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Miscellaneous

Evaluation of the incidence of anxiety in correlation with the severity of gambling addiction in Romania

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Abstract: The problem of pathological gambling is an area of interest for psychopathology, around which more and more research is developing worldwide, given the rise of the phenomenon both in the real environment, as well as in the virtual one - with an expected annual increase of 10.1%.[2] This study aimed to assess the incidence of anxiety in correlation with the severity of addiction on a group of 115 people in Romania.

Keywords: pathological gambling; psychopathology; anxiety; severity of addiction

Introduction

The gambling pathology has undergone a nosological restructuring, being reclassified from the category of "impulse control disorders not elsewhere specified" according to DSM-IV TR (APA, 2000) and was introduced as the only disorder in the category of "addictive and substance-related disorders", Subcategory "disorder without substance" in DSM-V(2013).[3,4]

In the literature, it is noted that pathological gamblers exhibit symptoms of depression and anxiety, develop cognitive distortions and persistent and recurrent maladaptive behaviors (Porter & Ghezzi, 2006, pp. 19-44).

The data identified in epidemiological research support an involvement of affective disorders in the development and maintenance of gambling pathology, with large emotional vulnerabilities being observed, mainly symptoms characteristic of depression and/or anxiety (Petry, Stinson & Grant, 2005, pp. 564-574).

Although symptoms of anxiety are common in pathological gambling, and their high prevalence among players is well established, less well known is how these symptoms influence the clinical presentation of pathology. There are, however, lines of research suggesting that anxiety is a powerful contributor to gambling behavior. There is research on other types of addiction that shows that consuming behavior is a dysfunctional way to cope with anxiety (Spada, Giustina, Rolandi, Fernie & Caselli, 2015, pp. 614-622). The decrease of anxiety is, however, short-lived, and symptoms often recur with much greater

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[2] PricewaterhouseCoopers. Global gaming outlook. Dec 2011. Available from http://www.pwc.com/en_GX/gx/entertainmentmedia/publications/global-gaming-outlook.jhtml

[3] Diagnostic and Statistical Manual of Mental Disorders, DSM-V, 5th edition, (2013). Washington, DC, London, England, p. 585 -589.

[4] Diagnostic and Statistical Manual of Mental Disorders. 4th Edition Text Revisited (DSM-IV-TR), (2000). American Psychiatric Association, Washington, DC, p. 463.

intensity; thus, a cycle is created in which the anxious individual exhibits a much more severe form of addictive behavior. From another point of view, poor attention to elements considered threatening is a well-characterized phenomenon, and other elements considered non-threatening tend to be less perceived in anxious individuals (Bar-Haim, Lamy, Pergamin, Bakermans-Kranenburg, & Van Ijzendoorn, 2007, pp. 1–24)

Aim: Evaluation of the incidence of anxiety in correlation with the severity of gambling addiction on a group of 115 people in Romania.

Material and method: During the research we conducted an analytical, transversal study, through which we evaluated the affective characteristics of the psychological profile of the pathological gambling player. The participants were selected after voluntary enrollment in the program of prevention and medical, psychological and social assistance in addictions - PROSALVITA conducted by the non-profit Association "It can be different" (Galați), between January and October 2021, following a series of inclusion and exclusion criteria.

Criteria for inclusion in the study:

-   Score of minimum 5 on the South Oaks gambling screen –SOGS test.

Exclusion criteria:

-   Under 18 years old;
-   Non-acceptance of inclusion in the study and the signing of informed consent;
-   Participation in psychotherapy programs in the past.

The enrollment in the program was carried out following a preliminary screening examination to establish the diagnosis of gambling addiction, using the diagnostic inventory for the pathological chance game South Oaks gambling screen –SOGS.

The study was conducted in full agreement with the ethical principles contained in the Helsinki Declaration (2008). All patients in the study signed informed consent.

Scales Applied in the Study

a. The diagnostic inventory for the pathological gambling South Oaks gambling screen – SOGS is the screening tool with the widest rate of use for the purpose of diagnosing and determining the severity of pathological chance game. One of the strengths of using the inventory is the facility with which it is administered and the fact that it has been shown to be beneficial in the diagnosis of addiction to chance games in both adults and adolescents, including 16 items that fit the DSM-IV diagnostic criteria, 4 of them are not included in the score (Edgren, Castrén, Mäkelä, Pörtfors, Alho, & Salonen, 2016, pp. 600-615).

b. Problem gambling Severity Index – PGSI – is a self-test comprising 9 items, developed in 2001 by Ferris and Wynne, being used by a multitude of researchers in the studies conducted (Azmier, 2005, Cox et al., 2005, Disley et al, 2011, Kairouz et al., 2006; Edgren, Castrén, Mäkelä, Pörtfors, Alho, & Salonen, 2016, pp. 600-615)

c. The Becks Anxiety Inventory of (BAI) - Beck et al. built this inventory based on the idea that the existing scales up to that point had problems distinguishing anxiety from depression, being characterized by poor discriminatory validity. This was mainly due to the fact that the anxiety scales included items corresponding to the symptoms of depression. To combat this overlap, Beck and his collaborators

conducted a sequential analysis of the items that were applying to be included in this questionnaire from a range of 86 items. Thus, at a preliminary analysis, the first 20 items that led to the overlap of the two pathologies were removed. Following a series of subsequent analyzes, 19 items were also removed and the 37 items retained formed the preliminary version of the anxiety inventory that was tested on a group of 116 subjects. Following the analysis of the validity and confidence of each item, 16 items were removed and only 21 items were retained that form the final version of the Beck anxiety inventory. Compared to previous anxiety questionnaires, this inventory shows several somatic signs characteristic of anxiety, and by factorial analysis it was concluded that there are several factors: One cognitive and one somatic, or four factors such as: Cognitive, vegetative, psychomotor and panic. The total score of the scale is included in the range 0-63, and the authors specify certain threshold scores to assess the severity of anxiety (Beck et al. 2000): 0-9 normal or lack of anxiety; 10-18 mild to moderate anxiety; 19-29 moderate to severe anxiety, 30-63 severe anxiety. The Beck inventory of anxiety exhibits good psychometric properties positively correlated with other anxiety scales such as Spilberger et al.'s status-trait anxiety scale (1970) or Hamilton's anxiety scale and discriminates depression anxiety much better than other scales (Enns et al., 1998).

Study Group Analysis

Following the application of the Diagnostic Inventory for the Pathological Gambling - South Oaks gambling screen, the average score for the study group 13.66, the minimum score obtained being 7 and the maximum 19, out of a possible total maximum of 20. Most participants scored 14 (22 participants) – Figure 1.
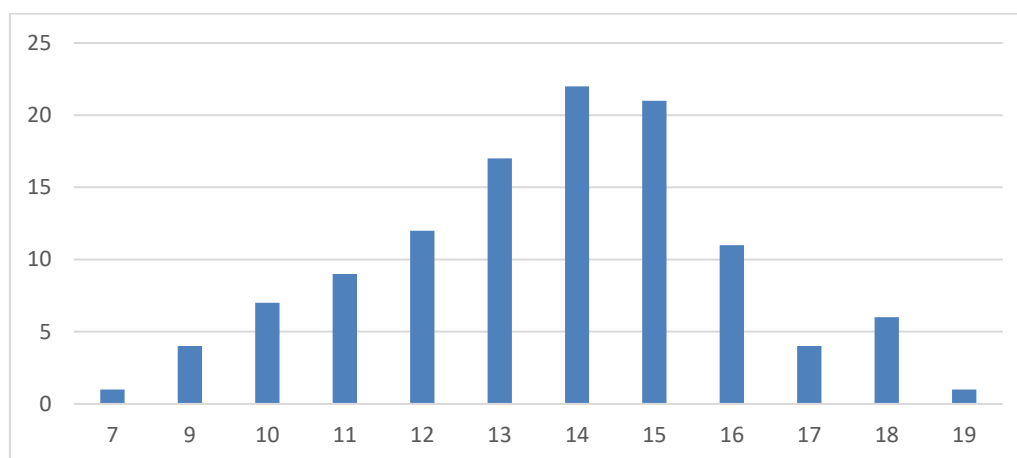

Figure 1. Study Group Distribution based on the results of The Diagnostic Inventory for Pathological Gambling - South Oaks Gaming Screen (SOGS)

Following the application of the Problem Gambling Severity Index, the average score for the study group was 16.2, the minimum score obtained being 4 and the maximum score 22 – Figure 2.
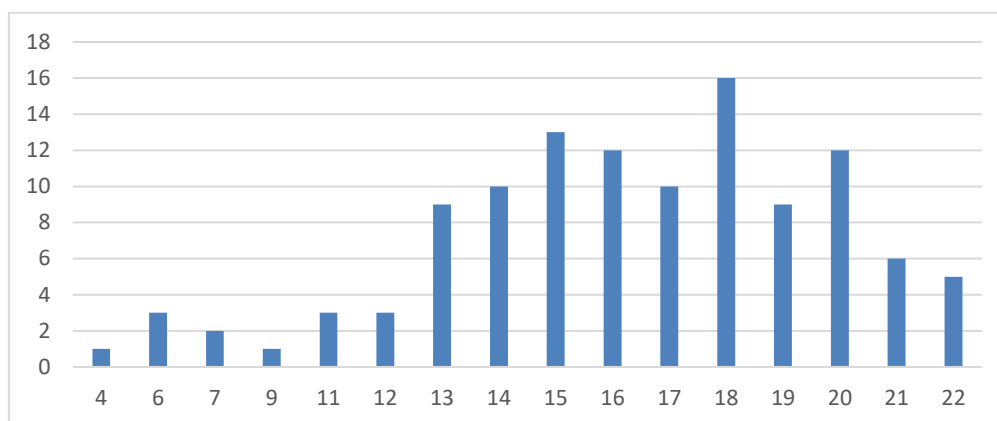
Figure 2. Distribution of the lot according to the result of the Problem Gambling Severity Index

According to the interpretation of the results on the Severity Index of Pathological Gambling, scores 1-2 indicate a low level of dependence with minimal or unidentified negative consequences, scores 3-7 indicate moderate level of dependence with some negative consequences, and 8 or more are obtained by subjects with high severity of pathology.

In our study, the distribution of the lot according to the severity of the addiction is: No subject showed low level of addiction, 6 subjects had moderate level, and 109 subjects faced high degree of severity of pathology.
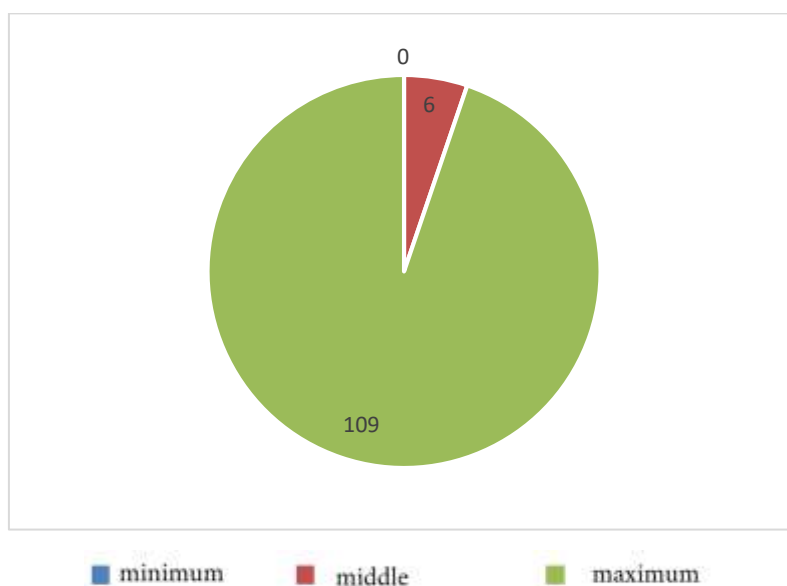

Figure 3. Distribution of the lot according to the severity of the addiction

Following the application of Beck Anxiety Inventory, the average score obtained in the study lot is 43.21, the minimum value obtained being 32 and the maximum value 49, figure 4. According to the interpretation of the scores obtained, in the sample studied 7 subjects had moderate levels of anxiety and 108 – high levels of anxiety. Thus, 6.1% fall into the category of moderate anxiety and 93.9% into the category of high anxiety.
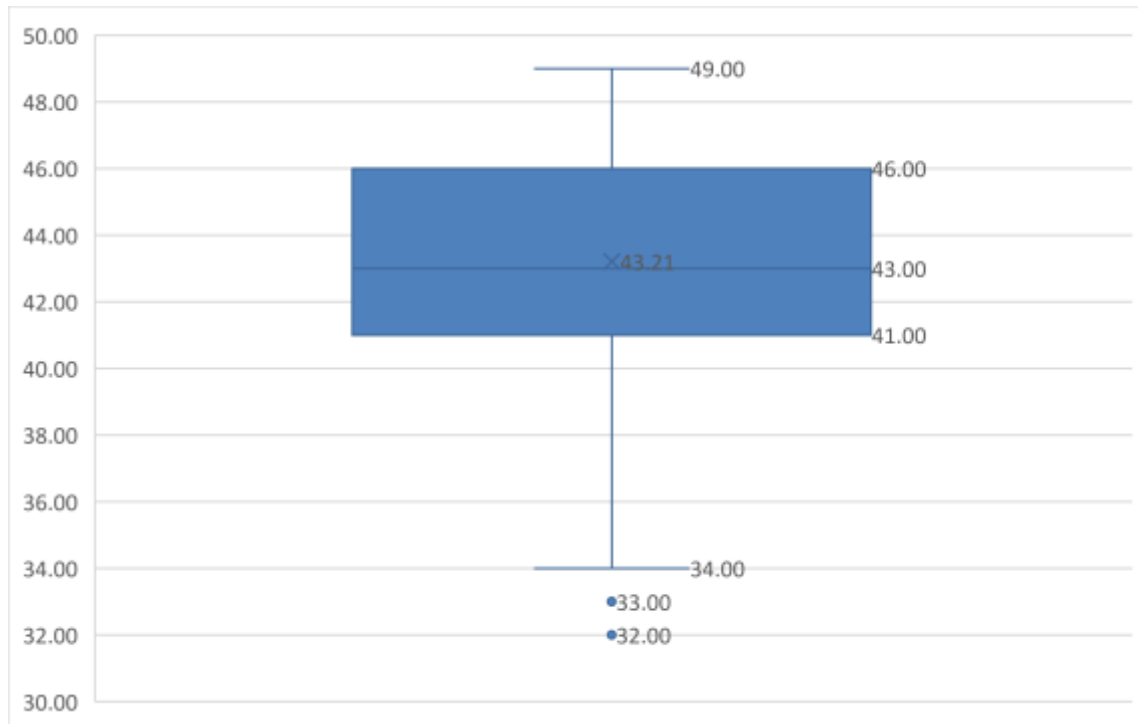
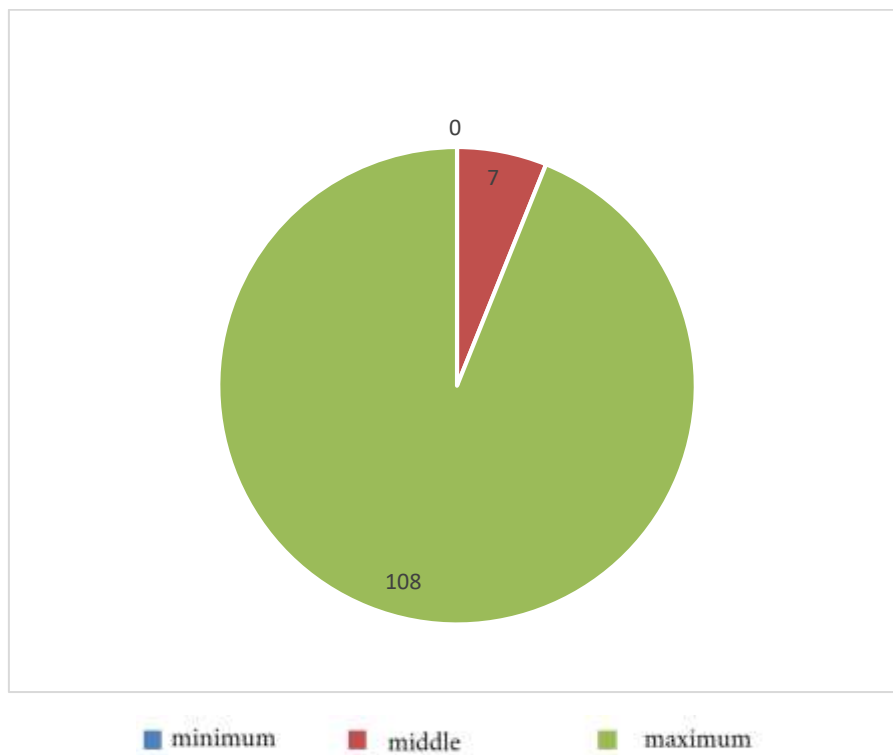**Figure 4. Histogram of results on Beck anxiety inventory in the study lot**

Figure 5. Beck Anxiety Inventory – highlighting the resulting categories in the study group

Analysis of the correlation between the severity of pathological gambling and the level of anxiety.

Table 1. Pearson correlation index between ISJSP and BAI

		ISJSP1	BAI1
ISJSP1	Pearson Correlation	1	.887**
	Sig. (2-tailed)		<.001
	N	115	115
BAI1	Pearson Correlation	.887**	1
	Sig. (2-tailed)	<.001	
	N	115	115

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

Table 1 shows a positive Pearson correlation with 0.887 between the severity of gambling (ISPJ) and the BECK's anxiety index (BAI1). Thus, it is admitted that there is a statistically significant positive correlation between the severity of pathological gambling and the level of anxiety.

Discussion and Conclusions

The doctoral study included 115 people who were diagnosed with gambling addiction. Most of the participants have a high degree of severity of the pathology (94.78%) and only a small percentage have been identified with moderate level of addiction (0.05%). None of the people who expressed their intention to join the study were classified as "low level of addiction." This situation could be explained by the fact that, in the early stages of pathology, often in the denial phase, people do not consider it necessary to address a specialized service. We believe that a national information, prevention and screening program is necessary to help detect early signs of gambling addiction.

We observed a high degree of anxiety (93.9% of the subjects). We also highlighted strong correlations between the level of severity of gambling and anxiety. Our results are consistent with data from specialized research that found an important role of affective disorders in the development and maintenance of gambling pathology, with large emotional vulnerabilities being observed, mainly symptoms characteristic of anxiety and/or depression (Blaszczynski, & Silove, 1995, pp. 195-220).

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