RESEARCH ARTICLE

Level of Anxiety about Covid-19 in the Community RT I RW XII Kelurahan Manyar Sabrangan Surabaya

Rini Ambarwati, Yuniar Sulistyo Kartika Sukma, L.T. Albertha, Nur Hasanah

Department of Nursing, Poltekkes Kemenkes Surabaya, Surabaya, Indonesia

Corresponding author: Rini Ambarwati (e-mail: rinirachmadi@gmail.com)

ABSTRACT The COVID-19 pandemic has evoked widespread psychological distress, particularly anxiety, within communities facing unprecedented health and socio-economic challenges. This study addresses the prevalence and severity of anxiety related to COVID-19 among residents of RT I RW XII Manyar Sabrangan Village, Surabaya, aiming to identify the demographic factors influencing anxiety levels. Employing a cross-sectional descriptive design, a total of 110 community members were selected through incidental sampling. Data collection was conducted utilizing the Zung Self-Rating Anxiety Scale (ZSAS), a validated instrument comprising 20 questions that gauge the intensity of anxiety symptoms, with responses scored on a 4-point Likert scale. Participant characteristics such as age, education, and occupation were also documented to analyze their impact on anxiety levels. Results reveal that a significant proportion of respondents experienced severe anxiety, particularly among young adults aged 18–25 years, where over 57% reported high severity. Education level notably influenced anxiety severity, with individuals possessing junior high school education predominantly exhibiting severe anxiety (60%), while those with bachelor's degrees experienced moderate levels. Occupational analysis demonstrated that self-employed individuals primarily faced moderate anxiety, with a smaller fraction experiencing severe symptoms. Overall, the findings indicate that anxiety levels are markedly elevated in this community, driven predominantly by age, educational background, and employment status. The study concludes that targeted mental health interventions are essential, especially for vulnerable subgroups such as young adults and those with lower educational attainment, to mitigate the psychological impact of COVID-19. Recognizing these determinants can inform policies and community-based strategies aimed at reducing anxiety and enhancing mental resilience during ongoing pandemic conditions.

INDEX TERMS COVID-19, anxiety, community mental health, demographic factors, Indonesia.

I. INTRODUCTION

The COVID-19 pandemic has emerged as a profound global health crisis, exerting significant psychological repercussions across diverse populations worldwide. Beyond its physical health consequences, the pandemic has precipitated widespread anxiety, stress, and mental health disturbances, driven by factors such as infection fears, economic instability, and social isolation [1], [2]. The pervasive uncertainty surrounding COVID-19, coupled with rapid transmission and mortality rates, has intensified psychological distress, necessitating urgent assessments at the community level to inform targeted mental health interventions [3], [4].

Current methodologies for evaluating anxiety during the pandemic predominantly utilize standardized psychometric instruments such as the Zung Self-Rating Anxiety Scale (ZSAS), Generalized Anxiety Disorder 7-item (GAD-7), and other self-report questionnaires [5], [6]. These tools facilitate quantification of anxiety symptoms and enable comparison across different populations. Additionally, technological

advancements have fostered the integration of mobile health (mHealth) applications and online surveys that facilitate rapid and large-scale community assessments [7], [8]. Moreover, recent studies have employed cross-sectional designs to examine the prevalence and determinants of anxiety, with multivariate analyses identifying demographic variables, socioeconomic status, and health-related factors as significant predictors [9], [10].

Despite these advancements, notable research gaps persist. Many existing studies adopt a broad epidemiological perspective, often focusing on specific vulnerable groups such as healthcare workers, children, or the elderly, thereby neglecting granular insights at the community level [11], [12]. Furthermore, most investigations are cross-sectional, thus failing to capture the dynamic evolution of anxiety symptoms over time amidst the fluctuating pandemic scenario [13]. Additionally, limited research has explored the interplay of socio-economic factors such as occupation and educational background with anxiety within localized urban

communities, which may possess distinct socio-cultural characteristics influencing mental health outcomes [14].

To address these gaps, this study aims to perform a comprehensive assessment of anxiety levels within a defined urban community RT I RW XII Manyar Sabrangan, Surabaya during the ongoing COVID-19 pandemic. Utilizing validated measurement instruments, such as the Zung Self-Rating Anxiety Scale, and employing a cross-sectional design, the study seeks to elucidate the prevalence and associated factors of community anxiety. The research endeavors to provide nuanced, community-specific insights that could inform tailored public health strategies.

The key contributions of this research are threefold: first, it offers detailed community-level data on anxiety prevalence, filling a notable gap in localized mental health assessments during COVID-19; second, it identifies demographic and socio-economic determinants of anxiety, aiding in prioritizing vulnerable groups for intervention; third, it establishes a methodological framework for similar community-based mental health evaluations that can be adapted across different regions.

The structure of this article is organized as follows: the *Methods* section details the research design, population, sampling techniques, and analytical tools employed; the *Results* section presents the prevalence of anxiety and its correlates; the *Discussion* interprets these findings within the current literature and discusses implications for public health policy; finally, the *Conclusion* summarizes key findings and proposes strategic recommendations for community mental health support amidst the pandemic.

In sum, this study aims to contribute critical insights into the mental health landscape of an urban community affected by COVID-19, emphasizing the necessity for localized, data-driven mental health interventions that are attuned to community-specific needs.

II. METHOD

This research adopts a descriptive quantitative design aimed at elucidating the level of community anxiety related to COVID-19 within the context of RT I RW XII Manyar Sabrangan Village, Surabaya. The primary objective is to characterize the distribution of anxiety levels across demographic parameters such as age, education, and occupation. The study design is cross-sectional, capturing data at a single point in time, thereby providing a snapshot of anxiety prevalence and severity within the study population [21].

A. STUDY POPULATION AND SAMPLING

The target population comprises residents aged 18 years and above residing in RT I RW XII Manyar Sabrangan Village, Surabaya. Based on preliminary community data collected in September 2021, the total population was approximately 150 individuals. Using an incidental sampling technique also known as convenience sampling participants who were accessible and willing to participate were included in the study until the predetermined sample size of 110 was reached [22]. This sampling method was chosen due to its practicality and efficiency, especially considering the constraints imposed by the ongoing pandemic and community engagement limitations [23]. This approach enables the

researchers to obtain pertinent data efficiently while ensuring an adequate degree of representativeness aligned with the study's objectives and context.

B. INCLUSION AND EXCLUSION CRITERIA

Participants were eligible if they were aged 18 years or older and resided within the designated neighborhood area. Exclusion criteria included individuals with diagnosed psychiatric disorders or those currently undergoing mental health treatment, to avoid confounding factors related to pre-existing mental health conditions [24].

C. STUDY MATERIALS AND INSTRUMENTS

Data collection utilized a structured questionnaire comprising two components: demographic data and the assessment of anxiety levels. Demographic variables incorporated age, education level, occupation, and gender. The anxiety assessment was conducted using the Indonesian version of the Zung Self-Rating Anxiety Scale (ZSAS), a validated instrument for measuring anxiety symptoms within community populations [25], [26]. The ZSAS consists of 20 items rated on a four-point Likert scale, with scoring thresholds categorizing anxiety into mild, moderate, or severe levels [27].

D. PROCEDURE

Data collection was carried out through direct interviews using the structured questionnaires, adhering to health and safety protocols to prevent COVID-19 transmission, including the use of masks, hand hygiene, and physical distancing. A team of trained enumerators conducted the interviews over a period of two weeks in September 2021. Prior to data collection, informed consent was obtained from all participants.

E. DATA ANALYSIS

Collected data were coded and analyzed using descriptive statistics. Frequencies and percentages were calculated for categorical variables such as age groups, education levels, occupation types, and anxiety severity categories. The analysis aimed to present an overview of the distribution of anxiety levels across different demographic groups. Statistical analyses were performed using standard software such as SPSS version 25 or similar tools [28].

F. STUDY TYPE AND ETHICAL CONSIDERATIONS

This study is observational and cross-sectional in nature, with no intervention applied. Participants were not randomized, as the sampling was based on convenience. Ethical approval was obtained from the relevant institutional review board prior to commencing data collection, ensuring adherence to ethical principles in research involving human subjects [29].

G. SUPPORTING LITERATURE

Recent studies underscore the utility of cross-sectional descriptive designs in community mental health research [30], [31]. Additionally, the use of validated scales such as the Zung Anxiety Scale facilitates reliable assessment of anxiety symptomatology in epidemiological surveys [32].

The choice of convenience sampling, while limiting generalizability, offers practical benefits in community-based studies under pandemic conditions [33]. Emphasizing strict adherence to health protocols during data collection aligns with current standards for ethical research during health crises [34].

III. RESULTS

The general data in this research is about the level of community anxiety about COVID-19 with isoman based on age, education, and occupation in RT I RW XII Manyar Sabrangan Village Surabaya. The details of the general data in this study are as follows:

TABLE 1
Characteristics of respondents based on age at RT I RW XII Manyar Sabrangan Village

No.	Characteristic	Frequency	Percentage (%)
1.	Teenagers 18-25 years old	35	32%
	Adults 26-45 years old	28	25%
	Early Elderly 46-65 years	24	22%
	Late Elderly ≥65 years	23	21%
	Total	110	100%
No.	**Education**	**Frequency**	**Percentage (%)**
2.	Elementary school	24	22%
	Junior High School	15	14%
	Senior High School	58	8%
	Bachelor's degree	13	11%
	Total	**110**	**100%**
No.	**Work**	**Frequency**	**Percentage (%)**
3.	Students	20	18%
	Housewife	26	24%
	Entrepreneurs	9	8%
	Government employee	13	12%
	Self-employed	42	38%
	Total	110	100%

The data shows that out of 110 people, most (53%) had a high school education and a small proportion (11%) had a university education, as shown in Table 1. Based on the study's results, it was also found that almost half (38%) were employed and a small proportion (8%) worked as entrepreneurs, according to TABLE 1.

A. SPECIALIZED DATA
1. ANXIETY LEVEL

The results of the study show that out of 110 people in RT I RW XII Manyar Sabrangan Village, Surabaya, anxiety about Covid-19 can be categorised based on the level of anxiety, as presented in TABLE 2. A small proportion (3.63%) experienced mild anxiety, while most (51.83%) experienced severe anxiety.

TABLE 2
People's level of anxiety about Covid- in RT I RW XII Manyar Sabrangan Village Surabaya

Anxiety Scale	Frequency	Percentage (%)
Mild	4	3,63%
Medium	49	44,54%
Heavy	57	51,83%
Total	**110**	**100%**

2. ANXIETY LEVEL BASED ON AGE

Based on the results presented in TABLE 3, out of 110 residents in RT I RW XII Manyar Sabrangan Village, Surabaya, anxiety about Covid-19 can be categorised by age group. In the adolescent group (18–25 years), most respondents (57.57%) experienced severe anxiety. In the adult group (26–45 years), the majority (53.57%) experienced moderate anxiety. Among the early elderly (46–65 years), most respondents (54.16%) experienced severe anxiety, while in the late elderly group (≥65 years), the majority (52.17%) also experienced severe anxiety.

TABLE 3
People's anxiety level towards Covid-19 based on age in RT I RW XII Manyar Sabrangan Village Surabaya

Age Range	Anxiety Level						Total	
	Mild Anxiety		Moderate Anxiety		Severe Anxiety			
	F	%	F	%	F	%	N	%
Teenagers (18-25)	0	0	15	42,85	20	57,15	35	100
Adults (26-45)	1	3,57	15	53,57	12	42,85	28	100
Early Elderly (46-65)	2	8,34	9	37,5	13	54,16	24	100
Late Elderly (≥65)	1	4,35	10	43,48	12	52,17	23	100
Total	4	3,63	49	44,54	57	51,83	110	100

3. ANXIETY LEVEL BASED ON EDUCATION

Based on the study's results, it was found that out of 110 people in RT I RW XII Manyar Sabrangan Village, Surabaya, anxiety about Covid-19 can be categorised based on education level. For respondents with elementary school education, most (54.2%) experienced severe anxiety. Among those with junior high school education, the majority (60%) also experienced severe anxiety. For high school education, half (50%) experienced severe anxiety, while among those with a bachelor's degree, most (53.9%) experienced moderate anxiety, as shown in TABLE 4.

TABLE 4
People's level of anxiety about Covid-19 based on education. in RT I RW XII Manyar Sabrangan Village Surabaya

Age Range	Anxiety Level						Total	
	Mild Anxiety		Moderate Anxiety		Severe Anxiety			
	F	%	F	%	F	%	N	%
Elementary School	1	4,2	10	41,6	13	54,2	24	100
Junior high school	1	6,7	5	33,3	9	60	15	100
Senior high school	2	3,5	27	46,5	29	50	58	100
Bachelor	0	0	7	53,9	6	46,1	13	100
Total	4	3,63	49	44,54	57	51,83	110	100

B. ANXIETY LEVEL BASED ON OCCUPATION

Based on the results presented in TABLE 5, it show that out of 110 people in RT I RW XII Manyar Sabrangan Surabaya Village, it was found that anxiety about Covid-19 can be categorised based on students, most of whom (52.63%) experience severe anxiety. Employment as self-employed most (69.24%) experienced severe anxiety. Employment as an entrepreneur (88.88%) experienced moderate anxiety.

TABLE 5
People's anxiety level towards Covid-19 based on Occupation.
in RT I RW XII Manyar Sabrangan Urban Village Surabaya

Occupation Range	Anxiety Level						Total	
	Mild Anxiety		Moderate Anxiety		Severe Anxiety			
	F	%	F	%	F	%	N	%
Student	0	0	9	47,37	10	52,63	19	100
Employed	3	11,53	5	19,23	18	69,24	26	100
Entrepreneur	0	0	8	88,88	1	11,12	9	100
Civil Servants	0	0	7	53,84	6	46,16	13	100
Housewife	1	2,33	20	46,51	22	51,16	43	100
Total	4	3,63	49	44,54	57	51,83	110	100

IV. DISCUSSION

This chapter presents a comprehensive analysis of the findings related to the community's anxiety levels during the COVID-19 pandemic, with a focus on the influence of demographic variables such as age, education, and occupation. The discussion integrates the results obtained from the current study with existing literature, highlighting similarities, differences, limitations, and implications to provide a nuanced understanding of the phenomenon.

A. ANALYSIS OF ANXIETY LEVELS BASED ON DEMOGRAPHICS

The present study revealed that a significant proportion of residents in RT I RW XII Manyar Sabrangan experienced severe anxiety, particularly among the younger adult population aged 18-25 years, with over 57% exhibiting high anxiety levels. This finding aligns with several recent studies indicating that young adults are more susceptible to elevated anxiety during the COVID-19 pandemic. For instance, a study by Wang et al. [35] found that individuals aged 18-30 reported higher anxiety scores, primarily attributable to uncertainties about their future, disruptions in social interactions, and economic instability. Similarly, research by Zhang et al. [36] corroborates that the transitionary phase of young adulthood renders this group vulnerable due to limited coping mechanisms and heightened psychological stress.

Contrastingly, older adults in this study also demonstrated considerable anxiety, notably in the early elderly group (46-65 years), where over 54% experienced severe anxiety. Such results are substantiated by recent findings indicating that elderly populations, particularly those with comorbidities, face compounded fears regarding health risks posed by COVID-19 [37]. However, some studies suggest that older adults may exhibit resilience or lower levels of anxiety owing to life experience and adjusted perspectives about health threats [38], which could contrast with the elevated anxiety levels seen in our sample, possibly due to community-specific factors such as limited access to health services or misinformation.

In terms of educational background, the highest prevalence of moderate anxiety was observed among individuals with junior high school education (33.3%). This trend might reflect the influence of educational attainment on health literacy, which affects understanding and implementation of health protocols, as well as perceived control over health outcomes [39]. The overlap between education level and anxiety is well-documented; lower educational levels often correlate with higher anxiety due to

limited access to accurate information and health resources [40].

Occupational analysis indicated that self-employed individuals experienced predominantly moderate anxiety levels (88.88%), whereas entrepreneurs showed a tendency towards moderate anxiety as well. These findings are consistent with studies demonstrating that employment status and job security influence psychological responses during pandemics. Particularly, self-employed persons may fear income loss and instability, contributing to their anxiety [41]. The high anxiety levels among students (52.63% severe) also mirror global trends, where closure of educational institutions and social restrictions exacerbate psychological distress [42].

Despite the richness of these findings, some limitations need acknowledgment. The cross-sectional design restricts the ability to infer causality; it only captures a snapshot of anxiety levels at a particular point during the pandemic. The relatively small sample size (n=110) limits generalizability, and the reliance on self-reported questionnaires may introduce response bias, affecting the accuracy of anxiety assessment [43].

B. COMPARATIVE ANALYSIS WITH OTHER SIMILAR STUDIES

The proportion of individuals experiencing severe anxiety in this community (around 51.83%) is comparable to findings from recent studies conducted in similar settings. For example, a study by Li and colleagues [44] in urban communities of China reported that approximately 48.9% of local residents experienced high anxiety during the pandemic. Both studies underscore that significant segments of populations are vulnerable to psychological distress during health crises.

However, some disparities are evident. A recent systematic review by Nguyen et al. [45] indicated that in certain regions, particularly those with robust mental health support systems, the prevalence of severe anxiety was notably lower (approximately 30%), emphasizing the role of healthcare infrastructure in mitigating psychological impacts. Conversely, our community's high anxiety levels may hint at gaps in mental health services and community awareness.

Furthermore, contrasting findings by Lee et al. [46] highlight that younger populations tend to report higher anxiety, consistent with our observations, whereas other studies suggest that older adults often report similar or higher levels. This divergence could stem from cultural differences, variations in social support systems, or pandemic-related mortality rates.

In terms of occupational influence, research by Ahmad et al. [47] has demonstrated that frontline healthcare workers exhibit the highest anxiety levels during COVID-19, which differs from our community-based sample where community members, rather than health workers, were assessed. Nonetheless, the observation that employment-related factors influence anxiety aligns across studies, suggesting occupational insecurity is a universal contributor. This highlights the need for wider mental health support for all workers facing job insecurity.

C. LIMITATIONS, WEAKNESSES, AND IMPLICATIONS

The findings should be interpreted within the context of certain limitations. First, the study's cross-sectional nature precludes assessments of how anxiety levels evolve over time; longitudinal studies are required to understand the trajectory of mental health responses. Second, the sample may not fully represent the entire community, especially as the sampling technique was incidental, which could introduce selection bias; individuals with higher anxiety may be more inclined to participate or respond differently. Third, cultural factors influencing the perception of anxiety and health concerns were not explicitly measured, potentially affecting the interpretation of results.

Another weakness pertains to the use of self-report scales, which are subject to social desirability bias and inaccuracies in self-assessment. Moreover, the context-specific factors such as community misinformation, access to health services, and social support networks were not examined, limiting the scope of understanding the full determinants of anxiety.

Despite these limitations, the study underscores the urgent need for targeted mental health interventions tailored to community-specific vulnerabilities. The elevated anxiety levels among youth and self-employed individuals suggest that mental health support should prioritize these groups. Community-based psychoeducation, accessible counseling services, and effective risk communication strategies are imperative to alleviate distress and promote resilience [48].

The findings also have practical implications for policymakers. They emphasize that addressing mental health should be integral to pandemic response strategies, with particular attention to vulnerable groups who experience heightened anxiety. Strengthening mental health infrastructure, increasing awareness, and ensuring transparent communication can help mitigate psychological impacts associated with COVID-19 [49]. Furthermore, implementing community-engaged approaches can improve adherence to health protocols, thereby reducing anxiety related to misinformation and uncertainty.

In conclusion, the high prevalence of severe anxiety in this community aligns with global observations, emphasizing the pervasive psychological toll of COVID-19. Recognizing demographic influences and community-specific factors offers valuable insights for designing effective mental health interventions. Future research should focus on longitudinal assessments and explore the role of social support and resilience factors in buffering anxiety during ongoing health crises.

V. CONCLUSION

In conclusion, this study was conducted to identify the level of community anxiety about Covid-19 in RT I RW XII Manyar Sabrangan Village, Surabaya. The results demonstrated that out of 110 respondents, the majority (51.83%) experienced severe anxiety, with age, education, and occupation as contributing factors. Notably, adolescents aged 18–25 years exhibited the highest severe anxiety level (57.15%), while respondents with a high school education showed significant anxiety (50% severe), and individuals working as housewives and self-employed also reported substantial levels of severe

anxiety. These findings highlight that demographic factors such as age, educational attainment, and type of work significantly influence anxiety levels within the community. Considering that the Covid-19 pandemic has disrupted various aspects of life, targeted mental health interventions and accurate information dissemination are crucial in mitigating public anxiety. Community health cadres, in collaboration with local health institutions, must strengthen public education about preventive measures, vaccination, and coping strategies to alleviate fear and misinformation. This research also underscores the necessity for sustainable mental health support systems, especially for high-risk groups such as young adults and informal workers who may lack adequate coping mechanisms or social protection. Despite its valuable insights, this study was limited by its cross-sectional nature and sample size restricted to one neighbourhood. Therefore, future research should expand to broader populations, employ longitudinal methods to observe changing anxiety levels over time, and explore additional influencing variables such as income, family support, and access to health services. Overall, it is expected that the results of this study will serve as a reference for stakeholders in formulating community-based mental health policies and for local communities to maintain strict adherence to health protocols, promote healthy lifestyles, and enhance community resilience against the adverse psychological impacts of the Covid-19 pandemic

DATA AVAILABILITY
No datasets were generated or analyzed during the current study.

AUTHOR CONTRIBUTION
All authors contributed equally to the conception, design, data collection, analysis, and interpretation of this study. Rini Ambarwati led the project administration and manuscript drafting. Yuniar Sulistyo Kartika Sukma assisted with data acquisition and literature review. L.T. Albertha contributed to the data analysis and interpretation of results, while Nur Hasanah reviewed and refined the manuscript. All authors read and approved the final version of the paper.

DECLARATIONS
ETHICAL APPROVAL
The authors declare that there are no conflicts of interest related to this research. All procedures performed were in accordance with institutional guidelines and the Declaration

of Helsinki. The authors confirm that informed consent was obtained from all participants involved in this study. This work did not involve any experiments with animals. All data used are available from the corresponding author on reasonable request

CONSENT FOR PUBLICATION PARTICIPANTS.
Consent for publication was given by all participants

COMPETING INTERESTS
The authors declare no competing interests.

REFERENCE

[1] S. Q. Liu et al., "The psychological impact of COVID-19 on populations: A systematic review," J. Psychiatr. Res., vol. 138, pp. 148–157, 2020.

[2] H. Kumar et al., "COVID-19 and mental health: A review of global evidence," Psychol. Med., vol. 51, no. 14, pp. 2341–2354, 2021.

[3] M. Wang et al., "Mental health responses during COVID-19: A systematic review," Int. J. Environ. Res. Public Health, vol. 18, no. 3, p. 1230, 2021.

[4] Y. Zhang and J. Wang, "COVID-19 psychological impact assessment using digital tools," J. Med. Internet Res., vol. 23, no. 4, e24678, 2021.

[5] R. D. Lee et al., "Validation of the Zung Self-Rating Anxiety Scale in community populations," BMC Psychiatry, vol. 20, no. 1, p. 102, 2020.

[6] A. García et al., "Psychometric evaluation of GAD-7 among diverse populations during COVID-19," Psychol. Assess., vol. 33, no. 2, pp. 323–330, 2021.

[7] T. Kim et al., "Mobile health applications for mental health assessment during COVID-19," JMIR mHealth uHealth, vol. 9, no. 8, e23831, 2021.

[8] P. M. Nguyen et al., "Online mental health assessments using digital surveys: A systematic review," J. Med. Internet Res., vol. 23, no. 1, e23796, 2021.

[9] L. Patel and A. Campbell, "Determinants of anxiety during COVID-19: An epidemiological perspective," Soc. Sci. Med., vol. 279, p. 113937, 2021.

[10] D. Wu et al., "Socioeconomic factors influencing anxiety during COVID-19 in urban settings," BMC Public Health, vol. 21, no. 1, p. 226, 2021.

[11] J. Smith et al., "Vulnerable groups and COVID-19-related anxiety: A systematic review," Int. J. Public Health, vol. 65, no. 2, pp. 191–201, 2020.

[12] K. Johnson and M. Lee, "Assessing mental health impacts among healthcare workers during COVID-19," Front. Psychol., vol. 12, p. 690416, 2021.

[13] S. Zhang et al., "Longitudinal study on mental health fluctuations during COVID-19," Psychol. Med., vol. 51, no. 16, pp. 2850–2859, 2021.

[14] R. Tanaka and A. Yamamoto, "Cultural influences on mental health responses in urban communities," Am. J. Community Psychol., vol. 68, no. 1–2, pp. 176–188, 2022.

[15] M. K. Lee et al., "Urban community-specific mental health assessments during COVID-19," Int. J. Soc. Psychiatry, vol. 67, no. 3, pp. 279–286, 2021.

[16] Y. Zhang et al., "Dynamic mental health assessment during the pandemic: A longitudinal approach," Psychol. Med., vol. 51, no. 14, pp. 2428–2438, 2021.

[17] F. García et al., "Technology-based approaches for mental health evaluation in COVID-19," J. Telemed. Telecare, vol. 27, no. 8, pp. 608–615, 2022.

[18] P. Singh and S. Kumar, "Analyzing socio-economic determinants of anxiety during COVID-19," Int. J. Socioecon. Quant. Geogr., vol. 12, no. 4, pp. 389–402, 2020.

[19] S. Zhao et al., "Assessment of mental health trajectories over the course of COVID-19," Lancet Psychiatry, vol. 8, no. 4, pp. 295–297, 2021.

[20] O. Martinez et al., "Community-based mental health screening methods during COVID-19," Environ. Res., vol. 199, p. 111299, 2021.

[21] A. Smith et al., "Cross-sectional community health surveys: Design and implementation," J. Public Health, vol. 40, no. 2, pp. 245–253, 2020.

[22] B. Johnson et al., "Sampling techniques in epidemiological studies," Int. J. Epidemiol., vol. 49, no. 4, pp. 1185–1195, 2019.

[23] C. Lee and D. K. Kim, "Community-based research during pandemics: Challenges and strategies," Health Research Policy System, vol. 18, no. 1, p. 39, 2020.

[24] D. Patel et al., "Screening for mental health disorders in community surveys," Psychol. Assess., vol. 33, no. 7, pp. 625–635, 2021.

[25] E. Tanaka and F. Nakamura, "Validation of the Indonesian version of the Zung anxiety scale," Psychiatr. Indones., vol. 55, no. 3, pp. 189–197, 2021.

[26] F. Lee et al., "Assessment tools for anxiety in community settings," Psychiatr. Bull., vol. 45, no. 4, pp. 225–231, 2022.

[27] G. Wang and H. Li, "Psychometric properties of anxiety scales in community research," J. Anxiety Disord., vol. 70, p. 102222, 2021.

[28] H. Robinson and J. Green, "Data analysis in epidemiological studies," Epidemiol. Methods, vol. 9, no. 4, e177521, 2020.

[29] I. K. Rahman et al., "Ethical considerations in community mental health research," BMC Med. Ethics, vol. 21, no. 1, p. 50, 2020.

[30] J. Silva et al., "Designs for community health surveys during infectious disease outbreaks," Am. J. Public Health, vol. 110, no. 4, pp. 530–538, 2020.

[31] K. Zhao et al., "Epidemiological assessment of anxiety during COVID-19," Psychol. Med., vol. 51, no. 15, pp. 2760–2768, 2021.

[32] L. Nguyen and M. Hoang, "Community assessment of anxiety using standardized scales," Int. J. Ment. Health Nurs., vol. 29, no. 3, pp. 522–530, 2020.

[33] M. Patel et al., "Convenience sampling in pandemic research: Limitations and justifications," Res. Soc. Work Pract., vol. 31, no. 2, pp. 255–262, 2022.

[34] N. D. Williams and R. Harper, "Research protocols during COVID-19: Ethical and safety considerations," BMC Med. Ethics, vol. 21, no. 1, p. 104, 2020.

[35] Wang, C., et al., "Immediate psychological responses and associated factors during the initial stage of the 2019 coronavirus disease (COVID-19) epidemic among the general population in China," International Journal of Environmental Research and Public Health, vol. 17, no. 5, 2020.

[36] Zhang, Y., et al., "Psychological impact of the COVID-19 pandemic on Chinese residents: A cross-sectional survey," Psychological Reports, vol. 124, no. 4, pp. 1757–1774, 2020.

[37] Buheji, M., et al., "The extent of COVID-19 pandemic impact on mental health: A global study," Healthcare, vol. 8, no. 4, 2020.

[38] Carver, C. S., and Scheier, M. F., "Optimism, coping, and health: assessment and implications," Current Directions in Psychological Science, vol. 15, no. 6, pp. 302–306, 2006.

[39] Sørensen, K., et al., "Health literacy and public health: A systematic review and integration of definitions and models," BMC Public Health, vol. 16, no. 1, 2016.

[40] Siddiqui, R., et al., "Health literacy, information seeking, and anxiety during COVID-19 pandemic: A systematic review," Frontiers in Psychology, vol. 12, 2021.

[41] Parks, K., et al., "Financial insecurity and mental health during COVID-19," Journal of Occupational and Environmental Medicine, vol. 63, no. 8, 2021.

[42] Li, J., et al., "Psychological impact of COVID-19 on college students in China," BMC Psychiatry, vol. 21, no. 1, 2021.

[43] Nursalam, "Concepts and Application of Nursing Research," Salemba Medika, 2015.

[44] Li, T., et al., "Anxiety and depressive symptoms among Chinese residents during the initial COVID-19 outbreak," BMC Psychiatry, vol. 21, no. 1, 2021.

[45] Nguyen, H., et al., "Mental health in COVID-19: An integrative review in the context of community responses," Psychiatry Research, vol. 295, 2021.

[46] Lee, S., et al., "Age-related differences in COVID-19 anxiety and coping mechanisms," Psychiatry Research, vol. 294, 2020.

[47] Ahmad, A., et al., "Psychological impact of COVID-19 on healthcare workers," Psychiatry Research, vol. 295, 2021.

[48] World Health Organization, "Mental health and psychosocial considerations during the COVID-19 outbreak," 2020.

[49] Kola, B., et al., "Community mental health during COVID-19: Strategies and challenges," *International Journal of Mental Health