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Risk Behaviours And Psychopathology Among Higher Education Students

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Abstract

The current study was designed to examine differences between a clinical and nonclinical sample of higher education students regarding risk behaviours and psychopathology. A clinical sample of 73 participants and a nonclinical sample of 78 participants were evaluated through the following instruments: a socio-demographic questionnaire, the Risk Behaviours Questionnaire for University Students and the Brief Symptom Inventory. Comparisons between groups showed that higher education students who are receiving psychological and/or psychiatric help showed more sexual risk behaviours and psychopathological symptoms than the nonclinical sample. However it was found that a considerable percentage of students belonging to the nonclinical sample was emotionally disturbed. Implications of these results on future practices for higher education counselling centres are discussed.

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1. Introduction

Mental health is a public health agenda worldwide. It is now known that mental disorders affect children, youth and adults and are responsible for high social and economic costs. In higher education the number of young students with mental disorders has been rising steadily (Castillo & Schwartz, 2013; Eisenberg, Gollust, Golberstein, & Hefner, 2007), as well as the severity of psychological problems evidenced by students who seek help in the counselling services offered by higher education institutions (Hunt & Eisenberg, 2010; Zivin, Eisenberg, Gollust, & Golberstein, 2009).

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According to the World Health Organization (2009), ethanol consumption is decreasing in the Portuguese population (17.1 % in 1985; 14.6 % in 1995; 13% in 2000 and 9.38% in 2003); despite this, Portugal is the country the world with the highest intake of this substance *per capita*. Regarding specifically the academic population, a recent study revealed that a significant proportion of students (11%) consume at least four (or more) drinks per week, and 10.3 % are frequent binge drinkers (Santos, Veiga, & Pereira, 2009). As for the intake of other substances, *marijuana* is the most consumed substance in Portugal (WHO, 2009), being its consumption associated with the use of other illicit drugs (Fergusson, Horwood, & Swain-Campbell, 2002). Concerning sexual risk behaviours in an academic context, a study with 511 higher education students indicates that this type of behaviour is evident among young people, with greater expression in the group of students who consumed or used drugs. Of these, 33.3% reported resorting to alcohol as a disinhibiting substance and 55.6 % as a sexual enhancer. However, even among students who reported not using drugs, 58.3 % reported consuming alcohol as a disinhibiting substance and 33.3 % as a sexual enhancer (Pereira et al., 2013). Recent studies suggest that risk behaviours and mental health seem to be related (e.g., Braithwaite, Delevi, & Fincham, 2010). In fact, it is known that alcohol consumption is associated with mental health problems (e.g., anxiety and depression) (Midanik, Tam, & Weisner, 2007; Tomlinson, Cummins, & Brown, 2013), suicidal ideation (Keyes et al., 2012), but also with other risk behaviours, such as sexual intercourse with strangers (Bersamin, Paschall, Saltz, & Zamboanga, 2012; Miller, 2012) or use of illicit drugs (Midanik et al., 2007). In men, depression is directly associated with binge drinking (Pedersen, 2013). Similarly, it is known that there is an association between illicit drug use and depression, sexual risk behaviours, and health problems, among other negative aspects (Dennhardt & Murphy, 2013). In the specific case of marijuana, its frequent use is associated with higher levels of psychopathology (Brodbeck, Matter, Page, & Moggi, 2007; Buckner, Ecker, & Cohen, 2010). In addition, the sexual risk behaviours, including the practice of casual sex and high numbers of sexual partners are associated with poorer mental health, as well as the transmission of sexual diseases and unwanted pregnancies (Bersamin et al., 2012; Braithwaite et al., 2010). In this context, this study aims at assessing the existence of differences between a clinical group (students who receive psychological and/or psychiatric support at the moment), and a nonclinical group, regarding risk behaviour and psychopathology. It is hypothesized that the clinical group will demonstrate a greater number of risk behaviours (alcohol and drugs consumption, and sexual risk behaviours), and higher psychopathology when compared to the nonclinical group.

2. Method

2.1. Participants and procedure

Data for the present analysis were collected in two different ways: through a Web-based survey of higher education students' mental health and risk behaviours, and through face-to-face data collection in the case of students with psychological and/or psychiatric supervision, in the psychological support services available in the institutions. A detailed explanation of the research objectives were given to all participants and informed consent was obtained. The clinical group was comprised by a total 73 students, with current psychological and/or psychiatric support. The nonclinical group was composed by a total 958 participants. However, and because the present study aimed to compare the groups regarding risk behaviour and psychopathology, there was a random selection of 8% of the 958 participants, from the nonclinical group, in order to create a group of similar dimension to the clinical group. The sample was, thus, comprised by a total 151 students, divided into a clinical group ($n = 73$) and a nonclinical group ($n = 78$). The socio-demographic characteristics of the sample are presented in Table 1.

Table 1. Socio-demographic characteristics of the sample

		Clinical group ($n = 73$)	Nonclinical Group ($n = 78$)		p
Age	Mean	25.42	24.78	t = .50	.62
	SD	7.23	8.66		
Gender	Female	53	59		

	Male	20	19	$\chi^2 = .18$.67
Marital Status	Single/Divorced	66	69	$\chi^2 = .15$.70
	Married/Civil union	7	9		
Course	Engineering	15	8	$\chi^2 = 9.48$.05
	Accounting/Administration/Management/Marketing	24	17		
	Health	15	23		
	Education	14	27		
	Agricultural engineering	5	3		
Displaced	Yes	39	43	$\chi^2 = .04$.83
	No	34	35		

2.2. Measures

- The socio-demographic questionnaire enabled collecting information about age, sex, marital status, course, and eventual departure from home to study.
- Risk Behaviours Questionnaire for University Students [RBQUS] (Santos, 2011). The RBQUS is an instrument that assesses the most common risk behaviours among college students. The instrument consists of 24 items that are divided into 6 categories of behaviours: 1) tobacco use (2 items); 2) consumption of alcohol (5 items) and other drugs (4 items); 3) sexual risk behaviors (4 items); 4) eating habits (5 items); 5) physical inactivity (1 item); 6) risky driving (3 items). For the present study, we used the subscales regarding consumption of alcohol and other drugs and sexual risk behaviors.
- Brief Symptom Inventory [BSI] (Derogatis, 1982). The BSI was used to evaluate the psychopathological symptoms. This instrument includes nine dimensions of symptomatology - somatization, obsessions-compulsions, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation and psychoticism - intended to assess the mental health and three global indices - General Symptom Index (GSI), Positive Symptom Index (PSI) and Total Positive Symptoms (TPS). The BSI is an instrument comprised by 53 self-completion items, where each subject must classify the degree to which each problem affected him/her during the past week, using a scale of 5-point Likert-type response scale, ranging from 0 (never) to 4 (many times). Psychometric studies with the Portuguese version of the instrument (Canavarro, 1999) revealed an adequate internal consistency. A score on the ISP equal to greater than 1.7 is likely to reflect emotionally disturbed subjects, being that individuals who score below this value belong the normative population (Canavarro, 2007).

2.3. Statistical Analysis

All statistical analyses were conducted with SPSS, version 19.0. Descriptive statistics were computed for all variables. Differences between groups regarding socio demographics characteristics were analysed by independent samples t-test (age) and chi-square tests (gender, marital status, course, displaced). Differences between groups relating to risk behaviours and psychopathology were analysed by chi-square tests and independent samples t-test, respectively. The variables consumption of alcohol and other drugs and sexual risk behaviours were recoded according to the median prior to performing the analysis, in order to categorize the responses into two groups corresponding to lower and higher risk. To control alpha inflation due to multiple testing, we performed a Bonferroni adjustment to our alpha level and evaluated the t-tests against the corrected alpha (Tabachnick & Fidell, 2007).

3. Results

3.1. Comparison between the groups regarding risk behaviours

The results of the comparison between groups regarding risk behaviours (alcohol and sexual risk behaviours) are presented in Table 2. It is important to emphasize the existence of statistically significant differences in only 2 of the items analysed: the number of days in the last month that at least one alcoholic drink was consumed, and the number of sexual partners. The results of the comparison between groups concerning drugs consumption were not presented given that the data indicated that most students, both in the clinical and nonclinical group, did not consume marijuana (94.5% and 93.5%), cocaine (98.6% and 97.4%), barbiturates or tranquilizers without medical consent (90.4% and 97.4%), and synthetic drugs (98.6% and 98.7%).

Table 2. Comparison between the groups regarding risk behaviours

		Clinical Group (n = 73)		Nonclinical Group (n = 78)		χ^2	P
		N	%	n	%		
Alcohol consumption							
During the past 30 days, on how many days did you drink at least one alcoholic drink?	0 or 1	49	67.1	40	51.3	3.91	.05
	2 or more	24	32.9	38	48.7		
During the past 30 days, on how many days did you drink 5 (4 if female) or more alcoholic drinks in a row, that is, in just a few hours?	0	51	69.9	47	60.3	1.53	.22
	1 or more	22	30.1	31	39.7		
What type of alcoholic drinks do you ingest more frequently?	Does not drink or drinks beer	50	68.5	45	57.7	1.89	.17
	Other drinks	23	31.5	33	42.3		
What kind of alcoholic drinks do you ingest in academic parties?	Does not drink or drinks beer	50	68.5	56	71.8	.20	.66
	Other drinks	23	31.5	22	28.2		
What amount of alcoholic drinks do you usually ingest in academic parties?	Up to 3-4	51	69.9	54	69.2	.01	.93
	5-8 or more	22	30.1	24	30.8		
Sexual Risk Behaviours							
During the last 12 months had ... (number of sexual partners)	0 or 1	58	79.5	72	92.3	5.21	.02
	2 or more	15	20.5	6	7.7		
During the last 12 months did you have sex (vaginal, oral, anal) after having consumed alcohol that would not have occurred if you had not been drinking?	0 times	68	93.2	71	91	.23	.63
	Once or more	5	6.8	7	9		
Have you ever been tested for HIV infection/AIDS?	Yes	32	43.8	23	29.49	3.35	.07
	No	41	56.2	55	70.51		

3.2. Comparison between the groups regarding the psychopathology

By considering the value of the ISP, we found that 71.2% of participants belonging to the clinical group, and 24.4% of participants belonging to the nonclinical, group scored higher than the cut-off point (1.7), which means that it is likely that these students demonstrate emotional disorders. The results for the comparison between groups are shown in Table 3. According to the data presented in Table 3, there are significant differences between groups regarding to all the dimensions of psychopathology and total indices, being that the clinical group presents higher values.

Table 3. Comparison between the groups regarding the psychopathological symptoms

	Clinical Group (n = 73)		Nonclinical Group (n = 78)		<i>t-test</i>	<i>p</i>
	M	SD	M	SD		
Somatization	1.07	.94	.39	.54	5.46	.000
Obsessions-Compulsions	1.80	.94	.94	.78	6.09	.000
Interpersonal Sensitivity	1.63	1.04	.70	.85	6.04	.000
Depression	1.80	1.01	.77	.79	7.01	.000
Anxiety	1.42	.96	.55	.63	6.65	.000
Hostility	1.28	.95	.63	.77	4.61	.000
Phobic Anxiety	1.04	1.00	.27	.59	5.83	.000
Paranoid Ideation	1.39	.98	.63	.79	5.26	.000
Psychoticism	1.42	.99	.50	.62	6.89	.000
IGS	1.44	.85	.60	.60	7.02	.000
TSP	35.77	14.07	18.97	13.89	7.38	.000
ISP	1.95	.64	1.43	.48	5.18	.000

4. Discussion

The present study aimed at investigating the existence of differences between a clinical group and a nonclinical group of students in higher education with regard to risk behaviours and psychopathology. Regarding risk behaviours (use of alcohol and other drugs, and sexual risk behaviours), the results suggested significant differences between groups in only 2 of the items analysed: the number of days in the last month when at least one alcoholic drink was consumed and the number of sexual partners, it is important to highlight that students in the clinical group reported a greater number of sexual partners and lower consumption. These data are partially in agreement with the literature, since it is known that sexual risk behaviours are associated with poorer mental health (Bersamin et al., 2012; Braithwaite et al., 2010). Accordingly, one would expect that students identified with poorer mental health (those that attend psychological and/or psychiatric counselling) would present greater sexual risk behaviours, which was confirmed by this study. Differently and contrary to what would be expected, the data suggest that these same students have a lower alcohol consumption (assessed using the item "During the past 30 days, on how many days did you drink at least one alcoholic drink?"), with a percentage of 67.1 % reporting not having consumed alcohol in the previous 30 days, or having only consumed alcohol once (versus 51.3 % of non-clinical group). In any case, it should be noted that the level of significance found in this case is .05 (at the limit of statistical significance). In the context of alcohol consumption, it is important to highlight that the results regarding the characterization of the groups, unlike other studies (e.g., Prendergrast, 1994; Santos et al., 2009), does not suggest such a troubling scenario, particularly in relation to episodes of binge drinking. In fact, most students from both the clinical group and the nonclinical group, did not consume alcohol in the past 30 days or only consumed alcohol once (67.1% and 51.3%), had no episodes of binge drinking (69.9% and 60.3%), did not consume alcoholic beverages or consumed only beer (68.5% and 57.7%), did not ingest alcoholic drinks in academic parties or drank only beer (68.5% and 71.8%), being that in this context they reported consuming up to 3-4 alcoholic drinks (69.9 % and 69.2%). Additionally, one can say that the most consumed beverage in both groups the beer, as also observed in previous studies (Santos et al., 2009). Regarding the use of other drugs, the data is optimistic: most students both in the clinical group or the nonclinical group did not consume marijuana (94.5% and 93.5%), cocaine (98.6% and 97.4%), tranquilizers or barbiturates without the doctor's consent (90.4% and 97.4%), and synthetic drugs (98.6% and 98.7%). In the nonclinical group marijuana was the most used drug by young people, which is in accordance with the literature (e.g., Pereira et al., 2013; WHO, 2009). The same was not true for the clinical group, in which barbiturates or tranquilizers without medical consent were more consumed than marijuana. A study on the prevalence of use of these substances without medical consent, conducted with 10,904 higher education students, reported a prevalence of 4.5% (McCabe, 2005), not very different from the percentage found in this study (in students that do not receive psychological and/or psychiatric support). Additionally it should be noted that regarding

sexual risk behaviours, our data appears to be less worrisome than that from previous studies (e.g., Lomba et al., 2008; Ribeiro & Fernandes, 2009). Our results suggest that 6.8 % (clinical group) and 9 % (nonclinical group) of students had sexual intercourse after consuming alcohol that would not occurred if they had not been drinking; these values are well below the values of 41% and 65% (14.69 % with subsequent repentance) found in studies by Ribeiro and Fernandes (2009) and by Lomba et al. (2008). The data regarding the number of students who took the test for HIV/AIDS infection are equally deserving of attention. Approximately 56.2 % and 70.51 % of students in clinical and nonclinical group, respectively, never took the test for HIV/AIDS infection, which means that there may be a significant percentage of students who are infected without knowing. According to Futterman (2005), about a third of young students are infected with HIV/AIDS without knowledge. Regarding psychopathology, the results suggest statistically significant differences between the groups concerning to all the dimensions of psychopathology and global indices, with the clinical group presenting the higher values. These data are consistent with results of previous studies, which concluded that the clinical samples had lower levels of mental health, translated into lower wellbeing and higher anxious and depressive symptomatology (e.g., Green, Lowry, & Kopta, 2003; Santos, Pereira, & Veiga, 2008). Another result worthy of emphasis is the fact that 24.4% of participants, belonging to the nonclinical group scored above the cut-off point defined for the ISP (1.7), which means that it is likely that these students, although not receiving psychological and/or psychiatric counselling, present emotional disorders. This prevalence should not be ignored since according to some authors, the tendency is for this number to increase (Andrews & Wilding, 2004; Castillo & Schwartz, 2013; Eisenberg et al., 2007). Additionally, we know that there are few students who resort to psychological support, not only due to their inability to recognize that their psychological state is not "normal", but also because of the shame and prejudice associated with seeking help (Rosenthal & Wilson, 2008). In this sense, and although there are more young people seeking for help at higher education institutions (Hunt & Eisenberg, 2010), it is urgent to divulge the psychological and/or psychiatric support provided by educational institutions, as well as raising awareness regarding common mental health problems in this population, aiming to increase the number of youngsters adhering to therapy. Despite contributions to the current literature, this study presents limitations. The number of participants in the clinical group was small (n = 73), which led us to resort to the random selection of a nonclinical group with a similar dimension (n = 78) from the sample of students without psychological and/or psychiatric counselling (n = 958) to study the differences between groups. Also noteworthy is the fact that RBQUS, the instrument used to assess risk behaviours, has items with nominal response categories and the fact that, although there are groups of items with some relation between them (depending on the type of risk behaviour cause) there are no sub-scales, that is, each item is analysed individually. This has also conditioned the statistical procedures used.

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