

# THE EFFECT OF COGNITIVE BEHAVIORAL ORIENTED PSYCHO EDUCATION PROGRAM ON DEALING WITH LONELINESS: AN ONLINE PSYCHOLOGICAL COUNSELING APPROACH

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Loneliness is a very common problem which incorporates many disorders. The inadequacy of services to treat this problem makes it necessary to develop new treatment methods. For this purpose, it was aimed to test the effect of online psychological counseling on dealing with loneliness problem in this research. The research includes the study with experimental-control group and pretest posttest pattern. In the study, the experimental group was applied Cognitive behavioral psycho education program which is influential in dealing with loneliness. The application was carried out via msn (Windows Live Messenger) program between the participants and the counselor. UCLA loneliness scale was used to collect data in the study which took 12 weeks. At the end of the study, it was concluded that there is a significant decrease in loneliness level of the participants and online psychological counseling is an efficient method in dealing with loneliness. As a result, although online psychological counseling is not an application which can substitute for face-to-face consulting, it is an alternative method in dealing with loneliness problem.

*Keywords:* Online psychological counseling, loneliness, Cognitive Behavioral Therapy

## Introduction

Loneliness is the situation in which the individual feels not understood and lonely (Russell, Peplau, & Cutrano, 1980); an unpleasant mood experienced as a result of the difference between the current social relations and desired social relations (Peplau & Perlman, 1981); a situation in which there are the social relations needed by the individual or different social relations, however which relations do not include intimacy, sincerity and emotiveness (Weiss, 1973). According to Young (1982), loneliness is the lack of satisfying social relations or psychological stress accompanying this lack.

Loneliness leads to the development of undesired problems in the individual by making the individual having emotional difficulty.

Among these problems are anger directed to self and others (Lehnert, Overholser, & Spirito, 1994; Çivitçi, 2011), depression (Laurie, Turner, Julia, & Heather, 2012; Qualter, Brown, Munn, & Rotenberg, 2010), self pity and social disharmony (Baker & Bugay, 2011; Joiner, Thomas, Peter, Seeley, & John, 2002), shyness, low life satisfaction and sadness (Booth, Barlett, & Bohnsack, 1992; Janne, Koen, Filip, & Luc, 2012), sleep and anxiety disorder (Heinrich & Gullone, 2006), hopelessness, though of and attempt to suicide (Batgün, 2008; Chang, Sanna, Hirsch, & Jeglic, 2010; Schinka, Dulmen, Bossarte, & Swahn, 2012), low optimism and subjective well-being (Hasida, 2012; Ottenheim *et al.*, 2012), disruption of daily life style and high stress (Doane & Adam, 2010), low

interpersonal disorders and eating disorder (Levine, 2012), low life satisfaction (Azimeh, 2011), cognitive distortions, avoiding affiliation and nonfunctional attitudes (Hamamcı & Duy, 2007), thought of death and withdrawing from social interaction (Ayalon & Shiovitz, 2011), and social harmony difficulty (Duru, 2008).

Online psychological counseling (e-counseling) is a type of therapy which is based on the mutual interaction of the client and the therapist via internet, which allows for connecting on web based education program and which is based on applications such as e-mail, fax, telephone, mutual correspondence and webcam (Castelnuovo, Gaggioli, Mantovani, & Riva, 2003; Roehlen, Zach, & Speyer, 2004). Online psychological counseling is one of the leading internet based counseling methods (Gainsburya & Blaszczynskib, 2011; Kaltenthaler *et al.*, 2006; Kleina *et al.*, 2010; Manfred *et al.*, 2012). Online psychological counseling is an application which is based on mutual correspondence or video and voice communication between the client and the counselor in order to eliminate the symptoms of the problem, rarely structured and which mainly includes education program based on cognitive-behavioral counseling model and which is similar to face-to-face therapy (Abbott, Klein, & Ciechowski, 2008). This problem deals with problems such as milder depression, anxiety, phobia, loneliness and stress, but not with first degree problems dealt with by face to face therapy and which are away from reality from such as schizophrenia, paranoia (Mallen, Vogel, & Rochlen, 2005; Roehlen, Zach, & Speyer, 2004). In the studies, on second degree problems and follow-up of the treatments of the patients after face to face therapy, it was proved that online psychological counseling is a quite influential approach (Klein, Richards, & Austin, 2006). While Nowadays, therapy via internet has started to become a method

which is increasingly applied. Lately, among Germany's patients, it was seen that 90% of the patients who do not go to the clinic get psychological assistance via internet and 40% of them continue to get assistance via internet after clinic (Eichenberg, Blokus, Brahler, & Einstellung, 2010).

Cognitive behavioral oriented online psychological counseling is an important approach which provides psychological support with the opportunity of broad application of technology which can develop effective, acceptable, practicable solutions. This approach gave effective results in dealing with mental problems on a broad scale such as anxiety and depression (Beattie *et al.*, 2009; Graaf, *et al.*, 2009, 2011; Newman, Consoli, & Taylor, 2006; Sethi & Campbell, 2010; Topolovec, 2010; Warmerdama, Stratena, & Jongsmaa 2010), obsessive compulsive disorders (Moritz, Wittekind, Hauschildt, & Timpano, 2011; Woottona, *et al.*, 2011), alcohol problems (Matthijs *et al.*, 2011; Postel, De Haan, & De Jong, 2010), sexual disorders (McKee, 2004), thought of suicide (Greidanus & Everall, 2010), eating disorders (Fichtera *et al.*, 2012), panic attack disorder (Advocat & Lindsay, 2009; Austin & Kiroopoulos, 2007; Pier *et al.*, 2008), post traumatic stress disorders (Kleina *et al.*, 2010), social phobia (Bergera *et al.*, 2011), and sexual abuse (Littletona *et al.*, 2011).

Studies on loneliness prove that this emotional disorder is a quite common problem. Yang and Victor (2011) concluded that loneliness increases with age although it peaks in youth ages in 25 different countries of Europe. It was found that half of the university students in Malaysia in average experience loneliness in high levels (Ang & Mansor, 2012); 78% of the adults in China experience different types of loneliness (Guoying *et al.*, 2011); emotional and social loneliness levels of hearing impaired adults are quite high (Pronk *et al.*, 2011); loneliness is a common

and serious problem in Turkish university students and girls experience more loneliness problem than the boys (Gürsesa, Merhametli, Şahin, Güneş, & Açıkyıldız, 2011); the frequency to exhibit loneliness and depression symptoms is quite high in individuals under 25 and over 65 in England (Victor & Yang, 2012). Online psychological counseling has some constraints besides its positive effects. Some of the leading constraints are sometimes not being able to make a good diagnosis at the beginning of the treatment, not being face-to-face, requiring a good computer use (Suler, 2001), requiring literacy and being at least 8 years old or over (Mallen, 2005). As family support, social support and education level increase (Guoying *et al.*, 2011; Laurie, Turner, Julia & Heather, 2012; Stephanie, Kimberley, Julie, Marcia, & Kimberley, 2011) and successful experiences within group and group support (Olli, Marjaana, & Antti, 2011) as well as social commitment, friend support and private human support increase, loneliness decreases (Duru, 2008). Besides, cognitive behavioral therapy is one of the most effective treatment methods performed face-to-face in the treatment of second degree mental problems (Butler, Chapman, Forman, & Beck, 2006).

When the related literature is examined, it is seen that although it is a serious problem, the number of individuals who carry serious disorders with loneliness but who receive clinical help is quite low. In addition, lack of psychological treatment centers or not trusting on such centers, economic problems, fatalism, unconscious, fear of shame and falling into disgrace, fear of misdiagnose, (Moritz, Timpano, Wittkind, & Knaevelsrud, 2006), making participating in therapy sessions a problem (Markarian *et al.*, 2010) make an emptiness to treat loneliness. Filling in this emptiness, dealing with the problem efficiently, making diagnosis-prognosis easier, accessing a broader mass and including them in the

treatment process make it an obligation to motivate the problematic individuals for the treatment and to benefit from Online therapy approaches based on communication technologies to follow up the post-treatment after the Psychological Counseling (Abbott, Klein, & Ciechomski, 2008). Therefore the aim of this study is to test the effect of Online Psychological Counseling method based on cognitive behavioral psycho-education program on dealing with loneliness problem.

## Method

### *Subjects*

In this research which is experimental patterned, 700 university students studying in different departments were applied UCLA loneliness scale for scanning purpose with the aim to test the hypothesis of the study to form the study group. 85 students who got the highest scores from the scale were determined in the application and interviews were made with those students in accordance with the aim of the study. In the interviews, firstly 42 students who could get loneliness diagnosis according to DSMR-4 criteria were determined. In the second stage, a re-valuation was made according to voluntary participation and computer using skills in those students and 28 students, 12 female and 16 male, than 6 female and 8 male student were determined as the Experimental group and 6 female and 8 male student were determined as the control group.

### *Measures*

*The UCLA Loneliness Scale (Russell, Peplau, & Cutrano, 1980).* The UCLA Loneliness Scale is a 20 items self-report instrument which 10 are direct and the other 10 are reverse coded. In each item of the scale, a circumstance that states a sense or a thought about the social relation is presented and the individuals are asked to state how often they meet this circumstance, on a four point Likert

scale. Higher score are accepted as a sign of loneliness that is met very occasionally. The lowest scores to be received from the scale is 20 and the highest is 80. In Turkey, the validity and reliability study of the UCLA Loneliness Scale was completed by Demir (1989), who found the internal consistency coefficient as 0.96; and the correlation coefficient as 0.94 by the test-retest method.

#### *Procedure and Data analyses*

The study was carried out by two psychological counselors one of whom is the assistant and the other is practitioner. Assistant counselor carried out works such as designing the website, preparing the application program, selection of students, acquiring the necessary passwords and user addresses to use the web page and msn (Windows Live Messenger) and performing application trials and other counselor carried out the interviews on msn (Windows Live Messenger). As the first step in the study, it was ensured that the participants had a username and a password to access the designed webpage and msn (Windows Live Messenger) program. The participants were enrolled with those passwords using webpage and msn (Windows Live Messenger) program. The participants were ensured that they filled in UCLA loneliness scale on the webpage and they read the documents on the rules, principles, aim and application of the study. At this stage, the phone numbers of the participants were received in order to be warned when they did not participate in the application or to be contacted when needed. Assistant counselor carried out online sample applications with each participant about how the psychological counseling process would be. The counselor who would be doing the online counseling talked the clients on the phone and subjects such as day, time and rules to be followed for the counseling were talked thereby structuring study were made. At the second stage, counselor and participants logged in

msn (Windows Live Messenger) program on the determined day and time and thereby the counseling process started.

Cognitive behavioral oriented psycho education program based on online psychological counseling was applied to deal with loneliness problem in the study. The designed program were reviewed by a computer expert and was made practicable as online. Program consists of explanations on loneliness, realizing wrong cognitive structures and learning how to change this using ABC program, applications on how to establish and maintain better communications with others, what can be done not to repeat the problem after learning how to deal with the problem and various visual, audio and written materials. The application were carried out as 14 sessions in a week with two participants each day. The application lasted 12 weeks in total. The counseling was carried out by taking into consideration the webcam, microphone and keyboard choices according to the preferences of the participants. In the study, verbal principles and techniques of CBT were applied; homework was given for each of the sessions and the sessions continued step by step by addressing this homework in the next sessions. In addition, as the sessions continued, the participants were recommended to read the documents on loneliness which were added to the webpage. At the end of the application, the participants were asked to fill in the UCLA loneliness scale on the webpage and the study was ended.

Descriptive analysis, pretest post test were made on the data obtained in the study carried out with experimental group and the results were interpreted by performing an ANOVA test on the data.

#### **Results**

Loneliness pretest mean scores and standard deviations of individuals in experimental group were found as 73,79 and 2,81 and loneliness pretest mean scores and standard

**Table 1. Loneliness Scale Mean and Standard Deviation Scores**

		Pretest			Posttest		
		N	Ss	$\bar{x}$	N	$\bar{x}$	Ss
Groups	Experimental	14	73,79	2,81	14	46,71	2,84
	Control	14	72,79	2,36	14	72,43	2,71

deviations of individuals in control group were found as 72,79 and 2,36. Loneliness posttest mean scores and standard deviations of individuals in experimental group were found as 46.71 and 2.84 and loneliness posttest mean scores and standard deviations of individuals in control group were found as 72.43 and 2.71.

Two-factor ANOVA results if the said progress seen in the loneliness levels of the individuals in the experimental and control group after the experiment according to pre experiment shows a significant difference or not are given in Table 2.

Accordingly, it was found that the loneliness levels of individuals in the experimental group who participated in "cognitive behavioral oriented psychological counseling" application via Online psychological counseling show a significant difference from loneliness levels of individuals in the control group and being in different process groups and repeated measure factors have common significant on loneliness ( $F_{(1,28)} = 447,66, p < .001$ ).

### Discussion

The research proves that loneliness is a quite common problem which decreases general academic successes and life satisfactions of university students (Karaca, Yılmaz, & Yılmaz, 2008). This situation increases the importance of including university youth in the treatment process. However, the insufficiency of offered psychological assistance makes it obligatory to benefit from information technologies in dealing with this problem. To this end, it was aimed to test if online psychological counseling method based on cognitive behavioral psycho education program is an effective and proper method to deal with loneliness problem. At the end of 12-session study, it was concluded that the difference between loneliness pretest and posttest scores of the participants was statistically significant and there was a decrease in the loneliness symptoms of the students. This result proved that online psychological counseling is a method which has an effective and supporting

**Table 2. ANOVA Results of Loneliness Pretest-Posttest Mean Scores**

Source of variance	Sum of squares	df	Mean square	F	P
Intercept Group	2367,72	27	-----	-----	-----
(Experimental/Control)	2137,79	1	2137,79	241,74	,001
Error	229,93	26	8,84		
Within Subject	5275,99	28			
Measurement (pretest-posttest)	2633,14	1	2633,14	471,91	,001
<b>Group* Measurement</b>	<b>2497,78</b>	<b>1</b>	<b>2497,78</b>	<b>447,66</b>	<b>,001</b>
Error	145,07	28	5,58		
Total	7643,51	55			

potential just like face-to-face psychological counseling in dealing with loneliness which is a second degree emotional problem and in decreasing symptoms.

The researches proved that CBT is a very effective method in dealing with second degree mental problems (For example depression, anxiety, phobic disorders, obsessive-compulsive disorders, loneliness, etc.). This therapy was successfully transferred into the internet based therapy programs in order to access broader masses because of strong effect of CBT, to include them in the treatment process and motivate them for the treatment (Barak, Hen, Boniel, & Shapira, 2008). Researches show that internet based CBT is an effective therapy just like face-to-face therapy (Klein, Richards, & Austin, 2006). In the experimental studies, the therapy method based on online psychological counseling approach gave effective results in dealing with mental problems on a broad scale such as anxiety and depression (Beattie *et al.*, 2009; Graaf, *et al.*, 2009; Graaf *et al.*, 2011; Newman, Consoli, & Taylor, 2006; Sethi & Campbell, 2010; Topolovec, 2010; Warmerdama, Stratena, & Jongsmas, 2010), obsessive compulsive disorders (Moritz, Wittekind, Hauschildt, & Timpano, 2011; Wootton, *et al.*, 2011), alcohol problems (Matthijs *et al.*, 2011; Postel, De Haan, & De Jong, 2010), sexual disorders (McKee, 2004), thought of suicide (Greidanus & Everall, 2010), eating disorders (Fichtera *et al.*, 2012), panic attack disorder (Advocat & Lindsay, 2009; Austin & Kirooulos, 2007; Pier *et al.*, 2008), post traumatic stress disorders (Kleina *et al.*, 2010), social phobia (Bergera *et al.*, 2011), sexual abuse (Littleton *et al.*, 2011) which are second degree emotional problems.

In similar experimental studies, it was seen that internet focused therapy gave quite beneficial results in increasing of life qualities of the young individuals and in dealing with thought of suicide, drug addiction and stress

and especially in protecting the mental health of the young people (Doman & Roux, 2010) and there was a decrease in loneliness and depression levels of the experimental group as a result of psycho education program study based on internet based therapy for the elder living in nursing home (Tsai *et al.*, 2010). All this data supports the result obtained at the end of the study that online psychological counseling is effective in dealing with the loneliness problem of the university students. In online psychological counseling, the treatment methods used in the therapy are quite similar to face-to-face therapy. The determinant condition in the treatment is that the therapist has the online counseling skill and can use methods and skills about CBT. In addition, as family support, social support and education level increase (Guoying *et al.*, 2011; Laurie, Turner, Julia, & Heather, 2012; Stephanie, Kimberley, Julie, Marcia, & Kimberley, 2011) and successful experiences within group and group support (Olli, Marjaana, & Antti, 2011) as well as social commitment, friend support and private human support increase, loneliness decreases (Duru, 2008). Without carrying out a therapy study as accessing social networking site Facebook increases, loneliness level decreases (Freberg, Adams, Mc Gaughey, & Freberg, 2010). When this data is considered, the obtained result is not a surprise.

Online psychological counseling is not a therapy which is an alternative to or which can substitute for face-to-face counseling but a method developed to fill in the emptiness and to access more clients. In addition, online therapy has its own superior aspects. Among these superior aspects are being able to reach quite broad masses, clients' being able to open themselves more easily, giving deeper details on their problems, having deeper and more proper changes, establishing positive relationships with the counselor (Cook & Doyle, 2002), being easier, more convenient

and accessible, flexibility in session times, establishing friendlier relations and being economical (Barak, 1999).

Various treatment methods for emotional problems are used in therapy field nowadays. Changing of life conditions and accordingly the problems in time reveals the result that traditional treatment methods used are not appropriate for each individual. Therefore, new methods should be developed. From this aspect, internet based therapy has been increasingly gaining importance (Copeland & Martin, 2004).

Although there are studies made with online psychological counseling and different emotional problems, studies on loneliness are quite limited. From this aspect, it is hoped that this study will contribute to further studies on online psychological studies.

In the light of this information, the following recommendations can be made; Online psychological counselors should get education on the field, websites should be designed on online therapy and therapy programs should be increased, easy access should be provided for these therapies, the researches on the subject should be increased and the results should be shared. These recommendations will contribute to the development of the online psychological counseling.

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