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INTRODUCTION

Cybersex refers to the use of the Internet to access sexual activities (Cooper, Delmonico, Griffin-Shelley & Mathy, 2004) such as watching online pornography, searching online for offline sexual partners, the exchange of messages and images with sexual content (sexting), sex via webcam, buying products from online sex shops, searching for information about sexual issues, sexually stimulating literature, and using online sex services (Costa & Patrão, 2016; Laier, Pekal & Brand, 2014). Although there are no studies indicating the prevalence of non-problematic cybersex use in the general population, it's estimated that 33% to 60% of Internet users ever participate in online sexual activities (Ballester-Arnal, Castro-Calvo, Gil-Llario, & Giménez-García, 2014), and in a study by Shaughnessy, Fudge and Byers (2017), with a population of young adults, all participants reported using cybersex at least once in their lifetime. In studies with young populations it is found that, of the above-mentioned Internet sexual activities, watching pornography is the most frequent, especially in males (Ross, Månsson, & Daneback, 2012; Shaughnessy, Fudge & Byers, 2017).

There are few bibliographic reviews that associate cybersex with comorbidities such as drug addictions. The references found or aren't based on empirical data or concern to sexual behavior without Internet use. There are no studies focusing on the prevalence and consequences of cybersex use in populations with psychoactive substance problems.

It was investigated the prevalence of cybersex use in a sample of people under treatment of substance use disorders, in a Portuguese Substance Dependence Treatment Center, on the Setúbal Peninsula. It was also studied the relationships that the use of cybersex has with mental health, with subjective complaints in daily life due to cybersex activities and the potential symptoms of cybersex addiction, as well as the intimacy of the couple (according to the participant's perception). It was also analyzed the association between mental health and subjective complaints in everyday life due to cybersex activities and potential symptoms of cybersex addiction. In addition, it was studied the relation between four characteristics of the sample (age, sex, psychoactive substance of choice and marital status) and the use of cybersex.

METHOD

This is an exploratory and descriptive study, which use a quantitative methodology.

PARTICIPANTS AND PROCEDURE

The **study sample** comprised 100 people under treatment of substance use disorders, in a Portuguese Substance Dependence Treatment Center: 73% male, ranging from 21 to 65 years ($M=43$, $SD=9.5$), 77% attended Secondary Education, 56% were employed, 40% were in a relationship. Most individuals in the sample (53% $n = 53$) had heroin as their preferred psychoactive substance, 23% alcohol, 15% cocaine, 7% cannabis, and 2% benzodiazepines. They had on average 7 years and 6 months of treatment ($SD=7.7$).

Data were collected from a convenience sampling. Participants were recruited individually in the waiting room of a Substance Dependence Treatment Center between March 2018 and July 2018. Accepting to participate they were invited to answer a set of questionnaires, administered by the researcher, in an office of the same Center.

MEASURES

Socio-demographic Questionnaire

Cybersex Use Questionnaire: Made for this study, refers to the prevalences of use and to the participants' perception regarding the influence of cybersex use on intimacy with the partner.

Short Internet Addiction Test Adapted to Cybersex (Short IAT-sex): Short IAT-sex is a Portuguese translation (Pires, 2018) of Short Internet Addiction Test Adapted to Cybersex (Laier, Pawlikowski, Pekal, Schulte & Brand, 2013). Short IAT-sex proved to have high internal consistency ($\alpha = 0.833$).

Anxiety, Depression and Stress Scales (EADS-21): EADS-21 is a Portuguese translation and validation (Pais-Ribeiro, Honrado & Leal, 2004) of Depression Anxiety Stress Scales (Lovibond & Lovibond, 1995). EADS-21 proved to have good or high internal consistency in its scales – Depression ($\alpha = 0.925$), Anxiety ($\alpha = 0.796$) and Stress ($\alpha = 0.903$).

Psychological Well-Being Scales - reduced trial version (EBEP-R): Made from the scales of Psychological Well-Being (Ryff, 1989) by Novo, Silva e Peralta (2004). EBEP-R proved to have high internal consistency in the Global Index of psychological well-being ($\alpha = 0.865$).

STATISTICAL ANALYSIS

The collected data were analyzed using SPSS version 25.

RESULTS

- There is a high prevalence of cybersex use throughout life in the population with psychoactive substance use disorders (78% used it at least once in life);
- Individuals who have cocaine as drug of choice have significantly ($p = 0.033$) longer time of use of pornography and means of frequency of use of most of the cybersex activities than those who have alcohol as substance of choice;
- Male (86%) and younger individuals are the ones with the highest prevalence of cybersex use in the last 6 months;
- The frequency of use doesn't vary between sexes in any of the online sexual activities studied;
- The frequency of pornography use and the search for information on sex or sexual practices are related to symptoms of cybersex dependence and to subjective complaints in the daily life ($r_{\text{porn}} = 0.373$; $p = 0.016$ vs. $r_{\text{infosex}} = 0.585$; $p = 0.007$); while the frequency of exchange of messages and/or images of sexual content (sexting) is related to psychological well-being ($r = 0.600$; $p = 0.030$);
- The results also show that participants who are involved in stable relationships have the perception that cybersex positively influences the relationship of intimacy with the partner ($Z = -2.462$; $p = 0.014$) and that those who are not in a stable relationship have a tendency to use cybersex more often, to present worse mental health, more subjective everyday complaints due to online sexual activities and more potential symptoms of cybersex addiction.

		Short IAT-sex	
		Pearson Correlation	Sig. (2 extremities)
Frequency of use of online sexual activities	Watching online pornography	-.373*	.016
	Searching online for offline sexual partners	-.372	.364
	Sexting	.030	.899
	Sex via webcam	-1.000*	.
	Searching for information about sexual issues	-.585**	.007
	Searching for products from online sex shops	.	.

Note. * $p < .05$; ** $p < .01$

	Cybersex use in the last 6 months	n	M	SD
	Didn't use	9	2.11	.33
Negative cybersex influence in couple intimacy (self-perception)	Used	36	2.31	.89
	Didn't use	9	2.44	1.33

Online sexual activities frequency	Stable relationship	n	M	SD
Watching online pornography	Without	28	1.78	2.19
	With	13	.73	.52
Searching online for offline sexual partners	Without	7	4.14	4.82
	With	1	.75	.
Sexting	Without	11	3.00	6.06
	With	2	.25	.00
Sex via webcam	Without	1	3.00	.
	With	1	2.00	.
Searching for information about sexual issues	Without	10	.55	.56
	With	10	.33	.12
Searching for products from online sex shops	Without	2	.25	.00
	With	0	.	.

DISCUSSION

These data provide good indications for clinical practice - cybersex use and sexuality must be more addressed subjects in the treatment of substance use disorders, knowing that cybersex use is present in both sexes, at all ages, knowing that in individuals without a stable love relationship the use of cybersex tends to be more frequent and with more negative consequences for their own mental health and knowing that pornography and search for online information about sex or sexual practices were the most commonly used online sexual activities.

At the prevention level, since the Internet was a source of demand for sexual information for some individuals of this sample (who sought it not only in informative sites but also in pornography sites), we suggest the development of websites with accessible, clear and valid sexual health information, but also with reference to the non-representativeness of sexuality in pornography.

Finally, it is relevant to adapt the Short IAT-sex scale (which obtained a very good internal consistency in this study) to the Portuguese population, so that both research and clinical practice can count on with an instrument that allow to assess subjective complaints in everyday life due to cybersex activities and potential symptoms of cybersex addiction.

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Conflicts of Interest Statement: We have no conflict of interest to report.

