

THE EFFICACY OF PSYCHOLOGICAL MEASURES RENDERED BY PHYSIOTHERAPISTS SERVING IN COVID WARDS IN ALLEVIATING THE PANIC ATTACKS

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Abstract

Covid-19 can disrupt a person's circadian rhythm, which can impair his sleep, leading to insomnia and snowball into depression, anxiety and other cognitive changes, not infrequently a panic disorder. Present pandemic also witnessed the shortage of essential medicines including oxygen, unavailability of intensive care beds, making the patients and attendants panicky, alike. It has been observed that all the efforts are being put forth to understand the epidemiology, clinical symptoms, transmission patterns and the management of the covid-19 outbreak, but there has been a little concern put forward over the traumatizing effect on one's mental health. This pandemic witnessed the utter paucity of qualified medical personnel to serve in wards hence forcing physiotherapy students and interns to compliment their medical counterparts. We understood the need of psychological counselling for these admitted patients and we deputed physiotherapists to render the same. The benefit of counselling was quantified as the fall in the incidence of weekly panic attacks. This study was undertaken to evaluate the efficacy of physiotherapists posted in covid wards in reducing the panic attacks, since physiotherapist do have a basic knowledge of the psychology as a subject and they usually also have ample spare time in the wards, after they have completed their specialized duties. We studied 552 admitted patients of covid-19 in two medical colleges, identified patients with frequent panic attacks, who were then counselled psychologically. The effects of counselling sessions were observed for average 7 days of admission. We found on an average 64% fall in the number of panic attacks in the psychologically disturbed patients. We hence conclude that the physiotherapists posted in the covid wards should also be utilized in rendering psychological counselling to minimize occurrence of the panic attacks.

Keywords: psychological, physiotherapists & Covid.

Introduction

This pandemic of covid-19 is in itself a war like crisis to the world with severe physical and mental health complications. Most people infected with the covid-19 virus will experience mild to moderate respiratory illness and recover without requiring special treatment. Older people, and those with underlying medical problems like cardiovascular disease, diabetes, chronic respiratory disease, and cancer are more likely to develop serious illness.(1)The covid-19 virus spreads primarily through droplets of saliva or discharge from the nose when an infected person coughs or sneezes.(1) Our healthcare system had been reasonably managing all the physical symptoms, but mental symptoms were being overlooked, due to work-overload and low priority of these symptoms against serious physical issues. We observed that existing practices included combating clinical symptoms, analysing transmission patterns and evolving management strategies but nothing concrete had been laid down, pertaining to mental health of a covid-19 patients and their attendants. Quarantine and self-isolation could most likely cause a

negative impact on one's mental health. A review published in *The Lancet* said that the separation from loved ones, loss of freedom, boredom, and uncertainty can cause deterioration in an individual's mental health status.(2)

It was observed in covid-19 in-patient wards, that not only the patients but attendants also required focussed psychological attention towards their immediate problems and unprecedented apprehensions, failing which they were found to be ending up suffering from panic disorder. We dedicated our efforts in counselling these patients psychologically and removing their apprehensions. Our psychological sessions benefitted the upset and disturbed patients in terms of significantly decreased occurrence of panic attacks.

According to the diagnostic and statistical manual of mental disorders (DSM-5) by the American Psychiatric Association (APA) (3) which is used to diagnose mental health disorders, the diagnostic criteria for PANIC disorders are defined as: "It is an anxiety disorder based primarily on

the occurrence of Panic attack, which are recurrent and often unexpected.”(3) A majority of these symptoms have been observed in the covid-19 patients and their attendants. These mental symptoms need to be addressed very alertly since the ill effects on mental health may continue as long covid symptom.

Materials and Method:

During our interaction with the covid-19 patients and their attendants, we came across a volley of questions which tormented their minds and precipitated Panic attacks. We studied 552 covid-19 patients along with their attendants, found the following disturbing questions.

Table 1: Depiction of different question among covid admitted patients

| QUESTIONS (as asked by patients and attendants) | Percentage of Subjects (Tentative) |
|--|------------------------------------|
| “Will I be able to live a normal life again?” | 95% |
| “How are the members of my family?(maybe it at home /isolated or admitted in other ward/hospital)” | 100% |
| “What kind of treatment is given to my patient? Since we are not allowed to meet them?” | 100% |
| “Are all the measures been taken regarding the comorbidities of my patient?” | 40% |
| “Since injectable anti-viral drug is in short supply, how will my patient survive? How will you save my patient?” | 90% |
| “We cannot afford the treatment and the necessities , if the hospital can arrange it for us then its fine or leave our patient to GOD” | 25% |
| “It has been so many hours of admission to the hospital, but no treatment except oxygen mask is being given?” | 80% |
| “I am been suspected of covid-19 but I am admitted in the affected ward, what if the report turns out to be negative? Would not I become infected now with the positive patients in the affected wards?” | 10% |
| “The patient lying beside dies of suffocation; will I be the next todie?” | 25% |
| “What will happen to my Oxygen levels if I remove bipap to go to the washroom ?” | 70% |
| “Since I have already paid a lot on my treatment; how will I be able to manage my other responsibilities and securities?” | 45% |
| “I am spending my maximum time in depressive atmosphere of ward. How will I cope up and remain normal?” | 75% |
| “Is the use of masks responsible for our reduced immunity?” | 20% |

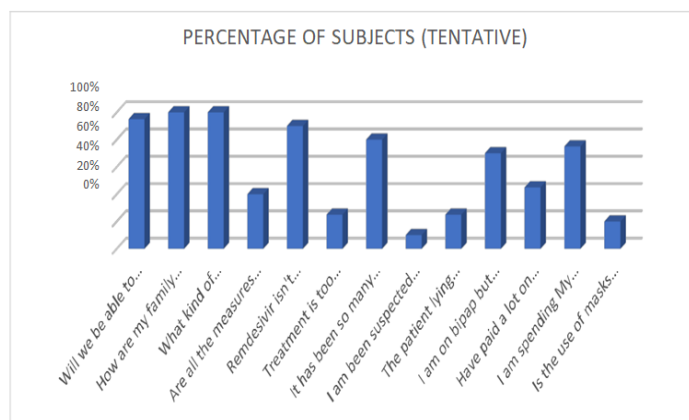


Chart 1: Percentage of subjects (tentative)

In our study a sum of total 552 patients was out of which 375(68%) and 177(32%) were female.

Table 2: Depicts total number of male and female in study

| Male | Female |
|------|--------|
| 68% | 32% |

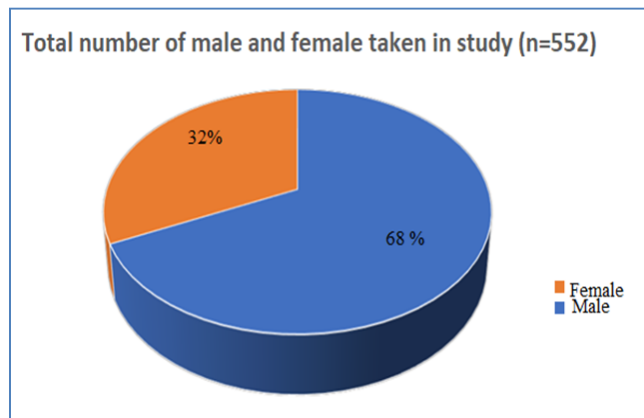


Chart 2: Total patients in study male and female

Table 3: Percentage of population under different age group

| Age | Below 35 years | 35 to 60 years | Above 60 years |
|--|----------------|----------------|----------------|
| Percentage of population under different age group | 99(18%) | 282(51%) | 171(31%) |

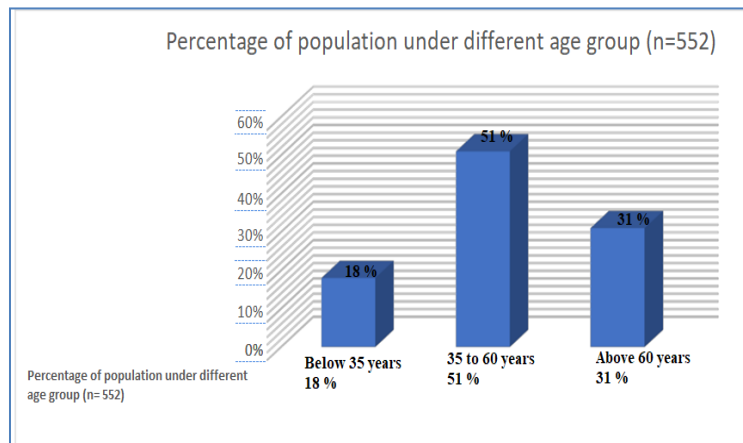


Chart 3: Percentage of population under different age group

The outcome of the psychological counselling and the methods used showed the significant reduction in the percentage of occurrence of panic attacks and helped us achieve a better prognosis. After the first psychological counselling and solving the smaller problems which appears impossible to them, the 64 percent reduction was quite significant.

Out of 375 male, reduction in panic attacks was seen in 270 males i.e.72% and out 177 female, reduction in panic attacks was seen in 99 females i.e. 56%.

Table 5: Reduction in panic attack (male)

| Gender | Reduction in panic attack (n=375) |
|--------|-----------------------------------|
| Male | 270 |

Table 6: Reduction in panic attack (female)

| Gender | Reduction in panic attack (n=177) |
|--------|-----------------------------------|
| Female | 99 |

As in this study subjects were also divided under different age groups. There was 99 subjects under 35 years, 282 between 35 to 60 years and 171 above 60 years and the results showed that after a week of psychological counselling improvement was seen in 65% of subjects below 35 years ,10% improvement between 35 to 60 years and 25% improvement in age group of above 60 years.

Table 7: Percentage of population under different age group showed improvement

| | | | |
|---|--------------------------|---------------------------|------------------------|
| Age | Below 35 years (n=99) | 35 to 60 years (n=282) | Above 60 years (n=171) |
| Percentage of population under different age group showed improvement | 65% | 10% | 25% |

Discussion:

In the follow-up study of SARS patients for nearly 10 years, it can be found that the mental symptoms will continue to exist after discharge and a considerable proportion of survivors will have mental diseases such as depression and Post-traumatic Stress Disorder (PTSD) in the recovery period due to the influence of social factors and identity changes (4) We decided to use the change in the occurrence of panic attacks, as reliable indicator of mental well being in the admitted patients .According to DSM 5, a Panic attack is characterized by 4 or more of the following symptoms (the presence of fewer than four symptoms may be considered a limited symptom Panic Attack).(3)

Table 8: Symptoms of panic attack

| S. No. | Symptoms of panic attack |
|--------|---|
| 1 | Palpitations, pounding heart, or accelerated heart rate |
| 2 | Sweating |
| 3 | Trembling |
| 4 | Sensations of shortness of breathe |
| 5 | A feeling of choking |
| 6 | Chest pain or discomfort |
| 7 | Nausea or abdominal distress |
| 8 | Feeling dizzy,unsteady, light headedness or faint |
| 9 | Feelings of unreality (derealisation) or been detached from oneself (depersonalization) |
| 10 | Fear of losing control/ going crazy |
| 11 | Fear of dying |
| 12 | Paraesthesia |
| 13 | Chills or hot flushes |

Most of the covid-19 mental health symptoms could be reduced significantly just by sympathetic talking with the patients and the attendants, clarifying their apprehensions with simple and effective techniques, as listed below and explained.

The Tools/methods used were:

Table 9: Depicts tools/methods used in the study

| S. No. | Depicts tools/methods used in the study |
|--------|--|
| 1 | Cognitive behavioural therapy |
| 2 | Relaxation and mindfulness exercises including |
| 3 | Deep breathing exercises |
| 4 | Meditation |
| 5 | Yoga |
| 6 | Guided imagery |
| 7 | Stillness practice |
| 8 | Progressive muscle relaxation |

We imparted *cognitive-behavioural therapy* as a tool to alter the perceptions of the patients, for the disease and its outcomes. Covid patients are deeply buried under the colossal weight of agonising negative perceptions, the responsibility of which lies upon variety of social media platforms, largely common social media sites which is accessible to them, all 24 by 7, in hospital wards. Undoubtedly, covid has its own serious problems and related consequences, but

the confusions spread in the media, regarding covid origin, progression of the disease, frequently changing treatment protocols, and after covid residual symptoms, all contributed to the mental chaos. Our efforts were focussed upon hearing them out patiently with utmost concern and then with a genuine sympathetic attitude we infused into their psyche loads of positive inputs and facts, that not only helped us to neutralize embedded negativity in them

but also to kindle fresh hopes of total and early recovery .

Diaphragmatic breathing relaxation training (DBRT), also known as breathing training or deep breathing relaxation training, is a comprehensive body-mind training method based on diaphragmatic breathing (5) DBRT is an effective non-pharmacological intervention for improving sleep and emotions, resulting in reduced levels of anxiety, depression, and stress. (6). Deep breathing exercises were used three times a day for 5 minutes each session, to shift patient's attention from worries to breathing process .We made them aware of their faulty thoracic and abdominal movements, panic attacks. This somehow helped us to correct their paradoxical breathing pattern it's noteworthy that by putting a conscious effort to breathe, a person temporarily forgets surrounding nuisances and gets involved with his breath. This watchful respiration helped them to slower down their respiratory rate which normally rises in panic attack.

Meditation from the ancient times has been proved to be a very effective and relaxing method, Meditation and mindfulness are practices that can support healthcare professionals, patients, carers and the general public during times of crisis such as the current global pandemic caused by COVID-19.(7) To get a mental escape from difficult life situations. Just two minute repetitions of simple meditations involving concentrating upon a distant soothing object, a few times in a everyday helped them to be more stable and calm.

Therapeutic techniques of yoga have been reported to be beneficial against the management of acute stress as in posttraumatic stress disorder after tsunami (8) or in chronically stressed people with depression or anxiety (8,9,10). Yoga has already widely been accepted by all as rejuvenating, invigorating and immunity booster way of life. We made them regular perform *anga-sanchalan* i.e. active mobilization of all the joints from metatarsophalangeal joints upwards through ankle, knee, hip via spine and upper limb joints to the cervical spine. This motivated them to get up from the constant lying position in the hospital bed and be active.. Along with physiological benefits it reminded the patient that he was handicapped as a covid patient and was self sufficient for his basic needs. That turned out to be the major psychological advantage for to them to cope up faster.

Guided imagery as a technique in the famous book “*THE POWER OF YOUR SUBCONSCIOUS MIND*” has been elaborated by Joseph Murphy (11). This technique involved guiding one's imagination in a

positive direction, to be repeatedly many times a day and hope for the nature to work upon it and bring that to the reality. We made the patients to imagine the happy scene after discharge from hospital, with their loved ones. This simple thought repeated frequently kept them optimist.

Practice of stillness was recommended for patients who were unable to concentrate for meditation. They were explained how a mind can be made by staying in the present moment. They were directed to shift their worrisome attention, from the past and future to the present moment. This helped the patients to ignore future apprehensions so prevailing in this pandemic, where there was crises and scarcity of medical personnel to medicines.

Progressive muscle relaxation involved the active participation of the patient. He was asked lie down, and in a progressive manner starting distally to proximally, asked to actively contract the major group of muscles isometrically followed by relaxation. This not only maintain the tone of skeletal muscles but also rendered a feeling of well-being.

Conclusions:

To say in a nutshell; all these methods worked priorly on their mental health and give its reflection on the physical status of the patient. Also, throughout the process of explaining and one to one talk with the patient, we realized that they were in a zone where they feel that there is someone present in the covid ward who will carefully listen to all their problems and thoughts and will help them get up with a practical solution to their problems.

This thought aggravated their healing process so tremendously that we came up with the too good effects in this covid crisis and hence enhanced the discharged rates of the hospital.

Also, the understanding of the effects of the covid-19 outbreak on the mental health of various populations are as important as understanding it clinical features, transmission pattern, and the management. Since the transmissibility and duration of critically ill patients with COVID-19 are much higher than that of SARS (12,13), it is reasonable to believe that under the long-term pressure of this epidemic on patients, medical staff and the health care system, there will be a larger population facing various potential pressures in the future, such as the persistence or even worsening of residual symptoms, complications and side effects of treatment, and the negative impact on their quality of life and social role function after returning to society.(14)

Public awareness campaigns focusing on the maintenance of Mental Health in the prevailing situation is urgent and the utmost priority.

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