The Relationship between Internet Addiction, Peer Pressure and Perceived Social Support among Adolescents

(Ergenlerde İnternet Bağımlılığı, Akran Baskısı ve Algılanan Sosyal Destek Arasındaki İlişki)

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Abstract: The aim of the present research was to investigate the relationships between internet addiction, peer pressure and social support among adolescents. The sample of the study consisted of 558 adolescents (290 female 268 male) selected from high school 9th and 10th grade at Mersin. The data related with the internet addiction was gathered by means of Internet Addiction Questionnaire developed by Young (1998) and adapted to Turkish culture by Bayraktar (2001). The data related with the peer pressure gathered with the peer Pressure Questionnaire developed by Kıran (2002) and Perceived Social Support Measure developed by Yıldırım (1997) was used to measure the social support. To examine the relationships between internet addiction, peer pressure and social support, gender X peer pressure (low-medium-high), gender X peer support (low-medium-high), gender X parental support (low-medium-high) and gender X teachers' support (low-medium-high) design four different analyses of variance was applied to the Internet Addiction Questionnaire scores of the adolescents. For low, medium and high peer pressure, peer support, parental support and teachers' support, 0,5 standard deviation was used as cut off point. The results showed that the lower the peer pressure, internet addiction decreases. Moreover, the more the parental and teachers' support increase, internet addiction scores of the adolescents decrease. Furthermore, it was observed that internet addiction scores of the adolescents differed according to gender, and the internet addiction scores of the girls were lower than that of boys. Otherwise, no relationship was observed between internet addiction and peer support. The results were discussed in the light of related literature.

Keywords: Internet addiction, Peer Pressure, Perceived Social Support, Adolescents

Öz: Bu çalışmanın amacı ergenlerde internet bağımlılığı, akran baskısı ve sosyal destek ilişkisinin incelenmesidir. Araştırmanın örneklemini Mersindeki çeşitli liselerin 9 ve 10. sınıflarından seçilen 558 ergen (290 kız 268 erkek) oluşturmaktadır. İnternet bağımlılığı ile ilgili veriler Young (1998) tarafından geliştirilen ve Bayraktar (2001) tarafından Türkçe'ye uyarlanan İnternet Bağımlılık Ölçeği ile akran baskısı ile ilgili veriler Kıran (2002) tarafından geliştirilen Akran Baskısı Ölçeği ile ve sosyal destek düzeyleri ile ilgili veriler ise Yıldırım (1997) tarafından geliştirilen Algılanan Sosyal Destek Ölçeği ile toplanmıştır. İnternet bağımlılığı, akran baskısı ve sosyal destek arasındaki ilişkinin incelenmesi amacıyla ergenlerin internet bağımlılığı ölçeği puanlarına, cinsiyet-akran baskısı (düşük-orta-yüksek), cinsiyet-arkadaş desteği (düşük-orta-yüksek), cinsiyet-aile desteği (düşük-orta-yüksek) ve cinsiyet-öğretmen desteği (düşük-orta-yüksek) olmak üzere dört farklı varyans analizi uygulanmıştır. Akran baskısı ve sosyal destek puanlarına göre grubun düşük-orta-yüksek olmak üzere üçe bölünmesinde 0,5 standart sapma kesme noktası olarak alınmıştır. Bulgular, akran baskısı düzeyleri düştükçe ergenlerin internet bağımlılığı düzeylerinin de azaldığını göstermektedir. Ayrıca, aile ve öğretmen desteği arttıkça internet bağımlılığı puanlarının düştüğü de gözlenmiştir. Ayrıca, internet bağımlılığı puanlarının cinsiyete göre değiştiği, kızların internet

bağımlılığı puanlarının erkeklerden daha düşük olduğu görülmüştür. Diğer yandan, internet bağımlılığı puanları ile arkadaş desteği arasında ilişki tespit edilmemiştir. Bulgular alanyazın ışığında tartışılmıştır.

Anahtar kelimeler: İnternet bağımlılığı, Akran baskısı, Algılanan sosyal destek, Ergenler

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Introduction:

The internet may be evaluated as a revolution in the personal and business communication and information connection nowadays world. However, a faster pervading of internet brings the problematic use of internet. The concepts "coercive" and "excessive" use of internet becomes increasingly popular. The other concepts to define the excessive and problematic use of internet are pathological internet usage, internet abuse of (Morahan-Martin, 1997), internet addiction and internet exploitation (Young &Rodgers, 1998). In the present study, the term "internet addiction" is preferred to define the uncontrolled and detrimental use of internet. Internet addiction term is also excessively used by the researchers (Kirallo, 2005).

Young and Rodgers (1998) evaluate internet addiction as a different disorder based on the transcribing DSM-IV criteria for pathological gambling diagnostic criteria. Young (1997) defined pathological internet use (PIU) as an intrinsic control disorder not including intoxicants. Internet addiction is defined as the psychological addiction to the internet and characterized as increasing investment to the activities on internet, unpleasant emotions when offline, increasing tolerance to the effect of become online and denial of the problematic behaviors (Nalwa & Anand, 2003). Also, Ferris (2003) pointed out that internet is used as a way of coping with the feeling of helpless, guilt, anxiety or depression.

Studies showed a relationship between excessive internet use and loneliness (Nalwa & Anand, 2003; Engelberg & Sjöberg, 2004), antisocial values and lower emotional intelligence (Engelberg & Sjöberg, 2004) and depression (Young & Rodgers, 1998), and also the persons' relationship especially with their mothers and peers deteriorates as a result of internet addiction (Sanders, Field, Diego & Kaplan, 2000). Additionally, the more time individual spends on internet for playing, searching and shopping, the more depressive symptoms are observed (Morgan & Cotten, 2003) and because of a decrease in social interaction, the psychological well-being of person is affected negatively (Weiser, 2001), the person becomes more problematic (Simkova & Cincera, 2004). And also it is pointed out that social, verbal and academic functions of the person are affected (Beard, 2002).

Adolescents increasingly become internet users. According to Tsai and Lin (2003), mentally immature adolescents are the potential risk group for internet addiction. Contrary to the other addictions, internet addiction is observed in earlier ages. 12-18 age adolescents are evaluated as the greatest risk group (Odabaşıoğlu et. al., 2006). Adolescents are easily faked in their virtual world, their personal and social relationships may be damaged (Hyung Hur, 2006). And also, parental support decrease in adolescent period, while peer support increase. So that, peer becomes more effective (Helsen, Volleberg & Meeus, 2000) and this effect occasionally becomes an influence and pressure over adolescent.

Peer pressure may be defined as the insistence and encouragement of the same age group individuals to make individual to do something (Santor, Messervey & Kusumakar, 2000). Also a relationship between peer pressure and drug and alcohol addiction, and smoking was observed (Shilts, 1991; Resource Guide, 1996; Barber et al., 1999; Dishion & Skaggs, 2000; Santor, Messervey & Kusumakar, 2000; Simon- Morton et al., 2001; Kıran-Esen, 2003; Razzino, Ribordy, Grant, Ferrari, Bowden & Zeisz, 2004). The studies related with the internet addiction pointed out that addict adolescents interact less with peers and have incompetent relationship quality (Harman, Hansen, Cochran & Lindsey, 2005). It may be concluded according to the results of these studies that internet addiction and peer pressure are related variables.

There are many researches showing the relationship between social support, the other variable of the present study and physical and psychological health. Recent studies examined the perceived supportive quality of social relationships (Coyne & Downey, 1991; Ell, 1996; Uchino et al., 1996; Hupcey, 1998). Perceived social support in adolescence period is a protective power to cope with the problems person experience and illnesses. Social support protects person from the effect of stressful event through supporting individual to change stressful situation, the meaning of stressors and emotional reactions. The most important support source of students consists of parents, peers and teachers (Yıldırım, 2004). Generally, internet provides dynamic social support groups to the individuals experiencing insufficient interpersonal relationships in real life. Thus, person can take the emotional risks that in imaginary world than real life (Young, 1997). Campbell, Cumming and Hughes (2006) pointed out the psychological benefits of frequent use of internet especially online chatting and argued that virtual chat rooms may be used as an opportunity to develop communication skills and social behaviors for the person experiencing social anxiety and problems in face to face communication. However, temporary social support by means of internet might not continue in real life. Thus, while addicts continue their relationships in internet, their real life social relationships might be injured. In the light of present explanations, it is proposed that internet addiction of adolescents might be related with the perceived social support in real life. So, the aim of the present research is to examine the relationship between internet addiction, peer pressure and perceived social support among adolescents.

Method

Subject

The study group consisted of 559 (290 female, 269 male) adolescents selected from eight high schools in Mersin in 2006-2007 educational year. The data related with the age and grade level did not gathered because these variables were supposed not to affect the dependent variables of the study. Instruments were administered to the students in the classroom and the subjects filled the inventories approximately at 50 minutes.

Instruments

In the present research, three different questionnaires were used to measure internet addiction, peer pressure and perceived social support.

Internet Addiction Inventory

Internet Addiction Inventory developed by Young (1998) and adapted to Turkish culture by Bayraktar (2001) is a six-scale likert type measure. Cronbach alpha internal consistency coefficient was .91 and Spearman-Brown reliability coefficient was calculated as .87. The regression analysis showed a statistically significant model (f(11,29)= 26.15, p<. 01). Also the results of the present study showed .93 Cronbach alpha internal consistency coefficients.

Peer Pressure Inventory

Peer Pressure Inventory developed by Kıran (2002) is a 34-item scale aimed to measure peer pressure adolescents experiencing. The Inventory has two subscales: direct peer pressure (19 items) and indirect peer pressure (15 items). Cronbach alpha internal consistency coefficient was .90 for Inventory total and .89 and .82 for subscales respectively. Test retest reliability coefficients are .82, .74 and .79 respectively. Principle component analysis showed that total variance explained by two components of the scale was 40.53%. The greater the score person gathers from the scale, the lower

the peer pressure is (Kıran-Esen, 2003). Also the results of the present study showed .91 Cronbach alpha internal consistency coefficients.

Perceived Social Support Inventory (Revised)

Perceived Social Support Inventory (PSSI) was developed for adolescents by Yıldırım (1997) to measure the perceived social support. The inventory was revised by Yıldırım (2004) and has three subscales: parental support, peer support and teacher support. Principle component analysis result showed that parental support subscale has three components (social interest and emotional support; informing and advice support; and appreciation support), peer support has one component, and teacher support has two components (emotional support; informing and appreciation support). A significant relationship between total and subscale scores of PSSI, Beck Depression Inventory and Daily Problems Inventory was observed.

Cronbach alpha internal consistency coefficient for scale total was .93, .94 for parental support, .91 for peer support and .93 for teacher support. Test retest coefficients were .91, .89, .85 and .86 respectively (Yıldırım, 2004).

Data Analysis

To investigate the relationship between internet addiction, peer pressure and perceived social support, four separate ANOVA (2 (male-female) X 3 (low-moderate-high peer pressure), 2 (male-female) X 3 (low-moderate-high parental support), 2 (male-female) X 3 (low-moderate-high peer support), 2 (male-female) X 3 (low-moderate-high teacher support) were applied to the internet addiction scores of the group. Descriptive statistics related with the peer pressure, parental, peer and teacher support variables were calculated and groups were composed according to the standard deviation of the scores. Thus, 0.5 standard deviation below average and below consisted of lower, 0.5 above average and above consisted of higher and the others consisted of moderate groups.

Findings

Mean internet addiction score of the group was 21.06 with a Standard deviation of 18. 58. Peer pressure mean score was 51.63 with a standard deviation of 15.85, parental support mean was 51.70 with a standard deviation of 8.30, peer support mean was 34.5394 with a Standard deviation of 5.23 and teacher support mean was 37.19 with a standard deviation of 10.16. To investigate the homogeneity of variances Levene's test of homogeneity of variances was administered to the data related with internet addiction and observed that variances were heterogeneous (F=2.852; p=0.092).

The results of ANOVA applied to the internet addiction scores of the adolescents to investigate the relationship between internet addiction and peer pressure showed that internet addiction scores of the adolescents did not differ according to gender (F(1,558)=1.980; p=.160), but differ according to peer pressure (F(2,557)=93.768; p=.000). And also internet addiction scores of the adolescents did not differ according to gender and peer pressure interaction (F(5,553)=1.134; p=.322). To examine the source of variation in the internet addiction scores according to peer pressure level, Tukey HSD test was administered to the data as post hoc test. According to the result of this analysis, significant differences were observed between lower and moderate peer pressure group (I-J=-8,3816; p=.000), lower and higher peer pressure group (I-J=-28,2791; p=.000) and moderate and higher peer pressure group (I-J=-19,8974; p=.000).

On the other hand, the results of the study also showed that internet addiction scores of the adolescents differed according to gender (F(1,558)=18.406; p=.000) and parental support (F(2,557)=13.352; p=.000), but did not differ according to the gender and parental support interaction (F(5,553)=1.591; p=.205). To examine the source of variation in the internet addiction scores according to parental support level, Tukey HSD test was administered to the data as post hoc test.

According to the result of this analysis, significant differences were observed between lower and moderate parental support group (I-J=7.2731; p=.000) and lower and higher parental support group (I-J=11.1465; p=.000), but no statistically difference was observed between moderate and higher parental support group (I-J=3.8733; p=.071).

The results of ANOVA applied to the internet addiction scores of the adolescents to investigate the relationship between internet addiction and peer support showed that internet addiction scores of the adolescents differed according to gender (F(1,558)=25.799; p=.000), but did not differ according to peer support (F(2,557)=.91; p=.913). And also internet addiction scores of the adolescents did not differ according to gender and peer support interaction (F(2,557)=4.394; p=.013). To examine the source of variation in the internet addiction scores according to peer support level, Tukey HSD test was administered to the data as post hoc test. According to the result of this analysis, no significant difference was observed between the groups.

Additionally, the results of the study also showed that internet addiction scores of the adolescents differed according to gender (F(1,558)=16.149; p=.000), and teacher support (F(2,557)=15.292; p=.000), but did not differ according to the gender and teacher support interaction (F(5,553)=1.174; p=.310). To examine the source of variation in the internet addiction scores according to teacher support level, Tukey HSD test was administered to the data as post hoc test. According to the result of this analysis, significant differences were observed between lower and moderate teacher support group (I-J=4.6478; p=.042) and lower and higher teacher support group (I-J=11.0373; p=.000) and moderate and higher teacher support group (I-J=6.3895; p=.001).

Discussion

The results of the study showed that internet addiction scores of the adolescent differ according to peer pressure, perceived parental support, perceived teacher support and gender. However, no significant relationship was observed between internet addiction and perceived peer support scores of adolescents.

A significant relationship between peer pressure adolescent experience and antisocial behavior was observed (Eamon & Cray, 2005). To play truant, risk taking, smoking, alcohol and drug use might be given as the examples of adolescents' antisocial behaviors as a result of peer pressure. The result of the present study showed a relationship between internet addiction and peer pressure that the more peer pressures, the greater the level of internet addiction was. In the literature, there is not much research to investigate the relationship between internet addiction and peer pressure. Kıran-Esen (2007) found that peer pressure is a significant predictor of internet addiction. Also, the other studies related with the subject showed that peer relationships of the adolescents using internet in an addictive manner was deficient (Sanders, Field, Diego & Kaplan, 2000; Wang, Lee & Chang, 2003), they experience difficulty in making friends (Mesch,2001), isolated socially (Nalwa & Anand, 2003) and had lower social skills and deficient peer relationship (Harman, Hansen, Cochran & Lindsey, 2005). Shortly, internet addiction might be an escape for adolescents when they can not cope with the problems of life. One of these problems is not be able to resist the pressures from peers. It may be argued that adolescents using internet addictively have lower social skills and as a result of this inadequacy, they feel difficulty in resisting peer pressure.

Another result of the present research was that there was a relationship between internet addiction and parents and teacher support; lower the level of parents and teacher support, higher the internet addiction level was. Disruption in the social life and increasing level of conflict with parents may be the significant results of internet addiction (Odabaşıoğlu, Öztürk, Genç & Pektaş, 2007). Individual's real life interpersonal and parental relationships might be damaged because of the new roles played when online. Young (1996) find out that 53% of internet addicts have been experiencing important relationship problems. Kıran-Esen (2007) also found that parents and teacher support were significant predictors of internet addiction. The other studies among this topic underline the parental and school life problems of internet addicts adolescents (Sanders, Field, Diego & Kaplan, 2000;

Nalwa & Anand, 2003; Tsai & Lin, 2003; Nichols & Nicki, 2004; Brian & Wiemer- Hasting, 2005; Harman, Hansen, Cochran & Lindsey, 2005; Niemz, Griffiths & Banyard, 2005). Thus, the result of the present research is consistent with the previous research results.

In conclusion, it may be argued that unlike the other types of addictions, internet addiction begins with an earlier age (Odabaşıoğlu et al., 2006) and the parents and teachers' positive touch, acceptance and support would be very important to prevent such a problem. If adolescents find the social support they need from their parents and significant others, they do not seek it in virtual medium such as internet. Schools should provide adolescents with communication skills, social skills and help to overcome peer pressure. Especially school counselors must educate the parents on the developmental characteristics of adolescence and provide group counseling activities to adolescents for developing communication skills. Finally, it may be recommended that prospective studies should investigate the relationship between internet addiction and the other unsearched subjects in Turkey such as depression, loneliness, self-efficacy and risk taking.

References

Barber, J. G., Bolitho, F. & Bertrand, L. D. (1999). *The* predictors of adolescent smoking, *Journal of Social Service Research*, 26(1), 51-66

Bayraktar, F. (2001). İnternet kullanımının ergen gelişimindeki rolü, Yüksek lisans tezi, Ege Üniversitesi, İzmir.

Beard, K. W. (2002). Internet Addiction: Current status and implications for employees. *Journal of Employment Counseling*, 1, 2-11

Brian, D. NG. & Wiemer-Hastings, P. (2005). Addiction to the internet and online gaming, *CyberPsychology and Behavior,* 8 (2), 110-119

Campbell, A. J., Cumming, S. R. & Hughes, I. (2006). Internet use by the socially fearful: addiction or therapy? *CyberPsychology and Behavior*, 9 (1), 69-75

Coyne, J.C. & Downey G (1991) Social factors and psychopathology: stress, social support, and coping processes. Annual Review Psychology, 42:401-425.

Dishion, T. J. & Skaggs, N. M. (2000). An ecological analysis of monthly 'bursts' in early adolescent substance use, *Applied Developmental Science*, 4 (2), 89- 97

Eamon, M.K. & Cray, M. (2005). Behavior among Latino young adolescents: An ecological systems analysis predicting antisocial American, *American Journal of Orthopsychiatry,* 75(1), 117-127

Eker, D., Arkar, H. & Yaldız, H. (2001) Çok boyutlu algılanan sosyal destek ölçeği'nin gözden geçirilmiş formunun faktör yapısı, geçerlik ve güvenirliği, *Türk Psikiyatri Dergisi,* 12(1): 17-25

Ell K. (1996) Social networks, social support and coping with serious illness: The family connection. *Social Science Med*, 42: 173-183.

Engelberg, E. & Sjöberg, L. (2004). Internet use, social skills, and adjustment, C*yberPsychology and Behavior,* 7 (1), 41-50

Ferris, J. R. (2003) Internet Addiction Disorder: Cause, Symptoms, and Consequences. November 20, 2003, cited from: http://www.rider.edu/~suler/psycyber/cybaddict.html.

Harman, J. P., Hansen, C. E., Cochran, M. E. & Lindsey, C. R. (2005). Liar, Liar: Internet faking but frequency of use affects social skills, self-esteem, social anxiety and aggression. *CyberPsychology and Behavior*, 8 (1), 1-6

Helsen, M., W. Vollebergh. W. & Meeus. W. (2000). *Social* support from parents and peers and emotional problems in adolescence, *Journal of Youth and Adolescence*, **29** (3), 19-335

Hupcey JE (1998) Social support: Assessing conceptual coherence. Quality Health Research, 8:304-318.

Hyung Hur, M. (2006). Demographic, habitual, and socioeconomic determinants of internet addiction disorder: An empirical study of Korean teenagers, *CyberPsychology and Behavior,* 9 (5), 514-525

Kıran-Esen, B. (2003) "Ergenlerin akran baskısı düzeylerine ve cinsiyetlerine göre sigara içme davranışlarının incelenmesi. *Kuram ve Uygulamada Eğitim Bilimleri,* 3(1), 179-188

Kıran-Esen, B. (2003) Akran Baskısı Ölçeği'nin geliştirilmesi: geçerlik ve güvenirlik çalışması, *Eğitim Bilimleri ve Uygulama*, 2 (3), 65-79.

Kıran-Esen, B. (2009) Adolescents' internet addiction is predicted by peer pressure and perceived social support, *NEWWSA,* 4 (4), 1331-1340

Kirallo, L. V. (2005). Internet addiction disorder: A descriptive study of college counselors in four year institutions, *Doktora tezi*, La Verne University, California, USA.

Kummervold, P. E., Gammon, D., Bergvik, S., Johnsen, J. K., Hasvold, T. & Rosenvinge, J. H. (2002). Social support in wired world: use of online mental health forums in Norway, *Nord J Psychiatry,* 56, 59-65.

Mesch, G. S. (2001). Social relationships and internet use among adolescents in Israel, Social Science Quarterly, 82 (2)

Morahan-Martin, J. (1997). Incidence and correlates of pathological internet use. *Paper presented at the 105th annual meeting of the American Psychological Association, August 18, 1997. Chicago, IL.*

Morgan, C. & Cotten, S. R. (2003). The relationship between internet activities and depressive symptoms in a sample of college freshmen, *CyberPsychology and Behavior,* 6 (2), 133-142

Nalwa, K. & Anand, A. (2003). Internet addiction in students: A cause of concern, *CyberPsychology and Behavior,* 6 (6)

Nichols, L. A. & Nicki, R. (2004). Development of psychometrically sound internet addiction scale: A preliminary step, *Psychology of Addictive Behaviors*, 18 (4), 381-384.

Niemz, K. Griffiths, M. & Banyard, P. (2005). Prevalence of Pathological internet use among university students & correlation with self-esteem, the General Health Questionnaire (GHQ), and disinhibition, *CyberPsychology and Behavior,* 8(6), 562-574

Odabaşıoğlu, G. et al. (2006). İnternet bağımlılığı kaç yaşında başlar?: Sıra dışı bir vaka üzerinden çocuk ve ergenlerde internet bağımlılığı, 3. Ulusal Bağımlılık Kongresi Bilimsel Çalışmalar Kitabı, 56

Odabaşıoğlu, G., Öztürk, Ö., Genç, Y. & Pektaş, Ö. (2007). On olguluk bir seri ile internet bağımlılığı klinik görünümleri, *Bağımlılık Dergisi*, 8 (1), 46-51

Razzino, B. E., Ribordy, S. C., Grant, K., Ferrari, J. R., Bowden, B. S. & Zeisz, J. (2004). Gender related processes and drug use: Self- expression with parents, peer group selection, and achievement motivation, *Adolescence,* 39 (153)

RESOURCE GUİDE., (1996). Values, influences and peers. Revised Edition, 16, 05.02. 2001 cited from www.edu.gov.on.ca/eng/document/resource/up.html.

S&ers, C., Field, T. F., Diego, M. & Kaplan, M. (2000). The Relationship of internet use to depression and social isolation among adolescents. *Adolescence*, 35 (138), 237-242

Santor, D. A., D. Messervey, A.D. & Kusumakar, V. (2000). Measuring peer pressure, popularity, and conformity in adolescent boys and girls: predicting school performance, sexual attitudes, and substance abuse, *Journal of Youth and Adolescence*, 29 (2), 163-182.

Shilts, L.(1991). The relationship of early adolescent substance use to extracurricular activities, peer influence, and personal attitudes, *Adolescence,* 26 (103), 613-617.

Simon-Morton, B. et al. (2001). Peer & parent influences on smoking and drinking among early adolescents, *Health Education and Behavior*, 28 (1), 95-113.

Simkova, B. & Cincera, J. (2004). Internet addiction disorder and chatting in the Czech Republic, *CyberPsychology and Behavior, 7* (5).

Tsai, C.-C. & Lin, S. S. J. (2003). Internet addiction disorder and chatting in the Czech Republic, *CyberPsychology and Behavior,* 6 (6).

Uchino B.N., Cacippo J.T. & Kiecolt-Glaser J. K. (1996) The relationship between social support and physiological processes: A review with emphasis on underlying mechanisms and implications for health. *Psychology Bulletin*, 119:488-531.

Whang, L. S-M., Lee, S. & Chang, G. (2003). Internet over-users' psychological profiles: A behavior sampling Analysis on internet addiction, *CyberPsychology and Behavior,* 6 (2), 143- 152

Weiser, E. B. (2001). The functions of internet use and their social and psychological consequences, *CyberPsychology and Behavior,* 4 (6), 723- 731

Yıldırım, İ. (2004). Algılanan Sosyal Destek Ölçeği'nin revizyonu, *Eğitim Araştırmaları Dergisi,* 5 (17), 221-236.

Young, K. S. (1996). Internet addiction: The emergence of a new clinical disorder. *CyberPsychology and Behavior,* Vol. 1 No. 3, pp. 237-244.

Young, K. S. (1997). What makes the internet addictive: Potential explanations for Pathological Internet Use, *University of Pittsburgh at Bradford, Paper presented at the 105th annual conference of the American Psychological Association, August 15, Chicago, IL.*

Young, S. K, & Rodgers, R. C. (1998). Internet Addiction: Personality Traits Associated with Its Development, *CyberPsychology and Behavior,* 1(1), 25-28.