

Developing a Holistic Inpatient Wellness Program (Mesra) in Mental Health Care Center: A Study in Hospital Mesra Bukit Padang

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Abstract

Introduction: Metabolic syndrome and co-morbid physical health conditions are highly prevalent in people with a mental illness. In Hospital Mesra Bukit Padang, it is reported that there's increasing pattern at health risk a significant level (Anthropometric measures and Lipid profile test). Methods. Module for Exercise, Spiritual activities, Responsible eating and Active lifestyle – MESRA) was implemented to determine the changes in anthropometric measures, clinical health markers, and quality of life (QOL) among psychotic illness patients. Result. Those undergo Me.SRA program shown decreasing patterns across the means of some dependent variables (Body fat percentage, waist and hip circumference) from baseline to Month 3 and 12. There were also increasing pattern in EQ-5D-5L from baseline to month 3. Conclusion. In conclusion, the MESRA module has significantly improved the Quality of Life, anthropometric measurements, and biochemical parameters of psychiatric inpatients. These findings highlight the value of a multidisciplinary approach in mental health care.

Keywords: Me.SRA, Wellness, EQ-5D-5L, Psychiatric, Inpatients

INTRODUCTION

In the modern era, psychotic illnesses have been recognized as one of the uprising concerns and issues among countries. For a developing country such as Malaysia, psychotic illness can be an economic and health burden as it causes major productivity loss (Teoh *et al*, 2017). People with schizophrenia have higher morbidity and mortality rates associated with cardiovascular disease and diabetes and some of this excess has been associated with increased prevalence of excess adiposity (Sharpe *et al*, 2008). Obesity among patients with schizophrenia is a growing concern because being overweight is a major risk factor for metabolic syndrome, cardiovascular diseases, and premature death (Heishanen, 2003). Furthermore, among those diagnosed with Schizophrenia, obesity is often associated with lower self-esteem, poorer psychosocial adaptation (De Hert *et. al*, 2006), reduced quality of life (Allison, 2003), non- compliance with antipsychotic medication regime (Weiden *et. al*, 2003) and increased medication cost (Chwastiak *et. al*, 2009).

In previous studies that have included obesity as parameter in patients with schizophrenia, Body Mass index (BMI) was used as a measurement parameter. However, it is also important to break down the body composition into further details as the excess accumulation of the underlying body fat could also be the contributing factors to health risks associated with obesity (Bigaard J *et al*, 2004). In addition, Sugawara *et al*. (2012) pointed that BMI value can be misleading regarding the level of adiposity of an individual despite being correlated highly with an individual's fat mass. Hence, this is a parameter that should be included in measuring obesity. An increasing number of studies focused on improving lifestyle has also showed positive effects on physical health by addressing the lack of physical activity and/or poor dietary habits (Deenik *et al.*, 2018; Rosenbaum *et al.*, 2014; Teasdale *et al.*, 2017; Vera *et al*, 2015). Additionally, improvements in global

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functioning and quality of life (QoL) have been found useful in combating the metabolic risk factors among patients (Dauwan et al., 2016; Rosenbaum et al, 2014). These findings are especially relevant for long-term hospitalized patients, given the negative associations between illness duration and physical activity, physical health and QoL (Mitchell et al., 2013; Vancampfort, Firth, et al, 2017; Vancampfort et al, 2015; Vancampfort et al, 2013), combined with their high level of sedentary behaviour (Kruisdijk et al., 2017; Stubbs et al., 2017).

Over the years, several studies have shifted their focuses on measuring both anthropometric measurement and QoL among psychotic illness patients through the wellness intervention program. However, some of these programs have achieved non-effective approach in improving either one of the parameters mentioned. For instance, Provencher et al (2016) evaluated a wellness program developed in Canada where a total of 47 patients took part and were separated into two groups: control and experimental groups. Assessment was taken before the program, at the end of 12-week and at a 3-months follow up. Anthropometric (BMI, body weight and waist circumference) and clinical variables (QoL) were measured and recorded accordingly. From their findings, they found that there was no significant difference between the two groups. There was greater improvement on anthropometric variables in experimental group and small changes in QoL. Unfortunately, these changes are not acknowledged due to the small sample size. Similarly, Eldrige, Drawber and Gray (2011) also found that well-being sessions have no significant impact on patients' QoL. Their well-being program was held among 727 patients with severe mental illness (SMI). The session was a four-session distributed throughout a one-year program. Before the program, patients' anthropometric variable as well as clinical variable (Lifestyle, self-esteem and QoL) were measured. The team found that there was a categorical improvement of BMI (overweight to normal) in 12% of participants. However, there were no effect from the wellness program on patients' lifestyle, self-esteem and quality of life. Recently, an integrated lifestyle approach was applied in a selected inpatient group alongside with other Hospital Mesra Bukit Padang (HMBP) staff for 6 weeks. According to the report from wellness program report (September 2020), this approach showed a significantly improved physical activity and weight within 6 weeks, this program has been done since 2010 and consistently shown an improvement among both patients and staff. However, a wellness program which based on multidisciplinary approach has not been implemented within a group of inpatients in HMBP with a focus on decreasing sedentary behavior, increasing physical activity and improving patients' quality of life as well as their physical health, within the context of daily treatment. More patient-oriented factors, such as the psychological functioning and QoL, are also less studied, although such outcomes are often more relevant for patients' subjective well-being. These findings are expected to be very promising for inpatients in HMBP and act as evidence of the effect of physical health benefits of lifestyle interventions on people with mental illness. To explore this matter, this study aimed to analyze the changes in the patients' physical health, perceived psychosocial functioning and QoL after the wellness program inpatients suggested and to explore the impact of this program in other aspects as well.

Rationale

There is a growing number of studies focusing on the improvement of lifestyle among the psychotic illnesses' patients. However, the majority of these studies focused on outpatients. Studies on how to improve the lifestyle of inpatients with severe mental illness, notably over the longer term, are still lacking (Levitt et al., 2017; Stanton & Happell, 2014; Vancampfort et al., 2015). Inpatient care is characterized by patients suffering from various mental disorders, and the medical paradigm predominates among the treatment strategies offered to these patients (Lilja & Hellze'n, 2008; Lindgren, et al., 2011; Johansson Skarsater, & Danielsson, 2009; Walsh & Boyle, 2009). Research about everyday life in psychiatric inpatient care is also sparse, which is unfortunate because providing appropriate inpatient care for people with mental ill- health has been shown to be a complex endeavor. Furthermore, many essential factors have also been discussed in considering establishing an optimal wellness program as well as effective. One of the factors is boredom. The experience of boredom has been shown to have the potential to lead to behaviors that both undermine treatment and provide risks to service users. For example, the National Audit of Violence (2003–2005) Final Report found that one of the triggers for violent behavior was frustration at the lack of activities available (Royal College of Psychiatrists, 2006). Boredom has also been found to be a factor associated with patients absconding from psychiatric wards (Bowers et al., 1999). Apart from violent behavior, previous studies also found correlation between boredom

and depression which affect one's quality of life (QoL) (Ahmed, 1990; Farmer & Sundberg, 1986; Tolor, 1989; Vodanovich et al, 1991). While other studies indicate the negative changes of physical health due to boredom such as increased eating (Abramson & Stinson, 1977) and excessive cigarette smoking (Ferguson, 1973).

Boredom is related to a range of factors including a lack of external stimulation (Csikszentmihalyi, 2000; Hill & Perkins, 1985; Mikulas & Vodanovich, 1993; Zuckerman, Eysenck, & Eysenck, 1978), a lack of internal or cognitive abilities to keep oneself entertained (Csikszentmihalyi, 2000), an affective component (Ahmed, 1990; Farmer & Sundberg, 1986; Hill and Perkins, 1985; Rupp & Vodanovich, 1997; Tolor, 1989; Vodanovich et al., 1991), the presence of unmet needs or constraints on the individual (Hill & Perkins, 1985; Leong & Schneller, 1993) and attribution or meaning for the individual (Barbalett, 1999; Conrad, 1999; Hill & Perkins, 1985; Leong & Schneller, 1993; Mikulas & Vodanovich, 1993). Hence, a wellness program should be both supportive, engaging and safe. According to Johansson and the others (2009), a positive ward atmosphere contributed to a positive change in patients' behavior and willpower to live. Research by Borge and Fagermoen (2008) stated that an environment with positive energy significantly affect patients' attitude and their physical health. In addition, Appleby et. al (2018) also revealed that spiritual care in a wellness program could mitigate the patients' boredom and simultaneously allowing them to regain inner peace. Hence, these findings hinting at promising and positive outcomes of a multidisciplinary approach in a wellness program.

In Malaysia itself, there are several limited studies to conclude on the outcome or the effectiveness of the lifestyle intervention program among inpatient psychiatric ward. Despite being able to provide some promising outcomes, Kamath (2016) stated lack of awareness and resources restraints as the challenges in applying the holistic approach in health care delivery. Since the inpatients numbers in Hospital Mesra Bukit Padang is quite small, this may come as a challenge in establishing the wellness program. As for lack of awareness, cooperation from the staff in informing and obtaining consent from the patients regarding the program is both essential and critical to the study. As the health care processes evolving in Malaysia, more studies concerning the intervention of health improvement among inpatients are required and needed as these data or findings could increase the awareness of mental illness among Malaysian.

Objectives

The general objective of this study is to assess the impact of Wellness Program (MeSRA) to inpatient psychiatric ward patients in Hospital Mesra Bukit Padang. The following are the specific objectives of the study:

To compare quality of life of patient with psychotic illness undergo MESRA program based multidisciplinary approach at baseline, month 3 and at month 12 with "Treatment as usual (TAU)" populations.

To compare anthropometric measurement (body weight, body composition, waist circumferences) of patients with psychotic illness undergo MESRA program based multidisciplinary approach at baseline, month 3 and at month 12 with "Treatment as usual (TAU)" populations.

To compare biochemical parameter (Lipid profiles and Fasting Blood sugar) of patients with psychotic illness undergo MESRA program based multidisciplinary approach at baseline, month 3 and at month 12 with "Treatment as usual (TAU)" populations.

MATERIALS AND METHOD

In this research, there are four types of data that are collected: Quality of life (QOL) data, anthropometric data, biochemical data and aerobic fitness capacity data. The QOL data is collected via a questionnaire EuroQol-5 Dimension where both have been scientifically proven by previous researchers as tools that are effective in assessing quality of life among samples. Before the wellness program, the researcher interviewed the subjects on their expectation towards the outcome of the program that is related to their health. The program collected QOL data, the anthropometric data biochemical data and aerobic fitness capacity data prior to the program, on the third month and on the twelfth month. This study was conducted between 2023 and 2024 in terms of recruitment of patients at the Hospital Mesra Bukit Padang, Kota Kinabalu, Sabah, Malaysia. This quasi-experimental study was conducted involving 42 patients (42 Males). This study is using

purposive sampling which involve 3 wards (Forensic psychiatry and sub-acute psychiatric ward). The patients were aged between 18 and 45 years old diagnosed with psychotic illness based on the DSM-V diagnostic criteria. Patient must be able to give consent or having the psychiatrist also in agreement that the patient has the capacity to give consent. Recruited patients are mostly long stay patient whom have never undergone any lifestyle intervention program. Those who are bed bound, not able to give consent or treating team not agree to the patient participation due to medical problem will not be included. During recruiting phase, a ten (10) minutes interview is performed between the individual patient and the researcher. This is also to assess their understanding and eagerness towards the upcoming MeSRA program, the consent included the use of data already collected as part of normal clinical practice. Module for Exercise, Spiritual activities, Responsible eating and Active lifestyle – MESRA) was established by dietitian and collaborated with the allied health (physiotherapist, occupational therapist, religious volunteer (Petugas Ibadah), nurses, assistant medical officer and supervised by Medical Officer and Psychiatrist) and implemented to determine the changes in anthropometric measures, clinical health markers, and quality of life among psychotic illness patients. MeSRA program provided weekly group nutrition counselling with Medical Nutrition Therapy (group) based. Other approach includes psychoeducation, quiz, games, group exercise, spiritual activity for the period of 12 weeks. As for Treatment as usual (TAU), this will be control group which means only receive single referral (not multidisciplinary approach, most of time pharmacotherapy approach). In this study, 21 patients in forensic psychiatry ward (Ward 7 and 8) will undergo MeSRA program whereas 21 patients in Ward 2 (Sub-acute psychiatric ward) will undergo treatment as usual (TAU). The data collection was approved by the National Medical Research Registry (NMRR ID-23-00831-JUC (IIR)) and Medical Research Ethics Committee (MREC) and all patients provided written informed consent before participating in this study. Opinion from the professional such as Psychiatrist and medical officer will take into account to determine the ability of patient to give consent. The data will only be taken after consent given by the patient. Information on patients' demographic data and current medications were obtained from their medical records. The researcher obtains access for patients' medical records as a health professional in the hospital. Patients' height was determined without shoes on a portable stadiometer with the Frankfort plane parallel to the floor according to National Health and Nutrition Examination Survey (NHANES) The head is in the Frankfort plane when the horizontal line from the ear canal to the lower border of the orbit of the eye is parallel to the floor and perpendicular to the vertical backboard. Body fat percentage was measured using the Body Fat Analyzer OMRON HBF 375 Weight Scale with correction for light indoor clothing. Fasting Lipid Profile (Total Cholesterol, triglycerides, high density lipoprotein and low-density lipoprotein) and fasting blood glucose of every patient in this study were obtained. The aerobic fitness capacity is conducted by the physiotherapist team using 6 minutes walking test. All measurements mentioned were taken upon admission (Initial), month 3 and month 12. To minimize the bias of the study, patients will not be informed on the expected outcome of the program he undergone and which group he will be in. furthermore, the researcher whom conducted the program will not be the one collecting the outcome data. Lastly, the researcher will not be exposed which ward is the control group

To determine the association between the variables, several analyses and tests have been performed, the following are the techniques being used:

There is no pilot study being involved in this study. Since the program requires many resources, time and talent, there is no pilot study.

Descriptive statistical analyses will be used to describe the demographic and clinical variables. Data will be presented as means \pm SD.

To compare the main demographic and clinical characteristics among patients ANOVA will used to analyses continuous variables. Repeated measures ANOVA will be used to measure longitudinal differences between groups.

The data were analyzed using the Statistics-PC-software for Windows, Version 27.0

RESULTS

Table 1.0 below shows demographic profile of respondent (control and intervention group). Result shows that all respondents who participate in this study are male (100%). In control group for respondent age, 14 (66.7%) respondents in this study aged between 34 – 45 years old. 6 respondents (28.6%) are aged 21 – 33 years old and only one respondent (4.8%) who age between 46 – 60 years old. In intervention group for respondent age, 5 (23.8%) respondents in this study aged between 21 – 33 years old. 8 respondents (38.1%) are aged 34 – 45 years old and 46 – 60 years old.

Table 1.0 Socio-demographic characteristics of subjects (N=21)

Table 1.0: Demographic Profile of Respondent (control group)

Variable	Frequency (n)	Percent (%)
Gender		
Male	21	100
Female	-	-
Age		
21 – 33 years old	6	28.6
34 – 45 years old	14	66.7
46 – 60 years old	1	4.8

Table 1.1 Socio-demographic characteristics of subjects (N=21)

Table 1.1: Demographic Profile of Respondent (MeSRA group)

Variable	Frequency (n)	Percent (%)
Gender		
Male	21	100
Female	-	-
Age		
21 – 33 years old	5	23.8
34 – 45 years old	8	38.1
46 – 60 years old	8	38.1

The means for control group and MeSRA group initial body weight were 75.9 ± 10.99 kg and 74.4 ± 14.0 kg respectively. For initial body fat, the means recorded for control group and MeSRA group were $36.7 \pm 3.95\%$ and $31.0 \pm 6.22\%$ respectively while the results also revealed that the mean and standard deviation for initial hip circumference were 97.2 ± 4.88 cm and 97.7 ± 6.59 cm respectively. The mean and standard deviation for waist circumference were 91.8 ± 4.70 cm and 92.1 ± 7.80 cm.

For initial Lipid profile test, the means recorded (triglycerides) for control group and MeSRA group were 1.88 ± 0.57 mmol/l and 1.76 ± 0.76 mmol/l respectively while for Total Cholesterol the mean and standard deviation were 4.89 ± 0.65 mmol/l and 4.65 ± 0.98 mmol/l. The mean and standard deviation for LDL Cholesterol were 3.26 ± 0.78 mmol/l and 2.78 ± 0.96 mmol/l respectively. As for HDL Cholesterol, the mean and standard deviation for HDL Cholesterol were 1.04 ± 0.22 mmol/l and 1.02 ± 0.22 mmol/l respectively. The means for control group and MeSRA group initial fasting blood glucose were 5.04 ± 0.63 mmol/l and 4.92 ± 0.66 mmol/l respectively

Table 2,3,4 and 5 summarized the mean and standard deviation for all the variables at baseline, Month 3 and Month 12 among those patients in control group and patients undergo MeSRA program (Intervention group). Observed that there's are significant change (indicate by *P value less than <0.01). The table also reported that in control group, there were increasing patterns across the means of the dependent variables, except for HDL, Aerobic Fitness Capacity (6-meter walking test) and EQ-5D-5L (Quality of life data score) which displayed decreasing pattern from baseline to Month 3 and to Month 12.

The table reported that in MeSRA group, there were decreasing patterns across the means of some dependent

variables (Body fat percentage, waist circumference and hip circumference) from baseline to Month 3 and to Month 12. There were also increasing pattern in EQ-5D-5L (Quality of life data score) from baseline to month 3, however. The score was significantly decrease from Month 3 to Month 12. The results also revealed that there are no significant mean differences across the means of the body weight ($P>0.019$), Blood test (fasting blood glucose ($P>0.065$), HDL Cholesterol ($P=0.443$), LDL Cholesterol ($P>0.038$), Triglycerides ($P>0.346$), Total Cholesterol ($P>0.010$), 6 minutes walking test ($P>0.025$), 3 minutes step test ($P>0.182$) among those undergo MeSRA program.

Table 2 Body weight, waist, hip, body fat at Initial, Week 6 and Week 12 for Control Group and MeSRA Group (N=42)

Parameter		Control Group	MeSRA Group
Body Weight (Kg)	Initial	75.9 ± 10.99*	74.4 ± 14.0
	At Month 3	80.5 ± 10.33*	73.3 ± 15.3
	At Month 12	82.2 ± 10.8*	72.4 ± 15.4
Body Fat (%)	Initial	36.7 ± 3.95*	31.0 ± 6.22*
	At Month 3	39.4 ± 3.79*	30.0 ± 7.10*
	At Month 12	40.5 ± 3.59*	29.0 ± 6.89*
Hip (Inch)	Initial	97.2 ± 4.88*	97.7 ± 6.59*
	At Month 3	98.8 ± 4.73*	95.5 ± 6.40*
	At Month 12	98.8 ± 4.40*	94.5 ± 6.40*
Waist (Inch)	Initial	91.8 ± 4.70*	92.1 ± 7.80*
	At Month 3	95.1 ± 4.71*	90.6 ± 8.06*
	At Month 12	96.1 ± 4.83*	89.7 ± 8.10*

*. The mean difference is significant at the 0.05 level

Table 3 Blood Lipid Profile and fasting blood glucose Parameters at Initial, Week 6 and Week 12 for Control Group and MeSRA Group (N=42)

Parameter		Control Group	MeSRA Group
Triglycerides (mmol/l)	Initial	1.88 ± 0.57*	1.76 ± 0.76
	At Month 3	2.24 ± 0.59*	1.80 ± 0.64
	At Month 12	2.43 ± 0.60*	1.64 ± 0.51
Total cholesterol (mmol/l)	Initial	4.89 ± 0.65*	4.65 ± 0.98
	At Month 3	5.30 ± 0.90*	4.09 ± 0.84
	At Month 12	5.41 ± 0.86*	4.24 ± 0.57
LDL (mmol/l)	Initial	3.26 ± 0.78*	2.78 ± 0.96
	At Month 3	3.78 ± 0.69*	2.35 ± 0.79
	At Month 12	4.30 ± 0.60*	2.39 ± 0.72
HDL (mmol/l)	Initial	1.04 ± 0.22*	1.02 ± 0.22
	At Month 3	1.00 ± 0.25*	0.99 ± 0.19
	At Month 12	0.95 ± 0.16*	1.00 ± 0.19
Fasting Blood Glucose (mmol/l)	Initial	5.04 ± 0.63*	4.92 ± 0.66
	At Month 3	5.78 ± 0.95*	5.21 ± 1.12
	At Month 12	5.90 ± 0.90*	4.65 ± 0.43

*. The mean difference is significant at the 0.05 level

Table 4 Aerobic fitness capacity at Initial, Week 6 and Week 12 for Control Group and MeSRA Group (N=42)

Parameter		Control Group	MeSRA Group
6 minutes walking test (Metre)	Initial	384 ± 52.0*	389 ± 56.7
	At Month 3	346 ± 50.0*	413 ± 61.1
	At Month 12	294 ± 66.0*	426 ± 66.0

Table 5 Quality of Life at Initial, Week 6 and Week 12 for Control Group and MeSRA Group (N=42)

Parameter		Control Group	MeSRA Group
Overall EQ-5D-5L Data Score	Initial	39.5 ± 6.1*	68.2 ± 15.6*
	At Month 3	36.3 ± 8.02*	85.1 ± 10.0*
	At Month 12	35.8 ± 7.16*	79.3 ± 9.12*

DISCUSSION

The effectiveness of the MESRA program can be largely attributed to its multidisciplinary approach, which integrates physical, nutritional, and spiritual elements into the patients' daily routines. This holistic method effectively addressed the physical health concerns of the participants, particularly in areas such as weight management and biochemical improvements, while also significantly contributing to their overall psychological well-being by fostering a sense of community and purpose. Wellness programs that incorporate multiple facets of care, such as physical and mental health, tend to have more substantial and lasting impacts on participants³⁰. The MESRA program's success further underscores the critical role of patient engagement and motivation in achieving positive outcomes. The higher levels of participation and commitment observed among MESRA participants were likely key factors in the program's effectiveness, as evidenced by the sustained improvements in both physical and psychological health metrics throughout the program. This finding is consistent with the work of Shoesmith (2021), who emphasized that patient engagement is crucial for successful wellness interventions, particularly in psychiatric settings where motivation can be a significant challenge.

These findings suggest that future programs should continue emphasizing patient engagement strategies, possibly by incorporating more personalized elements to cater to individual needs and preferences. Personalization could involve tailoring physical activities to suit different fitness levels, offering dietary plans that account for cultural and individual preferences, and providing spiritual care that aligns with the participants' beliefs and values. As highlighted by Subramaniam et al. (2021), personalized wellness programs are more effective in maintaining patient interest and participation, leading to better health outcomes. When comparing these findings to the existing literature, it becomes clear that the MESRA program aligns with successful wellness interventions in similar settings. However, the program's unique combination of exercise, responsible eating, and spiritual care appears to have provided a more comprehensive solution to the complex health challenges faced by psychiatric inpatients. This is supported by the findings of Ain et al. (2020), who noted that wellness programs incorporating multiple disciplines are particularly effective in psychiatric care because they address the patients' physical and psychological needs. As demonstrated by its success, the MESRA program's holistic approach may serve as a model for future wellness programs in similar healthcare settings, particularly those dealing with vulnerable populations such as psychiatric inpatients. This approach enhances physical health outcomes and improves the quality of life and overall well-being, making it a potentially valuable framework for broader implementation in mental health care. By integrating these various elements and focusing on the whole patient rather than just the illness, the MESRA program exemplifies the type of comprehensive care that is increasingly recognized as necessary for effective treatment in psychiatric settings. (Kamaruddin, 2020). This model's success in Hospital Mesra Bukit Padang suggests that similar approaches could benefit other institutions, particularly those looking to improve patient outcomes through more holistic and patient-centered care.

The findings of this study have several important implications for clinical practice at Hospital Mesra Bukit Padang. The success of the MESRA program suggests that integrating a multidisciplinary wellness program into the standard care for psychiatric inpatients can significantly improve both their physical and mental health outcomes. Clinicians should consider adopting similar approaches in their practice, ensuring that patients have access to regular physical activity, nutritional guidance, and spiritual care as part of their treatment plan. Additionally, hospital administrators may need to allocate resources to support the implementation and sustainability of such programs, recognizing their long-term benefits for patient health and well-being. From a policy perspective, the results of this study provide strong evidence to support the inclusion of wellness programs in mental health care policies at both the hospital and national levels. Policymakers should consider developing guidelines that encourage the adoption of multidisciplinary wellness programs in psychiatric care settings, potentially leading to widespread improvements in patient outcomes across the country. (Dowd, 2024).

LIMITATIONS

While the findings of this study are promising, several limitations must be acknowledged. The relatively small sample size and the focus on a single hospital may limit the generalizability of the results. Additionally, the study's reliance on self-reported measures of Quality of Life could introduce bias, as participants may have

provided socially desirable responses. The study also lacked a long-term follow-up beyond the twelve-month period, which would have provided more insight into the sustainability of the program's effects. Future research should address these limitations by including larger, more diverse samples, using objective measures of health outcomes, and conducting long-term follow-ups to assess the durability of the program's impact.

FUTURE RECOMMENDATIONS

Based on the findings and limitations of this study, several areas for future research are recommended. First, larger-scale studies involving multiple hospitals across different regions are needed to validate the MESRA program's effectiveness and determine its applicability in diverse healthcare settings. Such studies would help establish whether the program's positive outcomes can be replicated on a broader scale and across various patient populations. Additionally, future research should explore the long-term effects of the MESRA program by conducting follow-up studies several years after the program's completion. These longitudinal studies would provide valuable insights into the sustainability of the program's benefits and any potential long-term improvements in patient's quality of life and physical health.

There is also a need to investigate the potential benefits of further personalizing the MESRA program to meet the specific needs of individual patients, which could enhance patient engagement and outcomes. This could involve developing tailored interventions that address participants' unique health profiles, cultural backgrounds, and personal preferences. Finally, future studies should consider incorporating more objective measures of health outcomes, such as biomarkers or clinical assessments, to complement the self-reported data. This approach would provide a more comprehensive and accurate evaluation of the program's impact on patient's health, ensuring that the findings are robust and clinically meaningful. Furthermore, integrating these objective measures could help identify specific biological or physiological changes associated with wellness interventions, offering deeper insights into how such programs influence overall health and well-being. (Kamaruddin, 2020).

CONCLUSIONS

In conclusion, the MESRA wellness program at Hospital Mesra Bukit Padang has significantly improved the Quality of Life, anthropometric measurements, and biochemical parameters of psychiatric inpatients. These findings highlight the value of a multidisciplinary approach in mental health care, emphasizing the need for holistic, patient-centered programs that address physical and mental health. Despite the study's limitations, the results provide a strong foundation for the continued development and implementation of wellness programs in psychiatric care settings, with the potential to significantly improve patient outcomes on a broader scale.

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ETHICS APPROVED AND CONSENT TO PARTICIPATE

Medical Research Ethical Committee (MREC)

COMPETING INTERESTS

The authors declare that they have no competing interests

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