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Assessing the impact of YouMatter Protocol for Physical and Mental Well-Being (YMPPMW) on Mental Health

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ABSTRACT

Despite great progress and active work in the field today, mental health disorders continue to be a global health issue. On two sides of the equation, however, we've made a lot of progress towards meeting physical and psychological care, which leaves us still deficient in the middle, and patients still trying to glue together their own total wellbeing from scraps. YMPPMW is an integrated solution in the form of physical therapy and evidence based psychological interventions to individuals serving the entire landscape of needs. Mental health aspect of YMPPMW was explored with a focus on the fact YMPPMW uses a unique dual approach to interventions, i.e. physical therapy interventions such as stretching, strengthening and range of motion (ROM) exercises as well as psychotherapy interventions such as cognitive behavioural therapy, vagus nerve stimulation and mindfulness practices.

This research was based on the use of the mixed method design to evaluate the impact of YMPPWM in the mental health outcomes. To assess the parameters of anxiety, depression, and perceived stress, quantitative data collection was carried out using validated psychological scales pre and post intervention period. In addition, qualitative methods permitted for story conveying through the participants, emotional regulation, resilience, as well as general wellness of a participant. The structured intervention was a four week intervention which had thrown progress to the participants parameter and keep monitoring and also provided feedback on the same.

Preliminary results show that people are getting big benefits to their mental health, reporting less symptomatology for anxiety and depression, better emotional regulation, among other things, improved stress management. Participants got more aware of themselves, and they managed to achieve control over their mental health, and even experienced a physical effect, i.e. structure flexibility and muscles discharge. As such, the importance of YMPPMW as a gap bridge of mind and body was signalled as integration of mind and body health as embodied in it.

This study shows that YMPPMW is an all in one mental health care therapy. It is important for this to be extended to examine the extent in which this work is effective over the long term, what support may be needed to sustain this work over time, how scalable and applicable across the diverse population, and to explore additional clinical and non clinical applications that might be identified as it relates to potential utility in advancing mental health or wellness overall.

Keywords: *Mental health, YMPPMW, physical therapy, psychotherapy*

1. INTRODUCTION

Stress, Anxiety and Depression are major global disease burden and they are the three most common diseases worldwide. World Health Organization (2022) has stated that 1/4th of the world's population (basically 8% of total population) suffers from a mental health condition that calls for fitting, reachable, and innovative methods. All of the above disorders are social problem since they certainly affect not only the people who suffer the disorders but also the entire society. Still others will discover that they can indeed be helped through more conventional treatment modalities such as drug and or psychotherapy, yet they do not approach the mind and body as one. Dependent on the individual, depression, anxiety and stress tend to be comorbid, patients might have a combination of symptoms not cured by pharmacological intervention. Pharmacotherapy and psychotherapy have emerged successful in many, however one of the most important links in the two parts of the body and mind is ignored and is a major lacuna in the management (Schuch et al., 2016).

Therefore, the YouMatter Protocol for Physical and Mental Well Being (YMPPMW) was created and shaped to be a holistic way of approaching the physical and psychological treatment. Exercises described by the physical component for stretching

and strengthening to reach the physical fitness and to reduce somatic symptoms of mental disease. The first one includes mindfulness interventions and CBT, while the second one is the nerve stimulation to facilitate mood regulation, stress reduction as well as enhance mental health. According to research, exercise holds an abundant capacity to reduce symptoms related to depression and anxiety (Hofmann et al., 2012); and that psychological therapies are able to increase the ability to cope and manage stress by strengthening these skills (Schuch et al., 2016). When all the three above are used together in this regard, it is referred to as the synergistic approach since all the three are used to treat mental health disorders. Since YMPPMW knows the mind-body relationship and knows how psychological treatment and physical therapy can interact, it prescribes physical therapy like stretching and strengthening as well as other psychological treatments like mindfulness, CBT, and VNS. The part of physical therapy is focused to relieve the physical symptoms of stress and anxiety such as muscle stiffness and fatigue whereas the psychological interventions target to enhance coping skills, stress coping skills and overall mental health. Another number of research prior research too have mentioned that physical activity decreases depression and anxiety signs by improving a chemical balance in the brain and creating feelings of accomplishment.

As an integrated system of mental health care, YMPPMW is a very distinct unified program that incorporates these modalities and several more. Depression Anxiety Stress Scale-21 (DASS-21), standard measure of these symptoms, helped in assessing the intervention. The DASS–21 is a self–anchored scales that is a standard tool used to assess stress, anxiety and depression within and across populations (Lovibond, 1995). The present study made use of both qualitative interviews and quantitative data analysis as data collection tools. The qualitative part of the study throws more light on the participants' experience of YMPPMW, possibilities as well as difficulties. There was quantitative data gathered utilizing pre- and post-intervention surveys, where paired sample t-tests were utilized in determining the changes in the student's stress, anxiety and depression.

Thus, the implications of this research are. It first addresses an important gap in the literature for using the mind–body linkage in the treatment of mental disorder in an integrated manner. The second part relies on a sample of 377 participants and the conclusion was that YMPPMW has usefulness in dealing with mental health symptoms. Third, the research is applied in research methods for both quantitative and qualitative methods to offer deeper understanding of what occurs for the participants on both measurables and on perceptual levels in the program of change. In the context of sparse knowledge on integrative mental health interventions, the research contributes to the understanding of integrative initiatives delivering whole person care in a patient-centric manner.

YMPPMW aims ultimately to transform thinking and delivery of mental health care. It approaches the dual dimensions of mental and physical health, and as a possible way to deal with the complexity related to mental health disorders. The findings of this research indicate that integrative interventions (such as YMPPMW) can be used as powerful ways of enabling individuals under stress, anxiety and depression to maintain their mental well being and quality of life.

2. LITERATURE REVIEW

In the study that was done in 2017 by Probst, M.,et al, pointed on physiotherapy in mental health care in psychiatry. It also brought emphasis on the relevance and worth of physiotherapy in mental health and at the same time brought into focus the concern of physiotherapy education to include mental health. Finally, they determined that physiotherapy in mental health affords observational tools and intervention. Physiotherapy therefore seeks to address physical, psychosomatic aliments and also evaluate outcomes. Furthermore, another aspect is that physiotherapy interventions need specialist mental healthcare professionals.

Farideh Sharififar et al conducted their study in 2017 with the title- "The Effect of Stretching Exercises Education on Mental Health and Learning Strategies." It was done so that we can be able to determine the effect that mental health has on academic progress of students as well as being able to optimise our teaching techniques so as to facilitate learning among the students. They discovered that stretching facilitates learning approaches in a student. The study also found that, physical activity enhances mental health and cognitive performance.

Aaron Kandola, Davy Vancampfort, et al. in 2018 came up with Moving to Beat Anxiety: Epidemiology and Therapeutic Consideration with Physical Activity in Anxiety. The aim of the intervention was to discuss the correlation between physical activity and anxiety. They also postulated that physical activity (PA) alleviates anxiety symptomatology and that improvement in physical health and well-being in anxiety disorders is brought about by PA.

In 2020, Hemmings, L., Soundy, A., et al conducted a study named "Experiences of Physiotherapy in Mental Health: , in their study titled 'Barriers to and facilitators of care: an Interpretative Phenomenological Analysis' they noted the presence of Physiotherapy barriers: lack of rapport, service integration, intrinsic factors.They also revealed that there is need to embrace holistic care for compliance with physiotherapy, with a call for more physiotherapy services in mental health care. The study was mostly aimed at identifying challenges to physiotherapy in mental health practice, as well as improving physiotherapist knowledge on mental health to provide comprehensive patient treatment.

A research work that was done by Saada Elsayed Rady and authors of the work in 2020 have entitled the work- "Effect of Muscle Stretching and Range of Motion Exercises on Sleep Quality and Anxiety among Hemodialysis Patients". It was

primarily designed for estimating the impact of exercise on anxiety, as well as for defining the real usefulness of intradialytic exercise in the case of hemodialysis patients. This study showed that muscle stretches improve sleep quality of the participants with hemodialysis.Anxiety was also significantly decreased in the study group in a very impressive manner, 60 percent of participants of the study group appreciated that they had no issues to do with sleeping. 70 percent of the participants in the study group had a mild anxiety after the given interventional procedures." It was mostly done to measure the changes in anxiety thereby measure the outcome of intradialytic exercises in the haemodialysis patients. Muscle stretching was shown to enhance the quality of sleep in patients who are under hemodialysis treatment. Anxiety reduced in the study group. 60% of the study group denied any sleep problems. 70% of the study group had low anxiety after the intervention. Since the study group had better PSQI score than that of the control group, the authors suggested that anxiety levels decrease with muscle stretching exercises.

In 2021, Laia Maynou et.al also developed "The Association of Physical (in)Activity with Mental Health. Differences between Elder and Younger Populations". It was a Systematic Literature Review paper, where the purpose was to identify the role of physical activity regarding mental health and to evaluate age factors of physical activity, and mental health connection. There were differences by age and the effects were few in number.

In 2021, a study named Levels of Physical Activity and Mental Health in Adolescents in Ireland by Michal Molcho and others was based on the intention to establish relationships between physical activity and mental health and compare them with standard mental health indicators.ation to include mental health. They concluded that physiotherapy in mental health offers observational tools and interventions. Physiotherapy aims to treat physical, psychosomatic problems, and assess effectiveness.

In the future, Carney, R., & Firth continued the study in 2021 to synthesised evidence on exercises for children and adolescents mental health care, and offer planning for future of exercise interventions for CYP mental health. The evidence clearly indicated in the study that exercise had positive impacts on mental health in children and adolescents. They also offered such implementation suggestions for exercise intervention in youth mental health. Finally, prevention strategies and interventions aimed at individualised increases of the level of physical activity was an area of concern.

Furthermore, in 2022, Heywood, S. et al. gave out Physical Therapy and Mental Health: A Scoping Review. The purpose of this study was to increase awareness on the fact that physiotherapy is also a part of mental health care and psychiatry as well as to state the relevance and significance of physiotherapy in the field of mental health, and the fact that the physiotherapy training should contain the information regarding the mental health. The study found that physiotherapy in mental health has given observational tools and intercessions. Also, physiotherapy focuses on residential permanent physical disorders, psychosomatic disorders and evaluate outcomes. The last and final intervention for physiotherapy is the cooperative work with mental health specialists.

In 2022, da Costa, Taline Santos et al has done a study named- "Effects of aerobic and strength training on depression, anxiety, and health self-perception levels during the COVID-19 pandemic". The rationale was to measure the difference in the depression scores of various exercise types and to measure anxiety rates in the aerobic and BT groups. Hypothesis one was proved, which noticed that aerobic and mixed groups had lowered depression level. From these results, non-sports group had the highest depression levels, and the anxiety levels were also highest in the non-sports group. They found out that aerobics type of exercises promotes better mental health among the people.

In 2022, Tanushree Shivaswamy et al did a study with the title "Vagus Nerve Stimulation as a Treatment for Fear and Anxiety in Individuals with Autism Spectrum Disorder". In particular, it was done to investigate VNS for anxiety in individuals with ASD, to assess VNS for depression and epilepsy in ASD and to consider noninvasive VNS options for treating anxiety. They also discovered that vagal stimulation might be effective in lessening the anxiety level in patients with ASD and non-invasive VNS has potential in managing co-morbid conditions. They stated that VNS enhances mood, arousal and social interaction in children with ASD. VNS also appears to have potential to reduce symptoms of depression, including in people with ASD. It was also concluded that the combination of VNS with other therapy leads to a better results as for the treatment of anxiety disorders.

Lastly, in a very recent study conducted in 2024 by Gandhi, R., named- Mental health and physical well being: A correlation, it intended to examine how the health of one influencing the other by showing that mental and physical health conditions are entwined. Thus, the research proved that immune system is suppressed under chronic stress that affects resistance to certain diseases and states that specific individual habits and surrounding conditions affect personal mental and physical conditions in general. That is, the analysis found that there is an inverse relationship between mental or physical health favorable or adverse, respectively.

3. RESEARCH METHODOLOGY

3.1. Research Statement

The impact of physical therapy is quite positive on mental well-being as seen in the past researches. This research intends to know if YMPPMW treatment protocol is better than isolated physical therapy or isolated psychotherapy. It also aims to know if 4 weeks are enough to create an impact on the mental well-being of an individual.

3.2. Research Purpose

The purpose of this research was to look for the effects that play therapy has on the mental health of the participants. Besides, to assess and document any changes in the level of mental health of the client throughout therapy since it will last for four weeks. The aim of this research was thus to conduct an empirical research on whether physical treatment has an impact and in what way on mental health within this period of four weeks.

3.3. Research Design

An integrated approach, where multiple methods are used, were employed. The use of both qualitative and quantitative research methodologies were used to ensure a full understanding of the embodied subject content, which was the purpose of this process.

3.4. Operational Definitions

YMPPMW: YouMatter Protocol for Physical and Mental Well-Being is a treatment protocol which consists of physiotherapy alongside with the vagus nerve stimulation which is used as a pair to treat a patient with any kind of perturbation physically and mentally (Copyrights of YouMatter Protocol for Physical and Mental Well-Being treatment being owned by Dr. Abhishek Tambe, 2025).

Physical Therapy: Physiotherapy or physical therapy, is the process in which the participant is treated through the use of physical movements that is isometrics, strength and activities involving ROM or Range of Motion exercises.

Well Being: In its broadest terms, well-being is understood as having higher level of self-esteem, optimism, and life satisfaction.

Isometrics/ Isometric Exercises: It refers to exercises that call into play certain muscles while no movement is performed at the joint that these muscles are affiliated to.

Strengthening/ Strengthening Exercises: Any exercise or a movement of the muscles beyond the intensity of an average daily activities.

Adulthood: It is the stage in the human life at which physical maturity has been attained and some biological, cognitive, social, personality, and other physiological changes related to aging take place between the ages of 18 and 45 years.

3.5. Hypothesis

Null-

Null Hypothesis (H0): There would be no significant differences in stress pre and post YMPPMW.

Null Hypothesis (H0): There would be no significant differences in anxiety pre and post YMPPMW.

Null Hypothesis (H0): There would be no significant differences in depression pre and post YMPPMW.

Null Hypothesis (H0): There would be no significant differences in stress, anxiety and depression pre and post 4 weeks duration of treatment.

3.6. Variables

Dependent Variable - Stress, Anxiety and Depression i.e. mental well-being

Independent Variable - YMPPMW

3.7. Sample Description

3.7.1. Universe- Adults who are in pain in Pune

3.7.2. Unit- Males and Females in the age range of 18-45

3.7.3. Sample size - The sample population in the areas where research would be conducted is 50,000 considering the prevalence and the sample population age range. So, the ideal sample size for this study would 377 respondents, as calculated on Raosoft.

3.7.4. Sampling - The method of simple random sampling will be used.

3.7.5. Site of research -

YouMatter Wellness Centre, Pashan, Pune.

Absolute Physiocare, Shivajinagar, Pune.

Absolute Physiocare, Camp, Pune.

iPhysio, Koregaon Park, Pune.

3.7.6. Sample Inclusion Criteria

Adults residing in Pune, aged between 18 and 45.

Presence of mental health disturbances in the individuals.

No ongoing medications for the disturbances in the participants.

3.7.7. Sample Exclusion Criteria

People outside of this age range will not be considered for this study.

People who are undergoing medications for the disturbances will not be considered for this study.

People who have been diagnosed with any physical health conditions will not be considered for this study.

3.8. Measurements:

3.8.1. Informed Consent Form

The present research study uses consent form to highlight the informed consent and voluntary participation of people engaged in research. It points out the objective(s) of the study, processes, among other things. The form also helps re-affirm issues such as anonymity and how the participant can quit the study at any one time without being penalized.

However, before participating in the study, every participant is required to sign a consent form that has the researcher's phone number to address all the issues that a participant may wish to raise. They should carefully read the form to comprehend and can ask any question they want. Then participants should exercise their discretion to participate in the study if they understand what is written in the form they are filling. It implies that their participation is voluntary and rejudged unto their willingness to participate and be part of the research process.

3.8.2. Case History Form

Using the case history form, essential data portraying the participant and his/her family set up might be obtained. This information encompasses the participant's parents and previous experiences and anything else that is related in that respect. This abundant information will not only be relevant in understanding the contexts in which the individuals who are facing mental issues are into, but will also provide important background knowledge regarding research.

3.8.3. DAS-21 Questionnaire

Depression Anxiety Stress Scales-21 (DASS-21) is short self-report scales, which quantifies specific dimensions of depression, anxiety and stress. Originally derived from the 42 item DASS, this 21 item version is a viable and effective tool for measuring negative affect when used clinically and in research. Both depression, anxiety, and stress are each captured by seven items so that these three psychological constructs can be comprehensively assessed while not overly long.

The DASS-21 comprises 21 items, each measured on a seven-point Likert scale, ranking from 0, "Did not apply to me at all", to 3: "Applied to me very much or most of the time" and asks about symptoms during the week before the survey. Depression items include hopelessness and anhedonia; anxiety items involve physiological activation and fear; and stress items are the ability to relax, tension, and increase irritability.

Another advantage is sound reliability and validity coefficients of DASS-21 in various samples of population. It was found to be useful across clinical and non-clinical populations, thus can for useful in mental health research. Also, because of its short completion time and simple formatting, it can be advantageous in situations where repeated measurements are needed, or time is limited.

In the present research, the DASS-21 is employed as a pre and post test measure that captures participant's change in mental health after the intervention. It is consistent with the multidimensional orientation of this study as it delivers different though interrelated indices of depression, anxiety and stress. Through the use of the DASS-21, the research guarantees the identification of measures its outcomes based on a standardised and validated questionnaire, and thus strengthens the validity of the study and its compatibility with prior works.

3.9. Procedure

To begin with, the participant was introduced and a rapport was set. On ethical issues, participants were first briefed to ensure they fully understood them before making a consent to join the study voluntarily. Demographic details which were important for the study were then obtained. After the interview, participants were required to fill the DAS-21 Questionnaire. Primarily,

the main aim was to evaluate the participant's mental health specifically in three areas: depression, anxiety and stress. To that end, strictly ethical issues prevail in the process since the ethicality of the study must be assured.

Random sampling was used to give equal chances and boost all the aspects of the research with little distortion. Originally, it was aimed to have a sample size ranging between 500 and 700; however, because of the difficulties in reaching all the participants within the specified population and the specificity of communicating with the participants of the population group, the sample consisted of 377 participants; still, such a number of participants was deemed sufficient to build the strength of the study and increase the range of its application. This research assessed the effect of YMPPMW on the participants' mental health in 4 weeks study period. The direction starting from participant sampling to ethical evaluation and critical appraising was intended to be useful to determine whether YMPPMW can be deemed effective for participants' mental health and if the span of 4 weeks is sufficient to impact the situation.

3.10. Data analysis

Quantitative phase: Quantitative data which was gathered from the respondents was analyzed using Statistical Package for the Social Sciences (SPSS). As soon as the data was entered into the SPSS datasets, basic graphical and numerical summaries whereby the measure of tended towards, dispersion, and relative frequency were computed. These descriptive statistics gave a general profile of the demographic and important variables.

In order to test the correlations of the variables under study here, Pearson correlation analysis was run. This statistical method provided opportunity to determine the nature and the extent of relationship between YMPPMW (YouMatter Protocol for Physical and Mental Well-Being) and mental health in domains of depression, anxiety and stress. The combined use of descriptive statistics and Pearson correlation enabled a clear analysis of the data and a deeper assessment on how YMPPMW affects mental health of people with such problems as depression, anxiety or stress.

Qualitative phase: The participants were then screened for qualitative analysis with the goal of including individuals of different age, gender and stance toward the intervention plan, despite their growing number in the control group In total 12 individuals were selected regarding the fact that this number is enough for further data saturation in the frame of qualitative research while still being easily manageable. For the purpose of analysis of the responses, the prominent and preferred qualitative method was applied which is thematic analysis. Each of the selected individuals was further interviewed by asking them a set of standard questions. Individualised response analysis was carried out depending on their responses in order to fit in the themes and sub themes that had been developed. The qualitative interpretation of the outcomes was done with the help of the data that was gathered in order to determine the effects of YMPPMW.

4. RESULTS AND INTERPRETATION

Quantitative phase-

Introduction

The Depression Anxiety Stress Scales (DASS-21) was used as pre and post intervention measurement for quantitively assessing the YMPPMW's preliminary efficacy for alleviating symptoms of stress, anxiety, and depression. The volunteers who performed the YMPPMW, made up the sample. Results are reviewed descriptively, as well as using inferential tests (paired sample t tests, SPSS) to compare the parameters of mental health.

Methodology

The DASS-21 was used as an instrument: It was a well established and reliable tool designed to measure stress, anxiety, and depression. Symptom severity was calculated at the sub scale level.

377 participants: pre & post intervention questionnaires were submitted. Indicator 1 was inclusion criteria of participants with classification of mild to moderate symptoms of mental health issues at baseline.

Participants were then asked to perform the four week YMPPMW protocol, which involved the participants taking physicals in addition to psychological interventions. The intervention was performed pre-test, and then got the DASS 21 score right after the intervention (post-test).

Comparison of the pre and post–test scores for both sub–scales of intelligence was made using two–tailed paired sample t–tests with SPSS to test the change's statistical significance. Descriptive statistical was considered in knowing the central of tendency and the dispersion of scores.

Results

1. Descriptive Statistics:

Pre-test Scores: Mean scores for the three symptom indices (stress, anxiety, and depression) showed moderate levels of psychosocial symptoms in the sample, with high standard deviations reflecting variability in the severity of the psychosocial

symptoms across respondents.

Post-test Scores: There were significant reductions post intervention (mean scores) across all three sub-scales, indicating improvements in mental health.

Summary of Descriptive Statistics:

Sub-scale	Pre-test mean (SD)	Post-test mean (SD)	t-statistics	p-value
Stress	18.11 (4.73)	14.23 (5.29)	36.87	<0.0001
Anxiety	14.63 (3.85)	10.99 (4.31)	38.82	<0.0001
Depression	16.09 (4.93)	11.62 (5.58)	35.17	<0.0001

2. Inferential Statistics:

Paired sample t-tests showed statistically significant decreases in scores on all three sub-scales ($t(39) = 3.64$, $p < .001$ for Brevity; $t(39) = 9.10$, $p < .001$ for Completeness; $t(39) = 9.08$, $p < .001$ for Depth).

Stress: $t(376) = p < 0.001$

Anxiety: $t(376) = p < 0.001$

Depression: $t(376) = p < 0.001$

Interpretation of Findings

The findings reveal that YMPPMW is 'exerting an enormous influence on stress, anxiety, and depression' for our volunteers. The results for all sub-scales were statistically and clinically significant and large mean differences were confirmed, as stated in the literature as indicators of the successfulness of the intervention. These shifted from mild to moderate levels of symptoms indicating the potential of the program in enabling mental health outcomes.

The major decrease in stress levels show the ability of physical activities such as stretching and mindfulness to calm people down, which was a key focus of YMPPMW.

Decreased anxiety scores are explained by vagus nerve stimulation and CBT techniques, and hence they could assist in dealing with emotional dysregulation.

Holistic approach: Participants experienced overall better emotional feeling as improvements in symptoms of depression indicate that the participant felt better emotionally and had an overall better mood.

5. CONCLUSION

Quantitative data show strong evidence for the impact of YMPPMW on mental health needs. The program encourages well-being as indicated with major DASS 21 reductions for stress, anxiety and depression scores. These results, together with qualitative results, support YMPPMW as an intervention to enhance mental health in a general manner.

T test results

Sub-scale	Mean Difference	t-value	p-value
Stress	5.706	72.398	7.072
Anxiety	6.534	73.745	1.088
Depression	5.884	72.248	1.467

Descriptive stats

	pre-stress	post-stress	pre-anxiety	post-anxiety	pre-depression	post-depression
Count	377	377	377	377	377	377
Mean	18.295	12.589	17.509	10.975	17.588	11.703
STD	4.260	4.635	4.917	5.256	4.736	5.038
Min	3.614	-0.821	1.929	-5.062	3.477	-3.158
25%	15.267	9.017	14.139	7.483	14.398	8.435
50%	18.471	12.625	17.674	10.921	17.390	11.601
75%	21.027	15.692	20.505	14.676	21.036	14.978
Max	35.537	30.426	30.125	24.454	32.826	25.024

Qualitative phase:

The following data emerged, while making sure that there is no said bias, as the qualitative phase progressed:

Themes and sub themes for thematic analysis-

1. Interactions with the YMPPMW Intervention

Initial Perceptions and Motivations: Perceived benefits of participation and expectations at the entry into the program.

Ease and Feasibility: Their experiences on how easy it is or otherwise to practice some of the aspects of the protocol; appreciation or complaint on issues to do with physical and psychological nerve.

Integration of Physical and Psychological Components: How the different modality is being

perceived to be coherent with one another and how they are interrelated.

2. Physical and Emotional Impact

Changes in Physical Well-being: Reported changes about feeling looser, muscles being less tense or feeling more energetic.

Reduction in Mental Health Symptoms: Feelings of anxiety, depression or stressed when admitted, when diagnosed with the disease, when receiving treatment or when on follow-up.

Emotional Resilience and Stability: Personal contemplations on increased efficiency in combating stress and related feelings.

3. Coping Styles and Individual Change

Adopted Practices: New ways of thinking and behaviour that have emerged during the program (including mindfulness, stretching, and CBT strategies).

Sustainability of Changes: Continuation of the same practices long after the intervention has been carried out.

Self-Discovery and Growth: Changes of perspective and personal developments carried throughout the program.

4. Challenges and Barriers

Program-Specific Difficulties: Problems with the physical exercises, with stimulating the vagus nerve or with the psychological training.

External Constraints: Shifting of time, motivation, and the environment determining compliance.

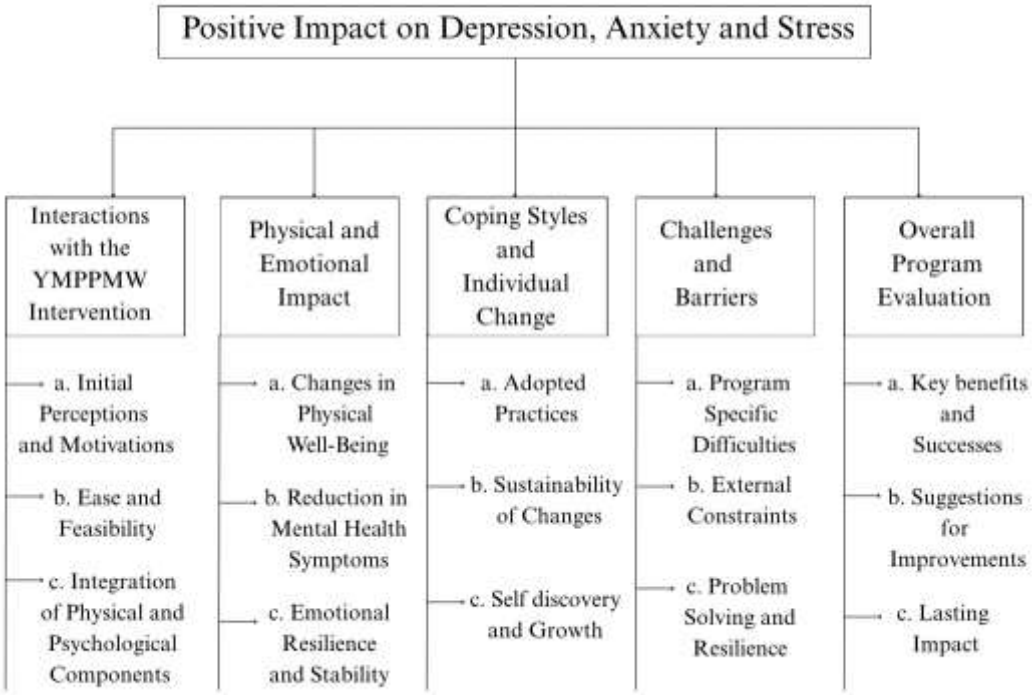
Problem-Solving and Resilience: How the barriers stated above were addressed by participants.

5. Overall Program Evaluation

Key Benefits and Successes: Details of how these aspects have been empowering and/or most significant to YMPPMW participants.

Suggestions for Improvement: Some suggestions as regards how the program could further be improved.

Lasting Impact: The participants' impressions of whether there has been a permanent positive change in their mental and physical wellbeing caused by YMPPMW.



Interpretation

1. Interactions with the YMPPMW Intervention

Initial Perceptions and Motivations:

However, the other differences in the respondents' expectation before enrolling in YMPPMW motivated the study to compare the motivation and expectation among the participants. For some, some desired help for ongoing mental health issues such as anxiety, stress or mood, while the other was more tangible issues like muscle tension and spasm. Majority of the participants stated that they appreciated the simultaneous mental and physical relation of this therapy, and indicated the common seeking for a long lasting non pharmacological treatment. As a participant said a verbatim- *'It's incredible to realize that both, my mind and body can be treated simultaneously'*. Some expressed a little scepticism about the program's effectiveness but their willingness to work with it indicates the necessity of the restoration of a full spectrum program.

Ease and Feasibility:

They praised the compactness of the stretching exercises and strength exercises, so that it makes sense to implement them in the schedule of everyday life. They made reference to practicality and easy access to them so that the participants could practice them often. *"It is comforting to know that I can do this (the protocol) anywhere and any time I want."* one participant said. On the other hand, elements within the mental components such as mindfulness and vagal nerve stimulation was a bit complex for some individuals since they weren't so used to it or; they easily lost track of what they were supposed to do. These practices were oriented to by the participants and they learned that these things would be much easier to manage with guidance.

Integration of Physical and Psychological Components:

The main appreciation of YMPPMW was to combine the physical and the psychological aspects effectively throughout the study. Respondents reported that movements assisted in generating a state of mental relaxation to focus on practicing mindfulness and CBT. A verbatim mentioned, *"I never thought that such therapies can be undertaken at the same time."*

Through this condition of positive integration between component parts, the physical and the mental were characterized by reciprocal properties, and around these relationships a holistic sense was formed.

2. Physical and Emotional Impact

Changes in Physical Well-being:

References made were to terms such as release of tension in muscles, flexibility, vitality, but the most citations mentioned physical well being. According to general physical matter, the participants reported having better feeling of comfort and thus was able to accomplish the daily tasks with confidence.

Reduction in Mental Health Symptoms:

Right down to the cellular level, they found, they established that the program had a positive effect on mental health. People said that they felt less anxiety, fewer threatening thoughts, all in all feeling much more at ease. “This does something that does not come naturally to a person: I can physically feel the anxiety leaving my body when I do these exercises,” a participant said. An area that also enhanced was stress and the ability to deal with it, and the emotional trigger, many saying they felt better prepared to face difficult situations.

Emotional Resilience and Stability:

Over and over, it was a promise of an increased feeling of ‘emotional hardiness’. Participants also felt better organised and less reactive in terms of their emotional state. According to one of the boys (‘A recorded verbatim’), ‘I feel much stronger physically as well as mentally now.’ Never anything so good about mental strength.” This showed that the new resilience was useful more in changing the workers’ interpersonal relations and stressful situations.

3. Coping Styles and Individual Change

Adopted Practices:

The participants that identified and implemented specific strategies mentioned doing some breathing, doing some exercises and stretching etc. as well as stimulating the vagus nerves. These tools were frequently included in the daily practice and turned out to be efficient ways of coping with stress as well as efficient instruments for sorting out the information in a person’s thought. It is so good and it makes me feel as if I can do so much at so little that I can ask so much from my bag which I have with me whenever I want and wherever I want to.” These practices were prototyping too hence participants could use them however they pleases as per their availabilities against time.

Sustainability of Changes:

During the program, participants recognised their ability to sustain changes and thereby achieve positive changes in the required behavioural change. “I believe that I can stay committed to it since it’s feasible to do, at least for me.” they said. The explanation why people could continue to practice these practices despite long term positive influences on mental and physical well being is found in the effectiveness and utility of these practices.

Self-Discovery and Growth:

There was a lot of personal development that the intervention fostered, and a specific area was about the self. The interviewees spoke in terms of new insights into things, having developed stress trigger identification, or issues to do with emotions or management strategies. ‘I found here that I’ve found myself doing this treatment,’ said a participant. I’m a great deal more self aware then I was before.” The process of self realisation causes for a behavioural change and they have a positive attitude towards themselves.

4. Challenges and Barriers

Program-Specific Difficulties:

Not all elements of the program were easy at first: The intensity of the emotions during CBT or distractibility during the meditation. ‘First of all, it was not so nice to feel so much all at once, especially such intensively. But just a couple of the participants indicated that they are embarrassed or are not sure how or where to emit the vagus nerve effectively.

External Constraints:

But there were things such as time pressure, work or family, business demands that at times curtailed their interactions with the program a bit. The verbatim is thus a recorded: “I have a lot back home and that makes it hard for me to do all at once.” Well understood barriers to practice like these turned out to be external to the venture.

Problem-Solving and Resilience:

Some level of coping and flexibility in dealing with the challenges was demonstrated by all the participants. Among other tactics that they suggested, there were introducing short practices, fixing a time for mindfulness and seeking help to overcome

possible logistical issues. ”It would be much easier to do if it is divided as shorter sessions while focusing on our other responsibilities.” He also added. The only way they could show their commitment to wellness was through trying to solve these problems.

5. Overall Program Evaluation

Key Benefits and Successes:

It was said the program was holistic in design and in delivery and that of clear benefits. Participants across all groups reported ongoing improvements in terms of physical and mental health as well as positive changes in physical and mental well being with the intervention described as empowering and transformative. That being said, it was a strength that it drew in various parts together in order to make the experience complete and actually useful.

Suggestions for Improvement:

The participants provided well intended feedback such as shorter mindfulness sessions for people who have scant time, or additional guidance for courses such as vagus nerve stimulation. The ideas played on the necessity of a program that would suit the requirements of a disparate community.

Lasting Impact:

Participants generally had a long lasting positive experience with the intervention, and many claimed important and long lasting shifts of their well being. ‘I didn’t realise this would last this long, but a month down the line I feel better every day.’ Said a participant. The ways of using the YMPPMW tools and practices were perceived as value resources to use for keeping physically and mentally healthy long after the YMPPMW was over.

6. DISCUSSION

Strong support is offered in the present study in favor of the YMPPMW in contributing to mental health outcomes. The research showed through a mixed-methods approach that the support provided did have significant quantitative impacts (as measured by the DASS-21 scale) with regard to symptoms of stress, anxiety and depression, and qualitative feedback from participants. These results demonstrate the importance of integrative mind-body treatment interventions consistent with broader suggestions for the use of integrative whole person approaches in mental health care (Sharma et al., 2021).

Participants described all aspects of the YMPPMW as transformational and as incorporating physical exercises such as stretching and strengthening, and psychological strategies such as mindfulness, cognitive behavioral techniques, and natural vagus nerve stimulation like through breathwork. Both aspects of this research focus are consistent with the biopsychosocial health model, i.e. the interaction of biological, psychological and social factors (Gureje et al., 2020). In addition, the target of the program, vagus nerve stimulation, is in line with the polyvagal theory that establishes a connection between parasympathetic activity and emotional regulation, as well as psychological resilience (Porges, 2021).

Also, YMPPMW physical components were found to be decreasing muscular tension and inducing relaxation which in their turn seemed to increase emotional well being. This is in keeping with the existing findings that physical movement (even together with mindfulness) can alleviate anxiety and depression symptoms (Cramer et al., 2016; Rodríguez-Blanco et al., 2017). At the same time, participants increased their awareness of CBT and mindfulness techniques to question or challenge negative thought patterns and behavior patterns that are based on the scientific evidence that these approaches can reduce emotional distress (Goldberg et al., 2018).

A very unique and an innovative part was that YMPPMW utilized natural vagus nerve stimulation. Participants reported calming experiences and improved resilience probably caused by the protocol’s stimulation of the parasympathetic nervous system (Kok & Fredrickson, 2015; Steffen et al., 2017).

However, some obstacles to implementation were found. A few participants experienced trouble with mindfulness practice because it was unfamiliar or because of anxious arousal during the first segments. Other mindfulness based interventions have also shown similar barriers in terms of the inability to engage meaningfully in such interventions for individuals with high baseline distress or no prior exposure (Baer et al., 2019). Another practical constraint is the time limitation and environmental contexts (e.g., when one’s schedule is demanding and home environment is not supportive).

The point to be made is that there is a requirement for adaptive and modular program structures. This concept could make healthcare modules shorter, better guided, and more flexible as to scheduling, and this might increase accessibility and adherence. The use of digital mental health research may support personalizing the intervention based on individual readiness or lifestyle in order to promote more consistent participation and outcomes (Naslund, Williams, Silverman, Jenson, 2020).

Long term, as important however, participants were shown to have reflected lasting behavioral changes (use of mindfulness, stretching, cognitive re-framing, etc.) even after the formal intervention had ended. This continued interaction indicates that the protocol promotes self efficacy, one of the important elements for long term psychological resilience (Kalisch et al.,

2017). YMPPMW's potential as a treatment protocol as well as a preventive intervention is suggested through participants' internalization of skills and engagement in proactive coping.

This has important clinical implications based on these findings. YMPPMW seems perfect suited for people with mild to moderate symptoms and for people who may be hesitant with traditional mental health services. By being noninvasive and integrative, it can be broadly applicable and implementable across disciplines as many have called for lowintensity, scalable mental health solutions (Holmes et al., 2020).

Nonetheless, the study has its limitations. The sample was also mainly composed of people with mild to moderate mental health symptoms, preventing universality to more serious mental health issues. Moreover, the understanding of the long term efficacy of the protocol is not possible due to short term follow up also. Moreover, the use of the self reported measures may result in a social desirability bias.

Future research should include a more diverse sample also to include a wider rage of severity of the symptoms. The effectiveness of YMPPMW needs to be evaluated in longitudinal studies in terms of its durability. Moreover, it can be further possible to incorporate technology-based delivery systems, like, mobile apps or online platform that can increase accessibility and user experience for those who face logistical problems (Firth et al., 2019).

In conclusion, the current findings affirm the potential of YMPPMW as a holistic, self-empowering, and sustainable intervention. The program aims to target both physical and the psychological domain of well being while soothing aspects thereof but also facilitating long term proactive change. Refinements can be made in applying the YMPPMW as a globally relevant tool to promote mental wellness and resilience.

7. CONCLUSION

In the near future, the promising and innovative yet integrative framework of YouMatter Protocol for Physical and Mental Well-Being (YMPPMW) will try to address the problems in the mental health. The proof of this protocol was provided by the substantial improvement of mental health outcomes as found through quantitative and qualitative outcomes. First, the protocol was able to essentially remove psychological distress, extremely reducing stress, anxiety, and depression, evidenced by the DASS 21 scale. Participants provided qualitative insight which enrich the delivery of multifaceted benefits to participants by enabling participants to develop enhanced emotional resilience, physical relaxation, and making use of sustainability conscious mechanisms to cope with the stress.

Indeed, YMPPMW is unique in terms of its integrative design involving the association of physical therapy, psychological interventions, and vagus nerve stimulation and it's what makes the program successful. A multi dimensional approach is taken in this but following the tenants of the Biopsychosocial scheme and Polyvagal theory, the psychosocial will interplay with physical and emotional components in relation to mental disorder. Mindfulness, CBT, and vagus nerve stimulation assisted people to manage their emotions and relaxation of the stress, while the exercise of stretching and strengthening helped people to be more flexible and thus in better physical condition. Together these components address mental health barriers from all angles and provide our clients respite from their symptoms, and from their day to day experience of a generally diminished quality of life.

Some challenges are raised and the findings are overwhelmingly positive. Barriers to fully participate prevented some of the participants, like time constraints, being unfamiliar with few of the practices and external factor such as environmental distracters. Given these limitations, there is thus a higher need for the flexibility in the design of the program. Because many of these issues can be addressed and access improved with the provision of more tailored interventions, shorter sessions of mindfulness, and via technology driven tools e.g. mobile apps. Such adaptations could enable YMPPMW to expand its reach to different persons among wide spectrum of needs and circumstances and the solution would become exceedingly inclusive and applicable to a much larger audience.

YMPPMW is much more than a collection of participants. It is a cost effective intervention which has potential integration within mainstream mental health care and which is non invasive. YMPPMW also relieves but also provides people some preventive strategies as well as self management tools to prevent from recurrence. This approach can lighten the traditional healthcare systems and make a more sustainable and accessible form of mental health care accessible to larger populations. It places emphasis on long term behaviour change and resistance building, therefore, it is a valuable tool as a treatment and prevention paradigm.

Most of the results are positive and just a few issues are highlighted. However participants were able to only not fully participate due to barriers such as time constraint, unfamiliarity on some of the practices and some external factors such as environment distracters. Therefore, program design needs to be more flexible to overcome the limitations. Overcoming those barriers in such situations will require shorter sessions, modified interventions and/or technology driven interventions, such as using mobile applications. Such adaptations could convert YMPPMW to provide services to much more viewers located in different circumstances and necessitates, as well as expanding the horizons of YMPPMW from a more dietary position.

YMPPMW ripples more than anything else through one small act of kindness. Such a feasible and low cost intervention could provide an integrated programming in the normal mental health services. YMPPMW not only helps in relief, but protects recurrence by giving some self management tools and plan preventative strategies to the people. After that, a larger portion of the population would have access to mental health care, alleviating the pressure on the conventional healthcare system, and what's more, would make mental health care more sustainable. However, it is not a process that breaks down as a treatment and prevention paradigm, as it's a very useful tool to implement and concentrate plenty of attention on build long term behaviour change and resistance.

Limitations

This study shows that YouMatter Protocol for Physical and Mental Well-Being (YMPPMW) is indeed effective, however, some limitations to the study have to be taken into account when interpreting the results.

1. Sample Characteristics:

These results, though, are hard to generalize to people who are more severely ill because the sample was limited to people who were only mild to moderately ill. Its homogeneity of population limited wider understanding of outcomes, in terms of how age, gender or socioeconomic status impacts these.

2. Self-Reported Measures:

Information was gathered from the self-reports of the DASS-21 questionnaire and qualitative interviews which are vulnerable to bias of social desirability and recall bias.

3. Short Follow-Up Period:

Therefore, no conclusions can be drawn about the long term benefit of YMPPMW based on short term outcomes from this study.

4. Lack of a Control Group:

Minus of a control group prevents definitively saying that improvements were due to YMPPMW alone; the used natural history of disease is minimal context and extraneous effect and placebo type improvements can never be completely excluded.

5. Small Qualitative Sample Size

12 participants were used in the qualitative phase, whereas the sample for the quantitative phase was 377, the number was potentially wide ranging.

Future Suggestions

Based on the findings, the following recommendations are made for further improvement of the YouMatter Protocol for Physical and Mental Well Being (YMPPMW), both in terms of the reach as well as the receptiveness.

1. Further research could likewise involve other demographic groups and persons with severe mental health conditions to expand generalizations.

2. Longitudinal studies about the sustainability of YMPPMW's advantages and the factors related with long lasting improvements in mental health will be required.

3. Future research should include control groups in future randomized controlled studies in order to control for other factors which have an impact on the outcome and in order to be able to more easily deduce causality, and the specific effects of the intervention.

4. Although digital resources are not currently a focus of YMPPMW, it could be developed to be fully accessible through the utilisation of smartphone applications, online modules, etc., which would broaden its reach from those living in a resource limited or rural area.

5. Customising certain elements of YMPPMW as per individual participant's need and preferences may be a factor for improving effectiveness and adherence.

6. Research for identifying Barriers: This research has to identify the Barriers to the Compliance, for example, unreliability in time and unfamiliarity to techniques and ultimately develop the strategies to accommodate these, for instance, protocols simpler, abbreviated sessions.

7. Mechanism of Action: Future work should also be conducted to explore the efficacy of the program represented by neurobiological mechanisms including vagus nerve stimulation or the act of mindfulness itself.

8. Presently, Integration into Healthcare: Pilot studies have been conducted in clinical and community settings as well as to

examine the feasibility and cost of adopting YMPPMW as part of standard of care mental health care.

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