

Internet addiction & attachment styles

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ABSTRACT

Excessive internet usage has increased at an alarming rate in the recent past such that Internet Addiction is one of the most researched behavioural addiction nowadays. So many new cases have been reported of individuals addicted to internet who are impacting their personal, social and occupational life. A lot of them reported feeling lonely, had poor self-esteem, disturbed emotional ties with others, and didn't have friends offline. In the light of that, the current review paper examines the role of attachment and attachment styles on internet addiction. Attachment styles are formed based on early childhood experiences which take form of internal working models as individual grows up. Internet addiction is a maladaptive coping strategy reflecting an inability to handle one's emotions. It is important to understand different models of internet addiction & its diagnostic criteria to better understand how different attachment styles impact internet addiction.

Keywords: *Internet Addiction, Attachment, Attachment Style*

Internet is a networking infrastructure which connects millions of computers together and allows them to communicate with each other. To be able to communicate both the parties need to be connected to internet. Internet has many advantages as it allows us access to information, knowledge and thereby enhances learning. It helps one connect, communicate and share with other people sitting far-away from us. It is useful for entertainment, billing, shopping, work, address mapping etc. However, it has many disadvantages as well like it causes distraction, gives access to work all the time, allows viewing pornographic content, can troll and stalk others through their social media profiles, cyber-crimes etc. The focus of this review paper will be to view how excessive usage of internet is related to attachment styles of the individual.

INTERNET ADDICTION

Internet addiction, a form of behavioural addiction refers to excessive usage of internet that hampers daily life functioning. It is a repetitive habit pattern to use internet even when not required. The person usually experiences a subjective loss of control which is characterized by immediate gratification and long term costs. It becomes a habit which the person is unable

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to resist and gradually the tolerance develops. It so happens if the person is unable to use it somehow the person develops withdrawal symptoms. Dependence on internet is a maladaptive coping strategy. It has all the features of addictive behaviour given by Brown (1993) and extended by Griffiths (1996): Saliency, Mood modification, tolerance, withdrawal, conflict and relapse. Internet addiction causes various biological, psychosocial and neurological problems in individuals. It is important to understand what causes internet addiction. The theoretical models that explain internet addiction are:

Cognitive-Behavioural Model of Pathological Internet Use

This model describes how our cognitions impact pathological internet use. It explains two types of pathological internet use specific and generalized. Specific PIU is when the individual is focussed on only one aspect of the internet for e.g. online gambling. Generalized PIU is just multidimensional overuse of the internet. Johnson et al (1999) explained four factor model to explain pathological internet use psychopathology. The 4 factors focus on dysfunctional behaviour of overuse of internet, functional use of the internet, use of internet for social gains, individuals who aren't dependent on internet. Alloy et al (1989) explained concepts of necessary, sufficient and contributory causes of symptoms. The main focus in this model is on how dysfunctional thoughts and processes impact the PIU.

ACE Model

This model is also known as the Anonymity, Convenience and Escape (ACE) model. This model explained the concept of cyber sexual addiction and focusses on the cultural factors that can increase the chances of online adultery. (Young, 1999)

The (Triple-A) Engine

The fact that internet is accessible at all times, affordable to large population and a user can hide the real identity is giving rise to usage of internet for sexual pursuits. (Access, affordability, anonymity; Cooper, 1998). There are various types of users: Recreational users, at-risk users and sexual compulsives. Various assessment and treatment strategies have been devised to address the same issues.

Phases model of pathological Internet use

Grohol (1999) believed internet addiction is a phasic activity. For most people who are classified as internet addicts are newcomers and if existing user they are doing a new activity on the internet. That is the reason they are engaged in it completely. This phase is generally characterized by some form of obsession with the new activity also known as Enchantment. This is followed by decline in usage which is referred to as disillusionment or avoidance. The last phase is when balance is restored. Most individuals get stuck in first stage only.

A comprehensive model of the development and maintenance of Internet addiction

This model indicates that internet addiction is a result of biopsychosocial processes. It has all the features of behavioural addictions. (Winkler & Dörsing, 2013)

Biological vulnerabilities

This model indicates the genetic factors, abnormalities in neurochemical processes.

Psychological Vulnerability

This highlights the components like personality, core beliefs etc. People who have internet addiction find it difficult to face the tension, anxiety and problem they are going through in their life. They also have this need to control the environment. It keeps them more attuned to

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internet. A lot of studies have been conducted on how different personality traits are related to internet addiction. People who are extraverts or narcissist require external stimulation which is catered by the internet usage (Wilson et al 2010; La Barbera et. al, 2009). People who are shy & anxious prefer online interaction than offline was reported by multiple studies (Blackwell 2017)

Neurobiological Vulnerability

This indicates that the internet addiction is associated with reward or pleasure pathways of the brain. This further impacts the dopamine release and its consequences.

Internet is an important part of our daily life as it offers an array of benefits in the fast moving society like information seeking & social communication etc. (Marks, 2007). Due to its many uses, it has become an integral part. It results in various mental health concerns in an individual like increased low mood, reduced interest in social events and at gatherings & meetings and loneliness etc. due to its excessive usage. (Kraut et al., 1998; Nalwa et al 2003; Savcı, 2016, Chang, 2003).

There has been a constant debate for internet addiction to be considered as a disorder for classification or not. Some believe it should be considered based on biological or medical model only and several others believe otherwise. However, the impact of problematic usage of internet has become alarming these days. There has been a lot of research in this area in the recent past. Diagnostic criteria has been given by Young, Brown & Griffiths and Tao and many other researchers.

Young in his studies talked about 5 types of internet addiction: cyber sexual addiction, cyber relationship addiction, Net compulsions, information overload and gaming addiction. He believed proposed that internet addiction disorder would have similar criteria just like other addictions: withdrawal, tolerance, preoccupation with the substance, more usage of the substance than intended, activities to get more substance, loss of interest in other activities of social and occupational nature, ignorance of the impact of substance on the physical health. He also gave a scale to assess internet addiction namely, Internet addiction Test.

Beard (2005) gave 4 main components: excess use, withdrawal, tolerance and social consequences. Another researcher explained the internet usage as problematic when maladaptive preoccupation for longer than intended. (Shapira, 2000).

Griffiths (1996, 2005) explained the six main components: salience, mood modification, tolerance, withdrawal, conflict, and relapse.

Tao (2010) gave the following criteria: preoccupation with the internet; withdrawal, tolerance; Failed attempts to control internet use, continued excessive internet use despite knowledge of negative psychosocial problems, loss of interests, use of the internet to escape or relieve a dysphoric mood; and deception of family members, therapists, or others.

Prevalence

A study was conducted on Indian adolescents to understand the prevalence and it was found to be 0.7% along with presence of anxiety and depressive indicators. (Kamath et al, 2013). Another study conducted in Ahmedabad, India on high school students indicate that 11.8% of students are suffering from problem of internet addiction. (Yadav, 2013). Various studies indicate males are more problematic internet users than females (Cao et al 2007; Ceyhan et al

2008; Odacı 2010; Yang et al 2007), while one study suggested that females were more problematic internet users (Odacı & Çelik, 2012). There are also studies reporting no significant difference according to gender in terms of problematic internet use (Hardie & Tee, 2007; Jang et al., 2008; Kim et al., 2006; Subrahmanyam & Lin, 2007).

ATTACHMENT & ATTACHMENT THEORY

Attachment is a bond between a child and a caregiver. It is an emotional bond that connects one person to another. It is very important for the social and emotional development of the child to have an attachment figure. It is usually the parents or the caregiver of the child. The primary caregiver is the key to the formation of attachment styles in the early years of life that is mother in most cases. However, fathers also play an important role in formation of attachment style. By the age of 2 years, the child is able to differentiate between the caregivers style i.e. how style of one parent is different from the other.

Attachment Theory

The main contributors of attachment theory are John Bowlby and Mary Ainsworth. Bowlby took his training and worked with institutionalized and deprived children. This work had huge impact on his life's goals. He underwent training at British Psychoanalytic Institute. During that time, there were 3 groups: Group A (followers of Freud, 1960), Group B (followers of Melaine Klein, 1932) and Group C (with neither). He was trained under Group B but eventually he was part of Group C due to his own ideology. His work was also influenced by concepts in ethology (especially work by Lorenz, 1935; Harlow & Zimmerman, 1958), information processing model, developmental psychology (majorly work of Jean Piaget, 1951) and Psychoanalysis.

He emphasized in his work on mother – child separation and wrote a trilogy on “Attachment & Loss”. He was a psychoanalyst who also believed that mental health and reasons of behavioural problems lie in early childhood experiences. He explained attachment as a psychological connectedness between the people for infants essentially their mothers. He believed that mother and child have instinctual need to stay together.

Mary Ainsworth work was influenced by her introduction to the security theory by Blatz (1940). Post which, the focus was on understanding how important it is for a child to feel secure before moving out in unfamiliar situations.

She devised an experiment to assess the attachment of an infant to the caregiver (Mary Ainsworth, 1978). It was known as “Strange Situation” which included exposing the infant to a series of leaving and returning of the mother and a stranger.

Through the assessment technique, Ainsworth and another colleague identified 4 attachment styles:

1. Secure: Secure infants explore happily and wilfully get down of their mother's lap shortly as they enter room. They are engaged in their task however they keep coming closer and going away from their mother often. They are generally calm in the presence of the mother if there is a stranger around. They get upset if the mother leaves however when she returns they approach her. When she makes an effort, they calm down quickly and feel happy. So the infant seeks closeness to the caregiver, protest separation and has a secure base phenomena. As such babies grow up they are able to address their own emotions and seek help.

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2. Avoidant: Such babies are somewhat willing to explore, didn't "touch base." They didn't look at the stranger or the mother and reacted very little to her absence or her return, seeming to have no interest or concern. As they grow up, they find it difficult to express their needs and seek help.
3. Ambivalent: Such babies had mixed reactions towards the mother. Ambivalent babies were clinging and unwilling to explore, very upset by the stranger regardless of the mother's presence, protested greatly when the mother left, and were difficult to comfort. When the mother returned they would demand to be picked up but at the same time push the mother away in a mixed reaction to her return.
4. Disorganized: In subsequent studies, other researchers found (Main et al, 1990) that some babies seemed unable to choose just how they should react to their mother's return. These disorganized – disoriented infants would approach her with their eyes turned away from her, as if afraid to make eye contact. In general, these infants seemed fearful and showed a dazed and depressed look on their faces.

Mothers of each of the 4 types of infants also behaved differently from one another. Mothers of secure infants were more affectionate, kind and sensitive to their infant's needs and responsive to their communication. Mothers of avoidant babies were unresponsive, insensitive and cold and rejecting. Mothers of ambivalent babies tried to be responsive but were inconsistent and insensitive to infant's actions. Mothers of disorganized babies were found to be abusive or neglectful in their interactions. Attachment is not necessarily the result of the behaviour of the mother alone. It is the interaction of the behaviour of the mother and temperament of the child and the environment. One interesting case study indicated that peer attachment in human beings, may help make up for the absence of parents (A Freud, 1951).

Bartholomew and Horowitz (1991) explained 4 components in their model based on secure, dismissive, fearful, and preoccupied attachment. Individuals with fearful attachment have negative cognitive schemes towards themselves and others whereas Individuals who have secure attachment have positive cognitive schemes towards themselves and others. Individuals with preoccupied attachment have negative cognitive schemes towards themselves while having positive cognitive schemes towards others, and individuals with dismissive attachment have positive cognitive schemes towards themselves and negative cognitive schemes towards others (Bartholomew & Horowitz, 1991).

Attachment styles play not only significant role in childhood experiences but also in how the child develops close relationships in future. According to Bowlby, cognitive beliefs, emotions & experiences shape internal working models regarding self and others. The internal working models are actioned as and when the situation arises.

INTERNET ADDICTION & ATTACHMENT STYLES

Internet addiction and problematic internet use has been an area of concern in the recent past. Internet addiction is known to have overlapping components with substance abuse like developing tolerance, withdrawal and dependence. Based on the explanations found in substance dependence and attachment experiences, it is important to study the role of attachment styles in internet addiction. Multiple studies indicate how different attachment styles are correlated with internet addiction.

Studies report that a negative relationship exist between Internet addiction and Secure attachment style, and a positive relationship exist between Internet addiction and non-secure attachment styles namely, dismissive, fearful, and preoccupied. (Lin et al 2011; Shin et al.,

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2011; Şenormancı, 2014). Another study indicates secure attachment is negatively correlated with internet addiction and a positive correlation was found between anxious attachment style and internet addiction. (Griffiths et al 2017). A positive correlation between excessive smartphone usage and an insecure attachment style was found (Schroiff, 2019). Another study results indicate a positive correlations between a dismissing attachment style, a preoccupied attachment style and internet usage. (Odaci et al 2014).

People with secure attachment style have supportive environment, are able to express their opinions comfortably and don't feel threatened and hence there is a negative relationship that exists. Studies report that individuals who feel uncomfortable and insecure in interpersonal relationships and interactions tend to use internet to communicate (Rubin, 2000).

Another interesting study which compared the attachment styles of internet addicted and normal controls found that addicted students had an avoidant attachment style and normal students had safe and anxious attachment styles. (Mafi et al, 2019).

Greenfield (1999) found that individuals with low self-efficacy who display shy, fearful, and anxious behaviours use internet more than often. Another study results reveal how low self-efficacy if combined with insecure attachment style, acts as a risk factors for Internet addiction. (Severino et al (2013). Another study indicated that avoidant insecure attachment style, anxious insecure attachment style and fear of negative evaluation were significantly correlated with internet addiction but not with secure attachment style. Anxious & avoidant insecure attachment styles were also found to be contributors of predicting internet addiction (Nazli et al, 2015)

Another study conducted by Jafar et al (2012), focused on mental health, coping strategies and studied internet addiction and attachment styles: The findings of the study indicate that internet addiction is negatively correlated with secure attachment styles, and positively correlated with ambivalent and avoidant insecure attachment styles. It was also found in this study that there was a significant positive relationship between internet addiction and poor mental health, and the attachment styles, coping strategies and mental health predicted internet addiction.

Studies have found that strong parental attachment results in decreased need to use internet. Having strong parental ties is a protective factor of internet addiction (Yang et al 2016). If the family ties are not strong there is a need to escape from reality and internet addiction is a maladaptive coping strategy of the same. People escape from situations when their emotional needs are not met. A study reported that pathological internet use is a function of insecure attachment and limited interpersonal relationships. (Eichenberg et al 2017). Patients with Internet addiction have more anxious attachment styles as well as prominent disruptions in family functioning. (Omer Senormanci, 2014).

CONCLUSION

The aim of the present paper was to study the associations between internet addiction and attachment styles. Research indicates that family & its environment and early childhood experiences play a huge role in development of attachment pattern or style of the individual. The family functioning is key to learn how to form healthy or unhealthy relationships. It is believed that if family ties are not strong for various reasons then the individual is unable to understand & address their own emotional needs. This further results in gaps in self-efficacy and self-regulation of the individual. This encourage the use of internet to fill the emotional

void. The understanding is proved in the various research studies that secure attachment style has negative correlation with internet addiction and anxious, avoidant and dismissive attachment style have positive correlation with internet addiction. Secure individuals are able to accept their emotional needs and work towards it unlike the insecure individuals. One of the major limitations of such work is that the data provided by people is through self-report questionnaires. This may result in biases in the data due to memory bias, social desirability bias and many more. There is also a need to carry out the studies longitudinally specific to different attachment style patterns so that greater details are available in terms of understanding and treatment patterns can be developed and further techniques to move towards a secure attachment can be established.

REFERENCES

- Abramson, L. Y., Metalsky, G. I., & Alloy, L. B. (1989). Hopelessness depression: a theory-based subtype of depression. *Psychological Review*, 96, 358-372.
- Ainsworth, M. D. S. (1974). Citation for the G. Stanley Hall Award to John Bowlby. Unpublished manuscript
- Bahadori, K. J., & Hashemi, N. T. (2012). The relationships of attachment styles, coping strategies, and mental health to Internet addiction.
- Bartholomew, K. (1990). Avoidance of intimacy: An attachment perspective. *Journal of Social and Personal Relationships*, 7(2), 147–178.
- Bartholomew, K., & Horowitz, L. (1991). Attachment styles among young adults: A test of a four-category model. *Journal of Personality and Social Psychology*, 61(2), 226–244.
- Beard, K. W. (2005). Internet addiction: a review of current assessment techniques and potential assessment questions. *Cyber Psychology & Behaviour*, 8(1), 7-14
- Blackwell, D., Leaman, C., Tramposch, R., Osborne, C., & Liss, M. (2017). Extraversion, neuroticism, attachment style and fear of missing out as predictors of social media use and addiction. *Personality and Individual Differences*, 116, 69-72.
- Bowlby, J. (1969/1982). *Attachment and loss: Vol. 1. Attachment*. NY: Basic Books.
- Bowlby, J. (1969/1982). *Attachment and loss: Vol. 1. Attachment*. NY: Basic Books.
- Bowlby, J. (1980). *Attachment and loss: Vol. 3. Sadness and depression*. NY: Basic Books.
- Brown, R. I. F. (1993). Some contributions of the study of gambling to the study of other addictions. *Gambling behaviour and problem gambling*, 1, 241-272.
- Cao, F., & Su, L. (2007). Internet addiction among Chinese adolescents: prevalence and psychological features. *Child: care, health and development*, 33(3), 275-281.
- Ceyhan, A. A. (2008). Predictors of problematic internet use on Turkish university students. *Cyber Psychology & Behaviour*, 11(3), 363-366.
- Cooper, A., Putnam, D. E., Planchon, L. A., & Boies, S. C. (1999). Online sexual compulsivity: Getting tangled in the net. *Sexual Addiction & Compulsivity: The Journal of Treatment and Prevention*, 6(2), 79-104.
- Davis, R. A. (2001). A cognitive-behavioural model of pathological Internet use. *Computers in human behaviour*, 17(2), 187-195.
- Delmonico, D. L., & Griffin, E. J. (2011). Cybersex addiction and compulsivity. *Internet addiction: A handbook and guide to evaluation and treatment*, 113-131
- Eichenberg, C., Schott, M., & Schroiff, A. (2019). Comparison of students with and without problematic smartphone use in light of attachment style. *Frontiers in psychiatry*, 10, 681.
- Eichenberg, C., Schott, M., Decker, O., & Sindelar, B. (2017). Attachment style and internet addiction: an online survey. *Journal of medical Internet research*, 19(5), e170
- Estevez, A., Jauregui, P., Sanchez-Marcos, I., Lopez-Gonzalez, H., & Griffiths, M. D. (2017). Attachment and emotion regulation in substance addictions and behavioural addictions. *Journal of behavioural addictions*, 6(4), 534-544.

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- Freud, A. (1960), Discussion of Dr, John Bowlby's paper. *Psychoanalytic Study of the Child*, 15, 53-62.
- Goel, D., Subramanyam, A., & Kamath, R. (2013). A study on the prevalence of internet addiction and its association with psychopathology in Indian adolescents. *Indian Journal of Psychiatry*, 55(2), 140.
- Goodman, A. (1990). Addiction: definition and implications. *British journal of addiction*, 85(11), 1403-1408.
- Greenfield, D. N. (1999). *Virtual addiction*. Oakland, CA: New Harbinger Publications
- Griffiths, M. (1996). Behavioural addiction: an issue for everybody?. *Employee Councelling Today*, 8(3), 19-25.
- Griffiths, M. D. (2005). A "components" model of addiction within a biopsychosocial framework. *Journal of Substance Use*, 10(4), 191-197.
- Grohol, M. (1999). *Internet Addiction Guide*. Psych Central. Retrieved January 11, 2010
- Hardie, E., & Tee, M. Y. (2007). Excessive Internet use: The role of personality, loneliness and social support networks in Internet Addiction. *Australian Journal of Emerging Technologies & Society*, 5(1).
- Harlow, H. F., & Zimmermann, R. R. (1958). The development of affective responsiveness in infant monkeys. *Proceedings of the American Philosophical Society*, 102, 501 -509.
- Jang, K. S., Hwang, S. Y., & Choi, J. Y. (2008). Internet addiction and psychiatric symptoms among Korean adolescents. *Journal of School Health*, 78, 165-171.
- Kim, K., Ryu, E., Chon, M., Yeun, E., Choi, S., Seo, J., et al. (2006). Internet addiction in Korean adolescents and its relation to depression and suicidal ideation: A questionnaire survey. *International Journal of Nursing Studies*, 43, 185-192.
- Klein, M. (1932). *The psycho-analysis of children*. London: Hogarth Press.
- Kraut, R., Patterson, M., Lundmark, V., Kiesler, S., Mukopadhyay, T., & Scherlis, W. (1998). Internet paradox: A social technology that reduces social involvement and psychological well-being? *American Psychologist*, 53(9), 1017-1031.
- Lei, L., & Yang, Y. (2007). The development and validation of adolescent pathological Internet use scale. *Acta Psychologica Sinica*, 39(4), 688-696.
- Lin, C., & Yu, S. (2008). Adolescent internet usage in Taiwan: exploring gender differences. *Adolescence*, 43, 317-331.
- Lin, M. P., Ko, H. C., & Wu, J. Y. W. (2011). Prevalence and psychosocial risk factors associated with Internet addiction in a nationally representative sample of college students in Taiwan. *Cyber Psychology, Behaviour, and Social Networking*, 14(12), 741-746. <http://dx.doi.org/10.1089/cyber.2010.0574>
- Lorenz, K. Z. (1935). *Der Kumpan in der Umwelt des Vogels* (The companion in the bird's world). *Journal fur Ornithologie*, 83, 137-213. (Abbreviated English translation published 1937 in *Auk*, 54, 245-273.)
- Mafi, M., & Botdavar, N. (2019). Comparison of attachment styles and lifestyle in Internet addict students and normal students. *Rooyesh-e-Ravanshenasi Journal (RRJ)*, 8(7), 247-254.
- Main, M., & Solomon. (1990). Procedures for identifying infants as disorganized/ disoriented during the Ainsworth Strange Situation. In M.T. Greenberg, D. Cicchetti & E.M. Cummings (Eds.), *Attachment in the preschool years* (pp.121-160). Chicago: University of Chicago Press.
- Monacis, L., de Palo, V., Griffiths, M. D., & Sinatra, M. (2017). Exploring individual differences in online addictions: The role of identity and attachment. *International journal of mental health and addiction*, 15(4), 853-868.
- Nalwa, K., & Anand, A. P. (2003). Internet addiction in students: A cause of concern. *Cyber psychology & behaviour*, 6(6), 653-656.

Internet addiction & attachment styles

- Niemz, K., Griffiths, M., & Banyard, P. (2005). Prevalence of pathological Internet use among university students and correlations with self-esteem, the General Health Questionnaire (GHQ), and disinhibition. *Cyber psychology & behaviour*, 8(6), 562-570.
- Odacı, H., & Çıkrıkçı, Ö. (2014). Problematic internet use in terms of gender, attachment styles and subjective well-being in university students. *Computers in Human Behavior*, 32, 61-66.
- Odacı, H., & Kalkan, M. (2010). Problematic Internet use, loneliness and dating anxiety among young adult university students. *Computers & Education*, 55(3), 1091-1097.
- Odacı, Hatice & Cikrikci, Ozkan. (2014). Problematic internet use in terms of gender, attachment styles and subjective well-being in university students. *Computers in Human Behaviour*. 32. 61–66.
- Papacharissi, Z., & Rubin, A. M. (2000). Predictors of internet use. *Journal of Broadcasting & Electronic Media*, 44, 175–196.
- Piaget, J. (1951). *The origin of intelligence in children*. New York: International Universities Press
- Pratarelli, M., Browne, B., & Johnson, K. (1999). The bits and bytes of computer/Internet addiction: a factor analytic approach. *Behaviour Research Methods, Instruments, and Computers*, 31(2), 305-314.
- Savcı, M., & Aysan, F. (2016). The role of attachment styles, peer relations, and affections in predicting Internet addiction. *Addicta: The Turkish Journal on Addictions*, 3(3), 401-432.
- Schimmenti, A., Caretti, V., & La Barbera, D. (2014). Internet Gaming Disorder or Internet Addiction? A plea for conceptual clarity. *Clinical Neuropsychiatry*, 11(3-5), 145-146.
- Şenormancı, Ö., Şenormancı, G., Güçlü, O., & Konkan, R. (2014). Attachment and family functioning in patients with internet addiction. *General hospital psychiatry*, 36(2), 203-207.
- Shapira, N. A., Goldsmith, T. D., Keck Jr, P. E., Khosla, U. M., & McElroy, S. L. (2000). Psychiatric features of individuals with problematic internet use. *Journal of affective disorders*, 57(1-3), 267-272.
- Shin, S. E., Kim, N. S., & Jang, E. Y. (2011). Comparison of problematic Internet and alcohol use and attachment styles among industrial workers in Korea. *Cyber Psychology, Behaviour, and Social Networking*, 14(11), 665–672. <http://dx.doi.org/10.1089/cyber.2010.0470>
- Tao, R., Huang, X., Wang, J., Zhang, H., Zhang, Y., & Li, M. (2010). Proposed diagnostic criteria for internet addiction. *Addiction*, 105(3), 556-564.
- Whang, L. S. M., Lee, S., & Chang, G. (2003). Internet over-users' psychological profiles: a behaviour sampling analysis on internet addiction. *Cyber psychology & behaviour*, 6(2), 143-150.
- Wilson, K., Fornasier, S., & White, K. M. (2010). Psychological predictors of young adults' use of social networking sites. *Cyber psychology, Behaviour and Social Networking*, 173–177.
- Winkler, A., Dörsing, B., Rief, W., Shen, Y., & Glombiewski, J. A. (2013). Treatment of internet addiction: a meta-analysis. *Clinical psychology review*, 33(2), 317-329.
- Yadav, P., Banwari, G., Parmar, C., & Maniar, R. (2013). Internet addiction and its correlates among high school students: A preliminary study from Ahmedabad, India. *Asian journal of psychiatry*, 6(6), 500-505.
- Yang, X., Zhu, L., Chen, Q., Song, P., & Wang, Z. (2016). Parent marital conflict and Internet addiction among Chinese college students: The mediating role of father-child, mother-child, and peer attachment. *Computers in Human Behaviour*, 59, 221-229.
- Yellowlees, P. M., & Marks, S. (2007). Problematic Internet use or Internet addiction?. *Computers in human behaviour*, 23(3), 1447-1453.

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- Young, K. S. (2004). Internet addiction: A new clinical phenomenon and its consequences. *American behavioral scientist*, 48(4), 402-415.
- Young, K., Pistner, M., O'MARA, J. A. M. E. S., & Buchanan, J. (1999). Cyber disorders: The mental health concern for the new millennium. *Cyber Psychology & Behaviour*, 2(5), 475-479.

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