

Psychopathological Symptoms and Psychological Wellbeing in Mexican Undergraduate Students

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Abstract

College life involves a process of adaptation to changes that have an impact on the psycho-emotional development of students. Successful adaptation to this stage involves the balance between managing personal resources and potential stressors that generate distress. This epidemiological descriptive and transversal study estimates the prevalence of psychopathological symptomatology and psychological well-being among 516 college students, 378 (73.26%) women and 138 (26.74%) men, ages between 17 and 24, from the city of Monterrey in Mexico. It describes the relationship between psychopathological symptomatology and psychological well-being, and explores gender differences. For data collection, two measures were used: The Symptom Checklist Revised and the Scale of Psychological Well-being. Statistical analyses used were *t* test for independent samples, *Pearson's r* and regression analysis with the *Statistical Package for the Social Sciences (SPSS v21.0)*. Statistical analyses showed that the prevalence of psychopathological symptoms was 10-13%, being Aggression the highest. The dimension of psychological well-being with the lowest scores was Environmental Mastery. Participants with a higher level of psychological well-being had a lower level of psychopathological symptoms, which shows the importance of early identification and prevention. Gender differences were found on some subscales of the psychopathological symptomatology and of the psychological well-being measures. This study provides a basis for future research and development of resources to promote the psychological well-being and quality of life of university students.

Keywords: college students, psychopathological symptomatology, psychological well-being, symptom checklist revised, scales of psychological well-being

1. Introduction

The university stage involves changes that have an impact on the psycho-emotional development of students. The factors of socialization and adaptation to the new environment involve a degree of stress and a risk for developing psychopathological symptoms (Valencia-Molina, Pareja-Galvis, & Montoya, 2014). It has been found that personal resources are useful for students to successfully meet the demands and needs of this stage (Domínguez, 2014). Based on these findings, the personal resources of the college students can be used to modulate the possible development of psychopathological symptoms (Pérez, Ponce, Hernandez, & Marquez, 2010).

The prevalence of psychopathological symptoms in college students of Spanish-speaking countries has been investigated. Studies conducted in Chile (Antúnez & Vinet, 2013) and Mexico (Pérez et al., 2010) reported that 13-15% of students had symptoms of anxiety and depression. In the study by Balanza, Morales, and Guerrero (2009), it was stated that 47.1% of Spanish students had symptoms of anxiety and 55.6% depressive symptoms. In Colombia (Erazo & Jiménez, 2012) the presence of symptoms of paranoid ideation, hostility, depression and obsession-compulsion among students stood out. These studies identified that the most influential factors in the risk of developing psychopathology are those that are related to the internal resources of the individual and the quality of their social interactions (Fernández, 2009).

In recent years, research on the prevalence of psychopathological symptoms has been more comprehensive towards a more positive conception (Boskovic & Jengic, 2008). The recognition of the relationship between psychopathology and the management of personal resources, allows the ability to potentiate the psychological well-being in students (Valle,

Beramendi, & Delfino, 2011).

Research using the Psychological Well-Being Scale (Ryff, 1989) have pointed out that women scored higher than men in the dimensions of Positive Relationships (Zubieta, Fernández, & Sosa 2012), Environmental Mastery (García-Andaleta, 2013; Zubieta & Delfino, 2010), Purpose in Life (Zubieta & Delfino, 2010) and Personal Growth (García-Andaleta, 2013; Zubieta et al., 2012).

Studies have shown that the presence of psychopathological symptoms is negatively correlated with psychological well-being, without being exclusive. For example, studies in Argentina (Casullo & Castro, 2002), Mexico (Pérez et al, 2010) and Australia (Winefield, Gill, Taylor, & Pilkington, 2012) have found that students who perceive more psychological wellbeing have a lower level of symptoms of psychopathology.. It has also been shown that both factors need to be assessed in order to potentiate the overall development and prevent psychopathological consolidation (Winefield et al., 2012).

The aim of this study was to assess the prevalence of psychopathological symptoms and psychological well-being in college students, to describe the relationship between psychopathological symptoms and psychological well-being, and to explore gender differences. The following research questions were raised: What is the prevalence of psychopathological symptoms in college students? What is the level of psychological well-being experienced by college students? What is the relationship of psychopathological symptoms and psychological well-being and its subscales? Is there a difference in the psychopathological symptoms presented by men and women? Is there a gender difference in the level of psychological well-being presented by the college students?

2. Method

2.1 Participants

In this epidemiological, descriptive and transversal study, 516 college students, ages 17 to 24, of a private university in Monterrey, Mexico participated; of which 378 (73.26%) were women and 138 (26.74%) were males attending between first and twelfth semester.

2.2 Instruments

The assessment instruments used were: Symptoms Checklist (Derogatis, 2012; α : 0.72 y 0.97) that consists of 90 items, which integrate the dimensions: Somatization, Obsessive-Compulsive, Interpersonal Sensitivity, Depression, Anxiety, Aggression, Phobic Anxiety, Paranoid Ideation and Psychoticism, and Psychological Well-Being Scale (Ryff, 1989; α : 0.60 y 0.91), that assesses the dimensions of Self-Acceptance, Positive Relationships, Autonomy, Environmental Mastery, Purpose in Life and Personal Growth.

2.3 Procedure

Both instruments were applied online through Google Forms application. The link to access the questionnaire was sent by email to the total population of university students. The questionnaire consisted of three sections in sequence: informed consent, demographic data on gender, age, semester and career, and the two instruments, SCL-90-R and Psychological Well-Being Scale. To estimate the prevalence a cutoff point corresponding raw score the 90th percentile for each subscale was considered.

3. Results

The Psychological Distress Global Index integrate the dimensions of Somatization, Obsessive-Compulsive, Interpersonal Sensitivity, Depression, Anxiety, Aggression, Phobic Anxiety, Paranoid Ideation and Psychoticism; and it was used as a summary of the test. The results show that the prevalence of Psychological Distress Global Index and each symptom is stated in Table 1.

Table 1. Prevalence psychological symptoms using the SCL-90-R

Dimension	Prevalence	No Prevalence
Psychological Distress Global Index	10% (n=52)	90% (n=464)
Anxiety	10% (n=54)	90% (n=462)
Phobic Anxiety	12% (n=62)	88% (n=454)
Obsession-Compulsion	11% (n=56)	89% (n=460)
Somatization	10% (n=50)	90% (n=466)
Depression	10% (n=53)	90% (n=463)
Interpersonal Sensitivity	12% (n=60)	88% (n=456)
Hostility	13% (n=68)	87% (n=448)
Paranoid Ideation	11% (n=57)	89% (n=459)
Psychoticism	12% (n=60)	88% (n=456)

The results of the Psychological Well-Being Scale are indicated in Table 2.

Table 2. Results of the Psychological Well-Being Scale

Dimension	Low	Medium	High
Psychological Well-being Global Index	19.12%	64.25%	16.99%
Self-acceptance	18.16%	67.57%	13.98%
Positive Relationships	18.55%	63.21%	16.99%
Domain Environment	18.75%	66.40%	4.84%
Autonomy	15.23%	58%	25.78%
Purpose in Life	15.23%	66.99%	17.43%
Personal growth	11.91%	66.79%	21.28%

Table 3. Correlations of SCL-90-R and Psychological Well-being Scale

	Psychological Well-being Global Index	Self-acceptance	Positive Relationships	Autonomy	Domain Environment	Purpose in Life	Personal growth
Psychological Distress Global Index	-0.55**	-0.42**	-0.50**	-0.48**	-0.52**	-0.34**	-0.27**
Anxiety	-0.43**	-0.33**	-0.39**	-0.41**	-0.42**	-0.24**	-0.19**
Phobic Anxiety	-0.40**	-0.29**	-0.36**	-0.35**	-0.35**	-0.28**	-0.20**
Obsession-Compulsion	-0.46**	-0.32**	-0.39**	-0.44**	-0.46**	-0.31**	-0.21**
Somatization	-0.30**	-0.21**	-0.34**	-0.24**	-0.29**	-0.17**	-0.14**
Depression	-0.56**	-0.45**	-0.51**	-0.42**	-0.55**	-0.38**	-0.29**
Interpersonal Sensitivity	-0.54**	-0.42**	-0.47**	-0.57**	-0.47**	-0.31**	-0.24**
Hostility	-0.45**	-0.39**	-0.34**	-0.33**	-0.43**	-0.31**	-0.29**
Paranoid Ideation	-0.48**	-0.36**	-0.46**	-0.42**	-0.45**	-0.30**	-0.24**
Psychoticism	-0.52**	-0.41**	-0.49**	-0.46**	-0.48**	-0.30**	-0.28**

Note: All subscales and total scores of both tests were negatively correlated with significance of $p < .001$.

When comparing the results by gender, statistically significant differences were reported, where women scored higher than men in both the Psychological Distress Global Index and the subscales: Anxiety; Phobic Anxiety; Somatization; Depression and Interpersonal Sensitivity. Finally, the results showed that only the dimension of Autonomy reported statistically significant differences, where women scored lower than men.

Table 4. Means test in the SCL-90

	Gender	N	Mean	Standard Deviation	Bilateral Significance	t	Confidence interval	
							Inferior	Superior
Psychological Distress Global Index	F	378	0.91	0.58	.00**	3.19	0.07	0.29
	M	138	0.73	0.55				
Anxiety	F	378	0.94	0.72	.00**	3.7	0.13	0.38
	M	138	0.68	0.62				
Phobic Anxiety	F	378	0.49	0.59	.00**	3.78	0.12	0.3
	M	138	0.28	0.4				
Obsession-Compulsion	F	378	1.22	0.76	0.08	1.76	-0.02	0.28
	M	138	1.08	0.77				
Somatization	F	378	1.05	0.71	.00**	5.27	0.23	0.48
	M	138	0.7	0.6				
Depression	F	378	1.08	0.74	.00**	3.31	0.1	0.38
	M	138	0.84	0.72				
Interpersonal Sensitivity	F	378	1.01	0.72	.01**	2.81	0.06	0.34
	M	138	0.81	0.69				
Hostility	F	378	0.66	0.56	0.6	0.53	-0.09	0.15
	M	138	0.63	0.6				
Paranoid Ideation	F	378	0.75	0.74	0.85	-0.18	-0.16	0.13
	M	138	0.76	0.76				
Psychoticism	F	378	0.61	0.6	0.07	1.8	-0.01	0.22
	M	138	0.5	0.57				

Note. * $p < .05$, ** $p < .001$

As Table 4 showed, in the total score of the measure and in all the subscales that reported a statistically significant gender difference (Anxiety, Phobic Anxiety, Somatization, Depression and Interpersonal Sensitivity) women are reporting higher symptomatology, in comparison with men.

As Table 5 showed, the subscales that reported a highest magnitude in the regression analysis were: Somatization, Anxiety and Depression, suggesting that women, compared to men, experienced more symptomatology.

Table 5. Gender differences in the SCL-90

	Coef.	<i>t</i>	Sig.	<i>R</i> ²
Psychological Distress Global Index	0.181	3.19	0.002	0.139
Anxiety	0.255	3.70	0.000	0.161
Phobic Anxiety	0.206	3.78	0.000	0.165
Obsession-Compulsion	0.134	1.76	0.079	0.077
Somatization	0.357	5.27	0.000	0.226
Depression	0.241	3.31	0.001	0.144
Interpersonal Sensitivity	0.199	2.81	0.005	0.123
Hostility	0.03	0.53	0.600	0.023
Paranoid Ideation	-0.014	-0.18	0.854	0.008
Psychoticism	0.106	1.80	0.072	0.079

Note. * $p < .05$, ** $p < .001$

Table 6. Means test in the Psychological Well-being Scale

	Gender	<i>N</i>	Mean	Standard Deviation	Bilateral Significance	<i>t</i>	Confidence interval	
							Inferior	Superior
Psychological Well-being Global Index	F	376	4.57	0.80	0.51	-0.66	-0.20	0.10
	M	136	4.62	0.76				
Self-acceptance	F	376	4.74	1.20	0.71	-0.38	-0.27	0.18
	M	136	4.79	1.09				
Positive Relationships	F	376	4.57	1.04	0.5	-0.67	-0.27	0.13
	M	136	4.64	1.03				
Domain Environment	F	376	4.55	0.90	0.92	0.10	-0.17	0.19
	M	136	4.54	0.89				
Autonomy	F	376	4.17	0.92	0.01	-2.57**	-0.42	-0.05
	M	136	4.41	0.89				
Purpose in Life	F	376	4.64	1.15	0.65	0.46	-0.17	0.27
	M	136	4.59	1.12				
Personal growth	F	376	4.95	0.95	0.77	0.3	-0.16	0.22
	M	136	4.92	0.95				

Note. * $p < .05$, ** $p < .001$

As noted in Table 6, only the subscale of Autonomy reported statistically significant gender differences, suggesting that men, compared to women, perceived themselves as more autonomous and independent.

Table 7. Gender differences in the Psychological Well-being Scale

	Coef.	<i>t</i>	Sig.	<i>R</i> ²
Psychological Well-being Global Index	-0.052	-0.66	0.511	0.029
Self-acceptance	-0.044	-0.38	0.706	0.017
Positive Relationships	-0.07	-0.67	0.501	0.300
Domain Environment	0.009	0.10	0.919	0.005
Autonomy	-0.235	-2.57	0.01	0.113
Purpose in Life	0.053	0.46	0.645	0.020
Personal growth	0.028	0.30	0.768	0.013

Note. * $p < .05$, ** $p < .001$

As Table 7 showed, the magnitude of the gender difference reported for the Autonomy subscale, through the regression analysis performed, is similar to the magnitude of the differences reported on the SCL-90 subscales of Somatization, Anxiety and Depression.

4. Discussion

The results that the psychopathological symptoms with a higher prevalence were related to Aggression are similar to those obtained with Pakistani (Farhadi & Kakabarae, 2014) and Colombian (Erazo & Jimenez, 2013) college students. However, in the current study the symptomatology of depression and anxiety were not among the most prevalent, unlike other studies reporting these being the highest within Mexican (Pérez et al., 2010) and Spanish (Balanza et al, 2009) college students. According to the National Institute of Statistic and Geography (INEGI) in 2015 almost 73.2% of the Mexican population felt insecure due to the violence lived in the country. It is possible that the high prevalence of aggression is a reflection of the insecurity and economic, ideological and political conflicts that have threatened the personal and social stability of Mexicans. The collective perception of insecurity could be prevented by creating public

policies that seek to reduce the content related to violence that is transmitted in the media, since it continues to affect the perception of citizen's stability and security (Laca & Navarro, 2013).

In relation to psychological well-being, it was found that the dimension that had the highest percentage of students in low range was Environment Mastery. This coincides with the findings in Argentine (Valle, Beramendi & Delfino; 2011) and Costa Rican (Barrantes-Brais & Ureña-Bonilla, 2015) university students. The lack of Environmental Mastery could be related to the university life since it involves facing different situations for the first time, such as: interacting with people from different cultures and beliefs, establishing new friendships, dealing with the bureaucracy of the institutions, facing constant evaluations and tests and projects (Transition Year Organization, 2009; Valencia-Molina et al, 2014). Although college transitions can be difficult for all students, Bowman (2010) suggests Environment Mastery could increase with age.

The results that a higher level of general psychological well-being, both in general and in each of its dimensions, is related to lower levels of distress and psychopathological symptoms in college students are consistent with studies conducted with Argentine (Casullo & Castro, 2002), Mexican (Pérez et al., 2010) and Australian (Winefield et al, 2012) college students. Psychological well-being involves characteristics that influence the presence of psychopathological symptoms as a positive appreciation of him(her)self; ability to effectively manage the environment and life itself; high quality of interpersonal relationships; the belief that life has purpose and meaning; the feeling that he(her) grows and develops throughout life and sense of self-determination (Casullo & Castro, 2002). Therefore the implementation of programs that promote psychological well-being is very important to generate a preventive effect on college students.

Regarding gender differences, the results that showed that women scored higher than men in the Global Index of Psychological Distress and in some of the subscales of The Symptoms Checklist, and scored lower than men on the subscale of Autonomy, are consistent with results found in studies conducted in Colombia (Erazo & Jiménez, 2012), Chile (Antúnez & Vinet, 2013), Iran (Khodarahimi, Rasti, Khajehie, & Sattar, 2009), The United States (Bowman, 2010) and Spain (Caparrós-Caparrós, Villar-Hoz, Juan-Ferrer, & Vines-Poch, 2007; García-Andalete, 2013; Reig, Cabrero, Ferrer, & Richart, 2001; Veliz-Burgos, 2012). These gender differences could be in part related to the combination of socio cultural conditions, such as a greater willingness and ease of women to report and admit the presence of symptoms, and biological, related to a genetic predisposition, sex hormones, endocrine reactivity coping with stress, neurotransmitter systems and neuropsychological determinants specifically observed in women (Antúnez & Vinet, 2013; García-Andalete, 2013; Littlejohn & Foss, 2009). Therefore it is relevant considering sociocultural factors when developing prevention programs.

This study encountered several limitations important to take into account when interpreting the results. First, because an online method for data collection was used, the environmental conditions in which the questionnaire was answered were not controlled. The two instruments used in this study are self-report inventories, which are subject to counterfeiting, and the full extent of the test battery could also affect the participation of university, as some of them did not complete the full battery. Similarly, the sample had polarized biases regarding gender participation, career and semester. Particularly in relation to the semester, it is important to note that most of the participants were from first semester, a semester where stress is particularly high due to the new college experience (Bowman, 2010).

In conclusion, the results of this study contribute to the existing literature and provide a basis for future research. Identifying risk factors of psychopathology is crucial for mental health prevention. Through the promotion of college students' well being, we can help to consolidate the foundations of proactive coping and balance so individuals can manage effectively present and future stressors.

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