

The Prevalence of Depression in Chinese University Students and their Parents; Amidst COVID-19 Crisis: A Cross-Sectional Study

Jafar Rashidnia*, Zhang Min, Shen Heyong

Department of Humanities and Social Sciences, City University of Macau, Macau, China

ABSTRACT

Depression among university and college students is on the rise across the globe, It is speculated that the present economic shockwaves due to COVID-19 might have increased prevalence of parental depression and as well as depression in Chinese university students. The evidence suggests that the prevalence of parental depression in Chinese university students is estimated to be 16.3%. The present cross-sectional study provided comprehensive evidence on the prevalence of depression in parents of Chinese university students as well as in the latter amidst COVID-19. The present study showed that the prevalence of depression in parents of Chinese university students and the students themselves were 26.8% and 47.5%, respectively. These findings are aligned with the previous studies that reported that the prevalence of depression in Chinese university students could range from 13.2% to 60.2%. Therefore, it could be inferred that COVID-19 crisis did not significantly increase depression in Chinese University students as was previously speculated before the study was conducted. Since the previous studies showed that depression in parents of Chinese university students is 16.3%, The higher prevalence of depression in them (26.8%) as reported in this study could be due to the expected growth in prevalence rate year after year rather as well as due to the COVID-19 crisis. Nevertheless, this study confirmed that the prevalence of depression in Chinese University students not higher compared to previous studies which reflected that the COVID-19 crisis did not precipitate depression in them. Future studies should explore the reason for such high rates of depression in parents of Chinese university students.

Keywords: Chinese university students; Parents; COVID-19; Prevalence; Depression

INTRODUCTION

Depression is a neuropsychiatric disorder that is featured by low mood and an intention of self-harm. Depression not only affects the physical, mental, and social wellbeing of those affected but also those surrounding them, especially their family members including spouse and children [1]. It is estimated that 15% of the adolescents would suffer from depression by the time they reach 18 years [2]. Acknowledged that the prevalence of depression is two to four times higher in children of depressed parents. Depression among parents is significantly on the rise and is often higher than the general population. The rates of parental depression could vary between 10% and 42% depending upon the demographic and geographic background. Parental depression and its impact on children have received wide focus among researchers over the past two decades because parental depression predisposes the risk of different psychotic disorders in children that could range from depression to anxiety. Studies suggest that 14% of the urban children and 23% of the rural children in China exhibit symptoms of depression [3]. The rise in the prevalence of depression in Chinese students has been largely attributed to parental pressure over academics [4]. Apart from parental pressure, social problems and family problems further precipitate depression in Chinese students [5,6]. Pointed out that the prevalence of depression in Chinese university students could range from 13.2% to 60.2%. The increased prevalence of depression in Chinese students to general causes such as gender biasness, color and ethnicity issues,

academic pressure, and family violence. Early-onset depression in children and depression in students is strongly unsolicited in China considering the investments on human capital and the vision of the nation to become a global leader by 2050. The nation launched different programs such as mental health services in mitigating depression in the target population. It is necessary to identify the prevalence of parental depression in Chinese university students because children of depressed parents not only exhibit poor social functioning and academic development but they are also vulnerable to different psychiatric diseases and suicide. An understanding of the prevalence of parental depression in Chinese university students and its impact on them would help to tailor mental health interventions for the target populations. Previous studies have reported the prevalence of parental depression in China but they were either specific to a single province or across the entire population of parents. The present research expanded the study population to various provinces including china as well those in Macau. The study provided an updated statistics on the prevalence of parental depression in Chinese university students as well as their episodes of depression and anxiety.

METHODOLOGY

The study was conducted as cross-sectional survey involving students (n=168) from different universities of China as well Macau. An online invitation was sent to the target population to participate in the study. The students who provided

Correspondence to: Jafar Rashidnia, Department of Humanities and Social Sciences, City University of Macau, Macau, China, E-mail: psy.jaf@gmail.com

Received: January 22, 2021; **Accepted:** February 08, 2021; **Published:** February 15, 2021

Citation: Rashidnia J, Min Z, Heyong S (2021) The Prevalence of Depression in Chinese University Students and their Parents; Amidst COVID-19 Crisis: A Cross-Sectional Study. *J Foren Psy.* 6:161.

Copyright: © 2021 Rashidnia J, et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

informed consent were permitted to access the semi-structured interview that was provided through the *SurveyMonkey.com* hyperlink. The semi-structured interviews inquired regarding the perception of depression in their parents. Moreover, the interview questions also inquired the status of depression in the students, the duration of depression in them and their parents, and the level of anxiety in them. Apart from the duration of depression, the participants were required to express their responses on a 5-point Likert scale (1= strongly disagree, 2=disagree, 3= partially agree, 4= agree, and 5= strongly agree). The responses were further sorted into nominal variables (0 for strongly disagree and disagree and 1 for partially agree, agree, and strongly agree, respectively). Descriptive statistics used in this study include frequency, percentages for parental depression and students depression and mean and standard deviation for the durations of depression and anxiety. Pearson's correlation coefficient was conducted to explore the relationship between different variables. The correlation analyses were interpreted at the 0.05 level of statistical significance. Finally, all statistical tests conducted in this study were performed by the SPSS (IBM-SPSS, version 26) software.

RESULTS

Table 1 and Figure 1 reflected that the prevalence of depression in parents of Chinese university students is 26.8%. These findings are aligned with the previous studies that showed that depression in parents of Chinese university students is 16.3%, the higher prevalence of depression in them (26.8%) as reported in this study could be due to the expected growth in prevalence rate year after year rather and issues related to COVID-19 crisis.

Table 2 and Figure 1 reflected that the prevalence of depression in Chinese university students is 47.5%. Nevertheless, the prevalence of depression in Chinese university students was almost two times more than the prevalence of depression in their parents (47.5% versus 26.8%).

Hence, there might be other causes apart from parental depression that causes depression in Chinese university students. The COVID-19 crisis

did not account for the higher prevalence of depression in students of Chinese Universities because the present study showed that the rates were almost comparable or lower than reported by previous studies (47.5% versus 60.2%) [6].

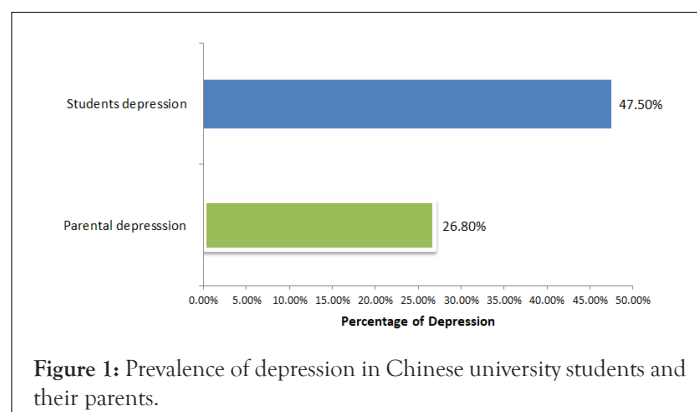


Table 3 reflected that the mean duration of depression in parents of Chinese university students was 32.65 months, while the duration of depression in students was 17.88 months. These findings suggested that in most instances parental depression precedes depression in their children. These findings are aligned with the previous studies that necessitated mental health screening in parents. The findings also endorse the need for mental health screening of children of depressed parents as early as possible.

Table 3 further highlighted mean anxiety score in Chinese university students was 3.02 months. This finding suggested that most of the students agreed that they were anxious. However, it remained unclear whether such anxiety stemmed from parental depression or other factors. To explore such assumptions, correlation analysis was undertaken.

Table 1: Prevalence of parental depression in Chinese university students.

		Parents depression			
		Frequency	Percent	Valid percent	Cumulative percent
Valid	0	82	48	73.2	73.2
	1	30	17.5	26.8	100
	Total	112	65.5	100	
Missing System		59	34.5		
Total		171	100		

Table 2: Prevalence of depression in Chinese university students.

		Students depression			
		Frequency	Percent	Valid percent	Cumulative percent
Valid	0	53	31	52.5	52.5
	1	48	28.1	47.5	100
	Total	101	59.1	100	
Missing System		70	40.9		
Total		171	100		

Table 3: Descriptive statistics for the duration of depression and anxiety in the respective stakeholders.

	Descriptive statistics				
	N	Minimum	Maximum	Mean	Std. deviation
Parents duration of depression	49	4	80	32.6531	19.5038
Students duration of depression	44	2	90	17.8864	14.9965
Students anxiety	168	1	5	3.0298	0.90524
Valid N (list wise)	42				

The correlation analysis (Table 4) confirmed that the duration of parental depression is significantly and positively correlated with the duration of depression in the concerned stakeholders ($r=0.510$, $p=0.001$). However, the correlation analysis did show that the incidence of parental depression does predispose the risk of anxiety in Chinese university students ($r=0.197$, $p=0.037$). On the other hand, the correlation analysis further revealed that anxiety in Chinese university students is significantly and positively correlated with their duration of depression ($r=0.436$, $p=0.003$).

socioeconomic conditions, peer pressure, family violence, and parental expectations are some of the major causes of depression in Chinese university students.

The present study helped to understand the mechanism of development of depression in Chinese university students as a function of parental depression. The correlation analysis showed positive relationship between the incidence of parental depression and development of anxiety in Chinese university students. Hence,

Table 4: Correlation analysis between the different bivariate variables.

		Correlations				
		Parents depression	Students depression	Parents duration of depression	Students duration of depression	Students anxiety
Parents depression	Pearson Correlation	1	0.122	-0.007	0.301	.197*
	Sig. (2-tailed)		0.298	0.967	0.084	0.037
	N	112	75	37	34	112
Students depression	Pearson Correlation	0.122	1	-0.176	-0.024	-0.009
	Sig. (2-tailed)	0.298		0.305	0.895	0.930
	N	75	101	36	32	101
Parents duration of depression	Pearson Correlation	-0.007	-0.176	1	.510**	0.252
	Sig. (2-tailed)	0.967	0.305		0.001	0.080
	N	37	36	49	42	49
Students duration of depression	Pearson Correlation	0.301	-0.024	.510**	1	.436**
	Sig. (2-tailed)	0.084	0.895	0.001		0.003
	N	34	32	42	44	44
Students anxiety	Pearson Correlation	.197*	-0.009	0.252	.436**	1
	Sig. (2-tailed)	0.037	0.930	0.080	0.003	
	N	112	101	49	44	168

*Correlation is significant at the 0.05 level (2-tailed).

**Correlation is significant at the 0.01 level (2-tailed).

DISCUSSION AND CONCLUSION

These findings suggested that Chinese university students are exposed to various triggers apart from parental depression that predispose them to the risk of depression and anxiety. These findings are aligned with the previous studies that reported that the prevalence of depression in Chinese students could range from 13.2% to 60.2% [6]. Since, the prevalence of depression in Chinese university students is near the upper limits of this range, it could be inferred that students might develop certain amount of resilience by the time they are of the university-going age [7]. However, they might tend to suffer silently from depression as their age progresses. These assumptions are based on the observations [1]. Who showed that the prevalence of depression in children who witness parental depression increases during the age group of 18 to 20 years. On the contrary, exposure to parental depression during childhood causes impaired social functioning in the concerned stakeholders. Therefore, impaired social functioning is evident in the target population by the time they reach university going age. There could be two fates in the concerned stakeholders upon reaching the referred age group. First of all, they could develop adequate coping and resilience to overcome the impact of parental depression on their mental well-being [8]. Which depicted Chinese students could develop effective coping against challenges. Secondly, the concerned stakeholders might suffer from internalizing problems and are unable to cope with parental depression. The latter might be more vulnerable to depression and other psychotic disorders during late adolescence or early adulthood. These findings suggest that there could be other causes apart from parental depression that predispose the risk of depression in Chinese university students. These assumptions are supported by findings of [9]. Which showed

it could be inferred that the respective students initially develops anxiety when they start to witness or perceive depression in their parent [10]. However, if they continue to suffer from anxiety for a long period, they are likely to develop depression [11]. This model was substantiated by the correlation analysis, which indeed showed that the duration of depression in students is positively correlated to both the duration of depression in their parents as well as their own anxiety levels. Although the present study provided robust data regarding the prevalence of depression in Chinese university students and their parents, future studies should incorporate evidence-based screening tools (such as Beck Depression Inventory or any DSM-V based tools) for diagnosing depression [12]. Such measures could further increase the reliability and validity of the present study and the research domain as a whole.

RECOMMENDATIONS

The study calls for mental health counseling for Chinese university students and their parents, especially those with a history of parental depression. Liu et al. [5] has confirmed help seeking behavior in Chinese university students affected with depression and anxiety. Teachers should identify depression in university students, if they are found to remain disengaged with academics. There should be a feedback system by the university for evaluating academic satisfaction of students as well as on their QOL parameters. Such assessment could indicate individuals who are either depressed or are at-risk of developing depression.

REFERENCES

1. Pilowsky DJ, Wickramaratne P, Nomura Y, Weissman MM. Family discord, parental depression, and psychopathology in offspring: 20-year follow-up. *J Am Acad Child Adolesc Psychiatry*. 2006;45:452Y460.
2. Gladstone TG, Marko-Holguin M, Rothberg P. An internet-based adolescent depression preventive intervention: study protocol for a randomized control trial. *Trials*. 2015;16:203.
3. Zhou M, Zhang G, Rozelle S, Kenny K, Xue H. Depressive symptoms of Chinese children: prevalence and correlated factors among subgroups. *Int J Environ Res Public Health*. 2018;15(2):283.
4. Chen L, Wang L, Qiu XH, Yang XX, Qiao ZX, Yang YJ, et al. Depression among Chinese university students: prevalence and socio-demographic correlates. *PloS one*. 2013;8(3):e58379.
5. Liu F, Zhou N, Cao H, Fang X, Deng L, Chen W, et al. Chinese college freshmen's mental health problems and their subsequent help-seeking behaviors: A cohort design (2005-2011). *PLoS One*. 2017;12(10):e0185531.
6. Lei XY, Xiao LM, Liu YN, Li YM. Prevalence of depression among Chinese University students: a meta-analysis. *PloS one*. 2016;11(4):e0153454.
7. Zou ML, Li MX, Cho V. Depression and disclosure behavior via social media: A study of university students in China. *Heliyon*. 2020;6(2):e03368.
8. Wang ZH, Yang HL, Yang YQ, Liu D, Li ZH, Zhang XR, et al. Prevalence of anxiety and depression symptom, and the demands for psychological knowledge and interventions in college students during COVID-19 epidemic: A large cross-sectional study. *Journal of affective disorders*. 2020;275:188-193.
9. Chen GH. Validating the orientations to happiness scale in a Chinese sample of university students. *Social Indicators Research*. 2010;99(3):431-442.
10. Piko BF. A new challenge: depression is a significant problem among university students. *West Indian Med J*. 2009;58(1):1.
11. Pruzan K, Isaacowitz DM. An attentional application of socioemotional selectivity theory in college students. *Social Development*. 2006;15(2):326-338.
12. Kumar GS, Jain A, Hegde S. Prevalence of depression and its associated factors using Beck Depression Inventory among students of a medical college in Karnataka. *Indian J Psychiatry*. 2012;54(3):223