ISSN Print: 2394-7500
ISSN Online: 2394-5869
Impact Factor: 8.4
IJAR 2022; 8(5): 18-23
www.allresearchjournal.com
Received: 11-03-2022
Accepted: 19-04-2022

Dr. Mohd Shoeb
Head of Department, Department of Physiotherapy, SAAII College of Medical Science & Technology, Kanpur, Uttar Pradesh, India

Navneet Singh Gaur
Student, Department of Physiotherapy, SAAII College of Medical Science & Technology, Kanpur, Uttar Pradesh, India

Mohammad Zeelani
Student, Department of Physiotherapy, SAAII College of Medical Science & Technology, Kanpur, Uttar Pradesh, India

Shubhangi Srivastava
Student, Department of Physiotherapy, SAAII College of Medical Science & Technology, Kanpur, Uttar Pradesh, India

Atif Rashid
Student, Department of Physiotherapy, SAAII College of Medical Science & Technology, Kanpur, Uttar Pradesh, India

Corresponding Author:
Dr. Mohd Shoeb
Head of Department, Department of Physiotherapy, SAAII College of Medical Science & Technology, Kanpur, Uttar Pradesh, India

To find out the knowledge and effectiveness of physical therapy among covid patient

Dr. Mohd Shoeb, Navneet Singh Gaur, Mohammad Zeelani, Shubhangi Srivastava and Atif Rashid

DOI: https://doi.org/10.22271/allresearch.2022.v8.i5a.9712

Abstract
The purpose of this study is to find out the knowledge and effectiveness of physical therapy among covid patient. As we all know that Covid is a novel illness declared as a pandemic by the World Health Organization (WHO) in March 2020.1 It has severely impacted the lives of people across the world. In India, the impact of the COVID-19 pandemic has been worse due to underlying issues of fragmented health infrastructure in semi-urban and rural parts of the country and due to weak public health governance. In the present COVID-19 induced pandemic, patients who need medical treatment for chronic illnesses or need supervision and consultation for therapy treatments have been affected severely. Physiotherapy being a domain of health care practice dealing with rehabilitation of musculoskeletal, cardiopulmonary, neurological conditions have an objective to improve patients' muscle and joint functions, enhancing functional mobility and overall conditioning. So, we coined 100 participants and send them self-design questionnaire containing demographic and questions related to knowledge and effectiveness of physiotherapy by the help of social media like Facebook, Instagram and WhatsApp, etc. by the end of decided date we get total 100 responses out of 100 participants. After analyze the data we found that most of the participants are male, in between the age 21-25. Maximum number of participants get physiotherapy by direct contact, five days a week, and able to follow the instruction for exercises, and found physiotherapy treatment useful and fully satisfied. So, the conclusion of this study shows that most of the participants know about physiotherapy and its effectiveness. In this way null hypothesis is rejected.

Keywords: Covid, pandemic, physiotherapist, knowledge, effectiveness

Introduction
COVID-19 pandemic on March 3, 2020. Over the next two months, the country responded to a rapidly spreading pandemic with an unprecedented shutdown that affected schools, business, sporting events, and more. On March 17, APTA's Board of Directors issued a statement encouraging physical therapists to "use their professional judgment to determine when, where, and how to provide care, with the understanding this is not the optimal environment for care, for anyone involved [1].

Throughout the pandemic, physical therapy services have been treated as essential by federal, state, and local guidance, although many physical therapists have proactively stopped nonessential in-person care to flatten the curve of the pandemic Between April 24 and May 11, APTA surveyed a representative sample of 5,400 physical therapists and 1,100 physical therapist assistants to gauge the impact of the COVID-19 pandemic on the physical therapy profession [2].

Coronavirus disease 2019 (COVID-19) caused by Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) is a novel illness declared as a pandemic by the World Health Organization (WHO) in March 2020.1 It has severely impacted the lives of people across the world. In India, the impact of the COVID-19 pandemic has been worse due to underlying issues of fragmented health infrastructure in semi-urban and rural parts of the country and due to weak public health governance. The Government of India has opted various measures to control the spread of COVID-19 and is responding to the needs of both COVID-19 patients and common people. Among other strategies, lockdown and social isolation are one of the most popular methods adopted by the government to control the viral spread.

However, prolonged social isolation can also have severe impacts on people's physical and mental health and these impacts have already been started to be visible in general discourse [3].

In the present COVID-19 induced pandemic, patients who need medical treatment for chronic illnesses or need supervision and consultation for therapy treatments have been affected severely. The public regulation has stipulated that medical support shall be provided on priority basis to urgent and critical patients only, leaving behind the other patients who need physical therapy and rehabilitation services in the limbo. However, the benefits of physical therapy have also been accepted widely for the rehabilitation of the patients recovering from COVID-19 [4].

Physiotherapy and Other Out-Patient Services in Corona Virus Pandemic in India, the COVID-19 pandemic has knocked the health institutions, at all levels of its machinery, like never before. In several countries, including India, the secondary and tertiary care centers – which were earlier delivering services on an average to millions of out-patients, required critical transformation. The secondary and tertiary care center has now been turned into facilities of temporary COVID-19 hospitals for treating patients with moderate to severe symptoms of the disease [5].

Physiotherapy being a domain of health care practice dealing with rehabilitation of musculoskeletal, cardiopulmonary, neurological conditions have an objective to improve patients' muscle and joint functions, enhancing functional mobility and overall conditioning. Unavailability of in-person supervision of physical therapies due to social restrictions has increased the vulnerability of patients. Variety of patient population extending from pediatric, geriatric, neuropsychiatric, differently abled among others who were undergoing routine sessions of outpatient or home-based rehabilitation therapies requiring continuous supervision of physiotherapist for assessment, treatment and follow-ups are the most affected groups of patients. Physiotherapists, as health care providers, are also at higher risk of exposed to infection due to the usual nature of practice requiring close proximity for assessing the patients along with implementing various manual techniques which have to be done passively by the therapists themselves. Moreover, the risk is further enhanced if the physiotherapist health care provider is dealing with asymptomatic patients – who are found to be transmitting the infection [6].

Methodology

Ethical statement: The web-based open E-survey research is submitted and Approved by the ethics committee of Saaii College, Kanpur. we ensured that the study was performed according to the principles laid by, declaration of Helsinki (Revised 2013), Council for International Organizations of Medical Sciences (CIOMS) guidelines, International ethical guidelines for health-related research involving humans (2016) and National guidelines for biomedical and health research involving human participants (2017). The purpose of the survey, introduction and about the length of the survey was added within the web-based open E-survey. A separate statement of consent was asked before starting the survey questionnaire.

Sample and design

A cross-sectional online survey was sent to some patients in the month of March 2022 and April 2022. patients who get Physiotherapy treatment were included in the study. patients were included in the study by a simple random sampling method. Patients who are not willing to spare time for filling survey questionnaires, who do not have an account in social networking sites such as Facebook, WhatsApp, and Instagram and who do not have smartphone were excluded from the web-based open E-survey.

Survey development

A series of questionnaires were created for the survey. The Survey contained three sections. The first section includes a series of demographic questions, the second section of survey comprised about Knowledge and effectiveness of physiotherapy. Demographic related questions included in the survey were age, gender, and subjective statements which includes, knowledge and effectiveness of physical therapy among covid patients.

Administration of survey

The study was executed by sending the online link (https://forms.gle/6T4tv7G2Bs4CFC1t7) to patients through social networking sites such as Facebook, WhatsApp, and Instagram. 100 potential participants were identified and E-survey link was sent to them through the messaging services. The Survey was administered using the online survey portal, Google forms. As people are mostly active on social networking sites and messengers when compared to frequent checking e-mails, social networking sites were used for circulating the survey questionnaire. The reminder survey link was sent to them, if response was not received within a period of two weeks. Web-based open E-survey is cost-effective, eco-friendly, time-saving and practically feasible.

Sample size

The required sample size for this cross-sectional study was estimated by finding the 100 participants and sending the link of questionnaire through various platform of social Media. In which we get all the 100 responses in the given time period. The incomplete submission of survey questionnaire was not possible due to the function in Google Forms which prevent submission of partially answered or filled Questions.

Analysis

Data analysis was done using IBM SPSS Statistics (software package used for statistical analysis 2019 version - 26). One sample proportion test is used in the analysis of this study, to test hypothesis; which help to determine whether to reject or accept Null hypothesis.

Total Consent for Participation=100
Total Successful Participants in Survey=100
Total Unsuccessful Participants in Survey=00

Table 1: Age wise distribution of the Participants

Age group (In Yrs)	Number of Participants	Participants %
Under 20	20	20
21-25	63	63
26-30	5	5
31-35	12	12
Total	100	

Table 2: Gender wise distribution of the Participants

Gender	Number of Participants	Participants %
Male	56	56
Female	44	44
Other	0	0
Total	100	

Table 3: No. of days therapist attend the patient in a week

Category	Number of Participants	Participants %
One day	11	11
Two days	7	7
Three days	18	18
Four days	13	13
Five days	51	51
TOTAL	100	

Table 4: Mode of physiotherapy consultation

Gender	Number of Participants	Participants %
Direct contact	77	77
Through phone	14	14
Through video	9	9
Total	100	

Table-5: Is patient able to follow instructions for exercises?

Category	Number of Participants	Participants %
Yes	87	87
No	13	13
Total	100	

Table 6: Is patient find treatment useful?

Category	Number of Participants	Participants %
Yes	89	89
No	11	11
Total	100	

Table 7: Is any equipment use during the physiotherapy treatment?

Category	Number of Participants	Participants %
Yes	75	75
No	25	25
Total	100	

Table 8: Is patients advised to perform some exercise after recovery from their illness?

Category	Number of Participants	Participants %
Yes	74	74
No	26	26
Total	100	

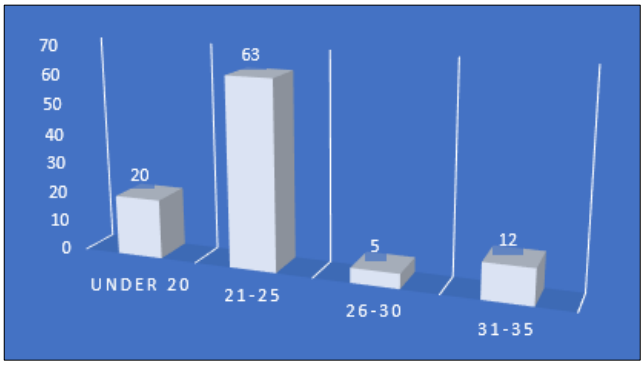
Table 9: Is patients able to follow exercise after recovery?

Category	Number of Participants	Participants %
Yes	79	79
No	21	21
Total	100	

Table 10: Is patients find physiotherapy satisfactory?

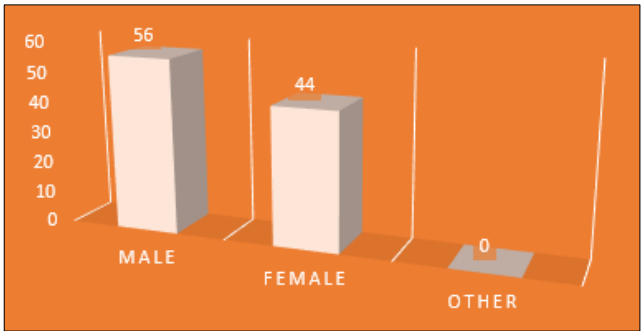
Category	Number of Participants	Participants %
Highly Satisfactory	66	66
Moderately satisfactory	6	6
Satisfactory	18	18
Unsatisfactory	10	10
Total	100	

4. Result



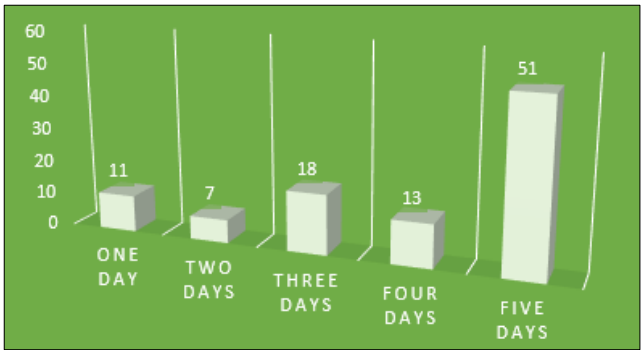
Graph 1: Age wise distribution of the Participants in Percentage %

Graph 1: Represents the age wise distribution of all 100 participants, all age groups are mentioned in years. The result suggests that 20% of participants (20 out of 100 participants) belongs to age group under 20 years, 63% of participants (63 out of 100 participants) belongs to age group 21 – 25 years, 5% of participants (5 out of 100 participants) belongs to age group 26 – 30 years, 12% of participants (12 out of 100 participants) belongs to age group 31 - 35 years, it reflects that maximum participant belong to age group 21 – 25 years.



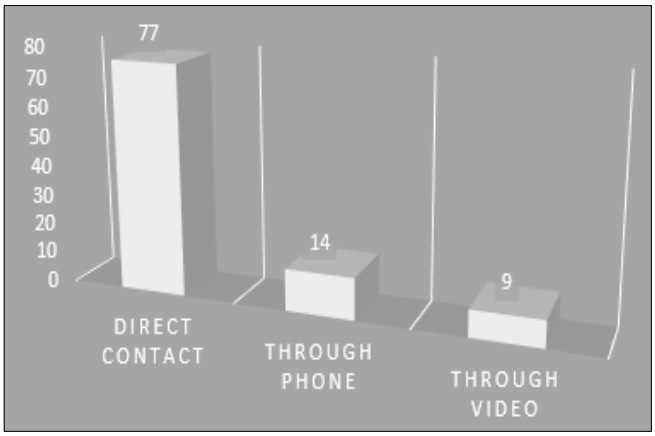
Graph 2: Gender wise distribution of the Participants in Percentage %

Graph 2: Represents the Gender wise distribution of the all 100 participants, the result suggests that 56% of participants are Male (56 out of 100 participants), 44% of participants are female (44 out of 100 participants) & 0% of participants are other (No participants out of 100 participants), It reflects that maximum participant are male.



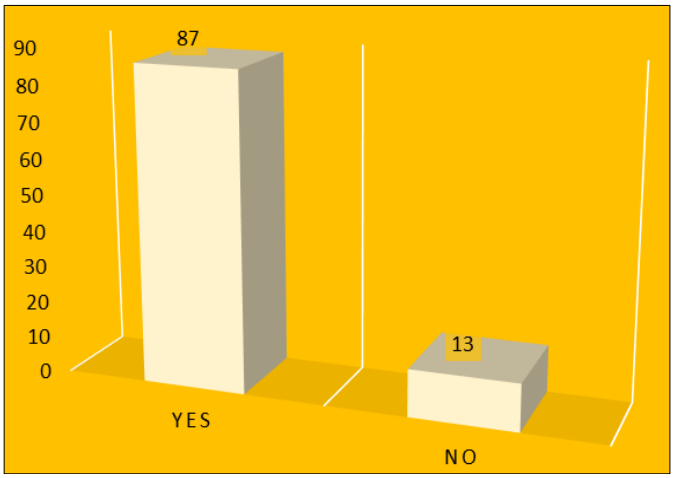
Graph 3: No. of days therapist attend the patient in a week

Graph 3: Represents the number of days wise distribution the physiotherapist attends the patient in a week of all participants. The result suggests that 11% of participants (11 out of 100 participants) got one visit per week by therapist, 7% of participants (7 out of 100 participants) got two visit per week by therapist, 18% of participants (18 out of 100 participants) got three visit per week by therapist, 13% of participants (13 out of 100 participants) got four visit per week by therapist, 51% of participants (51 out of 100 participants) got five visit per week by therapist, it reflects that maximum number of participants got physiotherapy treatment five visit per week.



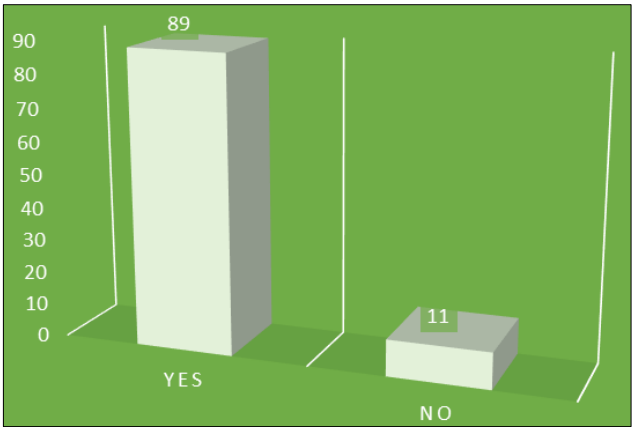
Graph 4: Mode of consultation

Graph 4: Represents the mode of consultation the patient gets. The result suggests that 77% of participants (77 out of 100 participants) gets physiotherapy treatment by direct contact, 14% of participants (14 out of 100 participants) gets physiotherapy treatment through phone, 9% of participants gets physiotherapy treatment through video, it reflects that maximum number of participants gets physiotherapy treatment by direct contact from there therapist.



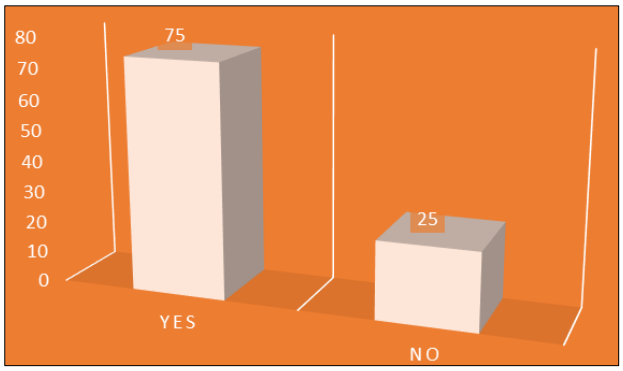
Graph 5: Is participant able to follow instruction for exercises? Participant's %

Graph 5: Represents ability of participants to follow instructions for exercises. The result suggests that 87% of participants (87 out of 100) able to follow instructions for exercises, 13% of participants (13 out of 100) do not able to follow instructions for exercises, it reflects that maximum number of participants able to follow instructions for exercises.



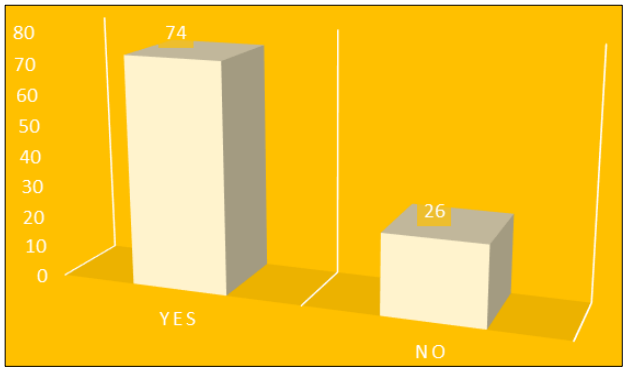
Graph 6: Is participants found physiotherapy treatment useful? Participants %

Graph 6: Represents Participants satisfaction towards physiotherapy treatment. The result suggests that 89% of participants (89 out of 100 participants) found physiotherapy treatment was useful, 11% of participants (11 out of 100 participants) do not find physiotherapy treatment was useful, it reflects that maximum number of participants found physiotherapy treatment was useful.



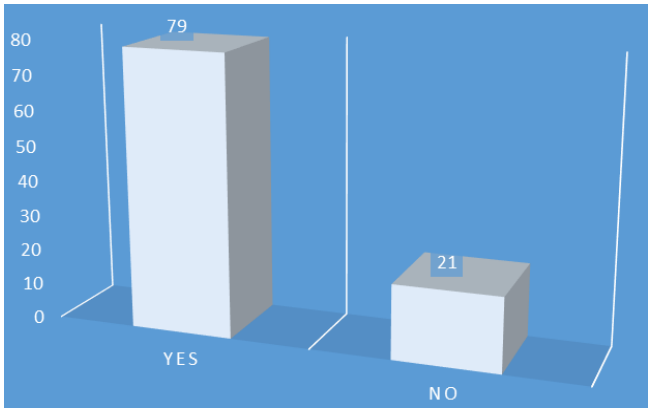
Graph 7: Is any equipment use during the physiotherapy treatment? Participants %

Graph 7: Represents use of equipment during the physiotherapy treatment. The result suggests that 75% of participants (75 out of 100 participants) use equipment during the physiotherapy treatment, 25% of participants (25 out of 100 participants) are not use equipment during the physiotherapy treatment, it reflects that maximum number of participants use equipment during the physiotherapy treatment.



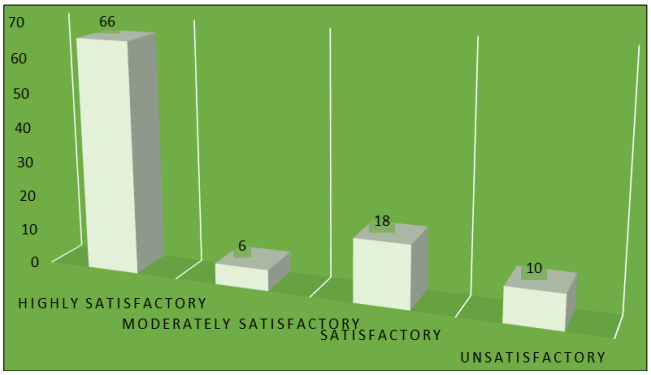
Graph 8: Is patients advised to perform some exercise after recovery from their illness? Participants %

Graph 8: Represents that patient are advised to perform exercise after recovery from their illness. The result suggests that 74% of participants (74 out of 100 participants) advised to perform exercise after recovery from their illness, 26% of participants (26 out of 100 participants) are not advised to perform exercise after recovery from their illness, it reflects that maximum number of participants are advised to perform exercise after recovery from their illness.



Graph 9: Is patients able to follow exercise after recovery? Participants %

Graph 9: Represents that patient are able to follow exercise after recovery. The result suggests that 79% of participants (79 out of 100 participants) are able to follow exercise after recovery, 21% of participants (21 out of 100 participants) are not able to follow exercise after recovery, it reflects that maximum number of participants are able to follow exercise after recovery.



Graph 10: Patients satisfactory level Participants %

Graph 10: Represents the patient satisfactory level. The result suggests that 66% of participants (66 out of 100 participants) are highly satisfied, 6% of participants (6 out of 100 participants) are moderately satisfied, 18% of participants (18 out of 100 participants) are satisfied, and 10% of participants (10 out of 100) are not satisfied, it reflects that maximum number of participants are highly satisfied.

Discussion

To determine the significant knowledge and effectiveness of physical therapy among post covid patients, we conducted simple randomized online survey among post covid patient and we received total 100 feedback with consent based on inclusion and exclusion criteria.

In question 1 we asked about age of participants, we found that maximum participants belong to age group 21-25 years which represents the age wise distribution of all 100 participants, all age group are mentioned in years, the result suggest 20% of participants (20 out of 100 participants) are belongs to age group under 20 years, 63% of the participants (63 out of 100 participants) are belongs to age group 21-25 years, 5% of the participants (5 out of 100 participants) are belongs to age group 26-30 years, while rest 12% of the participants (12 out of 100 participants) are belongs to age group 31-35 years.

In question 2 we asked about gender of the participants, we found that maximum participants were male, which represents the Gender wise distribution of the all 100 participants, the result suggest that 56% of participants are Male (56 out of 100 participants), 44% of participants are female (44 out of 100 participants) & 0% of participants are other (No participants out of 100 participants).

In question 3 we asked about how many days in a week is therapist attend the patient, we found maximum number of participants were get visit by the therapist 5 days in a week, which represents the days wise distribution of therapist attending patient in a week of all 100 participants, the result suggest that 11% of participants (11 out of 100 participants) got one visit per week by therapist, 7% of participants (7 out of 100 participants) got two visit per week by therapist, 18% of participants (18 out of 100 participants) got three visit per week by therapist, 13% of participants (13 out of 100 participants) got four visit per week by therapist, 51% of participants (51 out of 100 participants) got five visit per week by therapist.

In question 4 we asked about the medium of consultation, we found maximum number of participants were get consultation through direct contact, which represents mode of consultation wise distribution of the all 100 participants, the result suggest that 77% of participants (77 out of 100 participants) gets physiotherapy treatment by direct contact, 14% of participants (14 out of 100 participants) gets physiotherapy treatment through phone, 9% of participants gets physiotherapy treatment through video.

In question 5 we asked about the ability of patient to follow instruction for exercises, we found maximum number of participants are able to follow instruction for exercises, which represents instruction wise distribution of all the 100 participants, the result suggests that 87% of participants (87 out of 100) able to follow instructions for exercises given by therapist, 13% of participants (13 out of 100) do not able to follow instructions for exercises given by therapist.

In question 6 we asked about the usefulness of physiotherapy, we found maximum number of participants found physiotherapy treatment useful, which represents usefulness of physiotherapy treatment wise distribution of all 100 participants. The result suggests that 89% of participants (89 out of 100 participants) found physiotherapy treatment was useful, 11% of participants (11 out of 100 participants) do not find physiotherapy treatment was useful.

In question 7 we asked that participants get physiotherapy treatment through equipment, we found maximum number of participants got physiotherapy treatment through equipment, which represents use of equipment in physiotherapy treatment wise distribution of all 100 participants, The result suggests that 75% of participants (75 out of 100 participants) use equipment during the

physiotherapy treatment, 25% of participants (25 out of 100 participants) are not use equipment during the physiotherapy treatment.

In question 8 we asked is patient advised to perform some exercise after recovery from their illness, we found maximum number of participants are advised to perform some exercise after recovery from their illness, which represents advised given to patient for some exercise after recovery from illness wise distribution of all 100 participants, the result suggests that 74% of participants (74 out of 100 participants) advised to perform exercise after recovery from their illness, 26% of participants (26 out of 100 participants) are not advised to perform exercise after recovery from their illness.

In question 9 we asked is the patient able to follow exercise after recovery, we found maximum number of participants are able to follow exercise after recovery, which represents ability of participants to follow exercise after recovery wise distribution of all 100 participants, the result suggests that 79% of participants (79 out of 100 participants) are able to follow exercise after recovery, 21% of participants (21 out of 100 participants) are not able to follow exercise after recovery.

In question 10 we asked about the satisfaction of participants towards physiotherapy, we found maximum number of participants are highly satisfied from physiotherapy, which represent satisfaction level of participants towards physiotherapy wise distribution of all 100 participants, the result suggests that 66% of participants (66 out of 100 participants) are highly satisfied, 6% of participants (6 out of 100 participants) are moderately satisfied, 18% of participants (18 out of 100 participants) are satisfied, and 10% of participants (10 out of 100) are not satisfied.

Conclusion

Hence, we concluded that Overall, based on results of this study and previous research, it can be said that the study to find out significant knowledge and effectiveness of physical therapy among post covid patient as we concluded that-

1. Maximum participants belong to age group 21-25 years.
2. Maximum participants are male.
3. Maximum participants get five days physiotherapy treatment in a week.
4. Maximum number of participants get consultation through direct contact.
5. Maximum participants are able to follow instruction for exercises.
6. Maximum participants are found physiotherapy treatment useful.
7. Maximum number of participants get physiotherapy treatment through equipment.
8. Maximum participants are advised to perform some exercise after recovery from their illness.
9. Maximum participants are able to follow exercise after recovery.
10. Maximum participants are highly satisfied from physiotherapy.

References

1. Zhang SX, Wang Y, Rauch A, *et al*. unprecedented disruption of lives and work: health, distress and life satisfaction of working adults in China one month into the COVID-19 outbreak. Psychiatry Res. 2020;288:112958.
2. Yu P, Wei Q, He C. Early rehabilitation for critically ill patients with COVID-19: more benefits than risks. Am J Phys Med Rehabil. 2020;99(6):468-9.
3. Simpson RJ, Kunz H, Agha N, *et al*. Exercise and the regulation of immune functions. Prog Mol Biol Transl Sci. 2015;135:355-80.
4. Wu S, Ma C, Yang Z, *et al*. Hygiene behaviors associated with influenza-like illness among adults in Beijing, China: a large, population-based survey. PLoS One. 2016;11(2):e0148448.
5. Murdaca G, Setti M, Brenci S, *et al*. Modifications of immunological and neuro-endocrine parameters induced by antiorthostatic bed-rest in human healthy volunteers. Minerva Med. 2003;94(6):363-78.
6. Uchakin PN, Stowe RP, Paddon-Jones D, *et al*. Cytokine secretion and latent herpes virus reactivation with 28 days of horizontal hypokinesia. Aviat Space Environ Med. 2007;78(6):608-12.