güvenirliği de vardır. Cronbach's alpha katsayıları sınırlama, dönüşüm ve genişleme faktörleri için sırayla .85, .76 ve.84 bulundu. Anket engelli bireylerin engelliliği kabul seviyelerini ölçmek için kullanılabilecek etkili bir araçtır. İlaveten yapılan veri analizleri; işlev durumu kontrol edildiğinde, psikolojik sağlamlık ve kaygının halen engelliliği kabul skorlarındaki değişkenliği açıkladığını ve görme engelli bireylerin engelliliği kabullerinin diğer engel grubundaki bireylere göre daha yüksek olduğunu gösterdi.

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Conducting a research study and writing this thesis was one of the hardest steps of my life. In this process, I faced with some of my fears and imperfections and I had the chance to accept and love every one of them. I was not alone and had a lot of great people who had accompanied me during the process.

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My father, Cemalettin Şen, did not leave me alone and took care of me during

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to my mother, Aysel Şen, and my father, Cemalettin Şen,

for inspiring me all the way through and teaching me the meaning of kindness

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CHAPTER 1

INTRODUCTION

Counseling clients with disabilities is a very important process and needs distinct awareness, training and experience. According to the American Psychological Association (2012), psychological counselors need to have training on disability issues as well as psychological counseling in order to become familiar with how disability affects a client's psychological well-being and functioning.

For many individuals in the society, the terms *disability* and *impairment* are synonyms and they use these terms to describe a physical limitation, which eliminates or burdens an individual's mobility. We are all familiar with the wheelchair sign that is used to symbolize individuals with disabilities in the society. However, disability is a totally different and more complex phenomenon to be limited with a symbolized wheelchair sign and it definitely needs to be perceived from a deeper point of view.

Disability cannot be seen only as a health problem because it is a very complex phenomenon. It is complex because it is not just a personal, physical or mental condition that limits an individual's mobility and senses. Disability arises as a result of an interaction between individuals' body conditions and the conditions of the society they live in (WHO, 2015). World Health Organization (WHO; 2015) defines the term *disability* using the word *umbrella* as disabilities cover impairments, limitations of activities and restrictions on participation like an umbrella. An impairment is a problem in body function or structure; an activity limitation is a challenge encountered by an individual in performing an action, while a participation restriction is a difficulty caused after an attempt to become involved in life situations

(WHO, 2001, p. 10). This definition makes it clear that disability is not a characteristic of an individual but an evolving concept which comes up when an individual with impairments interacts with social, environmental and attitudinal barriers, which make it difficult for him/her to participate in society as equally as others (WHO, 2015).

The contrast between disability's theoretical definition and the society's way of perceiving disability shows that psychological counseling becomes more and more essential and crucial to individuals with disabilities. These individuals are members of the society. When it is perceived from a multicultural perspective, individuals with disabilities as one of the most distinct cultural groups in a society want basic civil rights and they want to be fully integrated into the everyday life of the society (Lee, 2014). However, people without disabilities and even individuals with disabilities have biases about disability intentionally or unintentionally and these biases might affect their psychological adaptation to disability and therefore interrupt their psychological well-being.

Psychological adaptation to disability consists of many elements, and acceptance of disability is found to be one of the most important elements (Elliott, Uswatte, Lewis, & Palmatier, 2000; Li & Moore, 1998). According to Schmitt and Elliott (2004), acceptance of disability is related with personal growth, psychological well-being and satisfaction with life. Groomes and Leahy (2002) add that when an individual accepts his/her disability, it contributes to the subjective meaning they attribute to life as well. Moreover, it is effective for integrating into the society as well (Snead & Davis, 2002; DeLoach & Greer, 1981). When individuals with disability have a high acceptance of their disability, they would have a higher belief

that they are included in their society as a member and their empowerment will rise and this would result in a full integration into the society (Li & Moore, 1998).

1.1 Significance of the study

When all of these are taken into consideration, understanding and accepting disability appear to be very important and should be the aims of the counseling process. Acceptance of disability is a perceptual process through which the individual with disability experiences these value changes which are the containment of disability, enlargement of scope of values, transformation from comparative values to asset values and subordination of physique (Linkowski, 1971).

As acceptance of disability is an important term for the psychological counseling process of individuals with disabilities, it is necessary to measure its level before making any intervention to integrate these individuals into the society and enhance psychological well-being. Acceptance of disability can be empirically measured with the Acceptance of Disability Scale (Linkowski, 1971) (Appendix A). With this scale, Linkowski made it possible to measure the extent to which individuals accept their own disabilities. Linkowski's effort to create a scale to measure acceptance of disability was a very important effort, since with this scale acceptance of disability became more remarkable in the literature. There are many studies done with using this Acceptance of Disability Scale throughout the world, which will be discussed later in the literature and background section (Dembo, Leviton, & Wright, 1975; Linkowski, 1971; Linkowski & Dunn, 1974; Safilios & Rothschild, 1970; Woodrich, 1982; Wright, 1983; Zhang et al., 2014; Beder, 2014; Pappadis, 2015).

However, there are no Turkish scales to measure acceptance of disability and because of this lack, the literature about acceptance of disability is not growing the way it should. The lack of the term for *acceptance of disability* and a tool to measure it may lead to many consequences. Individuals' psychological adaptation may be interrupted if professionals disregard the acceptance of disability levels of the clients with disabilities. Also, individuals may not receive needed counseling even if it would be very beneficial for their psychological adaptation, as their low acceptance of disability could not be recognized. However, if the term is known by professionals in Turkey, it can be examined in further research and intervention programs can be created for individuals with disabilities.

1.2 Purpose of the study

In light of this problem, the main purpose of the present study is to adapt Linkowski's Acceptance of Disability Scale into Turkish for research and clinical use. According to recent research, it is important to assess patients' acceptance level soon and they should get group counseling according to their acceptance levels (Xia et al., 2014).

In order to accomplish this aim, the first step is about establishing the further translation process of the Turkish Acceptance of Disability Scale. After this, the second step is the further translation study and expert panel, the third step is the integration of the social model subscale, the fourth step is a field study and cognitive interviewing and the last step is the validity study of the new social model integrated form of the Acceptance of Disability Scale.

The second aim of the current study is to examine acceptance of disability and find its relationship with anxiety, resiliency and overall functioning.

This study was done with the permission of Darlene Groomes, as Linkowski passed away and Groomes is in charge of the permission processes (Appendix B).

1.3 Research questions

As it was mentioned above, this study does not only aim to adapt the Acceptance of Disability Scale into Turkish but in this process it aims to enrich the acceptance of disability literature in Turkey with answering these research questions:

1. Is the test score obtained with the Turkish version of the Acceptance of Disability Scale valid and reliable?
    a. Does a five-factor model fit the collected data based on goodness of fit statistics?
    b. Does acceptance of disability increase as the income of the individual increases?
    c. Do individuals with disabilities who are employed have a higher acceptance of disability than those who are unemployed or retired?
    d. Does acceptance of disability increase as the education level of the individual increases?
    e. Is acceptance of disability higher for individuals with a congenital disability than individuals who have an acquired disability?
    f. Is acceptance of disability higher for individuals who are younger?
    g. Is there a negative correlation between anxiety and the factors of acceptance of disability?
    h. Is there a positive correlation between resiliency and the factors of acceptance of disability?

i. Is there a positive correlation between overall functioning and the factors of acceptance of disability?

j. Does the Turkish version of the Acceptance of Disability Scale provide reliable test results?

2. Will anxiety account for a significant proportion of variance in each factor of the Acceptance of Disability Scale, beyond that already accounted for by overall functioning?

3. Will resiliency account for a significant proportion of variance in each factor of the Acceptance of Disability Scale, beyond that already accounted for by overall functioning?

4. Is acceptance of disability higher for individuals with visual disability than other disability groups?

1.4 Research variables

For the current study, the variables are income level, type of disability, onset of disability, education level, age, anxiety, resiliency, overall functioning, employment status and the acceptance of disability.

1.5 Definition of key terms

There are some key terms that will be frequently used throughout this thesis. They will be defined in this section in order to be clear.

Acceptance of disability: It is basically accepting one's own disability, which indicated adaptation to disability.

Transformation: This is one of the four factors of the original Acceptance of Disability Scale and its full name is transformation from comparative values to asset

values. It means that an individual with disability does not compare his or her limitations and liabilities with others and accentuates his or her assets and disabilities (Linkowski, 1971; Wright, 1983).

Enlargement: This is one of the four factors of the original Acceptance of Disability Scale and its full name is enlargement of scope of values. It means that individuals turned from values that were lost due to their disabilities to those which are not related with their disabilities (Livneh & Antonak, 1997).

Containment: This is one of the four factors of the original Acceptance of Disability Scale and its full name is containment of disability effects. It means that individuals do not enlarge and increase their disabilities beyond the actual impairment to their other functioning parts which are not related with the impairment (Linkowski, 1971).

Subordination: This is one of the four factors of the original Acceptance of Disability Scale and its full name is subordination of physique. It means that individuals can reduce the aspects of their physical abilities and appearances in conformity with their disability (Linkowski, 1971).

Social model: Social model is a model of disability, which refers to a framework to conceptualize disability. According to this model, disability is socially constructed. It is the society which isolated and excluded the individuals with disability by such things as stairs, public transportation which is not suitable for individuals with disabilities, housing with no arrangements, strict work routines and lack of suitable and modern equipment (Shakespeare, 2006).

Functioning: It means executing all of the body functions that are both physiological and psychological (WHO, 2002). According to WHO (2011), “Functioning denotes positive aspects of the interaction between an individual (with a health condition)

and that individual's contextual factors (environmental and personal factors)" (p. 304).

Resiliency: Resiliency is the ability to stand up, rebound after a challenging life situation and engage in adaptation (Walsh, 2003).

Anxiety: Anxiety is an emotional state of feelings of anticipation, stress, uneasiness and worry besides physiological arousal (Spielberg, 1983).

CHAPTER 2

LITERATURE REVIEW

2.1 Models of disability and disability definitions

Disability has many definitions according to the models of disability. Models of disability can be seen as a tool or framework to perceive disability. The fact that there are many models on the subject shows that the attitudes towards disability constantly change and these models and therefore definitions change as the society changes. There are three major models, which are the medical model, social model and bio-psycho-social model of disability, and many other models associated with these major models of disability, which are the moral model, economic model, tragedy/charity model, experts/professional model and rights-based model of disability.

The medical model sees disability as a problem, loss or defect of the individual with disabilities. According to the medical model, disability is an individual's own feature caused by a disease, accident or trauma, which needs to be fixed or corrected by a professional by treatment (WHO, 2005). As disability is a problem of the individual, as a result of its management the individual's adjustment to disability leads to a 'cure' or an 'almost-cure'. Therefore, medical care is the main issue for the medical model of disability (Langtree, 2010). However, the medical model has been criticized by mental health professionals; as it only focuses on the body, it ignores all of the cognitive, emotional and mental backgrounds of the aspects that affect illnesses and disabilities. This model also ignores environmental effects and restrictions on individuals with disabilities and receives lots of criticism (Marks, 1997).

The social model was born as a result of intellectual and political arguments of the Union of Physically Impaired Against Segregation (Shakespeare, 2006). It has a contradictive perspective to the medical model and sees disability not as a product of a malfunctioning and handicapped body but as a product of an oppressive, unjust and unsuitable social environment (Marks, 1997). According to the social model, disability is not only an individual's bodily feature or attribute but it is socially constructed. It is created by the unaccommodating physical environment of the society (WHO, 2005). Individuals with disabilities become dependent in today's world as the distribution of goods in the society is uneven and excludes people with disabilities. If there were ramps instead of stairs, individuals with disabilities would not face difficulty using their wheelchairs and they would not be excluded from the society (Marks, 1997). With this perspective, the social model of disability is highly ideological or cultural and associated with human rights (Langtree, 2010). It aims to change biases of all of the individuals in the society about disability and fully integrate individuals with disabilities into the society (Oliver, 1996).

The moral model is somewhat similar with Indian religions' karma doctrine and according to this model people are morally responsible for their own actions. So if someone has a disability, it is viewed as a consequence of a previous bad action; if this disability is congenital, it is a result of their parents' bad actions (Langtree, 2010). So disability is a kind of stigma and it is seen as a punishment of a previous sin or guilt and it makes the individuals with disabilities excluded from the society. They have a very low social status and some are even punished by death by the society (Amponsah-Bediako, 2013).

The economic model sees disability as a person's lack of participation in the work force. As disability affects individuals' productivity, it lowers the employers'

profit and state's welfare as well (Langtree, 2010). Employees with disabilities make lower contributions to work than employees without disabilities and it is a loss for the economy (Amponsah-Bediako, 2013).

The tragedy/charity model is the most commonly used model apart from the medical model to describe individuals with disability by people without disability. This model looks at disability with pity and sees individuals with disability as victims of tragedies (Langtree, 2010). Actually, this model is frequently used in charity work in order to raise funds for individuals with disabilities; however, this model is criticized as it discriminates against individuals with disabilities by victimizing them. As this model contains pity, it lowers these individuals' self-esteem as well. It does not solve any real problems such as unemployment of individuals with disabilities, but rather creates a more excluded environment (Amponsah-Bediako, 2013).

The experts/professional model is associated with the medical model. Professionals use the medical model to identify individuals' impairments and limitations and in an authoritarian way improve the passive client's position (Langtree, 2010). Professionals are in the role of fixers and individuals with disabilities are the ones to be fixed. This model is criticized for the fact that it is believed to violate the individuals' basic human rights by making them passive human beings who have no right in their treatments (Amponsah-Bediako, 2013).

Lastly, the rights-based model of disability suggests that every individual is equal with equal rights in the world. So, individuals with disabilities need to have a common and strong voice to protect their rights and not to be excluded from the society. This model sees disability as a sociopolitical issue and suggests that

individuals with disabilities are not dependent. They are independent human beings who can have a political voice (Amponsah-Bediako, 2013).

Although there are many models and many definitions of disability, WHO underlined that neither of these models or definitions is adequate enough to define disability. In order to truly define it, these models and definitions should be synthesized. Only as a result of this, such a complex phenomenon as disability can be described (WHO, 2005). This is how the third major disability model, called the bio-psycho-social model, was born. As disability is neither physical nor socially constructed, the bio-psycho-social model offers a synthesis between the medical and the social model (WHO, 2011). This model is more balanced and has a coherent view to look at disability (WHO, 2001).

Disability is not just a health problem but a complex phenomenon, because disability arises as a result of an interaction between an individual's body conditions and the society in which this individual lives. World Health Organization (2015) defines the term disability as an umbrella as disabilities cover impairments, limitations of activities and restrictions on participation like an umbrella. Impairment is a problem in body function or structure; activity limitation is a challenge encountered by an individual in performing an action, while participation restriction is a difficulty caused after an attempt to involve in life situations (WHO, 2001, p. 10). This definition makes it clear that disability is not an attribute of an individual but an evolving concept, which comes up when an individual with impairments interacts with social, environmental and attitudinal barriers, which make it difficult for him/her to participate in the society as equally as other individuals in the society (WHO, 2015).

The Acceptance of Disability Scale was constructed based on the medical model of disability, as it was the popular model at that time. However, the current study aims to add some new items based on the social model in order to reflect the perspective of WHO, which suggests that these two models should be synthesized in order to truly embrace disability.

2.2 Types of disability

Types of disabilities were developed according to the symptoms of disabilities rather than the causes of disabilities. The symptoms of disabilities were examined and three broad categories were conceptualized. These three types of disabilities were physical disabilities, cognitive disabilities and psychiatric disabilities (Lee, 2014).

Physical disabilities include chronic illnesses (diabetes, kidney failure, etc.), amputation, congenital limb deficiencies, orthopedic impairments and sensory loss (blindness, deafness, deaf-blindness; Lee, 2014, p. 221). Cognitive disabilities include intellectual, learning and developmental disabilities (Lee, 2014, p. 222). Lastly, psychiatric disabilities include mental illnesses, alcohol abuse/dependence and substance abuse/dependence (Lee, 2014, p. 222).

2.3 Acceptance of disability

In this section the main term of the current study, acceptance of disability, will be defined in a more detailed way and previous studies that are related with the current research will be summarized.

As it was defined before, acceptance of disability is basically accepting one's own disability and living with the fact that he or she has a disability. Different scholars had unique conceptualizations about acceptance of disability. To begin with, Livneh and Evans (1984) conceptualized a model of acceptance of disability, which

is linear and has 12 distinct stages. These stages are 1) shock, 2) anxiety, 3) bargaining, 4) denial, 5) mourning, 6) depression, 7) withdrawal, 8) internalized anger, 9) externalized aggression, 10) acknowledgement, 11) acceptance and 12) adjustment/adaptation. Researchers suggested that individuals with disability who have passed through these stages finally arrive at the adaptation stage and it will be a behavioral adaptation to a new world, which they start to perceive differently (Livneh & Evans, 1984).

Moreover, Kendall and Buys (1998) suggested a more cyclical model compared to this linear model. In their model, adjustment and accepting disability is a cyclical process and after long-term and recurrent processes, individuals achieve acceptance. As individuals enter new environments and have new experiences, they have to negotiate and adjust again and again to their disability and this makes acceptance of disability a continuous and ongoing process.

Also, Linkowski (1971) conceptualized a model based on Wright's acceptance of loss theory. This theory suggested that an individual has to have value change in four areas in order to achieve acceptance of disability. These four areas are enlargement of the scope of values, subordination of physique, containment of disability effects, and transformation from comparative values to asset values. Linkowski constructed a scale based on this model and as this study aims to adapt this scale, this model will be the model of this study.

To be more specific, acceptance of disability means a perceptual process through which the individual with disability experiences these value changes, which are:

a) Enlargement of scope of values, which means that an individual is aware that there are many other values that are not in conflict with his/her own disability (Livneh & Antonak, 1997),

b) Subordination of physique, which means that an individual understands and places less emphasis on the aspects of his/her appearance and physical ability that conflict with his/her disability (Linkowski, 1971),

c) Containment of disability effects, which means that an individual with disabilities does not expand and intensify his/her disability condition to their other functioning aspects (Linkowski, 1971),

d) Transformation from comparative values to asset values, which means that an individual does not compare his/her limitations with the others but accents his/her own abilities and assets (Linkowski, 1971).

Individuals' acceptance of their disabilities lies somewhere on the continuum between having these four value shifts and not having any of those value shifts. Therefore, it is important to know one's place on the continuum because acceptance has many positive impacts in these individuals' lives and their psychological health.

Therefore, it is necessary to measure for an individual with disabilities acceptance of disability as it is crucial for them to integrate into society and have a better psychological well-being. Acceptance of disability can be empirically measured with the Acceptance of Disability Scale (Linkowski, 1971). With this scale, Linkowski made it possible to measure the level of an individual's acceptance towards his/her disability. Linkowski created a 50-item scale grouped under these four concepts in order to measure the acceptance level of individuals with disability. It was administered to 46 participants at a rehabilitation center, and as a result of factor analysis, it was found that four concepts measure a unidimensional construct.

The *r* between the AD and the Attitudes towards Disabled People Scales was .81 ($p >$ .001; Linkowski, 1971). Later on, Groomes and Linkowski (2007) revised the original scale and created a shorter (32-item) scale and made further research for efficacy validation (Appendix A).

The reason they revised the scale was the fact that it needed to be updated due to the changing attitude towards disability and people with disabilities (Groomes & Linkowski, 2007). The early attitude was full of pity, stigma and fear (Rubin & Roessler, 2001), whereas the society offered modest opportunities to live a satisfying life and they perceived an individual's effort to reach this kind of life as a "struggle" (Groomes & Linkowski, 2007). So, the Acceptance of Disability Scale was originally created by Linkowski in this mindset and it needed to be revised later on. They revised the scale because they thought it was necessary as the life quality of individuals with disability changed, disability's sociopolitical definitions were revised and movements arose concerning independent living (Groomes & Linkowski, 2007).

2.3.1 Previous studies on acceptance of disability

As the Acceptance of Disability Scale is the first scale that measures the acceptance levels of individuals with disabilities, it is frequently used in studies about adaptation of disability. In this section they will be summarized.

2.3.1.1 Anxiety, resiliency, functioning and acceptance of disability

Previous research showed that anxiety and acceptance of disability were negatively correlated (Attawong & Kovindha, 2005; McCracken & Zhao-O'Brien, 2010; Casier et al., 2008), whereas resiliency and acceptance of disability (Berry, Elliott, &

Rivera, 2007; Fujikawa et al. 2013; Catalano, 2006) and functioning and acceptance of disability (Chiu, Livneh, Tsao, & Tsai, 2013) were positively correlated.

Boone, Roessler and Cooper (1978) examined anxiety's effect on acceptance of disability with respect to hope and expectancy of future goal success. There were 48 participants with physical disability in their research. They found out that hope was the most important of all in acceptance of disability. However, they only suggested that moderate levels of hope lead to high levels of acceptance of disability, but due to their limited number of subjects they could not suggest a relationship between low scores of hope and acceptance of disability. Similar problem occurred for anxiety as well, so the researchers applied a multivariate model. As a result, they found out that when both hope and anxiety were taken into account there was a significant variance in acceptance of disability.

Groomes and Leahy (2002) investigated the relationship of acceptance of disability to the stress appraisal process. One hundred fifty-one people were selected randomly and asked to complete Stress Appraisal Inventory for Life Situations and Acceptance of Disability Scale. They found that individuals with disabilities gave specific meanings to stressful situations and these meanings were related with their acceptance of disability. As contributions to acceptance of disability will affect these meanings given to stressful situations and therefore contribute to dealing with anxiety positively, these findings have influential implications for practice.

Attawong and Kovindha (2005) conducted a research and investigated psychological factors related with acceptance of disability of spinal cord injury. There were 61 participants with spinal cord injury with the mean age of 36.6 and their mean duration after the injury was 48.5 months. They were separated into two groups: those who had the injury in the last six months and those who had the injury

for longer than six months. The results showed that anxiety and acceptance of disability were negatively correlated.

McCracken and Zhao-O'Brien (2010) conducted a research with 144 adult patients with chronic pain and examined their acceptances. They used Acceptance and Action Questionnaire (Bond et al., 2011). When they examined anxiety's relationship with acceptance, they found that where was a significant negative correlation between anxiety and acceptance (r = -.59).

Casier, Goubert, Huse, Theunis and colleagues (2008) conducted a study with 34 adolescents with cystic fibrosis and examined their acceptances, disabilities, anxiety and depression levels. Results showed that there was a negative correlation between anxiety and acceptance (r = -.52), which means that patients with high anxiety had low acceptance levels.

Berry et al. (2007) did a research with 199 participants with spinal cord injury. They assessed the Big Five personality dimensions with NEO Five Factor Inventory (Costa & McCRae, 1992) and found three cluster prototypes among their participants, which were resilient, undercontrolled and overcontrolled. They suggested that participants with resilient personality had a high acceptance of disability at discharge.

Fujikawa, Lee, Chan, Catalano and colleagues (2013) examined the relationship between resilience and acceptance of disability with 274 Canadian participants with spinal cord injury. They measured the resiliency levels with the Connor-Davidson Resilience Scale (CD-RISC) and found that resiliency was positively correlated with acceptance of disability levels.

Catalano (2006) examined resiliency as the life adaptation predictor of individuals with spinal cord injury in her thesis. She conducted a research with 274

participants with spinal cord injury who were members of Canadian Paraplegic Association and her findings suggested that resiliency accounted for 38% of the variance in acceptance of disability.

Chiu et al. (2013) examined stroke patients' acceptance of disability levels and its predictors. There were 175 participants who were stroke patients in a hospital in Taiwan. They suggested that there was a positive correlation between functioning and acceptance of disability. The stroke patients who had low functioning had low acceptance of disability.

Xia, Kong and their colleagues (2014) conducted a research to investigate the impact of acceptance of disability and psychological resilience in posttraumatic stress disorder patients with burns. One hundred twenty-seven patients with burns completed the Acceptance of Disability Scale, Post Traumatic Stress Disorder (PTSD) Checklist civilian version and Connor-Davidson Resilience Scale questionnaire. The researchers evaluated their results with regression and correlation analysis. They found out that acceptance of disability was very related to incident of PTSD. For example, people who have higher levels of acceptance of disability utilize more positive behaviors and therefore could be protected from PTSD, which is an anxiety disorder, more than the others, whereas people with lower levels of disability acceptance utilize negative behaviors like fear, despair, avoidance of external activities and they are more likely to suffer from PTSD. Resiliency was an important characteristic to deal with PTSD as well. To sum up, anxiety in the form of PTSD was negatively correlated with the level of acceptance of disability. Also the researchers suggest patients' acceptance of disability should be assessed as early as possible and they should be assigned to group psychological counseling in order to minimize their physical dysfunction.

2.3.1.2 Demographic attributes and acceptance of disability

Age, marital status, income level, education level, gender, marital status, occupational category, work involvement and race were the demographic attributes which were examined in acceptance of disability research. Some of these studies suggested that age, onset of disability, income before the disability, current income and marital status had no relationship with acceptance of disability (Thomas, 1976; Woodrich & Patterson, 1983; Heinemann, Goranson, Ginsburg, & Schnoll, 1989; Beder, 2014). However, there are many studies that showed that education, occupational category, gender, age, marital status, income, race, onset of disability and work involvement have significant relationships with acceptance of disability. It was found that females, younger people, employed individuals, Caucasians and the ones with earlier onset of disability had a higher acceptance whereas Hispanics had a lower acceptance of disabilities (Li & Moore, 1998; Thomas, 1976; Woodrich & Patterson, 1983; Heinemann et al., 1989; Aceron & Savage, 2004; Melamed, Groswasser, & Stern, 1992; Araten-Bergman, Katz, & Stein, 2015; Chen, Brown, & Kotbungkair, 2015). There was a study that suggested married people had a higher acceptance of disability (Li & Moore, 1998), although another study suggested divorced people had a higher acceptance than other marital statuses (Joiner, Lovett, & Goodwin, 1989). These studies will be summarized briefly in this section.

Thomas (1976) did a research with 51 people suffering from amputation and the study results showed that there is no relationship between age, onset of disability, income before disability, current income and marital statues and acceptance of disability. However, there were three significant factors, which are education, occupational category and religion. The researcher suggested that education level,

religious preference and occupational category were significantly associated with acceptance of disability.

Later on, Woodrich and Patterson (1983) worked with 251 individuals with disability due to spinal cord injury and they found no relationship between marital status and the onset of disability and acceptance of disability. However, gender was a significant factor. They suggested that females have higher levels of acceptance of disability than males with disability. Additionally, age was a significant factor as well and they suggested that individuals who were younger had higher levels of acceptance of disability. Lastly, educational level was a significant factor as well.

Joiner, Lovett and Goodwin (1989) did a research and studied acceptance of disability and some demographic attributes of 160 adults who were receiving rehabilitation counseling from state vocational rehabilitation services. They found out that individuals with disability who were divorced were more accepting of their disability than other marital status groups.

In the same year, other researchers worked with 103 individuals with disability due to spinal cord injury and they again found that gender was a significant factor with females having higher levels of acceptance of disability. However, they suggested that age was not a significant factor (Heinemann et al., 1989).

Li and Moore's (1998) research with 1,266 subjects from vocational rehabilitation services showed that when all other demographic attributes are controlled, education and income have positive effects on accepting disability. On the other hand, age has a negative correlation with accepting disability, which means older people have a lower acceptance of disability. They also found that race is an important demographic attribute with Caucasians having a higher acceptance of

disability than other races. Lastly, when marital status is studied, they found out that married people have a higher acceptance of disability.

On the other hand, in 2004 after their research with new immigrants with disabilities, Aceron and Savage suggested that the onset of disability was a significant factor in acceptance of disability. They said that an individual with earlier onset of disability would have higher levels of acceptance of disability.

Moreover, Beder (2014) surveyed 157 individuals who were injured in war in Afghanistan and Iraq and were staying in Department of Defense Hospitals. The Acceptance of Disability Scale was applied and it was found out that the majority of the soldiers accepted their disabling conditions at the medium level. To begin with, participants' age, number of deployments and length of deployments were not significant predictors of disability acceptance. There were no significant differences in male participants' and female participants' average acceptance scores; however, there were significant differences between male and female scores in the subordination subscale. Subordination of physique means an individual understands and places less emphasis on the aspects of his/her appearance and physical ability that conflict with his/her disability. The researcher thought this difference might occur because of the cultural norms that females invest more in appearance than men do. There were significant differences based on race as Hispanic participants scored lower on the Acceptance of Disability. Also, there were no significant differences in participants' acceptance levels based on their level of education.

Chen et al. (2015) examined the differences between the self-acceptance of disability levels of Thai Buddhists and American Christians. They used the revised version of Linkowski's ADS (Groomes & Linkowski, 2007). They found that age and acceptance of disability were negatively correlated (r = -.24) for Thai Buddhists.

Additionally, Melamed et al. (1992) conducted a research with traumatic brain injury patients and examined work involvement and subjective rehabilitation status relationship. They investigated acceptance of disability as well and found that both work involvement and subjective rehabilitation status were related with acceptance of disability.

Araten-Bergman, Katz and Stein (2015) examined psychosocial adjustment of Israeli veterans with disabilities. There were 101 employed and 111 non-employed participants in their study and they examined their levels of hope, acceptance of disability, social network sizes and social participation patterns. Results showed that employed participants had higher hope and acceptance of disability levels. There were no differences between these two groups' social participation patterns. The study showed that education level and acceptance of disability were positively correlated (r= .25) as well.

These results show that there have been conflicting findings about the relationship between these specific factors and acceptance of disability. These inconsistencies might be a result of differences in research designs or research samples. Further research can answer these questions.

2.3.1.3 Disability conditions and acceptance of disability

Disability conditions have an effect on acceptance of disability and these are summarized in this section. Researchers have studied the relationship between disability conditions and acceptance of disability levels. Belgrave (1991), who enlarged the acceptance of disability to African American context, found that even though people thought that disability conditions and severity of the disability are

important in acceptance of disability, an individual's perception about their disability is the actual predictor of acceptance of disability.

On the other hand, Li and Moore (1998) suggested that severity of the condition is important and it has a negative correlation with acceptance of disability. When an individual has acquired disability and when multiple disabilities or chronic pain exist in the condition, the acceptance of disability level decreases. Also they found that people with congenital disability have better acceptance of disability than people with acquired disability.

Also, Beder (2014) surveyed 157 individuals who were injured in war in Afghanistan and Iraq suggested that there were significant differences in the participants' acceptance scores based on the type of their injury and disability; participants who were treated for Post Traumatic Stress Disorder scored lower compared to the participants who were treated for an amputation.

2.3.1.4 Other psychosocial factors and acceptance of disability

Psychosocial factors, which are self-concept, self-esteem, satisfaction with social relationships, locus of control, hostility, perceived social discrimination, coping strategies, social relation quality, assertive training, family support, emotional support, and orientation to problem solving, were found to be related with acceptance of disability and there are many studies examining the relationship between them. These studies showed that there were negative correlations between locus of control, hostility, perceived social discrimination and acceptance of disability (Poll & De-Nour, 1980; Li & Moore, 1998), whereas there were positive correlations between self-esteem, self-concept, satisfaction with social relations, assertive training, family support, emotional support, a higher positive orientation to problem solving, a lower

negative orientation to problem solving and acceptance of disability (Linkowski & Dunn, 1974; Starr & Heiserman, 1977; Miller, 1986; Belgrave, 1991; Li & Moore, 1998; Elliott et al., 2000). In this section these studies will be examined.

To begin with, Linkowski and Dunn (1974) conducted a study with 55 university students with physical disability and wanted to see how acceptance of disability and self-concept, self-esteem and satisfaction with social relationships were related. In their study, acceptance of disability was positively correlated with self-concept and self-esteem with $r = 0.52$, $df = 54$, $p < .01$ and with satisfaction with social relationships with $r = 0.34$, $df = 54$, $p < .05$.

In 1977, Starr and Heiserman searched for the same relationship in their research with 72 teenagers with oral-facial clefts and they again found out that teenagers with a higher self-esteem and satisfaction with their social relationship have a higher acceptance of disability.

There was another research to understand the relationship between locus of control and acceptance of disability. Forty patients on chronic hemodialysis were the subjects of the study and researchers found that there was a negative correlation between acceptance of disability and locus of control. It means that internal locus of control increased acceptance of disability whereas external locus of control decreased it (Poll & De-Nour, 1980).

Morgan and Leung (1980) did a research with college students to trace assertiveness and acceptance of disability relationship. They understood that assertive training is important for increasing the level of acceptance of disability. Also Joiner, Lovett and Goodwin (1989) conducted a research study and studied acceptance of disability of 160 adults who were having rehabilitation counseling services from state vocational rehabilitation agencies. They found out that assertive

behavior was correlated with acceptance of disability, as patients would try more options of rehabilitation services and reach acceptance more quickly.

Miller (1986) conducted a research study with 100 patients with disabilities at a community hospital and studied social support and acceptance of disability relationship. It was found that family support increases acceptance of disability. Belgrave's study had the same results in the African American sample (1991).

Li and Moore (1998) did a research to see the relationship between acceptance of disability and some psychosocial factors with 1,266 adults who utilized state vocational rehabilitation services. They found out that self-esteem, emotional support and family support have the strongest correlation with acceptance of disability. On the other hand, there is a negative correlation with hostility and perceived social discrimination.

In the research study with spinal cord injury patients, individuals with disability with a higher positive orientation or a lower negative orientation to problem solving have a higher acceptance of disability. Again in this research, individuals with a better goal orientation have a higher acceptance of disability (Elliott et al., 2000). In another research, researchers found that acceptance of disability had a relationship with coping strategies as well. People with lower levels of acceptance of disability have emotion-focused or avoidance-focus coping strategies (Groomes & Leahy, 2002).

Moreover, Zhang et al. (2014) studied the correlation between acceptance of disability and social relation quality in patients with colostomy. Their participants were 111 people with permanent colostomies, which were selected by convenience sampling. They completed the Acceptance of Disability Scale and Social Relational Quality Scale. The patients' acceptance of disability level was moderate and when

the enlargement, subordination, containment and transformation subscales were studied, they found out that the patients have a high enlargement score, which means this dimension only focuses on patients' cognitive recognition of their valuable features but it does not detect which aspect is important for them or whether or not they shift their focus. On the other hand, subordination had the worst performance, meaning patients have difficulty in reducing their concerns about their appearance and focus on their personal characteristics. The researchers explained this with the fact that patients can be marginalized in the society due to their different appearances.

2.4 Counseling clients with disabilities

All of the psychological counselors have to follow some guidelines and follow some technical and ethical steps to work with their clients. However, psychological counselors who counsel clients with disabilities should consider many more necessities to maintain a good therapeutic relationship with their clients. According to Marshak and Seligman (1993), professionals working with clients with disabilities might have conscious or unconscious ideas about disability and they have to face with them before their process. They have to see the patient as a whole individual and avoid associating them with their disabilities.

The language counselors utilize in the therapy is very important as well because the language reflects their perspective. Describing clients as persons with disabilities is significantly different from labeling them as disabled individuals and it would affect the therapeutic relationship (Marshak & Seligman, 1993).

According to Livneh and Sheerwood (1991), adaptation to disability is complex and for this reason individuals should receive help from counselors.

Moreover, counseling should aim to make clients achieve a perception and vision of psychosocial impacts of disability, adapt to disability and process other therapeutic changes. The researchers suggested that adaptation to disability has eight stages, which are shock, anxiety, denial, depression, internalized anger, externalized hostility, acknowledgement and adjustment. All of these stages are complex, and as they are emotionally loaded clients need to receive counseling in each step that is tailored according to their personal needs by the counselors.

CHAPTER 3

METHODOLOGY

3.1 Original Acceptance of Disability Scale

The original Acceptance of Disability Scale was in English and it was created by Linkowski in 1971. Linkowski created a 50-item scale grouped under four concepts, which were “containment of disability”, “transformation from comparative status to asset values”, “enlargement of scope of values” and ‘‘subordination of physique”. The scale used a four-point Likert scale, where respondents were asked how much they agreed or disagreed with statements related to adaptation of disability (1971).

In 2007, Linkowski and Groomes revised the scale and the current English version (Appendix A) has 32 items with a four-point Likert scale and again four factors with the same names. In this study, we used the Acceptance of Disability Scale’s revised version. There were nine items under the containment, transformation and enlargement factors, whereas there are five items under the subordination factor. Under the containment factor there were items such as “Because of my disability, I feel miserable much of the time” and “Since my disability interferes with just about everything I try to do, it is foremost in my mind practically all of the time.” Under the transformation factor, there were items such as “No matter how hard I try or what I accomplish, I could never be as good as the person who does not have my disability” and “The kind of person I am and my accomplishments in life are less important than those of persons without disabilities.” Under the enlargement factor there were items such as “A person with a disability is restricted in certain ways, but there is still much s/he is able to do” and “I feel like an adequate person regardless of the limitation of my disability.” Lastly, under the subordination factor there were

items such as “The most important thing in this world is to be physically capable” and “Good physical appearance and physical ability are the most important things in life.”

Also there were some negative items, which needed to be reverse-scored. These items were: 1, 2, 4, 5, 7, 8, 9, 10, 11, 13, 14, 15, 17, 19, 20, 22, 23, 24, 26, 27, 30, 31. Scores ranging from 32 to 128 were possible, with the scores between 97 and 128 being high levels of acceptance, scores between 65 and 96 being medium levels of acceptance and lastly scores between 32 and 64 being low levels of acceptance (Groomes, 2007). Many researchers had noted the effectiveness of the Acceptance of Disability Scale as a measure of acceptance of disability and had illustrated correlations with several demographic and disability-related variables.

The reliability and the validity study was done with 356 individuals who had physical disability like diabetes, kidney disease, human immunodeficiency virus (HIV), hepatitis C, lupus, cancer, depression, anxiety, back/spinal cord injury and amputation (Linkowski, 1971). Seventy-three percent of the individuals were Caucasians, 18.1% of them were Black/African American, 4.0% of them were Hispanics, 4.0% of them were Asian/Pacific Islander, and 0.7% of them were Native American. Also the gender composition was 55% male and 45% female. The participants were between the ages of 18 and 65.

All of the original 50 items of the Acceptance of Disability Scale (n = 356) were exposed to a principal components analysis (PCA) with oblique rotation based on participants’ responses. Eigenvalues for the four-component solution ranged from 12.8 to 1.8 and accounted for 42.1% of the variance. All items loaded on at least one component and the loading coefficients ranged from .25 to .74. The highest loading for each Acceptance of Disability Scale item became the basis for component

membership, and the four components were named based on the items that loaded highest in that factor. At the end of this process, the four components were named transformation, enlargement, containment and subordination (Linkowski, 1971).

Later on, Linkowski and Groomes (2007) completed the reliability study of the revised version. Even though 12 items fewer, the revised version's internal consistency among the four components was still relatively high to moderate. The transformation factor's alpha coefficient was .88, enlargement factor's alpha coefficient was .82, containment factor's alpha coefficient was .88 and subordination factor's alpha coefficient was .71. Also the revised version's overall reliability was unchanged from the original version and Cronbach's alpha stayed .93.

3.2 Earlier steps of the research

Adaptation study of the ADS was initially started by a group of undergraduate students: Oğuz Akkaya, Serap Aşut and Kürşat Ceylan from Boğaziçi University, Psychological Counseling and Guidance department under the supervision of Prof. Fatoş Erkman. These students were highly interested in disability studies and they were in quest of a scale to measure acceptance of disability levels of individuals with disabilities. Akkaya and Ceylan as individuals with visual disabilities noticed this need and their effort made this quest very valuable. Akkaya, Ceylan and Asut found out that the ADS was a scale designed for this purpose and they reached out to the owner, got permission and started the adaptation process. They completed the forward translation step successfully which was again supervised by Prof. Erkman.

The aim of the translation process was to translate the English scale (source language) into Turkish (target language) in a linguistically and conceptually right

way so both forms will be equivalent. For this purpose, five different translators were involved in three independent translation processes.

Three of the five translators were undergraduate students in Psychological Counseling and Guidance Department in Boğaziçi University. They were native speakers of the Turkish language and they were fluent in English language as well. They worked together and created the first translation. Moreover, the second translation was undertaken by an English as a second language teacher in one of the prestigious universities in Turkey. She was a native Turkish speaker and she had undergraduate education in ESL. Lastly, a graduate student in linguistics who was a former English Teaching undergraduate student completed the third translation. He was a native Turkish speaker, but the fact that he had his undergraduate and graduate degree in the English language made him familiar with the English language and culture.

These three different forms of forward translations (translations from original language to Turkish) were studied and combined into a single form (Appendix C) by Prof. Fatoş Erkman. As she is fluent in both languages and lived in the United States for several years, she is familiar with both English and Turkish language and culture. She specifically focused on the commonalities and differences of the different translations in this combination process.

In order to check for any conceptual or linguistic mistakes Prof. Fatoş Erkman used the back-translation technique and with this step the translation process was over. At this point the adaptation process was dropped until Erkman reached the current researcher and explained the details of the process and requested her to continue the adaptation of ADS as Şen's graduate thesis project. After that point the current researcher contacted Akkaya and Ceylan, informed them about the situation

and received the previous data from the translation step. Moreover, she contacted with Darleen Groomes (current owner of the original Acceptance of Disability Scale) and received permission for her current study (Appendix B).

3.3 Further translation study: Expert panel

The further translation study was started with an expert panel. The further translation process took place because there was a great need of changing the translation of the items in order to make them more clear, understandable and politically correct in terms of disability studies. According to WHO, adaptation study's expert panel should consist of the original translator, experts on the issue and on adaptation studies (2016). The current study's panel included the original translator, Prof. Erkman, experts in the disability studies, Assist. Prof. Z. Hande Sart and Assist. Prof. Nalan Babur, as well as experts in research methodology, Assoc. Prof. F. Nevra Seggie and Assist. Prof. Bengu Borkan.

During the expert panel process, the experts searched for items with unclear meaning and aimed to rewrite the items in the most clear and the simplest way. Experts worked together and on their own and they shared ideas, and further translation took place with the consensus of the experts.

3.4 Integration of the social model subscale

Even though the ADS is being used by many researchers, it has limitations, given that it was constructed in 1971. As already discussed in Chapter 2, the scale was constructed based on the medical model, which conceptualized disability as a loss and a shortage of the individual. According to the medical model, disability is either a shortcoming or a disaster an individual has to handle. However, as it was

mentioned in the same chapter, today's dominant and politically correct way of seeing disability is based on the social model, which says disability is caused by the way society is organized. It searches for ways to remove barriers that restrict life choices for individuals with disability. The construction of the ADS was a long time before the existence of the social model so this scale lacks the ideas of the social model.

Even though an adaptation study does not require integrating a new model or approach to the original scale, with the motivation to accomplish a better and up-to-date scale, the researcher made a literature search about the social model and thought about ways of integrating the social model as a subscale into the ADS. Dr. Engin Yılmaz, who is the director of Assistive Technology and Education Laboratory for Individuals with Visual Disabilities (GETEM), provided the biggest help in this step of the study. Dr. Yılmaz and the researcher worked together and he supervised the researcher to integrate the social model into the ADS. They changed the current items and modified new items with the consent of the thesis advisor. They aimed to create a new subscale called the Social Model.

3.5 Field study and cognitive interviewing

The fourth step of the current study was the field study. The aim of this step was to understand the flows of the design of the research and make the necessary and last changes before the validity and reliability steps of the study. In the field study, cognitive interviews were conducted. Cognitive interview is an effective technique for finding and correcting the problems with survey questions. It is an approach in which the researcher administers the draft survey questions to the participants and collects their additional verbal information about the survey questions and responses

in order to evaluate the quality of the responses as well as to determine if the question generates the information intended by the researcher (Beatty & Willis, 2007).

The sample in the field study consisted of eight people. There were four female and four male participants and two of these participants had visual disability, two of them had orthopedic disability, two of them had diabetes and lastly two of them were without any disabilities. The participants with disabilities were reached by snowball sampling. Snowball sampling means finding one participant who qualifies to participate and ask for their recommendation of other participants who have the traits and qualities targeted by the research. Two participants without disabilities were interviewed on purpose, as one of them was a psychology graduate and the other was a sociology graduate who had insight in and understanding of social sciences.

In the cognitive interview procedure, the participants were read the items of the Turkish Acceptance of Disability. They were asked to (1) rephrase what they understood from the items and give their opinions about them, (2) give their answer to the items and elaborate how they constructed their answers, (3) report any difficulties in understanding and (4) highlight any items they found irritating or offensive.

In order for the participants to concentrate and retrieve their understandings, they were uninterrupted during the process. The researcher encouraged the participants to “think out loud” and share their opinions without interrupting and took notes during the process, as it is crucial for the cognitive interview (Beatty & Willis, 2007). The researcher used the content reinstatement technique when

necessary if the participants lost their focus on the topic in order to return to the subject.

3.6 The validity study of the new social model integrated form of the ADS

Validation study is the fifth step of the current study. According to Joint Committee on Standards for Educational and Psychological Testing of the American Educational Research Association, American Psychological Association and National Council on Measurement in Education (1999) validity is the degree to which evidence and theory support scale scores that they measure the aimed uses of that scale. So if a scale is valid, it measures what it is planned to measure, all of what it was planned to measure and nothing but what it was planned to measure (Thorndike & Thorndike-Christ, 2011). Basically, as validity checks that the scale actually measures what the researcher thinks to measure, this step indicated how precisely and accurately the new social model integrated Acceptance of Disability Scale measures acceptance levels of the individuals with disabilities in Turkey. Validity coefficients indicated how the Turkish ADS measures acceptance levels. Moreover, validity is a broad concept and it has many different types of evidence. In the current study, evidence of content validity, construct validity, criterion validity was provided and reliability was examined.

3.6.1 Sample

There were 252 participants in the research. The participants were found by snowball sampling. Assistive Technology and Education Laboratory for Individuals with Visual Disabilities, Kadıköy Municipality, Six Point Foundation of the Blind, the Spinal Cord Paralytics Association of Turkey, Erdem Hospital were the main

foundations which contribute to the sampling process and the participants who were reached from these foundations recommended other participants who have disability to participate in the current research.

The mean of the participants' age was 39.14 with the standard deviation of 14.51. Two hundred and forty-one of the participants gave information about their marital status and according to data, 122 of the participants were single, 98 were married, nine were widowed, three were separated and nine were divorced. When the education level was asked, only three of the participants were non-literate, six were literate, 36 graduated from primary school, 40 graduated from intermediate school, 56 graduated from high school, 89 had an undergraduate degree and 11 had a graduate degree. There were 13 missing data entries about the education level. One hundred and one of the participants were employed whereas 88 were unemployed. Fifty-five of the participants were retired and there were 14 missing data entries about the employment status. Fifty-eight of the participants had the income of 0-499 TL monthly, 15 had 500-999 TL monthly, 63 had 1000-1499 TL monthly and 85 of the participants had more than 1,500 TL monthly (there were 33 missing data entries). Eighty-eight of the participants had congenital disabilities, whereas 154 had disability after birth (there were 12 missing data entries). Moreover, 76 of the participants had a relative with disability. One hundred and thirteen participants had visual disability, 27 had diabetes, 32 had kidney failure, 40 had spinal cord injury (paralysis), 11 had multiple disabilities and 19 had other kinds of disabilities (there were 12 missing data entries). Eighty-five of the data were collected online.

The researcher received the permission to work with the participants from the Ethical Committee of Boğaziçi University at the beginning of the current research (Appendix D).

3.6.2 Instrumentation

The newly developed social model integrated Turkish Acceptance of Disability Scale (Appendix E), Brief Resilience Scale (Appendix F), Trait Anxiety Scale (Appendix G), Separate part of World Health Organization Disability Assessment Schedule-Second Version (WHODAS II; Appendix H) and Demographic Form (Appendix I) were used in this part of the study.

3.6.2.1 Trait Anxiety Scale

The Trait Anxiety Scale (Spielberger, Gorsuch, Lushene, Vagg, & Jacobs, 1983) is used to measure trait anxiety level in clinical settings. Its original version has internal consistency between .86 and .95; test-retest reliability coefficients between .65 and .75 over a two-month interval (Spielberger et al., 1983). Test-retest coefficients were between .69 and .89 and considerable evidence was provided to the construct and concurrent validity of the scale (Spielberger, 1989).

It is adapted into Turkish and its reliability and validity studies were done (Öner & Le Compte, 1985). Its test-retest coefficients were between .73 and .86 and Kuder-Richardson reliability was between 86 and .92. Trait Anxiety's item total correlation was .54 for high school students, .46 for first-year undergraduate students and .53 for other university students. Its criterion validity was tested with Taylor Anxiety Scale and Affect Adjective Checklist and ranged from .52 to .80 for female students, from .58 to .79 for male students and from .77 to .84 for patients (Öner, 2008). Lastly, construct validity evidence was provided using the two-factor anxiety theory with both patient and non-patient participants. The results showed that situational anxiety scores rose before an important event then decreased after the

event but trait anxiety scores stayed same during all this time. These results supported the hypothesis of the two-factor anxiety theory and provided the construct validity evidence of the Trait Anxiety Scale (Öner, 1977).

There are 40 items in the scale and 17 of them are negative items. These are the items numbered 1, 2, 5, 8, 10, 11, 15, 16, 19, 20, 21, 26, 27, 30, 33, 36 and 39.

3.6.2.2 Brief Resilience Scale

The Brief Resilience Scale is used to measure an individual's resiliency levels (Doğan, 2015). Its adaptation study was done with 295 university students (186 female and 109 male) and it was tested with internal consistency, exploratory and confirmatory factor analysis and concurrent validity. Exploratory and confirmatory factor analysis showed that it was a single factor scale and the scale's internal consistency was .83. For concurrent validity, the scale was tested with the Oxford Happiness Scale, the Ego Strength Scale and Connor Davidson Resilience Scale and positive correlations were found.

The Brief Resilience Scale was chosen for in the current study for a very specific reason. The only alternative resiliency scale that was adapted into Turkish had 33 items, which was not practical for individuals with disabilities. After the field study the researcher of the current study and the thesis advisor decided to use the Brief Resilience Scale after confirming it with the expert panel members. The Brief Resilience Scale had six items that were clear and applicable for the sample of the current study and this scale minimized the difficulties for the individuals who have visual disability.

3.6.2.3 World Health Organization Disability Assessment Schedule-Second Version (WHODAS II)

The separate part of WHODAS II was used for this study as it has 12 questions, which assessed the disability conditions of the participants. Even though the participants have disability reports from the Turkish government, this scale made it possible for them to assess their own disability and made enabled the researcher to understand their functionality in daily life as well as to compare the result with their acceptance of disability levels. It takes 20 minutes to apply all WHODAS II Scale, so the second part, as it questions both emotional and physical effects of disability, was chosen by the researcher.

The 12-item version of WHODAS II Scale asks to what extent individuals with disabilities experience difficulties due to their health conditions. Illnesses, injuries, mental or emotional problems, alcohol or drug problems and any other long or short lasting health problems are accepted as health conditions according to WHODAS II (Üstün, 2010).

WHODAS II measures the overall functioning in six domains of life, which are cognition, mobility, self-care, getting along, life activities and participation (Üstün, 2010). These domains were chosen after a detailed literature research. Cognition was defined as understanding and communicating; mobility was defined as the ability to move around; self-care was defined as the individual's hygiene, dressing, eating and staying alone; getting along was defined as interactions with others; life activities were defined as school, work, leisure activities and domestic activities; and lastly, participation was defined as participation in society's activities (Ünal, 2010).

The participants gave scores according to the level of difficulty they experienced while doing some activities. If they experienced more difficulty they gave higher scores. Therefore, high scores predict low overall functioning, whereas low scores predict high overall functioning for the participants.

The section's Turkish version was tested for its internal consistency and its Cronbach's alpha value was found to be .89. These sections' total points were different for the patient (M=2.13, SD=0.72) and control group (M=1.08, SD=0.15) with the t value 7.85, $p<0.001$. Also the correlation between this section's total point and the WHODAS II total point was calculated as 0.94 ($p<0.001$; Uluğ, Ertuğrul, & Göğüş, 2001).

3.6.2.4 Demographic form

The demographic form (Appendix I) had 16 questions and it was prepared by the researcher. Its aim is to learn about the participants' age, marital status, socio-economic level, occupancy, the type of their disability, their household conditions and as if they receive any support regarding their disability. The demographic form was placed at the end of the other scales.

3.6.3 Procedure

Data collection was conducted in two different ways, through a web-based survey or a face-to-face interview. For the Internet part, the study was designed using Survey Monkey and sent to email groups of individuals with disabilities via Dr. Engin Yılmaz, the head coordinator of GETEM. The Internet form was made user-friendly for individuals with visual disability and tested before being sent to the groups.

The face-to-face survey was read by the researcher in a private environment to the participant. It was prepared as a package containing all the surveys and the consent form (Appendix J). All of the individuals with diabetes read and completed the form themselves. The researcher read the survey items one by one to the individuals with visual disability, individuals with kidney disease (the researcher applied the scale while they were having dialysis treatment and lying on a hospital bed) and individuals with spinal cord injury (who cannot use their hands or who can use their hands but who requested for this) and filled the forms for the participants.

All of the participants were read the consent form before the study and their consent was taken. If they wanted to quit the study, they did so; their scales were not taken into account and were destroyed by the researcher.

3.6.4 Validity evidence

The validity of the current scale was tested by providing content-related evidence, construct-related evidence, criterion-related evidence of validity and internal consistency.

Content validity focuses on the accuracy of the scale and its construct. For the current research it was basically how accurately the items of the Turkish Acceptance of Disability Scale assess the factors of enlargement, containment, transformation, subordination and the new integrated factor, the social model. For content-related evidence of validity, expert opinions were gathered. There were five experts in the expert panel and the form of the items was discussed with them to see if there was any need for change. Moreover, Dr. Engin Yılmaz was part of the expert team as he was a great help for the integration of the social model and his comments were taken through the cognitive interview. Also, during the field study process, more cognitive

interviews took place with individuals with different types of disabilities and these were considered as expert opinion as well.

The construct-related evidence of validity had two parts. For factorial validity or internal structure, confirmatory factor analysis was done using AMOS 22.0.0 Graphic Statistical Programs. Additionally, checking the predictions about group differences was another evidence for construct-related validity. Researcher constructs some abstractions in order to understand if the measure behaves like the theory says a measure of that construct should behave. The researcher developed some a priori hypotheses based on a detailed literature search about the relationship of certain demographic attributes and the level of acceptance of disability. These hypotheses were the following: acceptance of disability increases as the income of the individual increases, acceptance of disability is higher for individuals with visual disability than other disability groups, acceptance of disability increases as the education level of the individual increases, acceptance of disability is higher for individuals with congenital disability than individuals who have acquired disability and acceptance of disability is higher for individuals who are younger.

Moreover, for criterion-related validity evidence, a measure was taken as a criterion measure and the test was judged as its correlation with this criterion measure. The researcher's aim was to reach a higher correlation as the higher correlation predicts better criterion validity evidence. Anxiety, resiliency and overall functioning were the criteria of the current study to provide criterion-related validity evidence. For this purpose, in this study the Trait Anxiety Scale (Spielberger et al., 1983), the Brief Resilience Scale (Doğan, 2015) and World Health Organisation Disability Assessment Schedule-Second Version (WHODAS II) were used to gather criterion validity evidence. The 12-item version of WHODAS II was selected as it

measures the overall functioning of individuals with disabilities. This validity checks as if the interrelationships of the dimensions measured by the test correlate with the construct of interest and test scores. Anxiety and acceptance of disability relationship was studied by many researchers (Boone, Roeser, & Cooper, 1978; Craig, Hancock, & Dickson, 1994; Attawong & Kovindha, 2005) and it makes anxiety scores a choice for being a criterion measure. Moreover, the resiliency level and acceptance of disability relationship was studied by Berry and colleagues (2007), Morrison and Cosden (1997) and Murray (2003), which makes resiliency scores a choice for being a criterion measure. Lastly, the condition of disability and overall functioning were chosen, as there are many studies about this relationship as well (Patrick, 1986; Yau et al., 2004).

The last validity evidence was reliability. Reliability is the degree to which a scale produces consistent results. Basically, reliability shows how accurately a test measures whatever it does measure. Reliability of a test shows the extent of consistency of the scores of a particular scale (Thorndike & Thorndike-Christ, 2011). Reliability is expressed in two ways, which are standard error of measurement and reliability coefficient. Standard error of measurement is the variation in the measurement of the same scale and reliability coefficient is the indicator of reliability that two correlated things are two applications of the same measure like they stand in the same relative positions. Reliability is the internal consistency, which means the interrelatedness of the scale's items (Tavakol & Dennick, 2011). In other words, this part of the adaptation study tests weather the new Turkish form of the Acceptance of Disability Scale gives consistent results.

3.6.5 Statistical analysis

The statistical analysis computer program SPSS version 22.0.0 was used for the statistical analysis to test the validity of the Turkish ADS. Statistical analysis was done to provide construct-related evidence of validity, criterion-related evidence of validity, and internal consistency.

The construct-related evidence of validity had two parts. For factorial validity or internal structure, confirmatory factor analysis was done using AMOS 22.0.0 Graphic Statistical Programs. Many models were tested and the most important two of them were reported. The researcher had the aim to reach the strongest model fit; for this purpose she aimed to reach the acceptable *CFI*, *GFI*, Standardized *RMR*, *RMSEA* and 90% confidence interval *RMSEA* values in a single model.

Additionally, checking the predictions about group differences was another evidence for construct-related validity. The researcher had the following five hypotheses and these were checked using the necessary statistical analysis:

Research hypothesis 1: Acceptance of disability increases as the income of the individual increases.

Research hypothesis 2: Individuals with disabilities who are employed will have a higher acceptance of disability than those who are unemployed or retired.

Research hypothesis 3: Acceptance of disability increases as the education level of the individual increases.

Research hypothesis 4: Acceptance of the disability is higher for individuals with a congenital disability than individuals who have an acquired disability.

Research hypothesis 5: Acceptance of disability is higher for individuals who are younger.

For the first four hypotheses a multivariate analysis (MANOVA) was used. The dependent variables are the three sub-scales of the scale: containment, transformation, enlargement; the independent variables are income level, employment status, education level and onset of disability. For the last hypothesis, the linear relationship between age and acceptance of disability was tested with a bivariate Pearson's product-moment correlation coefficient.

For criterion-related validity evidence, the correlation between anxiety and acceptance of disability, resiliency and acceptance of disability and overall functioning and acceptance of disability were examined. Anxiety was measured using the Trait Anxiety Scale, resiliency was measured using the Brief Resilience Scale and overall functioning was measured using the separate part of WHODAS II. High correlation would be the indicator that the Turkish form of Acceptance of Disability has evidence based on criterion-related validity. For this purpose, the following three hypotheses were tested:

Research hypothesis 6: There is a negative correlation between anxiety and the three factors of acceptance of disability.

Research hypothesis 7: There is a positive correlation between resiliency and the three factors of acceptance of disability.

Research hypothesis 8: There is a positive correlation between overall functioning and the three factors of acceptance of disability.

In order to test these hypotheses and assess these correlations, bivariate Pearson's product-moment correlation coefficients (r) were calculated.

Moreover, in order to measure the reliability of the Turkish version of the Acceptance of Disability Scale scores, Cronbach's alpha was calculated. With this technique, it would be possible to see the correlations of all the items with one

another. Subsequently, the item-total correlations were calculated using Pearson's product-moment correlation technique to see if Cronbach's alpha increased when any of the items were deleted from the scale.

In addition to the adaptation of the scale, three other hypotheses were tested which require more statistical analysis in order to understand the indicators of acceptance of disability more clearly.

Research hypothesis 9 was anxiety will account for a significant proportion of variance in the three factors of acceptance of disability, beyond that already accounted for by overall functioning. Hierarchical multiple regression analysis (MRA) was employed to test this research hypothesis. The predictor variable is anxiety, the control variable is overall functioning and the outcome variable is acceptance of disability. Three regression analyses were conducted for each factor (containment, transformation, and enlargement) separately.

Research hypothesis 10 was resiliency will account for a significant proportion of variance in the three factors of acceptance of disability, beyond that already accounted for by overall functioning. Hierarchical multiple regression analysis (MRA) was employed to test this research hypothesis. The predictor variable is resiliency, the control variable is overall functioning and the outcome variable is acceptance of disability. Three regression analyses were conducted for each factor (containment, transformation, and enlargement) separately.

Lastly, research hypothesis 11 was acceptance of disability is higher for individuals with visual disability than other disability groups. For this research hypothesis a multivariate analysis (MANOVA) was used. The dependent variables are the three sub-scales of the scale: containment, transformation, enlargement; the independent variable is the type of disability.

CHAPTER 4

RESULTS

4.1 Validation study

In this section the results of the validation study will be examined under four subheadings. These subheadings are Content-related Evidence of Validity, Construct-related Evidence of Validity, Criterion-related Evidence of Validity and Reliability-Internal Consistency.

4.1.1 Content-related evidence of validity

Content-related validity is the degree of a scale that indicates to what extent a scale is logically measuring the intended variable. This type of validity is maintained by expert opinion (Fraenkel, Wallen, & Hyun, 1993). For content-related evidence, expert opinions were obtained during the further translation process, field study, cognitive interviews and the interviews with Dr. Engin Yılmaz in order to indicate whether the Turkish Acceptance of Disability Scale really measures acceptance of disability.

The aim of the content validation at these stages of the study was to minimize potential errors associated with the scale and to strengthen the probability of having supportive construct validity indices in the later steps of the current study (Fraenkel et al., 1993). For this purpose, the researcher, with experts from the expert panel and Dr. Yılmaz, focused on the items' compatibility with the specific factors. Also, during the cognitive interviews the participants were encouraged by the researcher to associate items with one another in order to see if the items were associated with each other under the specific five factors.

Besides, errors in each item were corrected. During the expert panel process, the experts noticed that there were many items which had some scaling factors like ‘very’, ‘too much’, ‘less’ etc. and they were all eliminated from the scale and rewritten as neutral items. This change was important because these kinds of scaling factors might intervene with the answers of the participants, as the answers have their own scaling, and the change contributed to content validity.

Moreover, items were rewritten as there were simpler and shorter ways to represent their meaning. Some were rewritten in order to eliminate any misunderstandings. Also, one of the items was separated into two items as there were two distinct meanings in one item and it was impossible to detect these two meanings with a single item without any misunderstandings. This item was “I feel satisfied with my abilities and my disability does not bother me too much.” One item was deleted as it was repetitive and the scale would be too long with the additional items. This item was “I know what I can’t do because of my disability, and I feel that I can live a full life.” By this means, the item and factor compatibility increased. As a result, the new Turkish Acceptance of Disability Scale became a scale with 38 items (Appendix E).

4.1.2 Construct-related evidence of validity

4.1.2.1 Factorial Validity (Internal Structure)

Factor analysis was used to determine the factorial validity of the Turkish Acceptance of Disability Scale through model fit and factor loading results. A series of confirmatory factor models were specified and estimated using the AMOS 22.0.0 Graphics Statistical Program. After testing many models, the model with the best fit was considered the final model. In this section only the results of the original five-

factor model (Figure 1) and the final three-factor model (Figure 2) are represented. The proposed model has five factors, namely enlargement, containment, transformation, subordination and the social model. This was the first model tested. The final model had three factors, which were enlargement, containment and transformation, and it was derived after a series of model testing process.

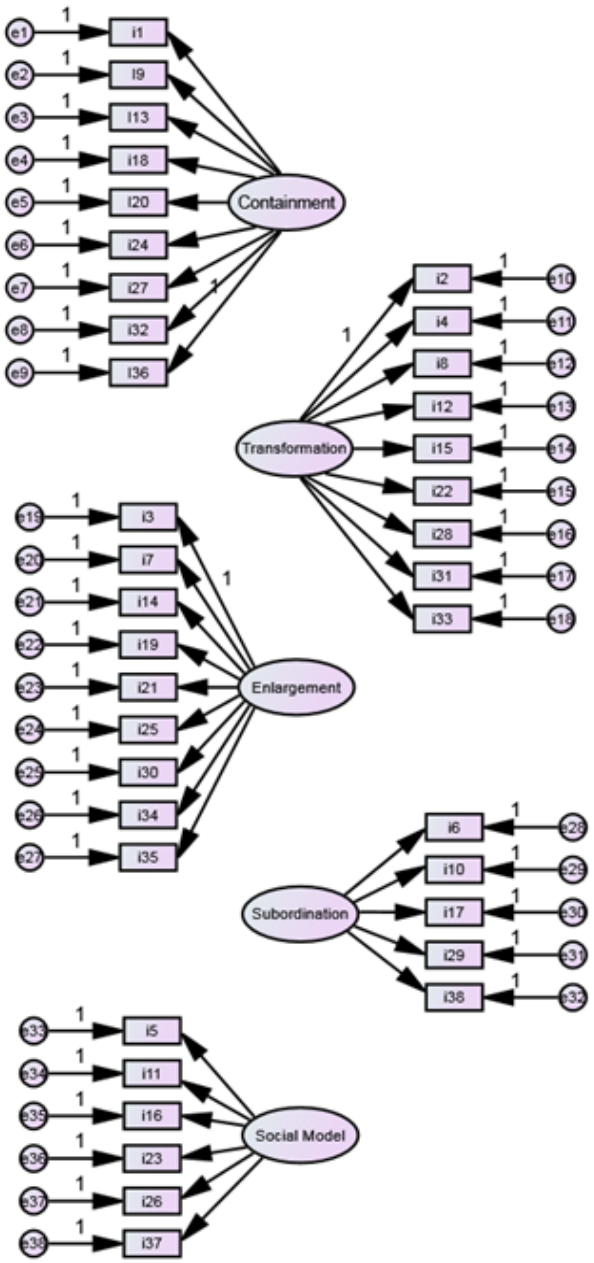


Figure 1. The five-factor model

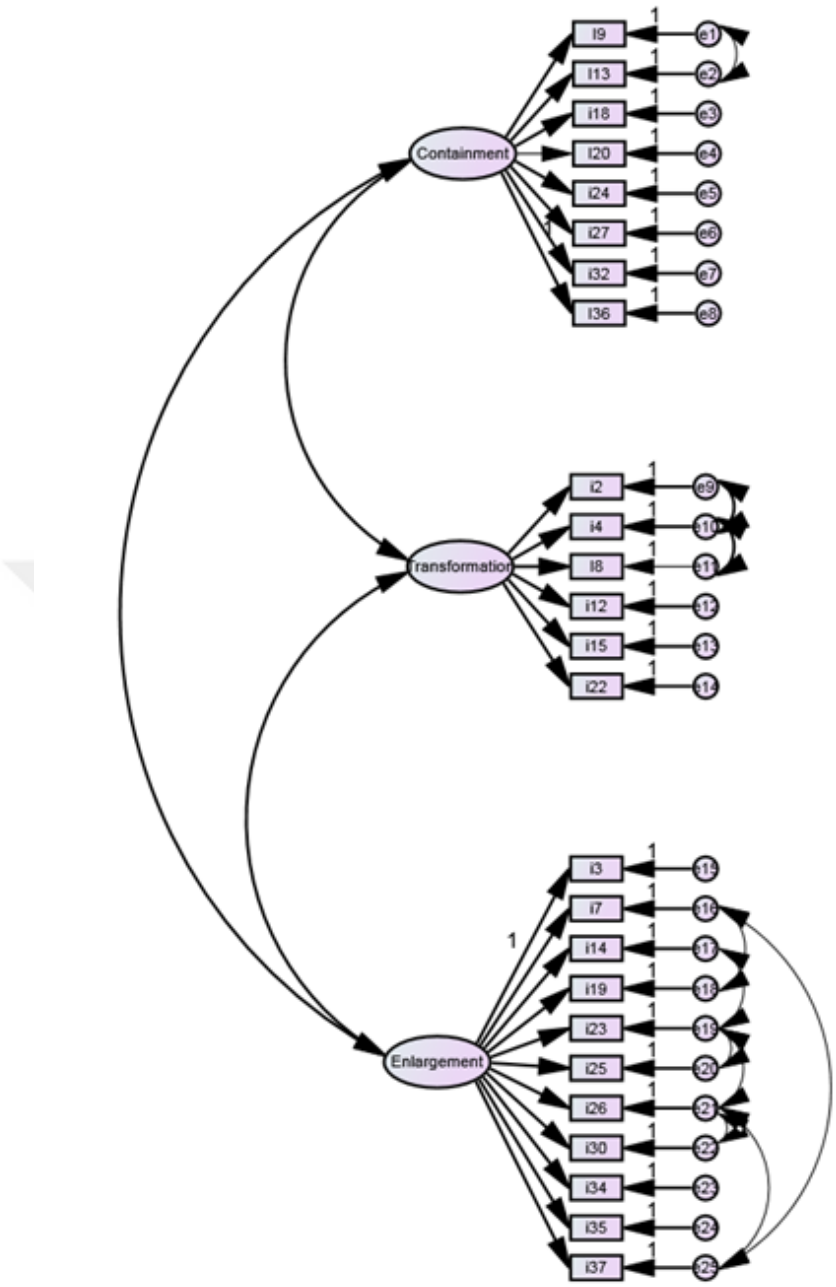


Figure 2. The three-factor model

The goodness of fit for each model was tested using the chi-square, chi-square/*df* ratio, the goodness of fit index (*GFI*) and the comparative fit index (*CFI*). A non-significant chi-square, a relative chi-square (χ^2/df) in the range of 3 to 1, and

values greater than .90 for the *GFI* and *CFI* are considered an acceptable model fit (Hoyle & Panter, 1995). Moreover, for a good model fit, standardized *RMR* is less than .008. In addition, the root mean square error of approximation with 90% confidence intervals were reported, where a value less than .05 is considered as a close fit and where values up to .08 are considered reasonable errors of approximation in the population (Byrne, 2001). Table 1 shows these measures of the two models.

According to Table 1 the five-factor model did not meet any of the necessary goodness of fit measures as *GFI* is .721 and *CFI* .727 and both of them are smaller than .90. Also *RMSEA* is bigger than .08, which indicates reasonable errors of approximation in the population and standardized *RMR* is .086 and bigger than .008. Lastly, interval *RMSEA* is between .077 and .082.

Table 1. Model fit of 5-factor model and 3-factor model

Model	χ^2	*df*	*P*	*GFI*	Std. *RMR*	*RMSEA* (90%*CI*)	*CFI*
5-factor	1755.22	655	<.001	.721	.086	(.077-.082)	.727
3-factor	454.20	262	<.001	.878	.005	(.046-.054)	.918

Note: *SRMR* = standardized root mean square residual; *RMSEA* = root mean square error of approximation; *CI* = confidence interval; *CFI* = comparative fit index.

However, the three-factor model had a fairly strong model fit, as *CFI* and *GFI* were very close to .90 and *RMSEA* was very close to .05. Standardized *RMR* was .005 and less than .008 and the interval *RMSEA* was .046 to .054 in an acceptable range.

Additionally, in order to reach these stronger goodness of fit measures, some items were deleted in the three-factor model. One item from containment (I1 of the model 1), three items from the social model (I5, I11 and I16 of the five-factor model), one item from the enlargement factor (I21 of the five-factor model) and three items from the transformation factor (I28, I31 and I33 of the five-factor model) were deleted in order reach this model fit in the three-factor model. After these deletions, the final form of the Turkish ADS became a scale with 25 items and three factors (Appendix K).

Moreover, in order to improve the model, the modification indexes were examined to decide if additional paths could be added to the confirmatory factor analysis model. As a result of this attempt, the additional correlational paths in the error terms were added between the items I9-I13 in the containment factor; I2-I4 and I4-I8 in the transformation factor; I7-I37, I7-I19, I14-I23, I23-I25, I26-I30, I26-I37 and I23-I26 in the enlargement factor. These additions improved the model and the three-factor model became a fairly strong model.

All in all, factorial analysis aimed to answer the research question 1.a, “Does a five-factor model fit the collected data based on goodness of fit statistics?” The answer was “no” as the five-factor model did not fit the collected data based on goodness of fit statistics. Therefore, a three-factor model was suggested and proved that it fit the goodness of fit statistics much better.

4.1.2.3 Predictions about group differences

Testing previously generated hypotheses about group differences provides construct-related evidence of validity. For this purpose, five predictions were tested and the results will be explained in this section.

Research hypothesis 1 was acceptance of disability increases as the income of the individual increases. A multivariate analysis (MANOVA) was used to examine the relationship of income level and acceptance of disability (N= 221). Before conducting the MANOVA, the data were examined using PASW Statistics in order to be sure that all of its underlying assumptions were provided.

Univariate normality was assessed with Shapiro-Wilk tests and boxplots, and could be assumed. Additionally, no multivariate outliers were found in the data, supporting the assumption of multivariate normality. Correlations between the dependent variables showed that multicollinearity was problematic. Furthermore, the relationships between the dependent variables were roughly linear. Finally, Box's M was non-significant at $\alpha = .001$, indicating that homogeneity of variance-covariance matrices could be assumed.

After these assumptions were supported, a MANOVA was conducted. The findings showed that there was a significant effect of the income level on the combined dependent variables, total acceptance of disability F (9,651) = 2.68, p = .005, partial eta squared = .036.

An analysis of the dependent variables individually showed no effects for the transformation and containment variables. However, the enlargement variable was statistically significant at a Bonferroni adjusted alpha level of .017, F (1,217) = 3.98 p =.009, partial eta squared = .05. The individuals with disabilities who have a higher income reported a higher enlargement (M = 35.34) than those who have a lower income (M = 33.10).

Research hypothesis 2 was individuals with disabilities who are employed will have a higher acceptance of disability than those who are unemployed or retired. A multivariate analysis (MANOVA) was used to examine the relationship of the

state of employment and acceptance of disability (*N*= 240). There were 101 participants who were unemployed, 88 participants who were employed and 51 participants who were retired. Before conducting the MANOVA, the data were examined using PASW Statistics in order to be sure that all of its underlying assumptions were provided.

Univariate normality was assessed with Shapiro-Wilk tests and boxplots, and could be assumed. Additionally, no multivariate outliers were found in the data, supporting the assumption of multivariate normality. Correlations between the dependent variables showed that multicollinearity was problematic. Furthermore, the relationships between the dependent variables were roughly linear. Finally, Box's *M* was non-significant at $\alpha = .001$, indicating that homogeneity of variance-covariance matrices could be assumed.

After these assumptions were supported, a MANOVA was conducted. The findings showed that there was a significant effect of the state of employment on the combined dependent variables, total acceptance of disability $F(6,47) = 5.46$, $p=.000$, partial eta squared = .065

An analysis of the dependent variables individually showed no effects for the containment variable. However, the enlargement variable was statistically significant at a Bonferroni adjusted alpha level of .017, $F(2,237) = 11.43$, $p = .000$, partial eta squared = .088 and the transformation variable was statistically significant at a Bonferroni adjusted alpha level of .017, $F(2,237) = 10.78$, $p = .000$, partial eta squared = .083. The individuals with disabilities who were working have a higher enlargement (M=35.79) and transformation (M=20.46) than those who were retired (M for enlargement = 31.22, M for transformation = 18.00) or unemployed (M for enlargement = 33.98, M for transformation = 19.90).

Research hypothesis 3 was acceptance of disability increases as the education level of the individual increases. A multivariate analysis (MANOVA) was used to examine the relationship of education level and acceptance of disability (N= 241). Before conducting the MANOVA, the data were examined using PASW Statistics in order to be sure that all of its underlying assumptions were provided.

Univariate normality was assessed with Shapiro-Wilk tests and boxplots, and could be assumed. Additionally, no multivariate outliers were found in the data, supporting the assumption of multivariate normality. Correlations between the dependent variables showed that multicollinearity was problematic. Furthermore, the relationships between the dependent variables were roughly linear. Finally, Box's M was non-significant at α = .001, indicating that homogeneity of variance-covariance matrices could be assumed.

After these assumptions were supported, a MANOVA was conducted. The findings showed that there was a significant effect of the education level on the combined dependent variables, total acceptance of disability F (18,702) = 4.03, p=.000, partial eta squared = .094.

An analysis of the dependent variables individually showed effects for the transformation, enlargement and containment variables as they were all statistically significant at a Bonferroni adjusted alpha level of .017. For the transformation variable F (6,234) = 6.62, p =.000, partial eta squared = .145, for the enlargement variable F (6,234) = 7.43, p =.000, partial eta squared = .160 and for the containment variable F (6,234) = 3.39, p =.003, partial eta squared = .080. The individuals with disabilities who have a higher education level reported a higher enlargement (M=37.09), containment (M=30.00) and transformation (M=21.91), therefore a

higher acceptance of disability level, than individuals with a lower education level (*M* for containment=20.00, *M* for transformation=13.33, *M* for enlargement=28.67).

Research hypothesis 4 was acceptance of the disability is higher for individuals with a congenital disability than individuals who have an acquired disability. A multivariate analysis (MANOVA) was used to examine the relationship of the onset of disability and acceptance of disability (*N*= 242). Before conducting the MANOVA, the data were examined using PASW Statistics in order to be sure that all of its underlying assumptions were provided.

Univariate normality was assessed with Shapiro-Wilk tests and boxplots, and could be assumed. Additionally, no multivariate outliers were found in the data, supporting the assumption of multivariate normality. Correlations between the dependent variables showed that multicollinearity was problematic. Furthermore, the relationships between the dependent variables were roughly linear. Finally, Box's *M* was non-significant at $\alpha = .001$, indicating that homogeneity of variance-covariance matrices could be assumed.

After these assumptions were supported, a MANOVA was conducted. The findings showed that there was a significant effect of the onset of disability on the combined dependent variables, total acceptance of disability $F(3,238) = 16.72$, $p=.000$, partial eta squared = .174.

An analysis of the dependent variables individually showed no effects for the containment variable. However, the enlargement variable was statistically significant at a Bonferroni adjusted alpha level of .017, $F(1,240) = 49.20$, $p =.000$, partial eta squared = .170 and the transformation variable was statistically significant at a Bonferroni adjusted alpha level of .017, $F(1,240) = 11.09$, $p =.001$, partial eta squared = .044. The individuals with disabilities who had their disability from birth

have a higher enlargement (*M*=37.30) and transformation (*M*=20.66) than those who had their disability later on, after birth (*M* for enlargement = 32.31, *M* for transformation = 19.25).

Research hypothesis 5 was acceptance of disability is higher for individuals who are younger. Prior to calculating *r*, the assumptions of normality, linearity and homoscedasticity were assessed, and found to be supported. Specifically, a visual inspection of the normal Q-Q and detrended Q-q plots for each variable confirmed that both were normally distributed. Similarly, visually inspecting a scatterplot of age against the containment, transformation and enlargement factors of acceptance of disability confirmed that the relationship between these variables was linear and heteroscedastic.

To assess the size and direction of the linear relationship between age and the three factors of acceptance of disability, a bivariate Pearson's product-moment correlation coefficient (*r*) was calculated. The bivariate correlation between enlargement and age was negative and moderate to high, $r\ (241)= -.42$, $p<.001$. The bivariate correlation between transformation and age was negative and strong, $r(241)= -.31$, $p<.001$. The bivariate correlation between containment and age was negative and, $r\ (241)= -.18$ and significant as $p=.004$.

Therefore, the transformation and containment factors of acceptance of disability were higher for individuals who are younger.

4.1.3 Criterion-related evidence of validity

Basic descriptive statistics and correlation coefficients are shown in Table 2. Each of the predictor variables (resiliency, anxiety and overall functioning) has a significant ($p < .01$) zero-order correlation with containment, transformation and enlargement.

All predictor variables are statistically significantly correlated with each other. Therefore, these statistically significant correlations are the evidence for criterion-related validity.

Table 2. Correlation for all scale variables of the study

Variable	*M*	*SD*	1	2	3	4	5	6
1. Resiliency	21.32	5.03	1	-.62*	-.22*	.43*	.38*	.35*
2. Anxiety	41.84	7.68	-.62*	-	.27*	-.47*	-.47*	-.47*
3. WHODAS II scores	26.47	9.86	-.22*		-	-.32*	-.39*	-.48*
4. Containment	27.06	4.48	.43*			-	.72*	.43*
5.Transformation	38.00	3.29	.38*				-	.51*
6. Enlargement	62.00	5.81	.35*					-

*. Correlation is significant at the 0.01 level (2-tailed).

Table 2 shows that research hypotheses 6, 7 and 8 were correct and there is a positive correlation between overall functioning and acceptance of disability and resiliency and acceptance of disability but a negative correlation between anxiety and acceptance of disability.

Overall functioning was measured with WHODAS II, and Table 2 shows a negative correlation between WHODAS II scores and the factors of acceptance of disability. However, higher WHODAS II scores predicted a lower overall functioning and lower WHODAS II scores predicted a higher overall functioning, so the negative correlations in Table 2 showed that there was a positive correlation between overall functioning and acceptance of disability.

4.1.4 Reliability-internal consistency

Internal consistency of the Turkish Acceptance of Disability Scale's three factors was assessed with Cronbach's alpha statistics. The containment factor's Cronbach's alpha coefficient was .85, the transformation factor's Cronbach's alpha coefficient was .76 and the enlargement factor's Cronbach's alpha coefficient was .84. The item total correlations for each factor and their subsequent alphas, if the item was deleted, are summarized in Tables 3-5.

Table 3. Containment Factor

	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
I9	.48	.85
I13	.66	.83
I18	.54	.84
I20	.60	.84
I24	.67	.83
I27	.67	.83
I32	.68	.83
I36	.50	.85

Table 4. Transformation factor

	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
I2	.51	.72
I4	.58	.69
I8	.62	.68
I12	.50	.72
I15	.34	.76
I22	.46	.73

Table 5. Enlargement factor

	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
I3	.45	.83
I7	.57	.83
I14	.58	.82
I19	.55	.83
I25	.64	.82
I30	.45	.84
I34	.58	.82
I35	.63	.82
I23	.63	.82
I26	.26	.85
I37	.54	.83

Tables 3 and 4 show that all items were contributing to the overall internal consistency of the containment and transformation factors, as Cronbach's alpha coefficient did not get higher if any of these items were deleted. Table 5 again shows the overall internal consistency of the enlargement factor, as Cronbach's alpha coefficient gets only slightly higher if one of the items was deleted.

4.2 Second part of the study

In this second part, more hypotheses will be checked in order to reach more ideas about the factors that affect acceptance of disability. The results will be reported here. These results will be discussed in the next chapter.

Research hypothesis 9 was anxiety will account for a significant proportion of variance in acceptance of disability, beyond that already accounted for by overall functioning. To test this hypothesis, a hierarchical multiple regression analysis (MRA) was employed. Three individual analyses were done for each of the three factors of acceptance of disability. Therefore, the outcome variables changed for each analysis and they were the containment, transformation and enlargement factors of acceptance of disability. The predictor variable was anxiety and the control variable was overall functioning. These variables were the same for these three analyses.

Before interpreting the results of the MRA, a number of assumptions were tested and checks were performed. First, stem-and-leaf plots and boxplots showed that each variable in the regression was normally distributed and free from Univariate outliers. Second, an inspection of the normal probability plot of standardized residuals against standardized predicted values indicated that the

assumptions of normality, linearity and homoscedasticity of residuals were met. Third, Mahalanobis distance did not exceed the critical x^2 for df =3 (at alpha=.001) of 16.27 for any cases in the data file, indicating that multicollinearity would not interfere with our ability to interpret the outcome of the MRA.

The first analysis was for the containment factor. At step 1 of the hierarchical MRA, overall functioning accounted for a significant 10% of the variance in the containment factor of acceptance of disability, R^2=.10, F(1.245)=27.73, p=.000. At step 2, anxiety was added to the regression equation and accounted for an additional 15% of the variance in acceptance of disability, R^2 change= .16, Fchange (1.244) = 51.47, p = .000. In combination, the two predictor variables explained 25.8% of the variance in containment, R^2=.26, adjusted R^2=.25, F= (2,244)=42.45, p<.001.

Unstandardized (B) and standardized (β) regression coefficients, and squared semi-partial (or 'part') correlations (sr^2) for each predictor at each step of the hierarchical MRA are reported in Table 6.

Table 6. The Hierarchical Multiple Regression Predicting Acceptance of Disability's Containment Factor

Variable	B (95% CI)	β	Sr^2
Step 1			
Functioning	-.14 (-.20, -.09)*	-.32	.10
Step 2			
Functioning	-.09 (-.14, -.04)*	-.21	.05
Anxiety	-.23 (-.30, -.17)*	-.41	.17

* p<.001.

As it can be seen from Table 6, both of the variables are significant predictors of containment in the final regression model.

The second analysis was for the transformation factor. At step 1 of the hierarchical MRA, overall functioning accounted for a significant 14% of the variance in the transformation factor of acceptance of disability, R^2=.15, F (1.245) = 41.60, p = .000. At step 2, anxiety was added to the regression equation and accounted for an additional 14.5% of the variance in acceptance of disability, R^2 change = .15, F change (1.244) = 49.63, p = .000. In combination, the two predictor variables explained 29% of the variance in transformation, R^2=.29, adjusted R^2=.28, F (1,244) = 49.74, p<.001. After controlling overall functioning, anxiety still has a statistically unique contribution in the regression model. As anxiety increases, the acceptance of disability decreases.

Unstandardized (*B*) and standardized (*β)* regression coefficients, and squared semi-partial (or 'part') correlations (sr^2) for each predictor at each step of the hierarchical MRA are reported in Table 7.

Table 7. The Hierarchical Multiple Regression Predicting Acceptance of Disability's Transformation Factor

Variable	*B* (95% *CI*)	*β*	Sr^2
Step 1			
Functioning	-.13 (-.16, .09)*	-.38	.15
Step 2			
Functioning	-.09 (-.13, -.05)*	-.28	.07
Anxiety	-.17 (-.21, -.12)*	-.39	.14

* p <.001.

As it can be seen from Table 7, both of the variables are significant predictors of transformation in the final regression model.

The last analysis was for the enlargement factor. At step 1 of the hierarchical MRA, overall functioning accounted for a significant 23% of the variance in the enlargement factor of the acceptance of disability, $R^2 = .23$, $F(1.245) = 73.51$, $p=.000$. At step 2, anxiety was added to the regression equation and accounted for an additional 12.3% of the variance in acceptance of disability, R^2 change = .12, F change (1.244) = 46.63, $p = .000$. In combination, the two predictor variables explained 35.4% of the variance in enlargement, $R^2 = .35$, adjusted $R^2 = .35$, $F = (2,244) = 66.92$, $p < .001$.

Unstandardized (B) and standardized (β) regression coefficients, and squared semi-partial (or 'part') correlations (sr^2) for each predictor at each step of the hierarchical MRA are reported in 8.

Table 8. The Hierarchical Multiple Regression Predicting Acceptance of Disability's Enlargement Factor

Variable	*B (95% CI)*	*B*	*Sr^2*
Step 1			
Functioning	*-.28 (-.35,-.22)**	*-.48*	*.23*
Step 2			
Functioning	*-.23 (-.29, -.16)**	*-.38*	*.14*
Anxiety	*-.28 (-.35, -.20)**	*-.36*	*.12*

** p<.001.*

As it can be seen from Table 8, both of the variables are significant predictors of enlargement in the final regression model.

Research hypothesis 10 was resiliency will account for a significant proportion of variance in acceptance of disability, beyond that already accounted for by overall functioning. To test this hypothesis, a hierarchical multiple regression analysis (MRA) was employed. Three individual analyses were done for each of the three factors of acceptance of disability. Therefore, the outcome variables changed for each analysis and they were the containment, transformation and enlargement factors of acceptance of disability. The predictor variable was resiliency and the control variable was overall functioning. These variables were the same for these three analyses.

Before interpreting the results of the MRA, a number of assumptions were tested, and checks were performed. First, stem-and-leaf plots and boxplots showed that each variable in the regression was normally distributed and free from Univariate outliers. Second, an inspection of the normal probability plot of standardized residuals against standardized predicted values indicated that the assumptions of normality, linearity and homoscedasticity of residuals were met. Third, Mahalanobis distance did not exceed the critical x^2 for df =3 (at alpha=.001) of 16.27 for any cases in the data file, indicating that multicollinearity would not interfere with our ability to interpret the outcome of the MRA.

The first analysis was for the containment factor. At step 1 of the hierarchical MRA, overall functioning accounted for a significant 10% of the variance in the containment factor of acceptance of disability, R^2=.10, F(1.245)=27.73, p=.000. At step 2, resiliency was added to the regression equation and accounted for an additional 12.8% of the variance in acceptance of disability, R^2 change= .13, Fchange (1.244)=40.48, p=.000. In combination, the two predictor variables explained 23% of the variance in containment, R^2=.23, adjusted R^2=.22,

F=(2,244)=36.34, *p*<.001. After controlling functioning, resiliency still has a statistically unique contribution in the regression model. As resiliency increases, the acceptance of disability increases.

Unstandardized (*B*) and standardized (*β)* regression coefficients, and squared semi-partial (or 'part') correlations (sr^2) for each predictor at each step of the hierarchical MRA are reported in Table 9.

Table 9. The Hierarchical Multiple Regression Predicting Acceptance of Disability's Containment Factor

Variable	*B* (95% *CI*)	*β*	Sr^2
Step 1			
Functioning	-.14 (-.20, -.09)*	-.32	.10
Step 2			
Functioning	-.11 (-.16, -.06)*	-.24	.06
Resiliency	.32 (.22, .42)*	.37	.13

* p<.001.

As it can be seen from Table 9, both of the variables are significant predictors of containment in the final regression model.

The second analysis was for the transformation factor. At step 1 of the hierarchical MRA, overall functioning accounted for a significant 14% of the variance in the transformation factor of acceptance of disability, R^2=.15, *F*(1,245)=41.60, *p*=.000. At step 2, resiliency was added to the regression equation and accounted for an additional 8.9% of the variance in the transformation factor of acceptance of disability, R^2 change= .09, *F* change (1.244)=28.32, *p*=.000. In

combination, the two predictor variables explained 23.4% of the variance in transformation, R^2=.23, adjusted R^2=.23, F= (2,244)=37.28, p<.001.

Unstandardized (B) and standardized (β) regression coefficients, and squared semi-partial (or 'part') correlations (sr^2) for each predictor at each step of the hierarchical MRA are reported in Table 10.

Table 10. The Hierarchical Multiple Regression Predicting Acceptance of Disability's Transformation Factor

Variable	B (95% CI)	β	Sr^2
Step 1			
Functioning	-.13 (-.16, -.09)*	-.38	.15
Step 2			
Functioning	-.10 (-.14, -.07)*	-.32	.10
Resiliency	.20 (.12, .27)*	.31	.09

* p<.001.

As it can be seen from Table 10, both of the variables are significant predictors of transformation in the final regression model.

The last analysis was for the enlargement factor. At step 1 of the hierarchical MRA, overall functioning accounted for a significant 23% of the variance in the enlargement factor of acceptance of disability, R^2=.23, F(1.245)=73.51, p=.000. At step 2, resiliency was added to the regression equation and accounted for an additional 6.4% of the variance in acceptance of disability, R^2 change= .06, F change (1.244)=22.24, p=.000. In combination, the two predictor variables explained 29.5% of the variance in enlargement, R^2=.30 , adjusted R^2=.29, F= (2,244)=51.06, p<.001.

Unstandardized (*B*) and standardized (*β)* regression coefficients, and squared semi-partial (or 'part') correlations (sr^2) for each predictor at each step of the hierarchical MRA are reported in Table 11.

Table 11. The Hierarchical Multiple Regression Predicting Acceptance of Disability's Enlargement Factor

Variable	*B* (95% *CI*)	*B*	Sr^2
Step 1			
Functioning	-.28 (-.35, -.22)*	-.48	.23
Step 2			
Functioning	-.25 (-.31, -.19)*	-.42	.17
Resiliency	.30 (.18, .43)*	.26	.06

* p<.001.

As it can be seen from Table 11, both of the variables are significant predictors of enlargement in the final regression model.

Research hypothesis 11 was acceptance of disability is higher for individuals with visual disability than other disability groups. A multivariate analysis (MANOVA) was used to examine the relationship of disability type and acceptance of disability (*N*= 242). Before conducting the MANOVA, the data were examined using PASW Statistics in order to be sure that all of its underlying assumptions were provided.

Univariate normality was assessed with Shapiro-Wilk tests and boxplots, and could be assumed. Additionally, no multivariate outliers were found in the data, supporting the assumption of multivariate normality. Correlations between the dependent variables showed that multicollinearity was problematic. Furthermore, the

relationships between the dependent variables were roughly linear. Finally, Box's *M* was non-significant at $\alpha = .001$, indicating that homogeneity of variance-covariance matrices could be assumed.

After these assumptions were supported, a MANOVA was conducted. The findings showed a significant effect of the disability type on the combined dependent variables, total acceptance of disability $F(3,238) = 18.10$, $p = .000$, partial eta squared = .19.

An analysis of the dependent variables individually showed effects for all of the variables. The enlargement variable was statistically significant at a Bonferroni adjusted alpha level of .017, $F(1,240) = 53.31$, $p = .000$, partial eta squared = .182. The transformation variable was statistically significant at a Bonferroni adjusted alpha level of .017, $F(1,240) = 9.47$, $p = .002$, partial eta squared = .038. Lastly, the containment variable was statistically significant at a Bonferroni adjusted alpha level of .017, $F(1,240) = 10.99$, $p = .001$, partial eta squared = .044. The individuals with disabilities who have visual disability have a higher enlargement (M=36.71), transformation (M=20.44) and containment (M=36.80), therefore a higher acceptance of disability than those who have other types of disabilities (M for containment = 26.23, M for transformation = 19.18, M for enlargement = 31.85).

CHAPTER 5

DISCUSSION

5.1 The purpose of the study

The main purpose of the current study was to adapt Linkowski's Acceptance of Disability Scale into Turkish. For this purpose, the further translation of the original scale, which had been already translated by a group of translators, was completed, a social model subscale was added, a field study was done and validity studies were completed. Another purpose of the study was to examine acceptance of disability and to find its relationship with functioning, anxiety and resiliency.

5.2 General discussion

5.2.1 Discussion about the first three steps of the current study

The aim of the further translation was to reach a more clear and correct translation of the items, which at the same time aims to produce a more understandable and non-offensive language for individuals with disabilities. Moreover, the aim of the integration of the social model was to renew the scale and add some items that represent an updated version of handling disability.

After these two steps, the field study was an opportunity to test the implications of the first two steps. Moreover, the field study included cognitive interviews with individuals with disability and these interviews were at the same time the evidence for content-related validity.

5.2.2 Discussion about the validation study

Discussion about steps of the validation study will be presented under separate subheadings in order to be clear and understandable.

5.2.2.1 Discussion about content-related evidence of validity

Content-related evidence of validity was a very influential step of this research. In this content-related evidence of validity stage, Dr. Engin Yılmaz was the biggest help and the most authoritative source of information. He was not only an individual with disability but a scholar whose own PhD dissertation was on the same topic. He devoted his time and knowledge to this study and his comments from the cognitive interview were very influential in the content validity stage.

5.2.2.2 Discussion about construct-related evidence of validity

5.2.2.2.1 Factorial validity and item construction

Construct-related evidence of validity of the current study consisted of two parts. The first one was factorial validity (in other words, the internal structure of the scale). For this kind of validity, several models were tested using AMOS 22.0.0. Only two of these models were reported because there were numerous models which had slight differences. However, these two models were the most distinctive ones; therefore, they were chosen. The first model was the five-factor model and it was chosen because it had the four factors of the original model in addition to the social model factor, which was designed by the current researcher. The social model factor was designed to be a distinct factor in the five-factor model because the aim was to see if six items of the social model can be integrated into the scale as a distinct factor

and to see if it was meaningful for the population of the study. However, the model fit of the five-factor model was weak, so many other models were also utilized.

The three-factor model was the model that had the best model fit; therefore, it was reported in the results chapter and it is the final model of the current study. There were three factors and some items were deleted in order to reach a stronger model fit.

To begin with, the subordination factor was taken out. The subordination factor consisted of five items:

Item 6: Good physical appearance and physical ability are the most important things in life.

Item 10: The most important thing in this world is to be physically capable.

Item 17: A physical disability affects a person's mental ability.

Item 29: You need a good and whole body to have a good mind.

Item 38: Physical wholeness and appearance make a person who s/he is.

It was observed by the researcher that these items were identified by the majority of the participants as offensive and the participants reacted to these items for several reasons. The first two items were confusing for the participants as majority of them found the expression 'the most important thing in life/world' exaggerated and some compared physical appearance with God or religious beliefs and underlined that nothing can be the most important thing besides religion. Moreover, some compared physical appearance and abilities with family and especially with their own children and found this expression even annoying, again claiming that nothing can be more important than family. Thus, as these items were controversial for the participants, the researcher had a doubt about the accuracy of the answers.

Item 29 was controversial as well. It is the Turkish translation of a saying by Mustafa Kemal Atatürk and some of the participants agreed with this item as it was familiar for them and as they respected Atatürk. There were some participants who wanted to go back to this item and asked questions about it. Some even felt guilty to not agree with Atatürk's saying even though they did not think physical appearance is related with good mind. Therefore, this item was problematic and the results would be problematic as well.

Lastly, item 38 was problematic because its language was very complicated and the participants could not get the meaning especially when they were tired after answering the first 37 items.

All in all, the researcher observed that these items had the listed problems and the results showed that subordination had no correlation with overall functioning (the correlation was not significant) and very low correlation with anxiety (r = -.272) and resiliency (r = .176). These results showed that the subordination factor, which means an individual understands and places less emphasis on the aspects of his/her appearance and physical ability that conflict with his/her disability, is not meaningful for the Turkish society. For several reasons such as religion, beliefs and family bonds, people with disability could have faith and trust and they did not associate placing less emphasis on physical ability and appearance with acceptance of disability. Therefore, this factor was deleted and the deletion made the model fit much batter.

The social model was a subfactor, which was integrated into the enlargement factor. This made the model fit stronger when the measures were checked. This can be logical as the social model is a relatively new phenomenon in the world and it is a very new way of perceiving disability for the Turkish culture. Enlargement means

individuals with disabilities are aware that there are many other values that are not in conflict with their own disability. The social model, based on the understanding that disability is caused by the limits, constructs and handicaps of the society, is a totally new concept for Turkey and the items of these two factors are the only items which are positive in the ADS, so the social model subfactor and enlargement may be perceived as too similar by the participants of the current study.

There were also some deleted items in order to have a stronger internal structure. Specifically, one item from containment (I1 of the five-factor model), three items from the social model (I5, I11 and I16 of the five-factor model), one item from the enlargement factor (I21 of the five-factor model) and three items from the transformation factor (I28, I31 and I33 of the five-factor model) were extracted (Appendix E).

Item 1 was, “With my disability, all areas of my life are affected in some major way.” This item may be seen vague as “all areas” and “some major way” may have seemed confusing for the participants. The same may have been true for item 31, which was “If I didn't have my disability, I think I would be a much better person.” Many participants asked, “Much better in which sense?” and could not figure out the meaning of the questions. Again for item 33, which was “People with disabilities are able to do well in many ways”, they had doubts and these items’ results may not be clear enough, as they could not be understood by the participants. Thus their elimination contributed to the model fit of the Turkish Acceptance of Disability Scale.

Item 5, 11 and 16 were created by the researcher and the experts who contributed to this research. These were added to the scale in order to add a social model perspective and make this scale more up-to-date. However, the participants

may not perceive these items clearly as the social model is a new concept for Turkey. These items were underlining the fact that disability is a not a lack or deficiency of the individual but it is caused by the lacks and boundaries of the society. They did not contain any self-pity or despair but they were not meaningful for the Turkish society and the model fit became stronger when they were deleted in the three-factor model. It can be interpreted that the society is still not ready for this point of view.

Item 21 was "There are many more important things in life than physical ability and appearance." This item was very similar to the subordination factor's items even though it was one of the items of the enlargement factor. It is again about physical appearance and ability and it made sense that it was problematic for the scale. Its removal made the Turkish Acceptance of Disability Scale's model fit stronger.

Item 28 was "A disability such as mine is the worst possible thing that can happen to a person." This item got so many comments by the participants and they generally found it offensive as it contradicts with their religious beliefs. They praised God for their current condition and felt guilty to be agreeing with this kind of statement. However, as the items were read to majority of the participants, their answers may have differed if they had done the survey by themselves. The results were not suitable for the participants or representative of the Turkish society, and when this item was deleted, the model fit became stronger.

5.2.2.2.2 Predictions about group differences

Testing previously generated hypotheses about group differences provided construct-related validity evidence for the current study. For this purpose, five hypotheses were tested.

Hypothesis 1 was acceptance of disability increases as the income of the individual increases. This hypothesis was suggested in order to understand the relationship between acceptance of disability and income level. Previous research showed that high family income was associated with high acceptance of disability (Li & Moore, 1998). The hypothesis was correct for the current study too, as the results of the current study showed that acceptance of disability increases as the income of the individual increases.

When Turkey's life conditions and welfare were considered, this finding was understandable. While conducting the research, the researcher observed that there were many participants who had no income and participants were not satisfied about the wages they received from the government. Having a high income might smooth the life conditions for individuals and might contribute to their acceptance of disability.

However, this study showed that only one factor, which is enlargement, was higher for individuals who have a high income. The enlargement factor means that the individual is aware that there are many other values that are not in conflict with his/her own disability. Having financial support might contribute to this awareness, as the individual might not need to struggle in life financially. However, there was no significant relationship with the transformation and containment factors of acceptance of disability.

Hypothesis 2 was individuals with disabilities who are employed will have a higher acceptance of disability than those who are unemployed or retired. The data of the current study showed that individuals who were employed had a higher acceptance of disability than those who were unemployed or retired. It was logical as participation in life might affect the individuals positively and this finding was

supported by the previous research (Li & Moore, 1998; Araten-Bergman et al., 2015). Moreover, Melamed et al. (1992) found acceptance of disability and work involvement were related as well.

The current study showed that the individuals with disabilities who were working have a higher enlargement and transformation than those who were retired or unemployed. It is understandable as working makes the individuals a part of the society and life and enables them to feel as a full member of the community. Therefore, they would have enlargement of scope of values and transformation from comparative values to asset values. However, containment had no significant relationship with work status. Many participants of the study reported that moving around in Istanbul was very challenging for individuals with disability as the roads and transportation were very challenging and not suitable for individuals with disabilities. Therefore, continuing to work means facing all of these challenges and difficulties for them, and hence they could involuntarily expand and intensify their disability condition to other aspects of functioning self.

Hypothesis 3 was acceptance of disability increases as the education level of the individual increases. The current study's results show that all of the factors of acceptance of disability were statistically significant and individuals with a high education level had a high level of acceptance of disability. Although there were contradictive findings about education level and acceptance of disability, the previous research found a significantly related relationship between education level and acceptance of disability, which supports the current studies' findings (Woodrick & Patterson, 1983; Thomas, 1976; Li & Moore, 1998; Araten-Bergman et al., 2015; Chao, Tsai, Livneh, Lee & Hsieh, 2010).

An increase in the education level does not only indicate high intellectual capacity, but it means that these individuals were active participants of the society who attended to school, who had social interactions with classmates and teachers and who might have had a profession. These might be the reasons that affected the individuals' acceptance levels and further research could give valuable information.

Hypothesis 4 was acceptance of disability is higher for individuals with a congenital disability than individuals who have an acquired disability. This was one of the hypotheses that were suggested based on the previous literature. The previous literature showed that acceptance of disability was higher for individuals with a congenital disability than individuals who had an acquired disability (Li & Moore, 1998; Aceron & Savage, 2004). The current research showed that this hypothesis was correct. According to the results, two factors of the acceptance of disability, which were enlargement and transformation, were statistically significant and were higher for individuals with a congenital disability. This means that individuals who had a disability at birth have a higher awareness that there are many other values that are not in conflict with their own disability and they did not compare their limitations with the others but accented their own abilities and assets. These are understandable as having a disability since birth, they maintain their identity with it and have a higher acceptance than others. However, the containment factor was not statistically significant.

Hypothesis 5 was acceptance of disability is higher for individuals who are younger. The results of the current research showed that this hypothesis was valid and the current research had parallel results with the previous research on acceptance of disability. As previous research on acceptance of disability showed that acceptance of disability is higher for individuals who are younger (Li & Moore,

1998; Woodrick & Patterson, 1983; Chen et al., 2015), gathering the same results was an evidence for construct validity for the current research.

However, when the size and the direction of the linear relationship between age and the three factors of acceptance of disability were assessed, only the transformation and containment factors were significant. It means that only the transformation and containment factors of acceptance of disability were higher for individuals who were younger. Thus, young individuals with disabilities do not compare their limitations as much as older individuals do and they do not intensify their disability conditions to other aspects of themselves which are not related with their disability as much as older individuals do.

5.2.2.3 Discussion about criterion-related evidence of validity

Criterion-related evidence of validity showed that three factors of the Turkish Acceptance of Disability Scale, which were transformation, enlargement and containment, had statistically significant correlations with anxiety, resiliency and overall functioning. As anxiety, resiliency and overall functioning were criterion measures too and a high correlation predicts a better criterion-related evidence of validity, the Turkish Acceptance of Disability was a valid measurement. The subordination factor of the original scale (the five-factor model in the current study) did not have any correlation with the overall functioning and low correlations with anxiety and resiliency, so the Turkish scale became a more valid measurement after deleting all of the items of this factor.

There were three hypotheses suggested in this part of the current study about the relationship between anxiety and acceptance of disability, resiliency and acceptance of disability and overall functioning and acceptance of disability.

Hypothesis 6 was there is a negative correlation between anxiety and the three factors of acceptance of disability. The findings showed that this hypothesis was true and there is a negative correlation between anxiety and the transformation, enlargement and containment factors of acceptance of disability. The fact that this hypothesis was true sustained criterion validity evidence for the current study as it is parallel to the previous research about anxiety and acceptance of disability correlation (Attawong & Kovindha, 2005; McCracken & Zhao-O'Brien, 2010; Casier et al., 2008).

Hypothesis 7 was there is a positive correlation between resiliency and the three factors of acceptance of disability. According to the findings of the current research, this hypothesis was true as all of the three factors of the Turkish Acceptance of Disability scale were found to be positively correlated with resiliency. This finding was supported by previous research (Berry et al., 2007; Fujikawa et al., 2013; Catalano, 2006); therefore, it is a criterion validity evidence.

Resilience is a popular psychology term studied very commonly, and it was suggested by the members of the expert panel as evidence for the criterion validity. The experts, after studying and debating about acceptance of disability, suggested that resilience and acceptance of disability should be positively correlated and the current study supports their suggestion and the previous findings.

Hypothesis 8 was there is a positive correlation between overall functioning and the three factors of acceptance of disability. The current study's findings proved that this hypothesis was correct and there was a positive correlation between an individual's overall functioning and acceptance of disability. This finding was supported by the previous research as it was found that individuals with low functioning had low acceptance of disability (Chiu et al., 2013). This finding

sustained criterion validity evidence for the current study because functioning was suggested by the expert panel to be one of the criterion factors of the current research. This was important because with the overall functioning, it was possible to measure the disability conditions of the individuals. .

Overall functioning was measured with the 12-item WHODAS II Scale, which measured functioning including cognition, mobility, self-care, getting along, life activities and participation (WHO, 2014). The participants who had high overall functioning were found to have high acceptance of disability, so the participants who understood and communicated better, had higher mobility, had better self-hygiene, had higher interactions with others, had high ability to maintain domestic, school, leisure and work activities and joined more social activities, and thus had a higher acceptance of disability (WHO, 2014).

5.2.2.4 Discussion about reliability-internal consistency

When it comes to reliability-internal consistency, the Turkish Acceptance of Disability Scale's alpha coefficients ranged from .75 to .85. Even though the original scale's factors and the items were different, the alpha coefficients can still be compared, keeping this difference in mind. The original Acceptance of Disability Scale's transformation factor's alpha coefficient was .88, enlargement factor's alpha coefficient was .82, containment factor's alpha coefficient was .88 and subordination factor's alpha coefficient was .71 (Grooms, 2007). It means that the alpha coefficients ranged from .71 to .88. As it can be seen, these ranges are close, so the internal consistency of the Turkish Acceptance of Disability Scale is as strong as that of the original one. So, the Turkish Acceptance of Disability Scale produces internally consistent results.

5.3. Discussion of the second part of the study

Apart from completing the adaptation of the Acceptance of Disability Scale, the current study aimed to examine acceptance of disability in greater depth. For this purpose, three more hypotheses were suggested by the researcher and their findings will be discussed under this heading.

Hypothesis 9 was anxiety will account for a significant proportion of variance in acceptance of disability, beyond that already accounted for by overall functioning. This hypothesis was suggested by the researcher in order to understand the real effect of anxiety on acceptance of disability. It was already understood that anxiety and acceptance of disability were negatively correlated and this correlation was -.47 for all of the factors of acceptance of disability. However, the participants' disability types and severity were different, so the researcher thought that anxiety would account for a significant proportion of variance in acceptance of disability, beyond that already accounted for by overall functioning.

The overall functioning was measured with WHODAS II. When WHODAS II results were controlled and taken out of the account, the variance would only indicate the relationship between anxiety and acceptance of disability because the overall functioning scores showed how disability affected the participants' lives regardless of the type of disability or severity of it. It was the best way to measure the effect of disability.

The results of the current study showed that this hypothesis was correct and anxiety accounted for a significant proportion of variance in acceptance of disability beyond that already accounted for by the overall functioning.

Hypothesis 10 was resiliency will account for a significant proportion of variance in acceptance of disability, beyond that already accounted for by overall functioning. This hypothesis was suggested by the researcher in order to understand the real effect of resiliency on acceptance of disability. It was already understood that resiliency and acceptance of disability were positively correlated and this correlation was .43 for the containment, .38 for the transformation and .35 for the enlargement factors of acceptance of disability. However, the participants' disability types and severity were different, so the researcher thought that resiliency would account for a significant proportion of variance in acceptance of disability, beyond that already accounted for by overall functioning.

The overall functioning was measured with WHODAS II. When WHODAS II results were controlled and taken out of the account, the variance would only indicate the relationship between resiliency and acceptance of disability because the overall functioning scores showed how disability affected the participants' lives regardless of the type of disability or severity of it. It was the best way to measure the effect of disability.

The results of the current study showed that this hypothesis was correct and resiliency accounted for a significant proportion of variance in acceptance of disability beyond that already accounted for by the overall functioning.

Hypothesis 11 was acceptance of disability is higher for individuals with visual disability than other disability groups. The researcher suggested this hypothesis after she made observations while conducting the research, getting feedback from the participants and completing the cognitive interviews. Although there was no previous research to suggest that individuals with visual disability had a

higher acceptance of disability than individuals with other types of disabilities in Turkey, her interactions gave her the idea.

The results showed that this hypothesis was correct. All of the three factors, which were transformation, enlargement and containment, were statistically significant and they were higher for individuals with visual disability.

The fact that individuals with visual disability have a higher overall functioning than the participants with other disability types was probably the reason behind this finding. They could move easier when they were accompanied by another person. However, individuals with physical disabilities need help and even lifting from another person as the roads are not suitable for wheelchairs and there are many stairs in public places and in apartments without elevators. These make the transportation of these individuals painful and challenging. Therefore, they cannot participate in society and social life as much as others; they cannot go to school easily or engage in a job. Moreover, the feedback of the individuals with kidney disease showed that they become extremely tired and they cannot stand or walk if there is a time interval between two dialysis sessions. These comments made the researcher study this hypothesis and the findings showed it was true. However, further research is needed to support this finding and uncover the reasons behind it.

5.4. Implications of the study

This study had many implications in terms of psychological counseling. The first implication of the current study showed that there is a negative correlation between anxiety and acceptance of disability. This finding contributes immensely to counseling because psychological counselors can aim to reduce the anxiety of their clients with disabilities. Many individual therapy and group therapy sessions can be

planned by the psychological counselor to help their clients deal with anxiety and to have a higher level of acceptance of disability.

According to Groomes and Leahy (2002), the meaning that an individual with disability attributes to a stressful situation is related to their acceptance of disability. In the light of this suggestion and the findings of the current study, psychological counselors and clients might work together on anxiety and the meaning that individuals attribute to their anxiety to move forward in acquiring acceptance of disability. This study underlined the importance of anxiety, as previously suggested by many researchers as an important issue to be handled for individuals with disabilities (Craig et al., 2007; Attawong & Kovindha, 2005).

The second implication of this study is the importance of resiliency. The study showed that resiliency is positively correlated with acceptance of disability. It means that individuals with higher resiliency have a higher acceptance of disability. This is a very influential finding in terms of psychological counseling because the therapeutic process can be planned by psychological counselors to strengthen the clients' resilience levels. With individual and group therapy, clients can have awareness about the importance of resilience and gather psychological strength and elasticity to smooth their process of acceptance of disability.

The third implication of the study is that the research shows that a high education level is related with a high acceptance of disability. This is a good and fruitful insight for the government to plan further for increasing the education level of individuals with disabilities. Schools, courses, workshops can be organized and their participation in education to acquire an occupation or proficiency can be increased in order to contribute to their acceptance of disability.

The fourth implication of the study is it suggested that the employment status contributes to individuals' acceptance of disability. As individuals who work have a higher acceptance of disability than those who are unemployed or retired, when job opportunities are increased for people with disability, they can attend to work life more and it will again contribute to their acceptance of disability.

Moreover, as the fifth implication, the study suggests that a high income increases the acceptance level of individuals. Being employed is associated with these findings and if job opportunities increase, it would increase the income of the individuals as well. Also, the disability wage can be regulated again to increase the individuals' income to contribute to their acceptance of disability.

On the other hand, the Turkish Acceptance of Disability is the first scale in Turkish to measure the acceptance level of individuals with disability and it would definitely contribute to the disability studies in Turkish. There is a great need for future studies in this area, and this study is important, as it can be helpful to future researchers.

5.5. Limitations

There were some limitations to the current study. First of all, there was a data collection technique limitation. The items in the scale were read to many of the participants and they shared their answers and these answers were written down by the researcher. This technique was mandatory as participants with tetraplegia were not able to use their hands, participants with visual disabilities were not able to read Braille or individuals with kidney disease were connected to the dialysis and lying on a bed during the research study so they were not able to write at that moment. As a

result, even though this design was the ultimate solution, this may have affected the answers of the participants.

Secondly, sample size can be considered as a limitation as well. Adaptation studies require a higher number of participants; however, the disability group can be considered as a hidden population in Turkey. Due to the drawbacks of the society and the conditions in Turkey, the disability population was not visible and hard to reach. Moreover, as disability studies are handled generally with a lower number of participants in the world, this study had a sample size of 252 participants. Reaching 252 participants required a lot of effort and time, but still it was one of the limitations of the current study.

Moreover, access was another limitation. In order to increase this number, the researcher tried to reach many centers of different municipalities of Istanbul by preparing a huge amount of paperwork, but could not receive permission. It is hard to get permission for a research in Turkey especially from the Family and Social Policy Department and this was one of the most important limitations of the current study.

Additionally, there was another limitation about the statistics section of the current research. The numbers of participants from each disability type were not equal and there were more participants with visual disability than other disability types. Therefore, the current researcher could not make statistical calculations about each disability type but divided the sample into two groups: individuals with visual disability and individuals with other disabilities. As a result of this, specific information about individuals with other kinds of disabilities could not be gathered from the current sample.

Lastly, the new Turkish Acceptance of Disability Scale cannot be used in cross-cultural studies and it a limitation of the current study. The items were changed

and there are some totally new items in the new scale. Also, some items were deleted, so the scale would not work for future cross-cultural research on acceptance of disability.

5.6. Recommendations for future research

Conducting a research was a long and educating process and at the end the researcher's recommendations and suggestions could be contributive and helpful for future researchers. At the end of this research, it is recommended for future researchers to try to revise the Turkish Acceptance of Disability Scale with adding a social model perspective to the current scale in the following years. Even though six items were added to the scale, three of them were deleted in order to have a stronger model fit. It was interpreted that the society is not ready for the social model perspective or the social model is still a new perspective for the Turkish society. However, with education, people can see disability differently, according to the social model, and then this scale can be revised or a new scale can be constructed.

Moreover, the Turkish Acceptance of Disability Scale's validation studies for other disability groups can be done with future research. Chronic illnesses and individuals with hearing disability are the suggestions of the researcher, but these examples can be increased.

On the other hand, the current researcher observed that in some medical settings, it was hard to administer the Turkish Acceptance of Disability Scale. Especially when the items were read to the individuals with visual disability and individuals with tetraplegia or individuals with kidney failure during the dialysis sessions, the conduct of the current scale was challenging and exhausting. So, it is recommended for future research to create a shorter version of the scale for a more practical usage to eliminate these problems.

5.7. Conclusion

Even though the current study had some limitations, the current researcher strongly believes as a result of this study, the new Turkish Acceptance of Disability can be used in clinical settings and certainly will contribute to the psychological counseling processes of individuals with disability. Also, its usage will contribute to the disability studies in Turkey. Moreover, this study's findings contribute to acceptance of disability literature and may encourage many researchers to conduct more studies in this area.

APPENDIX A

ORIGINAL ACCEPTANCE OF DISABILITY SCALE

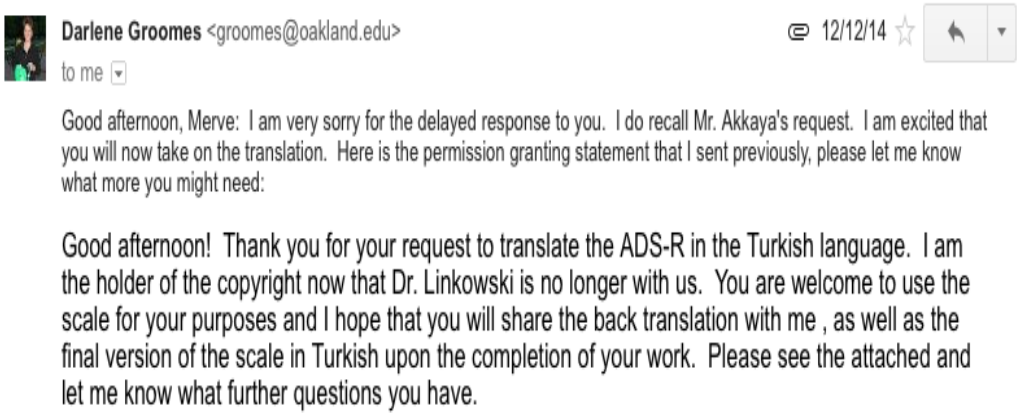
Read each statement below and circle the number that indicates to what extent you agree or disagree with the statement.					
		Strongly Disagree	Disagree	Agree	Strongly Agree
C	1. With my disability, all areas of my life are affected in some major way.	1	2	3	4
T	2. Having my disability, I am unable to do things like people without disabilities do.	1	2	3	4
E	3. Disability or not, I am going to make good in life.	1	2	3	4
T	4. Because of my disability, I have little to offer other people.	1	2	3	4
S	5. Good physical appearance and physical ability are the most important things in life.	1	2	3	4
E	6. A person with a disability is restricted in certain ways, but there is still much s/he is able to do.	1	2	3	4
T	7. No matter how hard I try or what I accomplish, I could never be as good as the person who does not have my disability.	1	2	3	4
C	8. It makes me feel very bad to see all the things that people without disabilities can do that I cannot.	1	2	3	4
S	9. The most important thing in this world is to be physically capable.	1	2	3	4
T	10. Because of my disability, other people's lives have more meaning than my own.	1	2	3	4
C	11. Because of my disability, I feel miserable much of the time.	1	2	3	4
	12. Though I have a disability, my life is full.	1	2	3	4

E					
T	13. The kind of person I am and my accomplishments in life are less important than those of persons without disabilities.	1	2	3	4
S	14. A physical disability affects a person's mental ability.	1	2	3	4
C	15. Since my disability interferes with just about everything I try to do, it is foremost in my mind practically all of the time.	1	2	3	4
E	16. There are many things a person with my disability is able to do.	1	2	3	4
C	17. My disability in itself affects me more than any other characteristic about me.	1	2	3	4
E	18. There are many more important things in life than physical ability and appearance.	1	2	3	4
T	19. Almost every area of life is closed to me.	1	2	3	4
C	20. My disability prevents me from doing just about everything I really want to do and from becoming the kind of person I want to be.	1	2	3	4
E	21. I feel like an adequate person regardless of the limitation of my disability.	1	2	3	4
C	22. My disability affects those aspects of life that I care most about.	1	2	3	4
T	23. A disability such as mine is the worst possible thing that can happen to a person.	1	2	3	4
S	24. You need a good and whole body to have a good mind.	1	2	3	4
E	25. There are times that I completely forget that I have a disability.	1	2	3	4
T	26. If I didn't have my disability, I think I would be a much better person.	1	2	3	4
	27. When I think of my disability, it makes me so sad and upset that I am unable to do anything else.	1	2	3	4

C					
T	28. People with disabilities are able to do well in many ways.	1	2	3	4
E	29. I feel satisfied with my abilities and my disability does not bother me too much.	1	2	3	4
C	30. In just about everything, my disability is annoying to me so that I can't enjoy anything.	1	2	3	4
S	31. Physical wholeness and appearance make a person who s/he is.	1	2	3	4
E	32. I know what I can't do because of my disability, and I feel that I can live a full life.	1	2	3	4

APPENDIX B

PERMISSION TO USE THE SCALE



Darlene Groomes <groomes@oakland.edu> 12/12/14

to me

Good afternoon, Merve: I am very sorry for the delayed response to you. I do recall Mr. Akkaya's request. I am excited that you will now take on the translation. Here is the permission granting statement that I sent previously, please let me know what more you might need:

Good afternoon! Thank you for your request to translate the ADS-R in the Turkish language. I am the holder of the copyright now that Dr. Linkowski is no longer with us. You are welcome to use the scale for your purposes and I hope that you will share the back translation with me , as well as the final version of the scale in Turkish upon the completion of your work. Please see the attached and let me know what further questions you have.

APPENDIX C

THE FIRST TRANSLATION OF THE SCALE

İfadelerin her birini okuyun ve sizin için ne kadar geçerli olduğunu işaretleyin.					
		Hiç katılmıyorum	Kısmen katılıyorum	Katılıyorum	Tamamıyla katılıyorum
1. C	Sahip olduğum engelden dolayı hayatımın her alanı büyük ölçüde etkileniyor.	1	2	3	4
2. T	'Engelli' olan biri olarak, işlerimi engeli olmayan insanların yaptıkları gibi yapamıyorum.	1	2	3	4
3. E	Engelli veya değil, hayatı değerli kılacağım.	1	2	3	4
4. T	Engelimden dolayı, başka insanlara sunacağım çok az şey var.	1	2	3	4
5. S	İyi fiziksel görünüş ve fiziksel yeterlilikler hayattaki en önemli şeylerdir.	1	2	3	4
6. E	Engeli olan bir insan belirli şekillerde kısıtlıdır; ancak hala yapabileceği çok şey vardır.	1	2	3	4
7. T	Ne kadar uğraşırsam uğraşayım ya da neyi başarırsam başarayım hiçbir zaman engeli olmayan biri kadar iyi olamam.	1	2	3	4
8. C	Engeli olmayan insanların benim yapamadığım onca şeyi yapabildiğini görmek kendimi kötü hissetmeme neden oluyor.	1	2	3	4
9. S	Dünyadaki en önemli şey fiziksel yeterliliğe sahip olmaktır.	1	2	3	4
10.	Engelim yüzünden diğer insanların hayatları benimkinden daha anlamlı.	1	2	3	4

T					
11. C	Engelimden dolayı çoğu zaman kendimi berbat hissediyorum.	1	2	3	4
12. E	Engelim olmasına rağmen hayatım dolu dolu geçiyor.	1	2	3	4
13. T	Nasıl bir insan olduğum ve benim hayattaki başarılarım, engeli olmayan insanlarınkinden daha önemsizdir.	1	2	3	4
14. S	Fiziksel bir engel kişinin zihinsel yeteneklerini de etkiler.	1	2	3	4
15. C	Engelim, yapmaya çalıştığım her şeye mani olduğu için, neredeyse her zaman kafamı meşgul eder.	1	2	3	4
16. E	Benim gibi engeli olan insanların yapabileceği çok şey var.	1	2	3	4
17. C	Diğer tüm özelliklerimden ziyade, engelimin kendisi beni daha çok etkiliyor.	1	2	3	4
18. E	Hayatta fiziksel yeterlilik ve dış görünüşten daha önemli birçok şey var.	1	2	3	4
19. T	Hayatın neredeyse her alanı bana kapalı.	1	2	3	4
20. C	Engelim, beni neredeyse yapmak istediğim her şeyi yapmaktan ve olmak istediğim gibi bir insan olmaktan alıkoyuyor.	1	2	3	4
21. E	Engelimin koyduğu sınırlar ne olursa olsun, kendi kendime yeterli bir insan gibi hissediyorum.	1	2	3	4
22. C	Engelim hayatımın en önem verdiğim yönlerini etkiliyor.	1	2	3	4
23. T	Benimki gibi bir engelinin olması bir insanın başına gelebilecek muhtemel en kötü şeydir.	1	2	3	4

24. İyi bir kafaya sahip olmak için tam bir bedene sahip olmak gerekir. S	1	2	3	4
25. Engelim olduğunu tamamen unuttuğum zamanlar oluyor. E	1	2	3	4
26. Engelim olmasaydı, çok daha iyi bir birey olabileceğimi düşünüyorum. T	1	2	3	4
27. Engelimi düşündüğüm zaman beni o kadar üzüyor ve sarsıyor ki başka bir şey yapamıyorum. C	1	2	3	4
28. Engeli olan insanlar birçok şeyi iyi yapabilirler. T	1	2	3	4
29. Yapabildiklerimden çok memnunum ve engelim beni çok fazla rahatsız etmiyor. E	1	2	3	4
30. Engelim, neredeyse her konuda beni o kadar rahatsız ediyor ki, hiç bir şeyden keyif alamıyorum. C	1	2	3	4
31. Bir insanı kendisi yapan şey fiziksel bütünlük ve görünümdür. S	1	2	3	4
32. Engelim yüzünden yapamayacağım şeyleri biliyorum ve hayatı dolu dolu yaşayabileceğimi hissediyorum. E	1	2	3	4

APPENDIX D

İNAREK ETHICS COMMITTEE'S APPROVAL

BOĞAZİÇİ ÜNİVERSİTESİ
İnsan Araştırmaları Kurumsal Değerlendirme Kurulu (İNAREK) Toplantı Tutanağı
2013/6

16.12.2013

Merve Şen,
Boğaziçi Üniversitesi Eğitim Fakültesi, Eğitim Bilimleri Bölümü, Bebek İstanbul
merve.sen@boun.edu.tr

Sayın Araştırmacı,

"Engelliliği Kabul Ölçeği'nin Türkçeye Adaptasyonu" başlıklı projeniz ile yaptığınız Boğaziçi Üniversitesi İnsan Araştırmaları Kurumsal Değerlendirme Kurulu (İNAREK) 2013/78 kayıt numaralı başvuru 16.12.2013 tarihli ve 2013/6 sayılı kurul toplantısında incelenerek etik onay verilmesi uygun bulunmuştur.

Saygılarımızla,

Prof. Dr. Hande Çağlayan (Başkan)
Moleküler Biyoloji ve Genetik Bölümü,
Fen-Edebiyat Fakültesi, Boğaziçi Üniversitesi,
İstanbul

Yrd. Doç. Dr. Özgür Kocatürk
Biyo-Medikal Mühendisliği Enstitüsü
Boğaziçi Üniversitesi,
İstanbul

Prof. Dr. Betül Baykan-Baykal
Nöroloji Bölümü, İstanbul Tıp Fakültesi ,
İstanbul Üniversitesi,
İstanbul

Yrd. Doç. Dr. Özlem Hesapçı
İktisadi ve İdari Bilimler Fakültesi,
İşletme Bölümü, Boğaziçi Üniversitesi,
İstanbul

Prof. Dr. Yeşim Atamer
Hukuk Fakültesi, İstanbul Bilgi Üniversitesi,
İstanbul

Yrd. Doç. Dr. Ekin Eremsoy
Psikoloji Bölümü, Doğuş Üniversitesi,
İstanbul

APPENDIX E

THE SOCIAL MODEL INTEGRATED TURKISH ADS

ENGELLİLİĞİ KABUL ANKETİ

İfadelerin her birini okuyun ve sizin için ne kadar geçerli olduğunu işaretleyin.

	Hiç katılmıyorum	Kısmen katılıyorum	Katılıyorumm	Tamamıyla katılıyorum
1. Engelimden dolayı hayatımın her alanı büyük ölçüde etkileniyor.	1	2	3	4
2. İşlerimi engeli olmayan bireylerin yaptıkları gibi yapamıyorum.	1	2	3	4
3. Engelli ya da engelsiz, hayatta iyi şeyler yapacağım.	1	2	3	4
4. Engelimden dolayı başka insanlar için yapabileceklerim sınırlı kalıyor.	1	2	3	4
5. Aynı işi engeli olmayan birine göre farklı yöntemlerle yapabilirim.	1	2	3	4
6. Fiziksel görünüş ve beceriler hayattaki en önemli şeylerdir.	1	2	3	4
7. Engelli bireyler belirli alanlarda kısıtlılık yaşasalar da hala yapabilecekleri çok şey vardır.	1	2	3	4
8. Ne kadar uğraşsam da engeli olmayan biri kadar başarılı olamam.	1	2	3	4
9. Engeli olmayan bireylerin benim yapamadıklarımı yapabiliyor olması kendimi kötü hissettiriyor.	1	2	3	4
10. Fiziksel becerilere sahip olmak dünyadaki en önemli şeydir.	1	2	3	4
11. Bazı yaşam alanlarına erişemememin sebebinin engelimden çok oradaki eksik düzenlemelerdir.	1	2	3	4
12. Engellilik durumum hayatımı anlamsız kılıyor.	1	2	3	4
13. Engelimden dolayı çoğu zaman kendimi kötü hissediyorum.	1	2	3	4
14. Engelim olmasına rağmen hayatım dolu dolu geçiyor.	1	2	3	4
15. Engelsiz insanlarla mukayese edildiğinde nasıl bir insan olduğum ve hayattaki başarılarım önemsizdir.	1	2	3	4
16. Fiziksel becerilerim ve dış görünüşüm benim için bir mutsuzluk kaynağı değil.	1	2	3	4
17. Fiziksel bir engel kişinin zihinsel becerilerini de etkiler.	1	2	3	4
18. Engellilik durumum yapmaya çalıştıklarıma mani olduğu için zihnimi meşgul eder.	1	2	3	4
19. Benim gibi engeli olan bireylerin yapabileceği çok şey var.	1	2	3	4
20. Beni en çok etkileyen özelliğim engellilik				

durumum.	1	2	3	4
21. Hayatta fiziksel beceri ve dış görünüşten daha önemli şeyler vardır.	1	2	3	4
22. Engelimin yaşamın her alanını bana kapattığını düşünüyorum.	1	2	3	4
23. Engellilik durumum, kendi kendime yetebilmeme engel değildir.	1	2	3	4
24. Engelim, beni neredeyse yapmak istediğim her şeyi yapmaktan ve olmak istediğim gibi bir birey olmaktan alıkoyuyor.	1	2	3	4
25. Engelimin koyduğu kısıtlar ne olursa olsun, kendi kendime yetebilen bir birey gibi hissediyorum.	1	2	3	4
26. Çoğu zaman kötü hissetmemin sebebi engelimin kendisi değil insanların takındığı tutumlardır.	1	2	3	4
27. Engelim, hayatın en önem verdiğim yönlerini etkiliyor.	1	2	3	4
28. Bir insanın başına gelebilecek en kötü şey benim gibi engelli olmasıdır.	1	2	3	4
29. Sağlam kafa sağlam vücutta bulunur.	1	2	3	4
30. Engelimi tamamen unuttuğum zamanlar oluyor.	1	2	3	4
31. Engelim olmasaydı, daha iyi bir birey olurdum.	1	2	3	4
32. Engelimi düşündüğüm zaman o kadar üzülüyor ve keyfim kaçıyor ki başka bir şey yapamaz hale geliyorum.	1	2	3	4
33. Engeli olan insanlar birçok şeyi başarılı bir şekilde yapabilirler.	1	2	3	4
34. Engelim beni fazla rahatsız etmiyor.	1	2	3	4
35. Hayatta yapabildiklerimden memnunum.	1	2	3	4
36. Engelim, neredeyse her konuda beni o kadar rahatsız ediyor ki, hiç bir şeyden keyif alamıyorum.	1	2	3	4
37. Çevresel bariyerler olmasa, fiziksel farklılığım bir engel olmazdı.	1	2	3	4
38. İnsanı kendisi yapan fiziksel bütünlüğü ve görünümüdür.	1	2	3	4

APPENDIX F

BRIEF RESILIENCE SCALE

KISA PSİKOLOJİK SAĞLAMLIK ANKETİ

İfadelerin her birini okuyun ve sizin için ne kadar geçerli olduğunu işaretleyin.

	Hiç uygun değil	Uygun değil	Biraz uygun	Uygun	Tamamen uygun
1. Sıkıntılı zamanlardan sonra kendimi çabucak toparlayabilirim.	1	2	3	4	5
2. Stresli olayların üstesinden gelmekte güçlük çekerim.	1	2	3	4	5
3. Stresli durumlardan sonra kendime gelmem uzun zaman almaz.	1	2	3	4	5
4. Kötü bir şeyler olduğunda bunu atlatmak benim için zordur.	1	2	3	4	5
5. Zor zamanları çok az sıkıntıyla atlatırım.	1	2	3	4	5
6.Hayatımdaki olumsuzlukların etkisinden kurtulmam uzun zaman alır.	1	2	3	4	5

APPENDIX G

TURKISH FORM OF THE TRAIT ANXIETY SCALE

SÜREKLİ KAYGI ANKETİ					
		Hemen hemen hiçbir zaman	**Bazen**	**Çok zaman**	**Hemen her zaman**
1.	Genellikle keyfim yerindedir	(1)	(2)	(3)	(4)
2.	Genellikle çabuk yorulurum	(1)	(2)	(3)	(4)
3.	Genellikle kolay ağlarım	(1)	(2)	(3)	(4)
4.	Başkaları kadar mutlu olmak isterim	(1)	(2)	(3)	(4)
5.	Çabuk karar veremediğim için fırsatları kaçırırım	(1)	(2)	(3)	(4)
6.	Kendimi dinlenmiş hissediyorum	(1)	(2)	(3)	(4)
7.	Genellikle sakin, kendine hakim ve soğukkanlıyım	(1)	(2)	(3)	(4)
8	Güçlüklerin yenemeyeceğim kadar biriktiğini hissederim	(1)	(2)	(3)	(4)
9	Önemsiz şeyler hakkında endişelenirim	(1)	(2)	(3)	(4)
10.	Genellikle mutluyum	(1)	(2)	(3)	(4)
11.	Her şeyi ciddiye alır ve endişelenirim	(1)	(2)	(3)	(4)
12.	Genellikle kendime güvenim yoktur	(1)	(2)	(3)	(4)
13.	Genellikle kendimi emniyette hissederim	(1)	(2)	(3)	(4)
14.	Sıkıntılı ve güç durumlarla karşılaşmaktan kaçınırım	(1)	(2)	(3)	(4)
15.	Genellikle kendimi hüzünlü hissederim	(1)	(2)	(3)	(4)
16.	Genellikle hayatımdan memnunum	(1)	(2)	(3)	(4)
17.	Olur olmaz düşünceler beni rahatsız eder	(1)	(2)	(3)	(4)
18.	Hayal kırıklıklarını öylesine ciddiye alırım ki hiç unutamam	(1)	(2)	(3)	(4)
19.	Aklı başında ve kararlı bir insanım	(1)	(2)	(3)	(4)
20.	Son zamanlarda kafama takılan konular beni tedirgin ediyor	(1)	(2)	(3)	(4)

APPENDIX H

WHODAS II

ENGEL DEĞERLENDİRME ÖLÇEĞİ

Sorulara son 10 gününüzü düşünüp aşağıdakileri yaparken ne kadar zorlandığınıza göre cevap veriniz.

	Hiç	**Hafif**	**orta derecede**	**çok fazla**	**aşırı / hiç yapamıyorum**
1. Uzun sure ayakta durma (30 dakika kadar)	**1**	**2**	**3**	**4**	**5**
2. Evle ilgili sorumlulukları yerine getirme	**1**	**2**	**3**	**4**	**5**
3. Yeni işler öğrenme (yeni bir yol vb.)	**1**	**2**	**3**	**4**	**5**
4. Sosyal faaliyetlere herkes kadar katılabilmekte (toplantılar, eğlenceler, dini faaliyetler vb.) ne kadar sorunla karşılaştınız?	**1**	**2**	**3**	**4**	**5**
5. Sağlık sorunlarınızdan duygusal olarak ne kadar etkilendiniz?	**1**	**2**	**3**	**4**	**5**
6. On dakika süreyle bir işe dikkatini verebilme	**1**	**2**	**3**	**4**	**5**
7. Bir kilometre dolayında uzun mesafe yürüme	**1**	**2**	**3**	**4**	**5**
8. Banyo yapma	**1**	**2**	**3**	**4**	**5**
9. Giyinme	**1**	**2**	**3**	**4**	**5**
10. Tanımadığınız insanlarla ilişki kurma	**1**	**2**	**3**	**4**	**5**
11. Bir arkadaşlığı sürdürme	**1**	**2**	**3**	**4**	**5**
12. Her gün yapmak zorunda olduğunuz işleri yürütme	**1**	**2**	**3**	**4**	**5**

APPENDIX I

DEMOGRAPHIC FORM

1. Kaç yaşındasınız? _____
2. Medeni durumunuzu belirtir misiniz?

   □ Bekar □ Evli □ Dul

   □ Ayrı □ Boşanmış

3. Eğitim durumunuzu belirtir misiniz?

   □ Okur yazar değil □ Okuryazar

   □ İlkokul □ Ortaokul □ Lise

   □ Üniversite □ Yüksek lisans/doktora

4. Çalışma durumunuzu belirtir misiniz?

   □ Çalışıyorum □ Çalışmıyorum □ Emekliyim

5. Mesleğiniz nedir? _____
6. Bir haftada kaç saat çalışıyorsunuz? _____
7. Aylık toplam gelirinizi belirtir misiniz?

   □ 0-499 □ 500-999

   □ 1000-1499 □ 1500 ve üstü

8. Engel türünüz nedir? _____
9. Engel dereceniz nedir? (varsa) _____
10. Engeliniz nasıl oluştu?

    □ Doğuştan □ Sonradan

11. Ailenizde başka engelli var mı?

    □ Evet □ Hayır

12. Cevap evet ise

    - Kim? _____
    - Engel türü nedir? _____

13. Evinizde sizden başka kaç kişi yaşıyor? _____

14. Kim/kimler ile aynı evde yaşıyorsunuz? _____

15. Düzenli olarak engelinizle ilgili destek aldığınız birisi veya birileri var mı?

□ Evet □ Hayır

16. Cevabınız evet ise kimden/kimlerden destek alıyorsunuz?

_____

APPENDIX J

CONSENT FORM

KATILIMCI BİLGİ ve ONAM FORMU

Araştırmayı destekleyen kurum: Boğaziçi Üniversitesi
Araştırmanın adı: Engelliliği Kabul Ölçeği'nin Türkçeye Adaptasyonu
Proje Yürütücüsü/Araştırmacının adı: Yüksek lisans öğrencisi Merve Şen
E-mail adresi: engelliligikabulanketi@gmail.com

Boğaziçi Üniversitesi Sosyal Bilimler Enstitüsü Psikolojik Danışmanlık ve Rehberlik Yüksek Lisans Programı öğrencisi Merve Şen "Engelliliği Kabul Ölçeği'nin Türkçeye Adaptasyonu" adı altında bilimsel bir araştırma projesi yürütmektedir. Engelliliği Kabul Ölçeği, engelli bireylerin engelliliği kabullerini ölçmektedir. Bu çalışmanın amacı orijinali İngilizce olan bu ölçeği Türkçeye adapte etmek ve Türkçe kullanılabilir bir hale getirmektir. Bu araştırmada bize yardımcı olmanız için sizi de projemize davet ediyoruz. Kararınızdan önce araştırma hakkında sizi bilgilendirmek istiyoruz.

Bu araştırmaya katılmayı kabul ettiğiniz takdirde Engelliliği Kabul Ölçeği'ni, Sürekli Kaygı Anketi'ni, Kısa Psikolojik Sağlamlık Anketi'ni ve Engel Degerlemdirme Ölçeği'ni tamamlamanızı rica edeceğiz. Sırasıyla 38, 20, 6 ve 12 maddeden oluşan bu dört anketi tamamlamak yaklaşık olarak elli dakikanızı alacaktır. Anketin sonunda bulunan Demografik Bilgi Formu'nu doldurmanızla araştırmamız sona erer. Demografik Bilgi Formu katılımcının yaşı, eğitimi, ailesi ve engellilik durumu hakkında sorular içermektedir. Bu formu doldurmak yaklaşık olarak beş dakikanızı alacaktır.

Bu araştırma araştırmacı Merve Şen'in yüksek lisans tezi için bilimsel bir amaçla yapılmaktadır ve katılımcı bilgilerinin gizliliği esas tutulmaktadır. Katılımcıların dolduracağı anketlerde katılımcıların ismi kullanılmayacak ve katılımcıların kimliği anketler numaralandırılarak gizli tutulacaktır.

Bu araştırmaya katılmak tamamen isteğe bağlıdır. Katıldığınız takdirde çalışmanın herhangi bir aşamasında herhangi bir sebep göstermeden onayınızı çekmek hakkına da sahipsiniz. Araştırmadan geri çekildiğiniz takdirde verileriniz çalışma dışı bırakılacak ve imha edilecektir. Araştırma projesi hakkında ek bilgi almak istediğiniz takdirde lütfen araştırmacının tez danışmanı olan Boğaziçi Üniversitesi Eğitim Bilimleri Bölümü Öğretim Üyesi Yrd. Doç. Bengü Börkan ile temasa geçiniz (Adres: Boğaziçi Üniversitesi, Eğitim Bilimleri Bölümü Kuzey Kampüs, 34342 Bebek, İstanbul).

Eğer bu bilgileri okuduktan veya bu bilgiler size okunduktan sonra araştırmaya katılmayı kabul ediyorsanız lütfen bu formu imzalayın.

Ben, (katılımcının adı) ....., yukarıdaki metni okudum/metin bana okundu ve katılmam istenen çalışmanın kapsamını ve amacını, gönüllü olarak üzerime düşen sorumlulukları tamamen anladım. Çalışma hakkında soru sorma imkanı buldum. Bu çalışmayı istediğim zaman ve herhangi bir neden belirtmek zorunda kalmadan bırakabileceğimi ve bıraktığım takdirde herhangi bir olumsuzluk ile karşılaşmayacağımı anladım.

Bu koşullarda söz konusu araştırmaya kendi isteğimle, hiçbir baskı ve zorlama olmaksızın katılmayı kabul ediyorum.

Formun bir örneğini aldım / almak istemiyorum (bu durumda araştırmacı bu kopyayı saklar).

Katılımcının Adı-Soyadı:.....
İmzası:.....
Adresi (varsa Telefon No):.....
.....
Tarih (gün/ay/yıl):...../...../.....

APPENDIX K

THE FINAL FORM OF THE TURKISH ADS

	Hiç katılmıyorum	Kısmen katılıyorum	Katılıyorum	Tamamıyla katılıyorum
1. İşlerimi engeli olmayan bireylerin yaptıkları gibi yapamıyorum.	1	2	3	4
2. Engelli ya da engelsiz, hayatta iyi şeyler yapacağım	1	2	3	4
3. Engelimden dolayı başka insanlar için yapabileceklerim sınırlı kalıyor.	1	2	3	4
4. Engelli bireyler belirli alanlarda kısıtlılık yaşasalar da hala yapabilecekleri çok şey vardır.	1	2	3	4
5. Ne kadar uğraşsam da engeli olmayan biri kadar olamam.	1	2	3	4
6. Engeli olmayan bireylerin benim yapamadıklarımı yapabiliyor olması kendimi kötü hissettiriyor.	1	2	3	4
7. Engellilik durumum hayatımı anlamsız kılıyor.	1	2	3	4
8. Engelimden dolayı çoğu zaman kendimi kötü hissediyorum.	1	2	3	4
9. Engelim olmasına rağmen hayatım dolu dolu geçiyor.	1	2	3	4
10. Engelsiz insanlarla mukayese edildiğinde nasıl bir insan olduğum ve hayattaki başarılarım önemsizdir.	1	2	3	4
11. Engellilik durumum yapmaya çalıştıklarıma mani olduğu için zihnimi meşgul eder.	1	2	3	4
12. Benim gibi engeli olan bireylerin yapabileceği çok şey var.	1	2	3	4
13. Beni en çok etkileyen özelliğim engellilik durumum.	1	2	3	4
14. Engelimin yaşamın her alanını bana kapattığını düşünüyorum.	1	2	3	4
15. Engellilik durumum, kendi kendime yetebilmeme engel değildir.	1	2	3	4
16. Engelim, beni neredeyse yapmak istediğim her şeyi yapmaktan ve olmak istediğim gibi bir birey olmaktan alıkoyuyor.	1	2	3	4
17. Engelimin koyduğu kısıtlar ne olursa olsun, kendi kendime yetebilen bir birey gibi hissediyorum.	1	2	3	4
18. Çoğu zaman kötü hissetmemin sebebi engelimin kendisi değil insanların takındığı tutumlardır.	1	2	3	4
19. Engelim, hayatın en önem verdiğim yönlerini etkiliyor.	1	2	3	4

20. Engelimi tamamen unuttuğum zamanlar oluyor.	1	2	3	4
21. Engelimi düşündüğüm zaman o kadar üzülüyor ve keyfim kaçıyor ki başka bir şey yapamaz hale geliyorum.	1	2	3	4
22. Engelim beni fazla rahatsız etmiyor.	1	2	3	4
23. Hayatta yapabildiklerimden memnunum.	1	2	3	4
24. Engelim, neredeyse her konuda beni o kadar rahatsız ediyor ki, hiç bir şeyden keyif alamıyorum.	1	2	3	4
25. Çevresel bariyerler olmasa, fiziksel farklılığım bir engel olmazdı.	1	2	3	4

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