

# Problematic Internet Use in the Context of Perceived Social Support and Self-esteem among Network Users Aged 15-26.

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**Abstract.** Problematic Internet Use is a cognitive-behavioral construct based on the diathesis-stress model. As research shows, more and more people who are adolescents or in the period of early adulthood encounter the problem of excessive use of the Internet [1]. The phenomenon itself, classified as a behavioral addiction, has a heterogeneous picture and structure [2]. In the presented study, based on the diathesis-stress model, the subject of protection factors such as perceived social support and self-esteem will be raised. These factors, acting as a buffer, are particularly important in the age range that has been tested [3]. The vulnerability window in which the examined persons are located increases the risk of Problematic Internet Usage, which is why among these people protective factors are examined. The aim of this study is to check the relationship between self-esteem and perceived social support with Problematic Internet Use. In addition, based on the available literature, the hypothesis that the perceived social support will remain in the negative relationship with the problematic use of the Internet will be checked.

**Keywords:** Problematic Internet Use · Perceived Social Support · Self-esteem · Diathesis-stress Model

## 1 Introduction

As the results of statistical analyzes provided by Central Statistical Office using with Internet and technologies, the number of Internet users in Poland is growing [4]. In addition, the age at which people start using the Internet decreases. Moreover, from the surveys carried out among parents of children and adolescents, most of them do not control the time or type of online activity [5]. Research on the applicability of parental control software has shown their low awareness in society. The medium like the Internet offers many possibilities. Currently, there is a discourse which indicates on the impact of technology on human being. This results in the bi-directionality of these relations have been overlooked, when not only man creates and changes Internet, but also the Internet shapes and responds to human needs.

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This is particularly important in the period of adolescence and early adulthood, when changes in life may contribute to the development of non-adaptive ways of coping with stress, meeting needs or seeking social support [6]. When talking about perceived social support, it is very important to highlight the distinction between perceived and actual support. Perceived support refers to the needs, cultural patterns of action or to receive normalization of the situation. In the examined age bracket, it is particularly important, due to building both individual own identity and awareness of mutual connections in groups to which a given person belongs [7].

In addition, according to research, the most common reason for excessive use of the Internet is the search for social support in and through this technology [8]. The second extremely important component is self-esteem. Its importance in research is also significant due to the selection of the research group. People in adolescence, as reported by research, often experience a temporary drop in self-esteem [9]. However, the combination of the aforementioned drop in self-esteem with possible and predicted stressful life situations and the ease and universality of access to the Internet may contribute to the development of Problematic Internet Use.

What may seem surprising, the aim of this study is to look at self-esteem and perceived social support as protection factors, also known as buffer. Based on the diathesis-stress model, it is assumed that just moderate or high self-esteem as well as high scores in the scales of perceived social support can play a significant role in the way of using the Internet [10]. In addition, the constructs mentioned above interact with each other. As can be seen from the analyzes of available sources, moderate and high self-esteem remains due to high scores in the scales of perceived social support [11]. It is an explanation with greater cognitive access to noticing and remembering the support received from the social networks possessed.

## **2 Related work**

As it results from the analysis of the literature on the subject, research has been conducted combining broadly understood Internet addiction in the context of self-evaluation. Nevertheless, it seems intentional to mention here the existence of a multitude of contradictions treating the improper use of the Internet. Addiction to the Internet has been created so far, Compulsive Use of the Internet, Problematic Using the Internet, WWW-holism, networking, network dependence, Excessive Use of the Internet and many more [5]. A full description and review of these phenomena would require a separate analysis, but nevertheless the multiplicity of constructs may involve important information. One of them is that this is an urgent topic, because the privacy of people who use the Internet incorrectly is noticeable, regardless of the name of the phenomenon. This growth causes pressure on many circles like, researchers, psychologists, psychotherapists and pedagogues to bend over and take up this topic. On the other hand, it shows a lack of clarity as to the nature, causes, consequences and symptoms of both theoreticians and practitioners [12].

This controversies raise questions about purposefulness and usability of duplicated criteria with addiction to gambling, and about legitimacy of creation new

taxonomies and classifications. It is worth noting, that the problem is not only purely academic, but also requires assistance in the field of psychological and psychotherapeutic services. For efficiency of such services it is insufficient to know only the image and consequences of the phenomenon. It is fundamental and more desirable to think about the causes and, more importantly, possible protection factors in line with the latest trends in health psychology [13].

In relation to the problematic use of the Internet, the choice of this method of defining the phenomenon was not accidental. It is based on the diathesis-stress concept, taking into account all the elements needed for its occurrence, in addition, the emphasis in this model is placed on the causality of certain behaviors. The description and consequences of the phenomenon are considered only after the identification of the fraud. This model is particularly important because, based on the assumptions of the cognitive-behavioral trend, it has been tested in many studies [14]. These were comparative studies with other proposed models regarding undesirable use of technology as well as research on the subject of relationships with other variables [15].

The last important component of this research is perceived social support. In the available analyzes, it is talked about increasing individualization of society [16]. This phenomenon causes not only economic, but above all cultural and social consequences. The loosening of social ties remains in connection with all stages of human life. Often leading to a decrease in life satisfaction, a sense of happiness or stability both material and derived from belonging to a given group or environment [17]. This topic is particularly important in the context of creating your own identity as well as shaping relationships in the environment during adolescence and early adulthood. As studies show, the skills acquired during this period of establishing social relations, noticing, using and showing support are crucial in the further development of these competences [18].

### **3 Variables**

In the presented study, the main issue is Problematic Using the Internet. It is a construct based on the Davis Pathological Internet Use model. It was created as a result of the widening debate on behavioral addictions in the context of new technologies. Based on the diathesis-stress model, it assumes not only the description of the phenomenon, but more importantly the identification of causes [19].

Social support refers to the support networks you have. In the results of the development process and socialization, a person learns to build the above networks and then function in them. As the research shows, the support network is particularly important in a stressful or difficult situation [20]. Experiencing stress forces people to use their resources and to act in the situation. Nevertheless, the support network can significantly help a person in a stressful situation. Material or financial support is one of the types of social support. It is worth noting that it may manifest itself not only in monetary terms but also, for example, in the form of shelter. Other types of support are much more significant. Valuation, a sense of belonging or cognitive support play

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an important role in a stressful situation. These types of support help to normalize the situation, situate it over the course of life or provide emotional support in the moment of crisis [21].

Self-esteem is a construct referring to the relation to self. It is worth noting that it is related to emotional stability derived from personality traits [22]. This means that having some permanent predisposition to emotional stability will be associated with moderate or high self-esteem.

## **4 Hypothesis**

The above-mentioned theoretical analysis resulted in some research questions. Does self-esteem remain in relation to the problematic use of the Internet, and if so, what is the nature of this relationship? Does the perceived social support remain in relation to the problematic use of the Internet? And if so, what is the nature of this relationship? Basing on above questions and diathesis-stress model, the following research hypotheses are postulated:

H1. High and moderate self-esteem remains in a negative relationship with the problematic use of the Internet.

H2. The high level of perceived social support remains in a negative relation with the Problematic Use of the Internet.

H3. The greater the intensity of both explanatory variables, the lower the level of the explained variable.

## **5 Analysis Procedure**

The statistical analysis procedure covers all basic measures. The description of variables was made with the help of values appropriate for the level of the interval scale. Thus, the measure of the central tendency was arithmetic mean, measure of dispersion (dispersion) - standard deviation, and the distribution symmetry was skewness and kurtosis. The next step is to choose appropriate correlation methods as well as comparative methods. In addition, modeling of structural equations based on the theoretical model of the study was applied [23].

543 people took part in the study. 391 women and 152 men. 36 people were in the 15-17 age group, 240 in the 18-20 age group, 209 in the 21-23 age group, and 58 in the 24-26 age group. 96 people lived in the village, 30 in a small town, 164 in the middle and 253 in a big city. 341 people used two devices, 108 from one, and 94 from over three, on which they could surf the Internet. Normal distribution was not obtained in the variables studied, therefore for non-parametric analysis non-parametric statistics were used.

The obtained results showed that self-esteem correlates positively with Problematic Internet Use,  $rHO = 0.35$  ( $p < 0.05$ ). Persons between the ages of 15-17 have obtained the highest level of correlation,  $rHO = 0.49$  ( $p < 0.05$ ). For people aged

18-20, it was  $rHO = 0.30$  ( $p < 0.05$ ), aged 21-23  $rHO = 0.39$  ( $p < 0.05$ ), and for people aged 24-26  $rHO = 0.32$  ( $p < 0.05$ ). Women obtained  $rHO$  result =  $0.33$  ( $p < 0.05$ ), lower in relation to men,  $rHO = 0.39$  ( $p < 0.05$ ). In connection with the obtained results, the first hypothesis was not confirmed and the results were obtained, demonstrating the reverse dependence. As the suggested cause of such phenomena, the willingness of a good fall out in the tests by the participants can be considered, which resulted in high results on the scale of self-esteem.

From the obtained results, all subscales and the general scale of insuperable social support correlated statistically significantly. The general scale obtained a negative correlation in relation to the Problematic Internet Use, amounting to  $rHO = -0.29$  ( $p < 0.05$ ). The highest negative correlation was obtained by people from the 21-23 age range,  $rHO = -0.40$  ( $p < 0.05$ ). Women obtained statistically higher negative correlations,  $rHO = -0.33$  ( $p < 0.05$ ), than men,  $rHO = -0.22$ . Material, attribution and valuation subscales have obtained negative correlations with Problematic Internet Use. The highest score was obtained by the material subscale,  $rHO = -0.35$  ( $p < 0.05$ ), then the membership scale,  $rHO = -0.25$  ( $P < 0.05$ ), at the end of the valuation scale,  $rHO = -0.10$  ( $p < 0.05$ ). The self-assessment of self-esteem obtained a positive correlation result of  $rHO = 0.13$  ( $p < 0.05$ ). People from the 21-23 age group obtained the highest scores for all subscales. For the material scale,  $rHO = -0.43$  ( $p < 0.05$ ),  $rHO$  affiliation =  $-0.30$  ( $p < 0.05$ ) and for the rHP rating scale =  $-0.21$  ( $p < 0.05$ ). There were no statistically significant differences between men and women. The obtained results confirm the second hypothesis. The third hypothesis was partially confirmed, due to the fact that both self-assessment and the self-assessment subscale in social support obtained positive correlations with Problematic Internet Use.

In addition, the method of modeling structural equations gave satisfactory results in terms of matching the theoretical model to the data. In brackets are given values, within which must be obtained compass, so that you can infer about a good fit of the model. The CMIN / DF factor was  $3.07$  ( $< 5$ ), GFI =  $0.993$  ( $> 0.90$ ), CFI =  $0.991$  ( $> 0.90$ ), RMSEA =  $0.062$  ( $< 0.08$ ).

## **6 Conclusions**

Holistic models of understanding disorders are extremely valuable in research and in practice. Due to the holistic view of the problem of disorder, it is possible not only to effectively help those who have developed the disorder, but also to plan preventive activities. In the case of Problematic use of the Internet, being much more focused on effects, than on causes leads to narrowing the way of understanding this phenomenon. The objectives of this study have been partially confirmed. Selected indicators of perceived social support negatively correlate with Problematic Internet Use. In addition, self-evaluation turned out to be positively correlated with the Problematic Use of the Internet. The results of the study indicate the special importance of social support in Problematic Internet Use, which is consistent with the results of other studies addressing behavioral addictions and support.

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## References

1. Gross, E., F.: Adolescent Internet use: What we expect, what teens report. *Journal of applied developmental psychology*, **25**(6), 633-649 (2004)
2. Douglas, A. C., Mills, J. E., Niang, M., Stepchenkova, S., Byun, S., Ruffini, C., Lee, S., Loufti, J., Lee, J., Blanton, M.: Internet addiction: Meta-synthesis of qualitative research for the decade 1996–2006. *Computers in human behavior*, **24**(6), 3027-3044 (2008)
3. Caplan, S. E.: Theory and measurement of generalized problematic Internet use: A two-step approach. *Computers in Human Behavior*, **26**(5), 1089-1097 (2010)
4. GUS.: Społeczeństwo informacyjne w Polsce. Wyniki badań statystycznych z lat 2012-2016, Warszawa: GUS. Internet Standard (2016).
5. Livingstone, S., Bober, M.: Regulating the internet at home: contrasting the perspectives of children and parents. *Digital generations: Children, young people, and new media*, 93-113 (2006)
6. Lavin, M., Marvin, K., Mclarney, A., Nola, V., Scott, L.: Sensation seeking and collegiate vulnerability to Internet dependence. *CyberPsychology & Behavior*, **2**(5), 425-430 (1999).
7. Procidano, M. E., Heller, K.: Measures of perceived social support from friends and from family: Three validation studies. *American journal of community psychology*, **11**(1), 1-24 (1983)
8. Swickert, R. J., Hittner, J. B., Harris, J. L., Herring, J. A.: Relationships among Internet use, personality, and social support. *Computers in human behavior*, **18**(4), 437-451 (2002)
9. Niemz, K., Griffiths, M., Banyard, P.: Prevalence of pathological Internet use among university students and correlations with self-esteem, the General Health Questionnaire (GHQ), and disinhibition. *Cyberpsychology & behavior*, **8**(6), 562-570 (2005)
10. Van der Aa, N., Overbeek, G., Engels, R. C., Scholte, R. H., Meerkerk, G. J., Van den Eijnden, R. J.: Daily and compulsive internet use and well-being in adolescence: a diathesis-stress model based on big five personality traits. *Journal of youth and adolescence*, **38**(6), 765 (2009)
11. Gangadharbatla, H.: Facebook me: Collective self-esteem, need to belong, and internet self-efficacy as predictors of the iGeneration's attitudes toward social networking sites. *Journal of interactive advertising*, **8**(2), 5-15 (2008)
12. Morahan-Martin, J.: Internet abuse: addiction? disorder? symptom? alternative explanations?. *Social Science Computer Review*, **23**(1), 39-48 (2005)
13. Davis, R. A.: A cognitive-behavioral model of pathological Internet use. *Computers in human behavior*, **17**(2), 187-195 (2001)
14. Hall, A. S., Parsons, J.: Internet addiction: College student case study using best practices in cognitive behavior therapy. *Journal of mental health counseling*, **23**(4), 312 (2001)
15. Du, Y. S., Jiang, W., Vance, A.: Longer term effect of randomized, controlled group cognitive behavioural therapy for Internet addiction in adolescent students

- in Shanghai. *Australian & New Zealand Journal of Psychiatry*, **44**(2), 129-134 (2010)
16. Bauman, Z. (2013). *The individualized society*. John Wiley & Sons.
  17. Diener, E.: Subjective well-being: The science of happiness and a proposal for a national index. *American psychologist*, **55**(1), 34 (2000).
  18. Dumont, M., Provost, M. A.: Resilience in adolescents: Protective role of social support, coping strategies, self-esteem, and social activities on experience of stress and depression. *Journal of youth and adolescence*, **28**(3), 343-363 (1999)
  19. Spada, M. M.: An overview of problematic Internet use. *Addictive behaviors*, **39**(1), 3-6 (2014)
  20. Oh, H. J., Ozkaya, E., LaRose, R.: How does online social networking enhance life satisfaction? The relationships among online supportive interaction, affect, perceived social support, sense of community, and life satisfaction. *Computers in Human Behavior*, **30**, 69-78 (2014)
  21. Frison, E., Eggermont, S.: The impact of daily stress on adolescents' depressed mood: The role of social support seeking through Facebook. *Computers in Human Behavior*, **44**, 315-325 (2015)
  22. Marcia, J. E.: Ego-Identity Status: Relationship to Change in Self-Esteem. *Social Encounters: Contributions to Social Interaction*, **340**, 100-137 (2017)
  23. Hair Jr, J. F., Hult, G. T. M., Ringle, C., Sarstedt, M.: *A primer on partial least squares structural equation modeling (PLS-SEM)*. Sage Publications (2016)