

Public health in the post COVID-19 pandemic and mental health onslaught: Social isolation based on a biopsychosocial approach



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ABSTRACT

The COVID-19 pandemic has unveiled profound deficiencies in global mental health care and prevention, posing a disproportionate threat to public health worldwide. Social isolation, a consequence of the pandemic, has strained the boundaries of human cooperation, giving rise to a spectrum of mental health challenges including stress, fear, grief, anxiety, and depression. This research empirically investigates the concept of social distance concerning individuals with mental health conditions while considering biopsychosocial determinants, notably social media influence and attitudes. A comprehensive analysis was conducted on a sample comprising 424 students from public universities along the eastern coast of Peninsular Malaysia. The findings reveal that attitudes towards mental health and the influence of social media play substantial roles in predicting social distance from individuals with mental health conditions. These predictive factors contribute significantly, accounting for up to 10.6% of the variance in social isolation. The consequences of social distance encompass a broad spectrum, ranging from heightened fear and anxiety to the development of obsessive-compulsive disorders rooted in the fear of social rejection. A biopsychosocial framework emerges as the most comprehensive approach to understanding the intricate interplay of these multifaceted factors.

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1. Introduction

The COVID-19 pandemic poses a multifaceted global challenge in the realm of public mental health. Its primary imperative is to mitigate the concurrent rise in mental disorders and the erosion of mental well-being within diverse populations. This unfolding crisis has manifested through a notable increase in anxiety disorders, posttraumatic stress disorders, obsessive-compulsive disorders, and the adverse psychosocial consequences of enforced isolation, thereby rendering them formidable public health concerns. Conversely, it is conceivable that this adversity may also serve as a catalyst for enhancements in various domains of mental health care. These prospective improvements encompass heightened adherence to treatment regimens and

the vigilant supervision of medication, bolstering familial support structures, and a potential decrease in psychiatric disorders related to substance misuse. This intricate interplay of challenges and opportunities underscores the dynamic nature of the mental health landscape during the COVID-19 pandemic, demanding a comprehensive and adaptive response from the global healthcare community (Ibrahim et al., 2019; Shanmugam et al., 2020).

However, cases of anxiety disorders rose by 25.6%, and cases of major depressive disorder increased by 27.6% globally in 2020 (Heymann and Shindo, 2020). The total number of COVID-19 cases in Malaysia until May 2022 is 4.48 million. Furthermore, research done by Shamsuddin et al. (2013) in public universities in Malaysia found that the prevalence of depression, anxiety, and stress were 37.2%, 63.0%, and 27.3%, respectively. This statistic is much higher than that of studies at private universities, where the prevalence of depression, anxiety and stress was 30.7%, 55.5% and 16.6%, respectively (Teh et al., 2015). During a pandemic, a total of 85.5 percent of the 145,173 calls received by government agencies in Malaysia from March 25,

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2020, to May 20, 2021, involved mental health issues that required emotional support and counseling, such as acute stress, anxiety, depression, abuse, and suicidal behavior. In addition, data from the Ministry of Health Malaysia (MOH) found that from January to December 2020, a total of 1,080 cases of suicide attempts were reported to receive treatment at MOH hospitals (Roslan, 2021). Therefore, immediate action is needed to strengthen mental health services to address this steeply increasing demand and to meet people's needs during the post-pandemic era.

The practice of social distancing from mentally ill people in Malaysia does occur, contributing to the increase of mental illness in society (Hiday, 1997). Attitude and behavioral factors of students can influence the social distance between people with mental health conditions in universities (Kosyluk et al., 2021). Social media and university students' attitudes impact social distance towards people with mental illness (Economou et al., 2020; Kosyluk et al., 2021). Awareness of mental illness is important among university students because learning at university is the most stressful and major transition time due to social stress and numerous academic stressors (Gruttadaro and Beyer, 2021). Social media and university students' attitudes impact the social distance between people with mental illness as it influences perceptions towards people with mental illness (Kosyluk et al., 2021). If there is coverage of mental illness in social media, it tends to be in a negative way (Aleshinloye et al., 2020).

In this regard, the 2018 Internet user survey by the Communications and Multimedia Commission (MCMC) found that the average time for young people to surf the Internet is 6.6 hours a day and 8 hours daily for youths. A study by Norliah et al. (2017) found that most university students in Malaysia spend an average of six hours a day surfing social media. In Indonesia, a study by Puspitasari et al. (2020) found that 92.74% of university students seek information about mental illness on social media. Thus, social media can significantly influence students' perceptions of people with mental health conditions, either positively or negatively (Robbins and Singer, 2014). The rationale of this study is that if social distance continues, it will increase the number of people getting mental illness, and patients will avoid seeking treatment. It does not help the mental illness recovery process and reduces social functioning in a country. One of the main causes of mental stress is isolation from the support network of family and friends. In addition, the statistics of individuals experiencing stress and depression are increasing. They need support and help from society, especially from educated groups such as university students, who are not excluded or viewed negatively.

The theoretical framework of this study is a biopsychosocial theory that focuses on the interaction of three aspects, biological, psychological, and social, in explaining the problems related to people with mental health conditions. This theory was introduced by Bolton and Gillett (2019) and

Engel (1977). They stated that understanding the state of a person's disease is not sufficient only through biological factors but also psychological and social factors. This theory combines seven streams of psychology, namely psychodynamics, behavioral, cognitive, biological, cross-cultural, evolutionary, and humanistic. These seven perspectives explain three aspects: Biology, psychology, and society. University students' attitudes towards the mentally ill are relevant to the psychological aspects of the psychosocial theory. Social media factors are related to social aspects in this theory. In contrast, the social distance factor is related to the psychological and social aspects of the theory.

The justification for selecting this theory as a theoretical framework is because the concept of this theory is a "mutual relationship" between humans and the environment. University students come from different backgrounds and environments. Their experiences are also different. It also means differences in personalities, perceptions, and cognitive development. This situation makes their perceptions and attitudes towards people with mental illness different. So, this theory is relevant to the research problem of this study as a whole.

Accordingly, the main objective of this study is to identify the factors that influence social distance among public university students on the East Coast of Peninsular Malaysia against individuals with mental problems in society. This study aims to measure the reliability of instruments that measure social distance, social media, and attitude in the Malaysian context and examine whether attitudes and social media contribute to the social distance of university students.

2. Materials and methods

This study involved a total sample of 424 university students from the East Coast of Peninsular Malaysia, representing 28.3% male and 71.7% female. The participants were given a brief description of the research project, and the informed consent process was done. Researchers have chosen four public universities on the East Coast of Peninsular Malaysia as the locations to conduct the study, namely in the states of Terengganu, Kelantan, and Pahang. In this study, a random sampling method was chosen.

Attitude on People with Mental Illness (AMI) with 17 items has been designed by Wahl et al. (2012) and has three sub-constructs: Welfare, stereotypes and constraints, and 5 Likert scales. The instrument was developed to measure attitudes towards people with mental illness. The Effects of Social Media Use on the Perception of Mental Illness instrument developed by Schønning et al. (2020) measured the social media factor. The subconstruct was perceptions about the portrayal of mental illness on social media, social media use, and views on the mentally ill with a total of 20 items and 5 Likert scales. The third instrument was Social Distance on People with Mental Illness (SDPMI). This instrument

was designed by Crabb et al. (2012) and had two subconstructs, personal relationship, and social relationship, with 5 Likert scales to measure social distance towards people with mental illness in this study. This article covers the fundamentals of descriptive and inferential statistics, from hypothesis construction to sampling to statistical techniques, including correlation and regression. The classical assumption test is done before testing the hypothesis. This study conducts the classic assumption tests. It includes normality and multicollinearity tests. Analysis was done using Statistical Package for Social Sciences version 26.

3. Results and discussion

Before embarking on the analysis result, this study reports the respondents' distribution. The result can be seen in Table 1.

Table 1: Sample distribution by university

	Frequency	Percentage
UMP	107	25.2
UMK	114	26.9
UNISZA	98	23.1
UMT	105	24.8
Total	424	100

Table 1 shows the sample distribution by the university on the east coast of Peninsular Malaysia. A total of 424 respondents participated in this study, distributed 107 respondents or 25.2 percent from UMP. Also, 114 respondents, or 26.9 percent, are

from UMK. UNISZA has 98 respondents, or 23.1 percent, and UMT has 105 respondents, or 24.8 percent.

Table 2 displays the reliability test of Cronbach's alpha result, showing that the instruments work very well with the samples (above 0.7). Cronbach alpha values of 0.7 or higher indicate acceptable internal consistency (Bakar et al., 2022; Byrne, 2016). The findings show the instrument's reliability is very high, with the value of Cronbach's alpha exceeding the index of 0.7.

Table 2: Result of reliability testing

Variables	Item	Cronbach alpha
Social media	20	0.92
Attitude	17	0.77
Social distance	6	0.80

In this normality testing by variables analysis, Table 3 displays the skewness and kurtosis values showing that the data is normal between -1 and 1 (Hair et al., 2021).

Table 4 shows that this study's independent variables are correlated and have an $r=0.02$. According to Hair et al. (2021), a value of <0.85 indicates that the data is free from multicollinearity. Multicollinearity is a problem that stems from a poor selection of items and variables. The existence of multicollinearity will weaken the significance of statistics and the statistical power in regression. Therefore, the findings show that this study's data distribution is free from multicollinearity problems.

Table 3: Normality testing by variables

	Mean	Std. deviation	Skewness		Kurtosis	
			Statistic	Std. error	Statistic	Std. error
Social Distance	3.082	0.711	0.358	0.119	-0.298	0.237
Attitude	3.197	0.993	-0.358	0.119	-0.619	0.237
Social Media	3.405	0.956	-0.577	0.119	-0.153	0.237

Table 4: Result of multicollinearity

Variable(s)		Attitude	Social media
Attitude	Pearson correlation	1.000	0.020
	Sig. (2-tailed)		0.686
Social media	Pearson correlation	0.020	1.000
	Sig. (2-tailed)	0.686	

Table 5 shows a significant relationship between the social media factor and the social distance of people with a mental health condition with a value of

$p<0.01$ and a weak relationship with a value of $r=0.20$. Therefore, the hypothesis is accepted at the 99% confidence level.

Table 6 shows a significant relationship between the attitude towards people with a mental health condition and social distancing towards those with a mental health condition with a value of $p<0.01$ and a weak relationship with $r=0.30$. Therefore, the hypothesis is accepted at the 99% confidence level.

Table 5: Result of correlations between social media and social distance

		Social distance	Social media
Social distance	Pearson correlation	1.000	0.157**
	Sig. (2-tailed)		0.001
Social media	Pearson correlation	0.157**	1.000
	Sig. (2-tailed)	0.001	

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

Table 6: Result of correlations between attitude and social distance

		Attitude	Social distance
Attitude	Pearson correlation	1.000	0.280**
	Sig. (2-tailed)		0.000
Social distance	Pearson correlation	0.280**	1.000
	Sig. (2-tailed)	0.000	

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

Table 7 describes the result of multiple regression analysis. R square is the coefficient of determination. It measures how much the predictor considers variability (variability) in the results, ranging between 0 and 1. Accordingly, **Table 7** shows the social distancing model that explains as much as 10.6% (R square=0.106). It shows that the predictor factors for social isolation contribute 10.6% to the variance change for social distance. The study's findings in the statistical analysis also show that the items for the attitude and influence of social media

($b=0.204$; $b=0.111$; $p<0.01$) are significant predictors of social distance. From the beta aspect, for every 1 percent change in the social distancing item, the change in the attitude and social media factors is 20.4 percent and 11.1 percent. It shows that the attitude factor and the influence of social media contribute to the social distance of people with mental health conditions among public university students. Therefore, the hypothesis is accepted at the 99% confidence level.

Table 7: Result of multiple regression analysis

	Unstandardized coefficients		Standardized coefficients	t	Sig.
	b	Std. error	Beta		
(Constant)	2.050	0.158		12.939	0.000
Attitude	0.204	0.033	0.286	6.191	0.000
Social media	0.111	0.034	0.150	3.252	0.001
R	0.325 ^a			Sum of Squares	22.353
R square	0.106			df	2
Adjusted R square	0.102			Mean Square	11.176
Std. error of the estimate	0.670			F	24.877
Durbin-Watson	1.743			Sig.	0.000 ^b

a. Dependent variable: Social distance; b. Predictors: (Constant), Social media, attitude

This study produces results consistent with previous studies on attitude, social media, and social distance towards people with mental illness (Hair et al., 2021; Riles, 2020). Letovancová et al. (2017) stated that views on mental illness had influenced people with mental health conditions not to seek psychiatric treatment due to discomfort. It is supported by an article written by Ganesh (2011), in which the sample had a negative attitude towards seeking help for mental health. It will ultimately affect the provision of holistic care for patients. A rather interesting study by Puspitasari et al. (2020) found that 51.29% of university students in Indonesia have negative attitudes towards people with mental health conditions, despite having good knowledge of mental health.

However, some studies have found that students will change their negative attitude toward mental illness individuals if they are exposed to or have experience with the patients. The student's attitudes improved after exposure to psychiatry benevolence (Alsahali, 2021). Medical students' attitudes are neutral initially and become more positive after clinical posting. The changes happen in both genders, male and female (Poreddi et al., 2015). A study by Desai et al. (2019) found that university students in medicine showed lower levels of social distance compared to other fields. Similarly, a study by Jombo and Idung (2018) found that university students in the field of nursing showed a change of attitude from negative to positive. It may be because of the exposure and training they receive in the learning sessions at the university.

Researchers can conclude from the literature reviews that such attitudes can result from knowledge about mental illness, interactions with people with a mental health condition, experiences with people with a mental health condition, beliefs, and religious factors. However, most previous

studies have found that attitude factors are the most influential factor in the social distance of the mentally ill among university students. On top of that, social media tends to use negative views toward people with mental illness. It has led to social distance toward mental illness persons (Grover et al., 2019). Furthermore, more than 150 articles regarding mental health use a negative tone, and 18.5% are associated with violence (Bakar et al., 2019; DuPont-Reyes et al., 2020). More are from mental illness patients than physical patients (22.5% v 19.7%). Social media, on the other hand, gives a negative image of the mentally ill. It has a significant relationship with the social imprisonment of the mentally ill among university students, schools, and the community.

Social media coverage of mental illness is on the rise. This is evidenced by Chen and Lawrie (2017), who found a 20% increase in coverage of mental illness from 8,614 to 10,000. Moreover, it significantly impacts reporting on the depiction of suicide in the media (Phillips and Lowery, 2018). It is evident in an article by Schäfer and Quiring (2015) that in Germany, 87% of published articles describe cases of individuals with mental health problems negatively by providing a closer description of family background, which increases suicide attempts in society. It means social media plays an important role as a medium that can be used to reduce stigma and discrimination against people with mental illness. Furthermore, those who perceived mental illness with dire consequences were more likely to feel greater social distance. Conversely, when people were more accepting, they were more likely to seek help for psychological services and felt a shorter social distance. The common-sense model provides a multidimensional framework for understanding the public's mental illness perceptions. Not only should the public advocate biopsychosocial determinants of

mental illness, but cultural myths about mental illness must also be debunked (Mak et al., 2014).

4. Conclusion

This research draws a compelling conclusion indicating that individuals with mental health conditions, including university students, continue to face pervasive societal stigma and discrimination. This prevailing issue stems from the prevailing perception within society that mental illness represents a personal affliction rather than a broader societal concern deserving of collective support and intervention.

A thorough review of extant literature reveals a recurring theme: the influential and substantial role of social media in shaping perceptions and attitudes towards individuals grappling with mental health challenges. This influence often arises from the diverse and sometimes conflicting information disseminated on social media platforms, leading to misconceptions and misinterpretations regarding mental illness. Additionally, the failure to adhere to established reporting guidelines on mental health further exacerbates these misperceptions.

Furthermore, previous studies have uncovered a disturbing association between increased sharing of mental health issues on social media and elevated suicide rates. It is worth noting that social media platforms have a regrettable tendency to perpetuate stereotypes depicting individuals with mental illness as inherently violent, with a grim prognosis for recovery.

The collective body of evidence from the literature underscores the persistence of social ostracism and marginalization experienced by individuals with mental health conditions, even within the academic setting, whether in Malaysia or abroad. This underscores the pressing need for concerted efforts to combat the deeply entrenched social stigma surrounding mental illness.

Compliance with ethical standards

Conflict of interest

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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