

## RESEARCH ARTICLE

# Mental health status and challenges in clinical practice among physiotherapists in the private sector during the Covid-19 pandemic

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## Abstract:

The covid-19 pandemic exposed healthcare workers, including physiotherapists, to mental health issues such as stress, anxiety, and depression in the private sector. In minimising the infection risk, they faced challenges operating their rehabilitation facility. This study aimed to identify the mental health status and challenges experienced by physiotherapists in private practice during the Covid-19 pandemic. The study setting for this cross-sectional research was conducted at Kuala Lumpur and Selangor, Malaysia. Data were analysed using SPSS 20.0 and described descriptively. A total of 80 private physiotherapists participated in the survey. Statistically, 82.5% of the respondents were females aged 22 and 56 ( $27.60 \pm 5.073$ ). They mostly worked in private organisations (86.3%), especially in Selangor (70.0%). About 61.3% of respondents experienced stress subjectively, and 71.3% and 83.8% had normal anxiety and depression levels, respectively. In clinical settings challenges, 70 (87.5%) respondents recorded that the most challenging was abiding by the healthcare policies were frequent sanitisation for modalities, plinths, and chairs. About 52.5% of participants faced challenges in applying social distancing due to lacking clinic spaces. About 48.4% of physiotherapists experienced decreased income. Additionally, 77.5% of respondents had difficulty applying physical examinations while using telerehabilitation. In conclusion, most physiotherapists in the private sector in Malaysia experience common psychological issues, such as depression and anxiety, except for stress.

**Keywords:** Challenges, Clinical practice, Mental health, Physiotherapists

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## 1. INTRODUCTION

Globally, the COVID-19 pandemic has caused considerable consequences, including social and psychological issues (Koonalay et al., 2021). Healthcare workers are the most likely to be exposed to mental health issues and clinical difficulties during the pandemic. They were hindered since they were bound by various guidelines, leading to many challenges in their practice (Armocida et al., 2020). A cross-sectional study reported that nurses and physicians in Wuhan, China experienced distress the highest (71.5%), followed by depression (50.4%) (Lai et al., 2020) during the pandemic. Physical therapists experienced stress the most (Vyas & Sheth, 2021), followed by anxiety and depression.

Businesses have been disrupted, and the loss of jobs and incomes has been due to progressive cases and Movement Control Order (MCO) implementation (Lee, 2020). The Covid-19 crisis posed a global threat to sustaining Malaysian professional therapeutic practices in the healthcare system in the private and public sectors, including physical therapists working in secondary or primary care (Dantas, Barreto & Ferreira, 2020; Hashim et al., 2021). The problem continues to provide vital clinical care while adhering to World Health Organisation (WHO) policy on safety (Pinto & Carvalho, 2020). Inadequate infection control apparel, such as personal protective equipment (PPE), face shields, and masks, contribute to physical difficulties during practice (Aloa et al., 2020). Global therapists were also experiencing problems managing their clinical settings,

such as practising social distancing (Alphhao & Alpalho, 2020).

The responsibility for maintaining and enhancing movement recovery and functional ability is the nature of physiotherapy services (Thomas et. Al., 2020). Their work nature was passive manual therapy, which necessitated direct physical contact with patients, putting them at risk of Covid-19 infections (Alphhao & Alpalho, 2020). Considering this, physical therapists continue to intervene through telerehabilitation approaches. Telerehabilitation is a remote rehabilitative approach via communication technologies encompassing services such as consultation and monitoring at home or in healthcare facilities (Pastora-Bernal et.al., 2021). However, the lack of face-to-face contact visits hampered the therapists' ability to diagnose patients' conditions (Howard & Kaufman, 2018). Furthermore, lacking technical understanding may impair the effectiveness of treatment delivery (Quiqley, Johnson & McArthur, 2021).

Therefore, studying mental health status and clinical challenges during the Covid-19 pandemic is essential. There still needs more research, particularly in Malaysia, even though several studies have studied mental health issues and clinical barriers during the Covid-19 pandemic in developing countries. The epidemiology research on clinical obstacles among physiotherapists during the pandemic still needs to be explored. This study aims to understand better the mental health status and challenges faced in therapeutic practice concerns in Malaysia. The scope is focused on physiotherapists working in the private sector, specifically at clinics and physiotherapy centres in Malaysia.

## 2. METHODS AND MATERIALS

This cross-sectional study was conducted among private physiotherapists in Kuala Lumpur and Selangor, using a self-administered questionnaire through an online survey. Participants were selected through official addresses of the private physiotherapy centres or clinics in Kuala Lumpur and Selangor. They were subsequently provided with a survey link by email. Participants who agreed to participate in the study can access the questionnaire through the link given. The questionnaire contained a participants' information sheet describing the study's objectives.

The inclusion criteria included physiotherapists working at private clinics or physiotherapy centres for at least one month and being able to understand English. Any participants who presented with unknown psychiatric illnesses/diseases, such as schizophrenia and addictive behaviour, were excluded from the study (Noor, Yusof & Yacob, 2021). A total of 80 respondents completed the surveys, and their responses were analysed.

The questionnaire consisted of three sections containing participants' demographic data (Section A), mental health status questions (Section B), and challenges in practices during the Covid-19 pandemic questions (Section C). For mental health status assessment, Covid Anxiety Scale (CAS) and Hospital Anxiety and Depression Scale (HADS) were used. The CAS was an objective anxiety scale about fear of Covid-19. This research tool consisted of 5 questions about the subject's behaviour, specifically about Covid-19, with multiple choices answers. The choice scores were 0 (not at all), 1 (rare, less than a day or two), 2 (more than seven days), and 4 (nearly every day for the last two weeks) (Lee, 2020). The full cut-off scale was equal to more than 9, indicating anxiety symptoms problems. It has 90% sensitivity, 85% specificity, and moderate to excellent reliability.

Meanwhile, HADS was a measurement tool that accessed mood disorders, especially anxiety and depression symptoms, in medical practice (Zigmond & Snaith, 1983). This tool had two subscales which were the Hamilton Anxiety Depression Scale - Anxiety (HADS-A) and the Hamilton Anxiety Depression Scale- Depression (HADS-D), consisting of 14 items scales in total. Each of the statements was provided with four choices. The score ranges from 0 to 21 for each subscale (Noor, Yusof & Yacob, 2021). Higher scores on these questions indicated increased anxiety and depression symptoms (Zigmond & Snaith, 1983)). The minimum score presenting anxiety and depression was 8 (Noor et al., 2020). This tool was reported with higher sensitivity (90%) and specificity (86.2%) (18).

A modified previous self-developed questionnaire (Dantas, Barreto & Ferreira, 2020) was used, which focused mainly on the changes and challenges of physiotherapists in practice during the Covid-19 pandemic. This questionnaire consisted of 20 questions with four sections about clinical setup, telerehabilitation, therapist-related, and patient-related questions. The questions involved varied multiple choices with closed-ended questions. Specifically, clinical setup questions include; the number of patients before and after Covid-19, time spent with patients, challenges to healthcare policies, and economic effects. Meanwhile, Section 2 was the telerehabilitation questions. Meanwhile, sections 3 and 4 discussed therapists' and patients' related physical and mental health questions. Statistical Package for Social Sciences software Version 23.0 was used for data analysis and described descriptively.

## 3. RESULTS

### *Demographic characteristics*

A total of 80 participants completed the survey. Each of the participants was from one centre or clinical setting. They were (17.5%) males and 66 (82.5) females, aged

between 22 and 56 years (27.60 ± 5.073 years old). Most of them were Malay (75.0%), followed by Chinese (20.0%), Indian (2.5%), and others (2.5%), respectively. A total of 66 (77.5%) participants were unmarried. The participants primarily worked in the private centre (86.3%), especially in Selangor (70.0%), and 13.8% at private clinics.

Table 1: The demographic characteristics of the participants.

Variables	n (%)	Mean (SD)
<b>Age (in years)</b>		27.60 (5.073)
<b>Gender</b>		
Male	14 (17.5)	
Female	66 (82.5)	
<b>Races</b>		
Malay	60 (75.0)	
Chinese	16 (20.0)	
Indian	2 (2.5)	
Others	2 (2.5)	
<b>Marital status</b>		
Unmarried	62 (77.5)	
Married	18 (22.5)	
<b>Physiotherapists' working sector</b>		
Private center	69 (86.3)	
Private clinic	11 (13.8)	
<b>Working state</b>		
Kuala Lumpur	24 (30.0)	
Selangor	56 (70.0)	

*The mental health status*

Two objective scales were used to assess the participants' mental health status. Table 2 shows that all participants had an average Coronavirus Anxiety Scale (CAS) score. For the Hospital Anxiety and Depression Scale (HADS), most of the respondents had usual in both anxiety and depression domains with scores of 71.3% and 83.8%, respectively. Meanwhile, 17 (21.3%) and 6 (7.5%) participants scored borderline and abnormal in anxiety. Besides, for the depression domain, there were 9 (11.4) and 4 (5.0%) participants, respectively.

Table 2: Scores of mental health status

Domains	n (%)
<b>Coronavirus Anxiety Scale (CAS)</b>	
Normal coronavirus-related anxiety	80 (100.0)
Probable dysfunctional coronavirus-related anxiety	0 (0)
<b>Hospital Anxiety and Depression Scale (HADS)</b>	
Anxiety	

Normal	57 (71.3)
Borderline Abnormal	17 (21.3)
Abnormal	6 (7.5)
<b>Depression</b>	
Normal	67 (83.8)
Borderline Abnormal	9 (11.4)
Abnormal	4 (5.0)

*Challenges in clinical practices*

Most physiotherapists estimated their average number of patients before Covid-19 was between 5 and 10. Meanwhile, 33 participants estimated their average number of patients was 0 – 5 during Covid-19. The average time spent for treatment on a single patient was about 30 minutes to 1 hour. A total of 58 physiotherapists agreed that a change in the time for the treatment could not affect the clinical practice after COVID-19. Some 15 (18.75%) participants reported increased average time spent on a single patient daily, whereas 12 (15.0%) reported decreased numbers.

Frequent sanitisation for modalities, plinths, and chairs was recorded as the most challenging healthcare policy to practice in the clinical setting, with 70 (87.5%) respondents agreeing (Table 3).

Table 3: Challenges faced by the physiotherapist during the Covid-19 pandemic

Adhere to healthcare policies	n (%)
Minimal contact therapy	46 (57.5)
Frequent sanitisation of modalities, plinths, chairs	70 (87.5)
More focus on the home program	28 (35.0)
Others	5 (6.3)
- Self-care towards symptoms and exposure of patient in a close environment	
- The patient is not honest regarding the symptoms	
- Only patient is allowed to come in	
- Had to work with PPE on / Wearing a complete set of PPE	
<b>Challenges to practising social distancing</b>	<b>n (%)</b>
Lack of awareness from patient	42 (52.5)
More number of patients who cannot be managed	36 (45.0)
None	11 (13.8)
Others	6 (7.5)
<b>Challenges in Financial</b>	<b>n (%)</b>
None	16 (20.0)
Decrease in income	39 (48.4)
Increase in cost of equipment	19 (23.8)
Increase of income	6 (7.5)

Challenges in telerehabilitation	n (%)
Patient lack of technical/IT knowledge	56 (70)
Poor internet connection	47 (58.8)
Poor video quality	35 (44.8)
Lack of physical testing	62 (77.5)
Patient poor motivation	30 (37.5)
None	7 (8.8)
Others	2 (2.5)
Challenges in the maintenance of the clinic	n (%)
Sanitisation	63 (78.8)
Gloves	60 (75.8)
Face mask	53 (66.3)
PPE kits	61 (76.3)
Plinth cover	34 (42.5)
Others	1 (1.3)

There was minimal contact therapy and more focus on the home program, and others were admitted by 46 (57.5%), 28 (35.0%), and 5 (6.3%) respondents, respectively.

This study also found that the challenges of practising social distancing during clinical practice are mainly due to limited space (52.5%), lack of awareness among patients, and many patients (38.3%).

A decrease in income was 39(48.4%). Meanwhile, an increase in equipment cost was 19(23.8) reported by the respondents during the Covid-19 pandemic.

About 55.0% of participants claimed they used none of any telerehabilitation modes such as Zoom meetings, Google Meet, WhatsApp video calling, and private video conference software. Lacking physical tests was predominantly becoming the most significant limitation for practising telerehabilitation among 62(77.5%) participants. Meanwhile, 56(70%) and 47(58.8%) respondents reported that a lack of technical knowledge with patients and a poor internet connection, respectively, limited their telerehabilitation practices.

Most participants faced challenges in providing sanitisation costs, PPE kits, gloves, and face masks (Table 6). Wearing a PPE kit or protective gear for more than 2 hours was recorded as the highest challenge by 34 (42.5%) respondents who need to change protective equipment 2 -3 times per day.

#### 4. DISCUSSION

In this study, most participants claimed they felt more stress based on their subjective perceptions. Although this study did not quantify the participants' stress levels, it was consistent with previous studies using PSS-10 and DASS stress domains (Yahya & Othman, 2015; Aly et.al., 2021; Duarte et.al., 2021). In concentrating on a specific

population, a study (Duarte et.al., 2021) discovered that Brazilian physiotherapists experienced higher psychological stress during the pandemic than before Covid-19. These outcomes were probably related to the nature of the work, which posed the infection risk of triggering stress.

According to a study, unmanageable chronic or long-term stress can cause anxiety and lead to mental illness; major depressive disorder is the most prevalent (Khan & Khan, 2017). A global cross-sectional study over 31 countries (Htay et.al., 2020) reported that most healthcare workers (HCWs) experienced anxiety and depression working during the pandemic by using the Generalised Anxiety Disorder (GAD-7) scale and the Patient Health Questionnaire (PHQ-9). The same tools used (Aly et.al., 2021; Elkholly et.al., 2021; Hassany et.al., 2020) also showed a high prevalence of anxiety and depression, particularly among Egyptian HCWs.

In contrast, most respondents in this study demonstrated low psychological issues determined by both subjective and objective scales of anxiety and depression. The CAS results revealed that they had an average fear feeling toward Covid-19, as did HADS results for anxiety and depression. Similarly, (Vispute & Kumar, 2021; Kang et.al., 2020 & Tam et.al., 2020) a study in India found that physiotherapists experienced mild depression during the pandemic. It could be suggested that this was probably due to high knowledge about Covid-19 among the HCWs. Also, over 60% of HCWs had sufficient knowledge, favourable attitudes, and good preventative practices (Albahri et.al., 2021; Zhang et.al., 2020 & Yesse et.al., 2021). The Covid-19 pandemic is still a challenge for HCWs' mental health, although the physiotherapists in this current study experienced relatively common psychological issues. Those HCWs with complete PPE showed lower depression, anxiety, and stress levels (Chowdhury, 2021).

The pandemic hit HCWs' practices differently, as data from this study revealed that most physiotherapists faced challenges in their clinical settings. Previous qualitative studies found that inadequate personal protective equipment (PPE) and poor guidelines preparation exposed the US and UK healthcare providers to infections (Agarwal, Agarwal & Motiani, Arnetz et.al., 2020; Nyashanu et al., 2020). As a result, treatment modifications or protocols were developed by avoiding unnecessary hand handling, using face masks and sanitisers, and implementing home-based programs to sustain outpatient services (Muhammad & Musa, 2021).

Prolonged and repeated use of PPE or protective gear created another challenge. In this study, most participants wore the PPE for more than 2 hours during their practices and had to change it 2 to 3 times daily. In addition, some studies revealed that HCWs experienced more than four hours of PPE usage at least once per shift (Agarwal,

Agarwal & Motiani, Arnetz et.al., 2020; Swaminathan, Mukundadura & Prasad, 2020). Lengthened and persistent PPE utilisation also contributed to headaches, over-sweating, breathlessness, and skin problems (Swaminathan, Mukundadura & Prasad, 2020).

Mandating social distancing in healthcare regulations to prevent Covid-19 virus transmission is necessary. Nevertheless, this study found that private physiotherapists experienced barriers to practising physical distancing during their practices, such as needing more clinic spaces and patient awareness. Studies found that awareness of Covid-19 was correlated with attitude, which is also associated with prevention practices compliance, including social distancing (Alahdal, Basingab & Aloitaibi, 2020). Several studies discovered that the population in Asian countries like Iraq (53.2%) and Saudi Arabia (60-80%) had an awareness of Covid-19 (Alanezi et.al., 2020). Likewise, another study (Parmasad, Keating & Carayon, 2021) mentioned that space paucity and difficulty in monitoring patients' health were the problems of mandating physical distancing in general healthcare settings. These occurrences could be linked to the fulfillment of 2-meter floor markings, spaced seats, and efforts to continue providing services to many patients (Parmasad, Keating & Carayon, 2021). The visual cues were also considered an excellent approach to making people aware of social distancing, yet it could be inconvenient for HCWs and patients.

COVID-19 significantly impacted the global economy and finances due to lockdown implementation in many countries, including Malaysia, which significantly strained the healthcare system (Dhama et.al., 2021). According to a survey conducted in five nations, including Thailand, Malaysia, the United Kingdom, Italy, and Slovenia, average respondents encountered wage loss and reduced working hours. Similarly, this study found that most physiotherapists faced an income reduction in their practices. It was also reported that American physical therapists and Indian physiotherapists experienced even higher losses, especially among private practices (Dantas, Barreto & Ferreira, 2020).

This study also found that most of the physiotherapists in this study experienced increased equipment costs for sanitisation, PPE, gloves, and face masks. Sanitisation using disinfectants was routine in the community and healthcare settings (Dhama et.al., 2021). The cost of disinfectants was varied, with chlorine-releasing disinfectants being relatively low, unlike hydrogen peroxide (MDH, 2017). Added to this was the trouble of securing sufficient PPE supplies from the government, forcing them to purchase PPE the private supplier. It was due to price hikes on store PPE and the shortage (Haque et.al., 2021). Therefore, impaired economic global growth during the pandemic and preventative equipment

used might prompt healthcare providers' financial instability.

Switching from a conventional treatment to telerehabilitation was necessary during the Covid-19 pandemic. Telerehabilitation was beneficial in reaching patients regardless of distance, hence encouraging the physical distancing of cure accessible (Nuara et.al., 2021). However, there were limitations to practising telerehabilitation in this study, as admitted by most participants, as it does not allow comprehensive physical tests. Therefore, it might lead to wrong interpretations of patients' conditions due to preliminary findings on palpation and manual muscle tests. Patients with low internet literacy, such as video calling through applications such as Zoom and WhatsApp via smartphones, tablets, or desktops (Buabbas et.al., 2022), need help following the treatment. Patients of advanced age might have limited capacity and skills to use the devices and need caregivers to monitor them. Older people must be more familiar with modern technology (Alpalhoa & Alpalhoa, 2020) to compromise with telerehabilitation treatment effectively.

Poor internet connection in certain areas is another challenge for the providers of care (Buabbas et.al., 2022). A study found that some physiotherapists had difficulty assessing gait, and the patients might be unable to follow the therapist's exercise instructions properly due to no or weak internet connection (Shenoy & Shenoy, 2018). Therefore, implementing telerehabilitation would be beneficial, but some considerations, such as availability and affordability, must be addressed.

## 5. CONCLUSION

In conclusion, most physiotherapists in this experience common psychological issues, such as depression and anxiety, even though the results revealed that it is mild. The emergence of Covid-19 contributes to anxiety among service providers. Healthcare providers have identified various challenges in providing their services to their patients.

### Acknowledgement

The approval from Research Ethics Committee (REC) was obtained prior to the data collection. (Ref:600-TNCPI(5/1/6) dated 17 August 2021).

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