



Original Research

Compulsive Sexual Behavior Disorder in Benin

Les Troubles Compulsifs du Comportement Sexuel au Bénin

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ABSTRACT

Introduction. Compulsive sexual behavior disorder is a loss of control over the practice of sexuality leading to clinically significant impairment and encompasses a range of behaviors: pornography addiction, compulsive masturbation, excessive sexual intercourse, etc. A little-studied sexual health problem in Benin, the aim of the present study was to assess the prevalence of compulsive sexual behavior disorder among adults in the commune of Parakou and to identify associated factors. **Methods.** This was a cross-sectional, descriptive and analytical study of 620 adult subjects randomly recruited during a general population survey. The following factors were assessed: compulsive sexual behavior disorder (SAST-Fr = French version of the Compulsive sexual behavior disorder Test), porn addiction (ORROZ test), and sexuality-related factors (age at first intercourse, history of sexual violence, therapeutic sex for stress, anxiety or depression, and sexual aggression). **Results.** 620 subjects were studied. Their mean age was 23.8 years +/- 3.9. The [18-29] age group were predominantly compulsive sexual behavior disorder (91.7%). The prevalence of compulsive sexual behavior disorder was 11.6%. Factors associated with compulsive sexual behavior disorder were the respondent's age (the older the respondent, the more compulsive sexual behavior disorder); age of first sexual intercourse (the younger the age of first sexual intercourse, the less compulsive sexual behavior disorder the respondent); pornography addiction; "therapeutic" sex for self-management of stress, anxiety or depression; and sexual aggression. **Conclusion.** Compulsive sexual behavior disorder is a disorder present in the Parakou population in 2022, and therefore requires attention.

RÉSUMÉ

Introduction. Le trouble compulsif du comportement sexuel se caractérise par une perte de contrôle sur la pratique de la sexualité, entraînant une altération cliniquement significative de la vie quotidienne. Il englobe divers comportements tels que la dépendance à la pornographie, la masturbation compulsive, les rapports sexuels excessifs, etc. Peu étudié en matière de santé sexuelle au Bénin, cette étude visait à évaluer la prévalence du trouble du comportement sexuel compulsif chez les adultes de la commune de Parakou et à identifier les facteurs associés. **Méthodes.** Il s'agissait d'une étude transversale, descriptive et analytique portant sur 620 sujets adultes sélectionnés de manière aléatoire lors d'une enquête en population générale. Les facteurs suivants ont été évalués : le trouble du comportement sexuel compulsif (SAST-Fr = version française du Test du Trouble du Comportement Sexuel Compulsif), la dépendance à la pornographie (test ORROZ), et des facteurs liés à la sexualité (âge du premier rapport sexuel, antécédents de violence sexuelle, recours à des rapports sexuels "thérapeutiques" pour gérer le stress, l'anxiété ou la dépression, et l'agression sexuelle). **Résultats.** 620 sujets ont été étudiés. Leur âge moyen était de 23,8 ans +/- 3,9. Le groupe d'âge [18-29] présentait principalement des troubles du comportement sexuel compulsif (91,7%). La prévalence du trouble du comportement sexuel compulsif était de 11,6%. Les facteurs associés au trouble du comportement sexuel compulsif étaient l'âge du répondant (plus le répondant était âgé, plus le trouble était fréquent), l'âge du premier rapport sexuel (plus l'âge du premier rapport était précoce, moins le trouble était présent), la dépendance à la pornographie, les rapports sexuels "thérapeutiques" pour gérer le stress, l'anxiété ou la dépression, et l'agression sexuelle. **Conclusion.** Le trouble du comportement sexuel compulsif est une réalité au sein de la population de Parakou en 2022, et il nécessite donc une attention particulière.

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Key words: Compulsive sexual behavior disorder, Parakou, Benin

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KEY RESULTS

Aim of the study

Prevalence of compulsive sexual behavior disorder among adults in the Commune of Parakou and associated factors

Key findings

- The prevalence of compulsive sexual behavior disorder was 11.6%.
- Factors associated with compulsive sexual behavior disorder were the respondent's age (the older the respondent, the more compulsive sexual behavior disorder); age of first sexual intercourse (the younger the age of first sexual intercourse, the less compulsive sexual behavior disorder the respondent); pornography addiction; "therapeutic" sex for self-management of stress, anxiety or depression; and sexual aggression.

INTRODUCTION

Sexuality is essential to the survival of the human species. According to the WHO (2006), human sexuality is "a central aspect of the human being throughout life and includes sex, gender identities and roles, sexual orientation, eroticism, pleasure, intimacy and reproduction. Sexuality is experienced and expressed in the form of thoughts, fantasies, desires, beliefs, attitudes, values, behaviors, practices, roles and relationships[1]. However, far from its reproductive function, some people develop various sex-related disorders. It's not uncommon to find people who crave increasingly intense sexual sensations, evolving into compulsive sexual behavior disorder. Compulsive sexual behavior disorder, is defined as an impulse control disorder "characterized by a persistent pattern of inability to control intense and repetitive sexual urges and behaviors" that leads the individual to devote so much time to sexual activities that he or she neglects his or her own health, interests and responsibilities. This person, despite his or her many efforts to give up the practice, is unable to do so, and continues sexual activity despite the adverse consequences that result in depression or significant impairment in important areas of life or functioning[2]. In Benin, several studies have been carried out in the field of sexuality, and most of them deal with various aspects of sexual life, such as early sexuality, sexual dysfunctions and so on. But to date, no study has been able to address compulsive sexual behavior disorder in Benin, and more specifically in the commune of Parakou. The aim of the present study was to estimate the prevalence of compulsive sexual behavior disorder among adults in the commune of Parakou, and to identify the associated factors. We hypothesize that compulsive sexual behavior disorder exists in Parakou, Benin, and that its associated factors could be individual factors (personality traits and temperament, psychiatric comorbidities, the notion of genetic factors: the addiction gene does not exist, the individual's vulnerability to stress), factors linked to the product or behavior (the precocity of consumption, consumption patterns) and environmental factors (the role

of the family, childhood psychotrauma, the role of the Internet).

STUDY FRAMEWORK AND METHODS

Population and procedure

This study was carried out in the commune of Parakou, in the north-east of the Republic of Benin. It was a cross-sectional, descriptive, analytical study conducted from December 2021 to November 2022. A total of 620 adult subjects recruited during a general population survey in the commune of Parakou who clearly consented to participate in the present study were included. A face-to-face interview was conducted. The target population consisted of all persons residing in the commune of Parakou. The source population consisted of all individuals aged 18 and over living in Parakou. Sampling was probabilistic, using the WHO cluster sampling technique. The statistical unit is represented by all subjects meeting the inclusion criteria. The sampling frame is made up of the list of 42 districts in the commune of Parakou, with their respective households. Thirty (30) clusters were selected in accordance with WHO recommendations.

Measures

The socio-demographic variables studied were age (number of years since birth), sex (characterizes gender: male, female), marital status (respondent's marital status: couple or not), type of marriage (this refers to the form of union: civil, customary, religious), religion (respondent's spiritual beliefs: none, Christian, Muslim, endogenous), place of residence (the environment in which the respondent lives at the time of the survey: urban, peri-urban), level of education (the level of education achieved by the subjects surveyed: primary, secondary, university, literate, uneducated), socio-professional group (the job, trade exercised by the participant: pupil, student, farmer, craftsman, housewife, shopkeeper, civil servant, unemployed, other), monthly income (respondent's (or household's) income per month), and respondents' standard of living (reflects respondents' economic situation: low, medium, high, very high). Sexual intercourse before the age of 15 is identified as precocious. Sexual behavior is said to be extroverted when the subject has the facility to discuss sexuality easily with those around him. The subjects surveyed were asked Yes or No questions on the following explanatory variables: sexual satisfaction with one's partner, use of pornographic media, difficulty in maintaining a good, lasting friendship, masturbation, erectile dysfunction or premature ejaculation, having sex for therapeutic reasons due to stress, anxiety or depression, childhood sexual and physical abuse, porn addiction (assessed using the ORROZ test) [3].

To assess compulsive sexual behavior disorder, the French version of the SAST (Compulsive sexual behavior disorder Screening Test) scale (SAST-Fr) was used[4]. This is a self-administered questionnaire developed in English by Carnes in 1991, with good to excellent internal consistency ($\alpha = 0.85$ to 0.95) validated in French in 2020 by Komlan Gnimavo Hegbe *et al.* [5]. It is made up of 25

dichotomous items, designed to measure primarily the symptoms of compulsive sexual behavior disorder. It assesses, among other things, sexual preoccupation, signs and symptoms of impaired control, and problems resulting from sexual behavior. Subjects are asked to answer yes/no to the various items on the scale. SAST total scores range from 0 to 25, and a score of 13 or more suggests the presence of compulsive sexual behavior disorder. Its Cronbach's α coefficient was 0.90, giving excellent internal consistency[5,6]. Thus, compulsive sexual behavior disorder is coded as "Yes" for a person when the totality of items obtained is greater than or equal to 13. Otherwise, it is coded as "No".

To assess porn addiction, the **ORROZ** test [3] was used. This is a set of 20 items proposed in 2009 by psychiatrist ORROZ. To assess porn addiction, the total scores of the test range from 0 to 20, with a score between:

- 0-5 suggests that the subject is not a porn addict
- 5-15 Suggests subject is becoming porn-dependent
- ≥ 15 Suggests subject is porn-dependent (highly addicted)

Statistical analysis

Data analysis was performed using R 4.3.0 software. Quantitative variables were expressed as mean with standard deviation or percentage; qualitative variables as proportion with confidence interval. For bivariate analysis, the association between two variables was established for a p value < 0.05 (significance threshold of 5%). For the comparison of two categorical variables, the KHI test² was used. The dependent variable compulsive sexual behavior disorder (self-reported diagnosis of compulsive sexual behavior disorder according to SAST-Fr) was explained by the explanatory variables using binary logistic regression in multivariate analysis. The ethical opinion was obtained after submission of the research protocol to the local biomedical research ethics committee in Parakou.

RESULTS

Prevalence

The prevalence of compulsive sexual behavior disorder in the commune of Parakou is estimated at 11.61% IC95% ([9.08-14.12]).

Socio-demographic and economic characteristics of the study population

The average age was 23.8 +/- 3.9 years, with extremes of 18 and 38 years. Among patients with compulsive sexual behavior disorder, 91.7% were in the [18-29] age bracket. The proportion of males with a compulsive sexual behavior disorder was estimated at 73.6% versus 26.4% of females (M/F sex ratio of 2.7), and 56.9% were cohabiting or in a common-law relationship. A large number of them (patients with compulsive sexual behavior disorder) lived in urban areas (94.4%), and considered their standard of living to be low (55.5%), with a monthly income below the minimum wage (40,000fcfa; \$64.44; €58.80) (61.2%). Table 1

shows the distribution of respondents according to their socio-demographic and economic characteristics.

Table 1: Distribution of respondents by socio-demographic and economic characteristics (Parakou, Benin, 2022)

	Sample (n=620)	People with a CSBD (n=72)	People without CSBD (n=548)
Age			
[18-30[597 (96.3%)	66 (91.7%)	531 (96.9%)
[30-40[22 (3.5%)	6 (8.3%)	16 (2.9%)
[40-46[1 (0.2%)	0 (0.0%)	1 (0.2%)
Gender			
Male	443 (71.5%)	53 (73.6%)	390 (71.2%)
Female	177 (28.5%)	19 (26.4%)	158 (28.8%)
In couple			
Yes	317 (51.2%)	48 (66.6%)	269 (49.1%)
No	303 (48.8%)	24 (33.4%)	279 (50.9%)
Type of wedding			
Civil marriage	12 (15.8%)	1 (14.2%)	11 (15.9%)
Customary marriage	25 (32.9%)	3 (42.9%)	22 (31.9%)
Religious weddings	39 (51.3%)	3 (42.9%)	36 (52.2%)
Religion			
No religion	24 (3.9%)	6 (8.3%)	18 (3.3%)
Christian	319 (51.4%)	32 (44.4%)	287 (52.4%)
Muslim	262 (42.3%)	30 (41.7%)	232 (42.3%)
Endogenous	15 (2.4%)	4 (5.6%)	11 (2.0%)
Place of residence			
Urban	577 (93.1%)	68 (94.4%)	509 (92.9%)
Peri-urban	43 (6.9%)	4 (5.6%)	39 (7.1%)
Educational level			
Primary	74 (11.9%)	5 (6.9%)	69 (12.6%)
Secondary	281 (45.3%)	27 (37.5%)	254 (46.4%)
University	245 (39.5%)	39 (54.2%)	206 (37.6%)
Literacy	12 (1.9%)	0 (0.0%)	12 (2.2%)
Uninstructed	8 (1.3%)	1 (1.4%)	7 (1.3%)
Socio-professional group			
Pupil	115 (15.5%)	3 (4.1%)	112 (20.4%)
Student	213 (34.4%)	31 (43.1%)	182 (33.2%)
Civil servant	28 (4.5%)	5 (6.9%)	23 (4.2%)
Cultivator	10 (1.6%)	1 (1.4%)	9 (1.6%)
Artisan	117 (18.9%)	18 (25.0%)	99 (18.1%)
Housekeeper	22 (3.5%)	2 (2.8%)	20 (3.6%)
Retailer	71 (11.5%)	11 (15.3%)	60 (10.9%)
Unemployed	7 (1.1%)	1 (1.4%)	6 (1.1%)
Taxi/Motocycle driver	13 (2.1%)	0 (0.0%)	13 (2.4%)
Worker	24 (3.9%)	0 (0.0%)	24 (4.4%)
Monthly income of respondents (in FCFA)			
< SMIG*	405 (65.3%)	44 (61.2%)	361 (65.9%)
1-time SMIG	54 (8.7%)	6 (8.3%)	48 (8.8%)
2 times SMIG	134 (21.6%)	15 (20.8%)	119 (21.7%)
3 times SMIG	20 (3.2%)	5 (6.9%)	15 (2.7%)
4 times SMIG	3 (0.5%)	1 (1.4%)	2 (0.4%)
> 5 times SMIG	4 (0.6%)	1 (1.4%)	3 (0.5%)
Estimated standard of living			
Low	354 (57.1%)	40 (6.45%)	314 (50.6%)
Medium	246 (39.68%)	29 (4.68%)	217 (35.0%)
High	16 (2.58%)	3 (0.48%)	13 (2.1%)
Very high	4 (0.64%)	0 (0.0%)	4 (0.6%)

CSBD: compulsive sexual behavior disorder

1 SMIG = 40 000fcfa= 64,44\$ = 58,80 €

Factors associated with compulsive sexual behavior disorder in bivariate analysis

Table 2 presents the results of the bivariate analysis.

	Compulsive sexual behavior disorder		OR (IC95)	p
	No	Yes		
Age	22.68+/- 3.67	23.83+/- 3.92	1.07[1.01-1.1]	0.014
Gender				
Female : n(%)	158(28.8)	19 (26.4)	01:00	
Male n(%)	390(71.2)	53 (73.6)	1.1 [0.6-1.9]	0.660
Place of residence				
Peri-Urban n()	39 (7.1)	4 (5.6)	01:00	
Urban n()	509(92.9)	68 (94.4)	1.1 [0.5-3.7]	0.620
Education level of respondents				0.051
Out of school	19 (3.5)	1 (1.4)	01:00	
Primary	69 (12.6)	5 (6.9)	1.4[0.2-12.5]	0.770
Secondary	254 (46.4)	27 (37.5)	2.02[0.3-15.7]	0.500
Superior	206 (37.6)	39 (54.2)	1.6[0.5-27.7]	0.220
Religion				
No religion	18 (3.3)	6 (8.3)	01:00	0.054
Christian	287 (54.4)	32 (44.4)	0.4 [0.1-0.9]	0.031
Muslim	232 (42.3)	30(41.7)	0.3 [0.1-1.1]	0.060
Endogenous	11 (2.0)	4 (5.6)	1.1 [0.2-4.7]	0.910
Extroverted sexual behavior				
No	114 (20.8)	11 (15.3)	01:00	
Yes	434 (79.2)	61 (84.7)	0.3 [1.3-2.8]	0.200
Age of 1st sexual intercourse	548 (88.4)	72 (11.6)	0.9 [0.8-0.9]	0.008
Victim of excision				
No	517 (94.3)	65 (90.3)	01:00	
Yes	31 (5.7)	7 (9.7)	1.8 [0.8-4.2]	0.200
Unwanted pregnancy				
No	480 (87.6)	57 (79.2)	01:00	
Yes	68 (13.4)	15(21.8)	1.8 [0.9-3.5]	0.051
Victim of sexual assault				
No	498 (90.9)	52 (72.2)	01:00	
Yes	50 (9.1)	20 (28.8)	3.8 [2.1-6.9]	0.000
Life as a couple				
No	438 (79.9)	56 (77.8)	01:00	
Yes	110(21.1)	16 (22.2)	1.1 [0.9-1.2]	0.120
Number of sexual partners	548 (88.4)	72 (11.6)	1.1 [0.9-1.2]	0.120
Respondent lives with children				
No	84 (79.2)	14 (76.7)	01:00	
Yes	22(20.8)	7 (33.3)	1.1 [0.9-1.3]	0.210
Frequency of sexual intercourse	548 (88.4)	72 (11.6)	1.01 [1.03-1.12]	0.002
Sexual satisfaction with your partner				
No	91 (16.6)	4 (5.6)	01:00	
Yes	457 (83.4)	68 (94.4)	3.4 [1.2-9.5]	0.021
Use of media with pornographic content				
No	346 (63.1)	28(38.9)	01:00	
Yes	202 (32.9)	44 (72.1)	2.7 [1.7-4.5]	0.000
Difficulty maintaining good, lasting friendships				
No	454 (82.8)	56(77.8)	01:00	
Yes	96 (18.2)	16 (22.2)	1.4 [0.8-2.6]	0.300
The practice of masturbation				
No	419 (76.5)	43(59.7)	01:00	0.003
Yes	129(24.5)	9 (41.3)	2.2 [1.3-3.6]	
Erectile dysfunction/early ejaculation				
No	444(81.0)	47 (65.3)	01:00	
Yes	104(29.0)	25(34.7)	2.3 [1.3-3.9]	0.002
Therapeutic sex for stress, anxiety or depression				
No	412(75.2)	28(38.9)	01:00	
Yes	136 (24.8)	44 (62.1)	4.8 [2.9-7.9]	0.000
Childhood sexual and physical abuse				
No	526(96.0)	70 (97.2)	01:00	
Yes	22 (4.0)	2 (2.8)	0.7 [0.2-2.9]	0.680
Porn addiction				
No	394 (71.9)	15 (20.8)	01:00	
Yes	154 (29.1)	57 (79.2)	9.7 [5.3-17.7]	0.000

The results of the bivariate analysis showed a significant association between compulsive sexual behavior disorder and a history of sexual assault ($p=0.000$), higher frequency of sexual intercourse per month ($p=0.002$), greater satisfaction of sexual desires ($p=0.021$), greater attraction to pornographic media ($p=0.000$), more frequent use of therapeutic sex for stress, anxiety or depression ($p=0.000$), younger age at first intercourse ($p=0.008$), more frequent masturbation ($p=0.003$),

erectile dysfunction/ premature ejaculation ($p=0.002$) and porn addiction ($p=0.003$).

Factors associated with compulsive sexual behavior disorder in multivariate analysis

Binary logistic regression showed that age (the older the subject, the more compulsive sexual behavior disorder), pornography addiction, age of first sexual intercourse (the earlier the first sexual intercourse, the less sexually addicted), therapeutic sex for stress, anxiety or depression, and sexual aggression were factors associated with sex addiction.

A history of sexual assault, therapeutic sex for stress, anxiety or depression, and pornography addiction increased the risk of sexual addiction by 2.4%, 2.8% and 6.3% respectively.

Table 3 presents the multivariate model of potential predictors of compulsive sexual behavior disorders.

Table 3 : Multivariate model of potential predictors of compulsive sexual behavior disorder: multivariate analysis (Parakou, Benin, 2022)

	ORb	p	ORa	p
Age	1.07 [1.01-1.1]	0.014	1.1 [1.04-1.2]	0.003
Age of 1st sexual intercourse	0.9 [0.8-0.9]	0.008	0.9 [0.01-0.96]	0.010
Victim of Sexual assault				
No	01:00			
Yes	3.8 [2.1-6.9]	0.000	2.4 [1.2-4.9]	0.013
Therapeutic sex for stress, anxiety or depression				
No	01:00			
Yes	4.8 [2.9-7.9]	0.000	2.8 [1.6-5.2]	0.001
Education level				0.031
Out of school	01:00			
Primary	1.4 [0.2-12.5]	0.800	0.9 [0.09-10.26]	0.985
Secondary	2.02 [0.3-15.7]	0.500	3.5 [0.4-32.6]	0.269
Superior	1.6 [0.5-27.7]	0.200	4.611 [0.5-41.7]	0.174
Porn addiction diagnosis				
No	01:00			
Yes	9.7 [5.3-17.7]	0.000	6.3 [3.2-12.2]	0.000

DISCUSSION

In view of the results, the prevalence of compulsive sexual behavior disorder was 11.6% in the commune of Parakou. The factors found to be significantly associated with compulsive sexual behavior disorder were the respondent's age (the older the respondent, the more compulsive sexual behavior disorder); age of first sexual intercourse (the earlier the age of first sexual intercourse, the less compulsive sexual behavior disorder the respondent); pornography addiction; "therapeutic" sexual intercourse for self-management of stress, anxiety or depression; and sexual aggression. These results will be discussed in the following lines. These results are discussed below.

Prevalence

In the commune of Parakou, 11.6% of the study population had a compulsive sexual behavior disorder. These figures appear to be much lower than those found by Hegbe *et al.* [5] in France in 2020, at 22.4%. This may be explained by the fact that the population recruited by Komlan Hegbe was different: it was recruited online on sites talking about sexual health or sexuality. Similarly, Massonat-Moddo *et al.* [6] in France found a prevalence of 14.6% in a study population of MSM (Men who have sex with men) at the Edouard Herriot Hospital. Also,

Diarra in Mali in 2020[7] obtained a higher result than our study, with a 34.2% prevalence of compulsive sexual behavior disorder among students at the Faculty of Medicine and Odontostomatology. This great diversity in results could be due to disparities in diagnostic criteria, study methods, types of population (general population, university students, MSM, etc.) and measurement instruments used (validated or not).

In contrast, Dickenson *et al.* [8] in 2018 in the United States found a lower prevalence of compulsive sexual behavior disorder than in our study, 8.6% in a national population of 2,325 individuals. This difference could be explained by the low representativeness of the sample in our study on the one hand, and on the other, by the fact that sexuality remains a taboo subject in the community, particularly in the north of the country where morals are conservative, as evidenced by the refusal of some people to pay attention to the survey as soon as they learn that it will focus on sex, as well as the scale used to assess compulsive sexual behavior disorder (Compulsive Sexual Behavior Inventory-13 is the scale used by Dickenson *et al.*).

Sociodemographic characteristics

The age extremes of those surveyed ranged from 18 to 38 years, with an average age of 23.8 +/- 3.9 years. This result differs from those found by some authors. According to Langstrom *et al.* [9] in Sweden in 2006, age extremes ranged from 18 to 60 years. In Quebec in 2015, Vaillancourt-Morel *et al.* [10] found age extremes of 18 to 77 years. In the study by Hegbe *et al.* [5] in France in 2020, the average age was estimated at 29.08 ± 11.30. This difference could be explained by the collection technique (interviewer interviewed) and by the fact that in the present study, there was an age limit due to the prudish and taboo nature of the subject, especially in the northern region of Benin.

The subjects surveyed were predominantly male. This was also found by Dickenson *et al.* [11] in the United States in 2018, with a percentage of 59.2. The same is true of Abdullahi *et al.* [12] in Nigeria in 2015, who reported a high predominance of compulsive sexual behavior disorder among men (54.5% of men versus 45.5% of women). However, other authors have reported different results, such as Paolo *et al.* and Langstrom *et al.* [9,13] in 2021 in Norway, with a higher percentage of compulsive sexual behavior disorder among women at 71.1. Mc Pherson *et al.* [14] in 2013 in the United Kingdom also reported the same result, with a percentage of 56% among women.

In this study, more than half (54.2%) of people with compulsive sexual behavior disorder had a higher level of education. This result is superior to that of Dickenson *et al.* [8] in the USA in 2018, in whom 34.2% of subjects with compulsive sexual disorder had a higher level of education.

Factors associated with compulsive sexual behavior disorder in the study population

Age was significantly associated with compulsive sexual behavior disorder in the study population. As age increased, so did the risk of compulsive sexual behavior disorder. Paolo Soraci *et al.* [13] in 2021 in Italy found

similar results. Their study found a significant association between compulsive sexual behavior disorder and age ($p=0.04$), depression ($p<0.001$), gender ($p<0.001$) and conscientiousness ($p<0.001$). Also, the results found by Andreassen *et al.* in 2018 [15] in Norway agree with the results found in the present study (0.956 [0.941-0.972]). The Andreassen *et al.* study showed that the probability of belonging to the "low risk of compulsive sexual behavior disorder", "moderate risk of compulsive sexual behavior disorder" and "compulsive sexual behavior disorder" categories was higher for men than for women. Age was inversely related to compulsive sexual behavior disorder category. In addition, authors such as Laurent Karila *et al.* [16] in 2019 in France, and Kafka *et al.* [15] in 2003 in Canada have reached similar conclusions. For these authors, the prevalence of the disorder is highest in late adolescence and young adulthood, with an average age of onset estimated at 18.7 years. This could be explained by the fact that libido is higher in young adulthood [15]. The physiological transformations associated with these ages affect biological functioning, particularly hormone secretion. These transformations will have an impact on the sexuality of young people who are prone to frenetic sex-seeking, predisposing them to compulsive sexual behavior disorder.

The study reveals a strong association between compulsive sexual behavior disorder and gender. Men are 3 times more likely to be compulsive sexual behavior disorder than women. In other words, men are more exposed to compulsive sexual behavior disorder than women. Other researchers have reached similar conclusions, including Kagan *et al.* [17] in 2021 in Turkey ($p<0.001$), Paolo *et al.* [9] in 2021 in Italy ($p=0.00$); Benotsch *et al.* [18] in 2001 in the USA ($p=0.01$). This tendency for men to be more troubled could be explained by socio-cultural constraints that impose a certain restraint on women, while tolerating a certain freedom in men. For some authors, this difference can be explained by the fact that men generally have a higher sexual desire than women[19,20].

There is a significant link between compulsive sexual behavior disorder and the spiritual beliefs of the subjects surveyed. According to the results, Christians are less likely to have a compulsive sexual behavior disorder than those who don't practice any religion. This could be explained by the fact that Christian communities advocate moral values that limit any sexual libertinism. Indeed, almost all Christian religions teach that sexual relations should only take place after marriage.

CONCLUSION

This study shows that compulsive sexual behavior disorder is a reality in the Parakou population. Around one in nine individuals had a self-reported diagnosis of compulsive sexual behavior disorder according to SAST-Fr. Men were more compulsive sexual behavior disorder than women, and the 18-29 age group was predominantly compulsive sexual behavior disorder. After analysis and elimination of confounding factors, the factors associated with compulsive sexual behavior

disorder were: age, excessive use of the internet in search of sexual gratification (pornography addiction), sexual assault, use of sexuality to relieve negative emotions (dysphoric) such as stress, anxiety or depression.

It would be worthwhile conducting a nationwide phenome study to assess the relevance of setting up a screening and management system for compulsive sexual behavior disorder in this country, where the health challenges remain considerable. A study of the special population of perpetrators of sexual crimes against minors and adults, whether in detention or not, could help to understand and manage any cognitive problems that may arise as a result of these acts, the consequences of which for the victim last a lifetime.

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