

Appendix 1

Gulf Medical University

College of health sciences

Consent form and Long COVID Questionnaire

Name of primary member in research:

Name of the supervisor:

Name of Organization: College of Health Sciences, Gulf Medical University

Name of Proposal: Knowledge, Attitude, and Experiences of UAE Physiotherapists and physiotherapy students Toward Long COVID: A Cross-Sectional Survey

This Informed Consent Form has two parts:

PART I

- Information Sheet (to share information about the study with you)
- Certificate of Consent (for signatures if you choose to participate)

PART II

- Questionnaire

You will be given a copy of the full Informed Consent Form

Part I: Information Sheet

Introduction

I am x undergoing clinical rotation at Thumbay Physical Therapy and Rehabilitation Hospital as part of my master's in physical therapy Program. I am doing research under supervision of x Associate Professor, Physiotherapy Division, College of Health Sciences, Gulf Medical University, Ajman Emirate, U.A.E. The topic of research is Knowledge, Attitude, and experiences of UAE Physiotherapists and physiotherapy students Toward Long COVID : A Cross-Sectional Survey.

I am going to give you information and invite you to be part of this research. You do not have to decide whether you will participate in the research. Before you decide, you can talk to us or anyone you feel comfortable with about the research. There may be some words that you do not understand. Please, ask me to stop as we go through the information and I will take time to explain. If you have questions later, you can ask them of me, the study consultant, principal investigator, guide of the study.

Purpose of the research

Long COVID is a condition that is not fully understood but can be disabling and have been shown to effect multiple body systems including the respiratory, cardiac, renal, endocrine, and neurological systems. It is a condition that can be multi-disciplinary, bridging over various symptoms and impairments, social restriction, and activity limitations. It can greatly affect a person's quality of life and ability to work.

Up to date there was no survey conducted to understand the knowledge, practice, and attitude towards long COVID among physical therapists in UAE. Providing a safe and effective treatment comes with learning and understanding more about what the symptoms and effects of long COVID are, which further explains how a physical therapist can help with long -COVID-19 rehabilitation. Fully understanding their role

and being aware that as a member of a multidisciplinary team physiotherapists are in an optimal position to effectively manage and reduce the risks of long COVID.

Type of Research Intervention

A cross sectional survey

Participant Selection

The study will be conducted among physical therapists and physiotherapy students living or practicing in the United Arab Emirates (UAE). The target is UAE physical therapists and physiotherapy students both male and female between the ages of 18 to 60 will be included in the study.

Voluntary Participation

Your participation in this research is entirely voluntary. It is your choice whether to participate or not. Whether you choose to participate or not, all the services you receive at this research will continue and nothing will change. You may change your mind later and stop participating even if you agreed earlier.

Procedures

Survey will be designed based on questions focusing on the three main factors of the study which are knowledge, attitude, and practice. All the questions will have to be made specifically for this study with a lot of reference for secondary data collected.

Once the questionnaire is ready it will be passed on to a practice population so that it can be improved, and the necessary improvements can be made. Once that's done it will be sent for validation to an expert that will give the final adjustments after which the questionnaire will be ready to circulate amongst the target population.

Duration

This study will be spread over 2-4 months which will include data collection and data analyzing followed by the generation of a conclusion.

Risks

No serious threats or side effects were noted.

Benefits

There may not be any benefit for you, but your participation is likely to help us find the answer to the research questions. There may not be any benefit to the society at this stage of the research, but future generations are likely to benefit.

Reimbursements:

No payment for your travel to the study place and lost work time. You will not be given any other money or gifts to take part in this research

Confidentiality:

The information that we collect from this research project will be kept confidential. Information about you that will be collected during the research will be put away and no-one, but the researchers will be able to see it. Any information about you will have a number on it instead of your name. Only the researchers will know what your number is and we will lock that information up with a lock and key. It will not be shared with or given to anyone except principal investigator and team of the research.

Sharing the results:

Before it is made widely available to the public. Confidential information will not be shared. There will be small meetings in the community, and these will be announced. After these meetings, we will publish the results in order that other interested people may learn from our research through publications and conferences.

Right to Refuse or Withdraw:

You do not have to take part in this research if you do not wish to do so and refusing to participate will not affect you at our facility in any way. You may stop participating in the research at any time that you wish.

Alternatives to Participating:

If you do not wish to take part in the research, then contacts are given below.

Who to Contact?

If you have any questions, you can ask them now or later. If you wish to ask questions later, you may contact any of the following:

This proposal has been reviewed and approved by Gulf Medical University ethics committee, which is a committee whose task it is to make sure that research participants are protected from harm. You may contact x Associate professor, or mail mrp@gmu.ac.ae for appointments for queries related to research.

Part II -Questionnaire

Survey

Questionnaire:

Title: “Knowledge, Attitude, and experiences toward long COVID among physiotherapists and physiotherapy students in UAE- A cross-sectional study]

Socio-demographic data

1. Gender Female / Male

2. Nationality

- Asian
- Mediterranean and Middle east
- African
- Europe
- American
- Other [Specify]

3. Age group:

- 18-29 years
- 30 -39 years
- 40-49 years
- 50 -65 years
- 65 years +

4. Highest Qualification:

- Perusing education-
- Diploma/Bachelor/ Master of Physical Therapy/ Doctoral Degree (DPT or Ph.D)
- Diploma
- Bachelor
- Master of Physical Therapy
- Doctoral Degree (DPT or Ph.D)

5. How many years of professional/clinical experience do you have as a practicing physical therapist/or student?

- 0-3 years
- 4-8 years
- 9-15 years
- 15 years
- More than 15 years

6. What is the nature of your workplace?

- Primarily Clinical Work (Private Hospital)
- Primarily clinical work (Public Hospital)
- Academia (university)
- Clinical work combined with Academia set up
- Independent PT practice
- Other[Specify]

7. Which one of the following department/specialty your case load is primarily engaged with? (Tick all that apply) ?

- Mix of both Inpatient and Outpatient Department
- Outpatient Department only
- Intensive Care Unit
- Long term care (Old age home, rehabilitation center)
- Home care, community or sports centers

- If any other area's or combinations, specify -----

8. What is your professional specialization or specific field of interest? (Select 1 most appropriate)

- Musculoskeletal
- Neurology
- Cardiovascular
- Respiratory therapy
- Women's health
- Pediatrics
- Sports physiotherapy
- Research in physiotherapy
- Others (please specify)

9. Have you been Vaccinated for COVID-19?

Yes / No

10. Do you believe physiotherapy management for acute COVID-19 is different from medical complication resulted from long COVID?

Yes / No / Not sure

11. If you have treated COVID-19 complications [apart from acute COVID medical management referred by physician] when did you encounter your first case?

- January - June 2020
- July - December 2020
- Jan- June 2021
- July- December 2021
- Not sure

12. Do you believe symptoms of long COVID are different from symptoms of COVID-19 complications?

Yes / No /Not sure

13. 1 in 7 COVID-19 patients still might be symptomatic after 12 weeks ("long-COVID-19"), and not explained by an alternative diagnosis , would this case be considered to be long COVID or Not ?

YES NO

IF , No then specify the duration ?

14. Select the most common COVID-19 complications you have encountered or treated with your physiotherapy services (Tick all that apply)

- Pneumonia
- ARDS (acute respiratory distress syndrome)
- Acute Liver injury
- Acute cardiac injury
- Neurological injury
- others specify

15. Do you believe that all Individuals who have tested positive for COVID-19 are at risk of long COVID symptoms ?

I agree disagree not sure

16. Long COVID is a condition that stems from COVID-19 infection, and it is a sequel of COVID -19?

I agree disagree not sure

17. If you had treated long COVID, when did you encounter your first case?

- January - June 2020
- July - December 2020

- Jan- June 2021

- July- December 2021

18. How many cases of long COVID have you encountered or treated in the last month?

- 0

- 1-5

- 5-10

- 10-20

- 20-30

- < 30

19. How many cases of COVID-19 medical complications have you encountered or treated in the last month referred to physiotherapy services?

- 0

- 1-5

- 5-10

- 10-20

- 20-30

- < 30

20. The 3 most common symptoms for long-COVID are fatigue, cognitive dysfunction, shortness of breath ?

I agree disagree not sure Other? specify

21. The risk of developing long COVID symptoms are higher in which group?

(Kindly select all that apply)

1- Females

2- young adults

3- In individuals who had a more severe COVID-19 illness

4- Males

5- older patients

6 -Patient with existing comorbidities

7- Not sure

22. The symptoms of long-COVID are more severe in below cases (kindly select all that apply)

1- severely ill and Hospitalized

2- co-morbidity (Asthma , Diabetes)

3 – females

4- Males

5- older patients

6- Young patients

7- Not sure

23. Brain fog (Feeling confused or disorganized) was the symptom most reported in the elderly population of long COVID?

I agree disagree not sure

24. Long -COVID symptoms can be minimized by getting timely vaccines and following the safety measures as COVID-19 than unvaccinated?

I agree disagree not sure

25. Pick long COVID symptoms form the list mentioned below (You may select all that apply).

- Brain Fog

- Extreme tiredness (fatigue)

- Joint pain

31. Acute COVID-19 cardiac manifestations are myocardial injury, myocarditis, cardiomyopathy and cardiac dysrhythmias which are significantly different from post COVID-19 syndrome range from, Atypical chest pain , chest tightness , palpitations and tachycardia?

Agree Disagree Not sure

32. How would you rate your experience in respiratory physiotherapy for treating long COVID patients?

very good sufficient insufficient no experience

33. How important do you consider the following diagnostic laboratory tests to help the rehabilitation of long COVID? [answer all]

•Rheumatoid factor related tests such as Antinuclear antibody, anti-cyclic citrullinated peptide, anti-cardiolipin, and creatine phosphokinase tests

Very important–rather important–rather unimportant– not important–do not know

•D-dimer & fibrinogen for Coagulation disorders

Very important–rather important–rather unimportant– not important–do not know

•Vitamin D, vitamin B12 for deficiencies

Very important–rather important–rather unimportant– not important–do not know

•Troponin for Myocardial injury

Very important–rather important–rather unimportant– not important–do not know

•B-type natriuretic peptide for Differentiate symptoms of cardiac versus pulmonary origin

Very important–rather important–rather unimportant– not important–do not know

•C-reactive protein, ESR and ferritin for Inflammatory markers

Very important–rather important–rather unimportant– not important–do not know

•Any other tests of interest kindly specific

34. How important do you consider testing the following assessment tools to help in rehabilitation of long COVID?

• General (generic) Functional status and/or quality of life scales such as Patient-Reported Outcomes Measurement Information System (PROMIS)

Very important–rather important–rather unimportant– not important–do not know

•Specific scales such as post-COVID-19 Functional Status Scale (PCFS)

Very important–rather important–rather unimportant– not important–do not know

•Neurologic conditions emphasizing cognitive functions such as Mini Mental Status Examination (MMSE)and Montreal Cognitive Assessment (MoCA)

Very important–rather important–rather unimportant– not important–do not know

•Psychiatric conditions emphasizing anxiety, stress General Anxiety Disorder-7 (GAD-7), Screen for Posttraumatic Stress Symptoms (SPTSS) and Patient Health Questionnaire-9 (PHQ-9)

Very important–rather important–rather unimportant– not important–do not know

•Other scales emphasising fatigue and insomnia such as Fatigue Severity Scale and Insomnia Severity Index (ISI)

Very important–rather important–rather unimportant– not important–do not know

35. How important do you consider the following functional testing tools for evaluating people with long COVID conditions?

•For exercise capacity such as 6-minute walk, 1-minute sit-to-stand test, 2-minute step test, 10 Meter Walk Test (10MWT)

Very important – rather important – rather unimportant – not important – do not know

•For balance and risk of falling such as BERG Balance Scale and Tinetti Gait and Balance Assessment Tool

Very important – rather important – rather unimportant – not important – do not know

•For other medical conditions related to variations in heart rate and blood pressure due to change in posture and position with tests such as Tilt-table testing (e.g., for POTS) and Orthostatic HR assessment

Very important – rather important – rather unimportant – not important – do not know

36. How do you rate your experience in using the following devices for long COVID patient?

- Pulse Oximeter for o2 saturation in blood

very good sufficient rather sufficient insufficient

-PEP (positive expiratory pressure such as Flutter, Acapella) devices to improve collateral ventilation

very good sufficient rather sufficient insufficient

-Respiratory muscle training device such as respirometer

very good sufficient rather sufficient insufficient

-Device for mucus mobilization such as flutter or Acapella

very good sufficient rather sufficient insufficient

-Device for measuring respiratory capacity such as respirometry or spirometry

very good sufficient rather sufficient insufficient

-Device for measuring the maximum expiratory force such as peak flow meter

very good sufficient rather sufficient insufficient

-Device for measuring the maximum inspiratory force such as respiratory pressure meter

very good sufficient rather sufficient insufficient

37. Which devices have you been using for respiratory therapy so far? (Tick all that apply)

-Pulse oximeter

- PEP devices ,Flutter or Acapella (Device for mucus mobilization)

- Peak flow meter (Device for measuring the maximum expiratory force)

- Respiratory pressure meter (Device for measuring the maximum inspiratory force)

- Respirometry (Device for measuring rate of respiration)

-Spirometry (Device for measuring respiratory capacity)

- Respirometer (Respiratory muscle training device)

38. How do you rate your experiences to screen post exertional symptoms or exacerbation, before recommending physical activity as interventions for people living with long COVID? (Tick all that apply)

- I do not screen for post exertional symptoms

- Not sure how to screen for post exertional symptoms
- I use detailed history about asking patients their symptoms and the impact of physical, cognitive, and social activities on symptoms 12 hours or longer after exertion.
- I Use the DePaul Post-Exertional Malaise Questionnaire
- I Monitor the heart rate
- I use Two-day cardiopulmonary exercise testing (CPET)
- Others (specify)

39. How would you avoid exacerbation of symptoms in patients with long COVID? (Tick all that apply)

- **Symptom titrated physical activity**
- **Graded Exercise therapy**
- **Fixed activity prescription**
- **Pacing and activity management**
- **Others (specify)**

40. How do you rate your experience to screen for autonomic nervous system dysfunction, before recommending physical activity as interventions for people living with long COVID? (Tick all that apply)

- **I do not screen for autonomic nervous system dysfunction**
- **Not sure how to screen for autonomic nervous system for physical activity prescription**
- **I monitor for signs and symptoms of orthostatic intolerance**
- **I monitor heart rate and blood pressure**
- **I observe symptoms such as palpitations and tachycardia**
- **I use Physical activity readiness questionnaire for everyone**
- **I use Physical activity readiness medical examination**
- **Others (specify)**

41. Are you educating your patient on maintaining a healthy lifestyle to reduce the symptoms of long COVID?

Yes No Not sure

- **If yes, what out of the following did you recommend?**
- **Aerobic exercises**
- **Strength training**
- **Maintaining a Healthy diet**
- **Others (specify)**

42. Did you use Telerehabilitation for long COVID rehabilitation?

Yes No Not sure

43. If you answered yes for question 42, which tools did you use?

- **Google meet**
- **Webinar**
- **Edmodo**
- **Zoom**
- **Go to meeting**
- **Other (specify)**

44. Do you think that breathing exercise can be provided through telerehabilitation for long COVID?

Yes No Not sure

45. Do you think that Strengthening exercises can be provided through telerehabilitation for long COVID?

Yes No Not sure

46. Do you expect more of patients with long COVID or physiotherapy in near future?

I agree Disagree Not sure

47. How much do you agree with the following statement?

I feel adequately updated and informed regarding the physio-therapeutic rehabilitation of patients with sequelae after COVID-19 infection.

I agree Disagree Not sure

48. Are telerehabilitation sessions helpful effectively to deliver physical therapy sessions for long COVID?

I agree Disagree Not sure

49. Are telerehabilitation sessions as effective as face-to-face therapy sessions for long COVID?

I agree Disagree Not sure

50. Do you think there is a need in adopting a module as academic education on long COVID rehabilitation?

I agree Disagree Not sure

51. Do you wish to acquire more information regarding long COVID rehabilitation?

I agree Disagree Not sure

52. Do you need more training for long COVID rehabilitation?

I agree Disagree Not sure
