

Introduction

Problematic sexual behaviour (PSB) is characterized by repetitive sexual behaviours caused by uncontrolled sexual urges/impulses and distress, and social and functional impairments. Carnes (2005) posited that up to 6% of Americans suffer with this, and epidemiological estimates have provided a range of 3-6% in adults. Due to the lack of definitive information, there has always been a debate about whether the mechanisms involved in the development and maintenance of the condition are equivalent to those observed in substance use disorders, gambling, and gaming. It has also been unclear whether PSB should be regarded as a mood disorder, behavioural addiction, or hypersexual disorder.

Our research goal, is, therefore, to elucidate the prevalence, sociodemographic features, phenomenology and neurobiological underpins of the construct known as PSB in adults in post-secondary education.

Methods

A University Registrar invited 66,846 eligible students and postdoctoral fellows by email to participate on behalf of the study team. Out of 4710 expressing interest in participating, 3359 completed on-line questionnaires using the Qualtrics platform, 1801 completed the MINI, and 237 withdrew from the study. PSB was measured by combining those screening positive (≥ 6) on the Sexual Addiction Screening Test-Revised (SAST-R) with those self-reporting monthly PSB. IAT, RCBS, SA-SAPAS and ASRS were used to screen for internet dependency, compulsive shopping, personality disorder and ADHD, respectively. Current mental health condition(s) were evaluated by self-report data. Previous and current psychiatric diagnoses of childhood trauma were measured by self-report "Yes" and "No", with family history of domestic violence. OCD was assessed by adding self-report data and MINI data.

Highlighted Results

Table 1. SAST-R scores in the young adults in post-secondary education

SAST-R (mean: 2.23, SD: 2.73, N=3341)	
No	2934 (87.82%)
Cut-off=6	379 (11.34)
Cut-Off=13	28 (0.84%)

Table 2. Total PSB (SAST-R adding monthly PSB) in the young adults in post-secondary education

Total PSB (SAST-R subtracting SASTC1 and SASTC2 scores with monthly self-report PSB, N=3219)	
No	2687(83.47%)
Yes	532 (16.53%)

Table 3. Total PSB by different genders

Gender	Total PSB (subtracting SASTC1 and SASTC2 scores)	
	Yes	No
Women (N=2145)	232 (10.82%)	1913 (89.18%)
Men (N=1026)	90 (28.27%)	736 (71.73%)
Other (N=47)	10 (21.28%)	37 (78.72%)
Total number (N=3218)	476 (16.53%)	2742 (83.47%)

Pearson $\chi^2(2) = 153.92, P = 3.78 \times 10^{-34}$

Table 4. Total PSB by different sexual orientation

Sexual Orientation	Total PSB (subtracting SASTC1 and SASTC2 scores)	
	Yes	No
Heterosexual (N=2650)	420 (15.85%)	2275 (84.15%)
Non-heterosexual (N=564)	110 (19.50%)	376 (80.50%)
Total number (N=3214)	563 (16.49%)	2651 (83.51%)

Pearson $\chi^2(1) = 4.51, P = 0.034$

Table 5. SAST-R total scores and Age by total PSB

Categories	Total PSB responding "yes"	Total PSB responding "no"	Total number
	532/3219 (16.53%)	2687/3219 (83.47%)	
SAST scores	6.58±3.22 (N=532)	1.38±1.56 (N=2687)	3219
Two-sample Wilcoxon rank-sum (Mann-Whitney) test, $P = 1.39 \times 10^{-226}$			
Age	22.32±5.13 (N=532)	22.34±5.05 (N=2686)	3218
Two-sample Wilcoxon rank-sum (Mann-Whitney) test, $P = 0.81$			

On the SAST-R Core subscale, 12.18% (407/3341) of participants scored six or above. Several variables were associated with increased odds of PSB, including OCD, ASRS, IAT, a family history of PSB, SA-SAPAS, childhood trauma with a family history of domestic violence, RCBS and men.

Table 6. Several variables were associated with increased odds of PSB by logistic regression

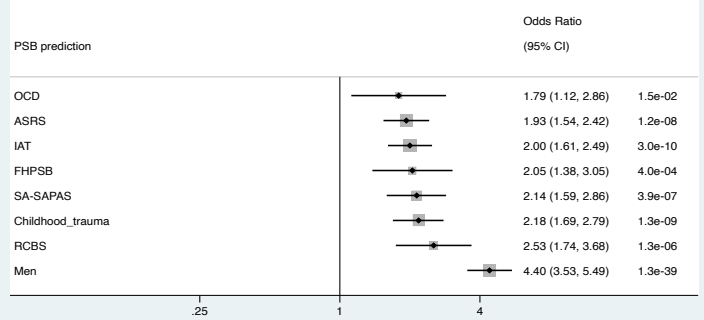


Table 7. Several variables remained significant on regression by a ML approach (train ratio:0.8)

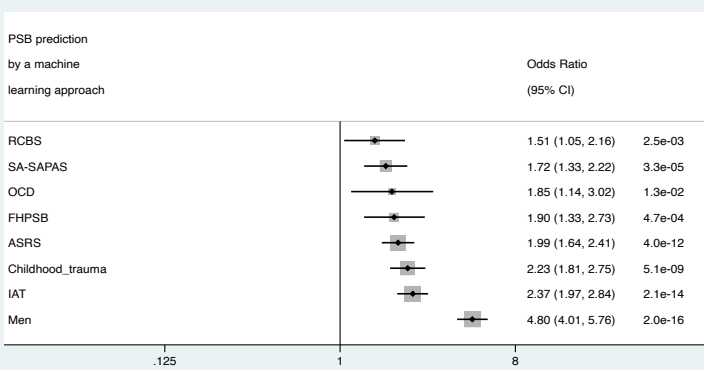
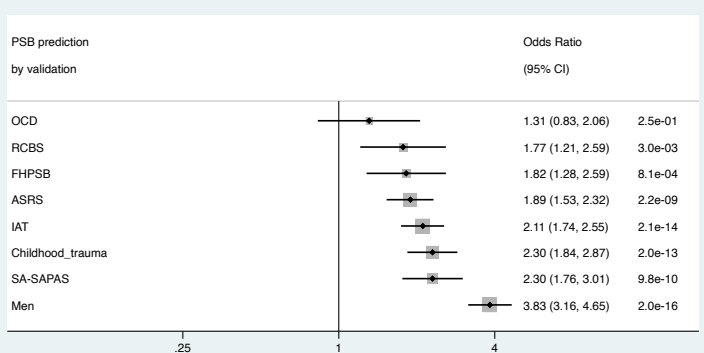


Table 8. The validation model (train with SAST-R, test with monthly self-report PSB)



Conclusions

In summary, we have identified associations between problematic sexual behaviour in adults in post-secondary education participating in a study on this topic and the following: compulsive buying, personality disorder, OCD, ADHD, childhood trauma (including a family history of domestic violence), a family history of PSB, internet dependence and gender (men).

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