

### 1<sup>ST</sup> INTERNATIONAL NURSING CONFERENCE

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## GLOBAL PREVALENCE OF POSTTRAUMATIC STRESS DISORDER

**AMONG COVID-19 SURVIVORS: A META-ANALYSIS** 

Ninik Yunitri, M.Kep., Sp.Kep.J<sup>12</sup> & Kuei-Ru Chou Ph.D., FAAN<sup>1</sup>

<sup>1</sup>School of Nursing, College of Nursing, Taipei Medical University, Taipei, Taiwan <sup>2</sup>Mental Health and Psychiatric Nursing Department, Faculty of Nursing, Universitas Muhammadiyah Jakarta

### BACKGROUND

The COVID-19 pandemic has negatively impacted the psychological well-being of individuals and society. People infected by COVID-19 may experience feelings of trauma due to the hospitalization, the disease, and the stigmatization from family and friends after recovery or release from quarantine due to the viral nature of outbreak. Posttraumatic stress disorder (PTSD), depression, and anxiety were the most common mental health problems and longterm consequences of previous coronavirus outbreaks. However, study to determine the prevalence of PTSD among COVID-19 survivors is lacking.

### OBJECTIVES

The purpose of this meta-analysis was examined the global prevalence and associated risk factors of PTSD in COVID-19 survivors.

#### METHODS

A systematic search was conducted on Cochrane library, CINAHL, Embase, Medline-OVID, PubMed, Scopus, Web of Science, and manual search up to April 2022. The data were analyzed using Logit transformation with random effects model from metaprop package in R software version 4.0.2. Risk of bias assessment was conducted using Hoy and colleagues, and publication bias was check using Peters

### RESULTS

18 Studies

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4, 556
Participants



Study	Events	Total	GLMM, Fixed+Random [95%CI]
Albhegani et al, 2021	61	85	0.72 [0.61;0.81]
Cai et al, 2020	39	126	0.31 [0.23;0.40]
Changt et al, 2020	13	64	0.20 [0.11;0.32]
Cho et al. 2021	7	28	0.25 [0.11;0.45]
Dar et al, 2021	30	119	0.25 [0.18;0.34]
Einvik et al, 2020(a)	11	125	0.09 [0.04;0.15]
Einvik et al, 2020(b)	32	458	0.07 [0.05;0.10]
Gu et al, 2020	115	461	0.25 [0.21;0.29]
Guo Qian et al, 2020	3	103	0.03 [0.01;0.08]
Horn et al, 2021	40	139	0.29 [0.21;0.37]
Houben Wilke et al, 2022	89	239	0.37 [0.31;0.44]
Huang et al, 2022	64	574	0.11 [0.09;0.31]
Huarcaya-victoria et al, 20	21 25	318	0.08 [0.05;0.11] 😛 🖁
Imran et al, 2021	9	103	0.09 [0.04;0.16]
Janiri et al, 2021	115	381	0.30 [0.26;0.35]
Liu Dong et al, 2020	84	675	0.12 [0.10;0.15]
Mazzan et al, 2020	102	402	0.25 [0.21;0.30]
Qi et al, 2020	5	41	0.12 [0.50;0.26] — # # -
Tarsitani et al, 2021	12	115	0.10 [0.06;0.18] <del>     </del>
Total (fixed effect, 95% C	i)	4556	0.19 [0.18;0.20]
Total (random effects, 95% CI)			0.18 [0.12;0.25]
Prediction interval [0.03;0.61]			
Heterogeneity: Tau <sup>2</sup> = 0.8358; Chi <sup>2</sup> = 345.64, df = 18; l <sup>2</sup> = 96%			
			0.2 0.4 0.6 0.8

Figure 1. Forest plot PTSD prevalence of COVID-19 survivors

The overall pooled estimate of PTSD prevalence among health professionals was 17.82% (95% CI 12.38 to 24.96) with no publication bias (*p*-value 0.414).

# Female 65.4 Male 65.4 33.6 Gender Others 46.34 IES PCL 14.6 13.5 Country

### MODERATOR ANALYSIS

Subgroup analyses showed female (65.45%; 95%Cl 54.30 to 75.13) and using PTSS, PTSD-SS, and TSQ instruments (46.43%; 95%Cl, 26.93 to 66.92) showed higher PTSD prevalence among COVID-19 survivors.

Meta-regression analysis found every increasing one year of age will decreased the risk of having PTSD as big as 0.14 (95%CI -0.19 to -0.07). While continent, marital status, COVID-19 severity, and length of stay in hospital showed no significant moderators.

### CONCLUSIONS

This study found significant PTSD prevalence among COVID-19 survivors. Gender, diagnostic instrument type, and age were found as significant moderators. Further mental health supports are needed for COVID-19 survivors who suffer from PTSD.

### KEYWORDS

Posttraumatic stress disorder, prevalence, risk factors, COVID-19, survivors, meta-analysis.

### CORRESPONDING ADDRESS

Ninik Yunitri, M.Kep., Sp.Kep.J jude030709@gmail.com; d432107010@tmu.edu.tw

