

Psychosocial problems of 13-16 years old before and during the recovery phase of the COVID-19 pandemic in Taiwan

Ayesha Zafar Iqbal¹, Kai-Jie Yang², Jane Pei-Chen Chang³

¹ Mind-Body Interface Research Center (MBI-Lab), China Medical University Hospital, Taichung, Taiwan; Graduate Institute of Nutrition, China Medical University, Taichung, Taiwan.

² Mind-Body Interface Laboratory (MBI-Lab), China Medical University Hospital, Taichung, Taiwan.

³ Mind-Body Interface Research Center (MBI-Lab), China Medical University Hospital, Taichung, Taiwan; College of Medicine, China Medical University, Taichung, Taiwan.

Abstract

Background and aim: The COVID-19 pandemic has significantly disrupted adolescents' daily activities, leading to increased psychosocial challenges, including heightened mental health issues and stress. Government measures like quarantine and social distancing exacerbated these difficulties.

Aim: This study investigates the psychosocial well-being of adolescents aged 13-16 years in Taiwan post-pandemic.

Methodology: A cross-sectional study was conducted in Taichung with 563 adolescents (aged 13-16) and their teachers. Adolescents completed a self-administered questionnaire covering demographics, family structure, health, sleep, body image, psychiatric symptoms, and the impacts of COVID-19.

Result: Five hundred sixty-three students agreed to participate in the study, giving a response rate of 70.3%. Quarantined individuals reported different family status ($p = 0.035$), intrusive COVID-19 thoughts ($p = 0.021$), and significantly higher weight ($p = 0.038$).

Conclusion: The study reveals that COVID-19 quarantine status significantly impacts psychosocial outcomes, and greater intrusive thoughts related to COVID-19, though no significant differences in SDQ items were observed.

Keywords: Adolescents, Psychosocial behavior, Quarantine, Strength and Difficulty Questionnaire

Introduction

- The COVID-19 pandemic has profoundly affected behaviors and lifestyles across all age groups, particularly impacting the psychosocial well-being of adolescents.
- Governments globally have implemented quarantine measures, social distancing, and isolation to control the epidemic.
- These social behavioral changes have disrupted adolescents' daily activities, leading to a rise in psychosocial issues, exacerbation of preexisting mental health conditions, and increased fears of infection, uncertainty, isolation, and stress.

Methods

Data source

- Cross-sectional study
- Participants: 13-16 years adolescents in Taichung.

Questionnaires

- Demographics
- Health and body image
- Psychiatric symptoms
- COVID-19 Perception

Analysis

- Chi-square for categorical variables
- Mann-Whitney U test for continuous variables
- P-value less than 0.05

Results

Table 1 reveals no significant differences in age, height, BMI and gender distribution by quarantine status. However, body weight ($p = 0.038$), family status ($\chi^2 = 10.313$, $p = 0.035$) and specific emotional responses, including strong feelings ($\chi^2 = 4.522$, $p = 0.033$), intrusive images ($\chi^2 = 5.006$, $p = 0.025$), and keep thinking about COVID-19 ($\chi^2 = 5.352$, $p = 0.021$), were significantly linked to quarantine experience.

Table 1. Association of Categorical and Continuous Variables with COVID-19 Quarantine Status (n=528)

Variable	Have the health authorities quarantined you due to COVID-19?		χ^2 (p-value)
	Yes	No	
Sociodemographic			
Gender, n(%)			
Girl	177 (48.5)	188 (51.5)	2.123 (0.346)
Boy	70 (44.0)	89 (56.0)	
Other	3 (75.0)	1 (25.0)	
Age, mean (SD)	15.05 (0.775)	14.94 (0.824)	0.119
Height, mean (SD)	162.93 (8.445)	162.21 (8.206)	0.206
Weight, mean (SD)	55.86 (27.895)	54.45 (29.899)	0.038
Body mass index, mean (SD)	20.881 (11.188)	20.65 (12.067)	0.234
Family status, n(%)			
Certainly not good	1 (16.7)	5 (83.3)	10.313 (0.035)
Not so good	22 (64.7)	12 (35.3)	
Fair	164 (49.5)	167 (50.5)	
Better	58 (40.0)	87 (60.0)	
Certainly better	5 (41.7)	7 (58.3)	
Impact of COVID-19 on feelings & thoughts, n(%)			
Do you think about it even when you don't mean to?			
Not at all	217 (46.4)	251 (53.6)	1.391 (0.238)
Often	25 (55.6)	20 (44.4)	
Do you try to remove it from your memory?			
Not at all	231 (47.1)	259 (52.9)	0.228 (0.633)
Often	14 (51.9)	13 (48.1)	
Do you have waves of strong feelings about it?			
Not at all	227 (46.2)	264 (53.8)	4.522 (0.033)
Often	17 (68.0)	8 (32.0)	
Do you avoid reminders of it (e.g. places or situations)?			
Not at all	224 (46.6)	257 (53.4)	1.463 (0.226)
Often	20 (57.1)	15 (42.9)	
Do you try not to talk about it?			
Not at all	228 (46.9)	258 (53.21)	0.734 (0.392)
Often	17 (54.8)	14 (45.2)	
Do pictures about it pop into your mind?			
Not at all	222 (46.2)	259 (53.8)	5.006 (0.025)
Often	23 (65.7)	12 (34.3)	
Do other things keep making you think about it?			
Not at all	213 (45.7)	253 (54.3)	5.352 (0.021)
Often	32 (62.7)	19 (37.3)	
Do you try not to think about it?			
Not at all	227 (46.8)	258 (53.2)	1.074 (0.300)
Often	18 (56.3)	14 (43.8)	

Note: Categorical Values are expressed as total counts and percentages (n (%)) and continuous variables are expressed as mean and standard deviation mean (SD). p-values are calculated by a chi-squared and Mann-Whitney U test. $p < 0.05$ in bold are considered statistically significant.

The figure 1. indicates that, although the differences in mean SDQ subscale scores between quarantined and non-quarantined adolescents are not statistically significant, there are still observable differences.

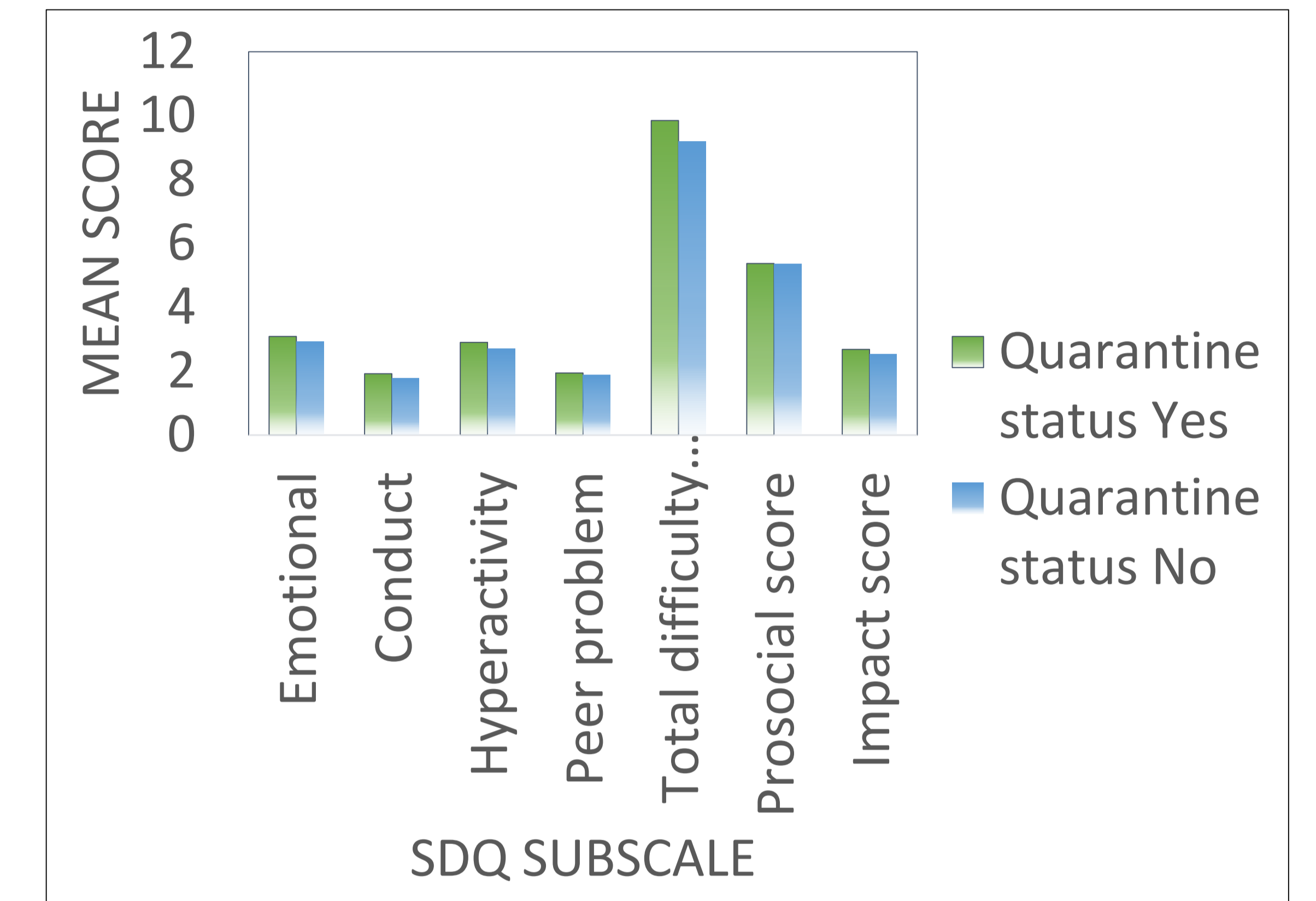


Figure 1. Comparison of mean SDQ subscale score and quarantine status. Mean between the mean SDQ scores for quarantine and non-quarantine groups ($p > 0.05$). SDQ scores for participants with and without quarantine status. (Green bar = yes, Blue bar = no). Statistical analysis showed no significant difference

Conclusion

- The study indicates that COVID-19 quarantine status notably affects psychosocial outcomes. However, no significant differences were found in SDQ items.
- Future research should explore the long-term psychosocial impacts of quarantine, particularly on emotional regulation and weight management.
- Governments are encouraged to strengthen mental health support and implement targeted interventions to address the challenges associated with quarantine.

References

- Brooks, Samantha K., et al. "The psychological impact of quarantine and how to reduce it: rapid review of the evidence." *The lancet* 395.10227 (2020): 912-920.
- Racine, Nicole, et al. "Global prevalence of depressive and anxiety symptoms in children and adolescents during COVID-19: a meta-analysis." *JAMA pediatrics* 175.11 (2021): 1142-1150.

