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To Study the Mental Health and Psychological Well-Being of Subjects Who Take Daily Walk as An Exercise

Dr. Ghansham Balu Kamble[1], Dr. Tejpal Tukaram Jagtap[2]

[1,2]Department of Psychology, Karmaveer Bhaurao Patil College, Urun-Islampur, Dist.–Sangli.

Abstract

Diet, exercise, sleep is very important for our health. It has been claimed that vigorous physical and mental activity has positive effects on physical & mental health and/or psychological well-being among clinical and non-clinical populations. For the purpose of explore the importance of walk and its impact of mental health and psychological well-being present study taken it. In this research total 120 subjects are included in which 60 are males and 60 are females. Data was purposefully collected in the Sangli district who walk as an exercise. The age of subjects in the range between 30-60 years. For the purpose of data collection Mental Health Scale by Dr.Kamlesh Sharma and Psychological Well-being Scale by Carlos D. Ryff used. We used Two Way Analysis of Variance (ANOVA), mean, standard deviation, and't' test for the data analysis. The result showed that, there is high mental health and well-being too among the subjects who walk more than subjects who less as an exercise. There is high mental health as well as well-being of subjects who walk regularly than subjects who walk irregularly. These study research revealed the importance of daily walk to keep their mental health and psychological well-being.

Keyword - Mental Health, Psychological Well-being and Exercise

Introduction

Our emotional, psychological, and social well-being are all parts of our mental health. It influences our feelings, thoughts, and behaviour. It also influences how we respond to stress, interact with people, and make decisions. In all phases of life, mental well-being is crucial. The World Health Organisation (WHO) states that a complex interaction of structural, societal, and individual pressures and vulnerabilities determines mental health. In addition to being a fundamental human right, mental health is also essential for economical, communal, and personal growth. Emotions, reasoning, communication, learning, resilience, hope, and self-worth all depend on mental health. According to the American Psychiatric Association, relationships, emotional and personal well-being, and giving back to the community and society all depend on mental health.

As stated by the World Health Organisation (WHO), "a state of complete physical, mental, and social well-being and not merely the absence of disease" is what constitutes health. A condition of mental health is characterised by an individual's ability to recognise their own potential, manage everyday stressors, work efficiently and effectively, and contribute to their community. The experience of pleasant feelings, such as happiness and satisfaction, the development of one's potential, and feeling good about oneself are all considered components of well-being. According to Ruggeri (2020),well-being is a positive outcome that

is meaningful for people and for many sectors of society because it tell us that people perceive that their lives are going well. (Centre for disease control and prevention)

There are a few things that contribute to maintaining our mental health and general wellbeing. These could include a family setting, happy childhood memories, social connection, physical activity, etc. Numerous researches support the beneficial effects of exercise on mental health. A study that was published in the Lancet Psychiatry examined data from 1.2 million Americans over a four-year period. It found that those who exercised had 43% fewer days of poor mental health in the preceding month than those who did not. Overall, research findings show that physical activity can lead to a variety of physiological changes that improve mood, boost self-confidence, and reduce stress and anxiety.

Exercise has several physical benefits, such as lowering blood pressure, improving cardiovascular fitness, promoting weight loss, and preventing chronic illnesses like diabetes, cancer, hypertension, obesity, osteoporosis, and Alzheimer's. Neither the aerobic nor anaerobic nature of exercise appears to be a significant factor, as both types of exercise can improve mental health, nor is there conclusive evidence to support a single mechanism or set of mechanisms that reliably affect the exercise-mood relationship.

One kind of exercise that everyone can do at anytime, anyplace, and without the need for particular equipment or membership is walking. Walking improves blood flow and circulation to the body and brain, which in turn elevates mood. Your central nerve system, the hypothalamic-pituitary-adrenal (HPA) axis, is positively impacted by it. This is advantageous as your stress response is controlled by the HPA axis. Walking is a great way to exercise because it helps to relax your nervous system and reduce tension.

Additionally, walking raises our brain's "feel good" chemical levels. Endorphins are a class of peptide hormones that reduce pain and promote overall well-being. We also observe an increase in the release of specific neurotransmitters, which are the body's chemical messengers and which the nervous system uses to send messages between brain neurons or between the brain and muscles. An open and spacious mentality can be achieved by strolling since it promotes neurotransmitters including dopamine, serotonin, anandamide, and norepinephrine. Walking is a fantastic way to relieve stress as well.

"If I were to summarize all of my learning over 40-odd years, I'd say that most people's stress starts with the complaint: I don't have enough time," stated Dr. Stan Rodski, a clinical psychologist and neuroscientist. Furthermore, walking fundamentally alters how we perceive time. First of all, walking shifts our brain wave frequency from the beta zone to the high theta range. When we meditate, we enter this theta wave, which ranges from 5 to 10 Hz, and it encourages a more spacious, less time-dependent way of thinking. Walking for 30 to 40 minutes causes our prefrontal cortex to become less active, putting us into a state of flow.

The international expert on flow research, Mihaly Csikszentmihalyi, noticed that in 8,000 interviews with extremely successful individuals, most participants reported losing both their sense of self and time when they were in flow. Stress decreases when we have more time.According to a study that was published in the Proceedings of the National Academy of Science, participants in a 90-minute walk in a natural setting had less activity in a part of the brain linked to a major depressive component. Dr. Jampolis explains that while a stroll provides the same benefit without consuming any calories, having a glass of wine or a square (or three) of dark chocolate can help ease the stress of a difficult day. Actually, studies suggest that even ten minutes of walking might improve your mood.

Walking during the COVID-19 epidemic was found to considerably enhance mood, according to other recent research. Frequent walking really alters your nerve system to such an extent that you will feel less

hostile and angry. Consequently, the primary goal of this research is to examine the psychological and mental health of participants who walk regularly based on how far and how often they walk.

Review of Literature

Reviews of literature are help researchers to extend the idea of research topic. Following research reviews clear the outlines of our research.

Zhenjum zhu, Hangsheng chen and Jingrui sun (2020) exploring the relationship between walkingand emotional Health in China. Walking plays an important role on emotional health of individuals. This study found that respondents who engaged in regular walks or other forms of physical exercise had a better emotional health than those who did not exercise regularly. Data from the 2014 wave of the China Labor force dynamics survey (CLDS 2014) conducted by the center of social science survey of the Sun-Yet-sen university. This study further revealed that for respondents living in neighborhoods with serious air pollution, regular walking still had a positive impact on their emotional health. Encouraging residents to take regular walk is of great significance for regulating there mental health.

Farah Mohammed (May 2017) found the impact of walking on humans health studied in Public Health University of Jordan.The purpose of this paper is to summarize the benefits of walking on physical and mental health to encourage people to participate in walking as a regular and sustainable exercise, and to determine of the limitation of regular walking. The researcher used the descriptive approach for achieve the research objectives. Research finding indicated that walking can relieve the human body fat, improve their heart health and decrease the possible risk of heart attack and stroke. Additionally walking improve their ability in lowering high blood pressure, reduce risk of diabetes, and Decrease stress and prevent depression.

Bertheussen, G. F. et al., (2011) revealed a population-based cross-sectional study. Heused health- related quality of life (HRQOL) to assess the effects of physical activity and mental health directly from the study participants.This study included 4500 participants from different age groups and showed that improvement in mental health is not age-related, but that anyone can benefit. This study concluded that exercise is always related to an improvement in mental health when compared to groups who did not exercise at all.

Martin Mau, Anders Aaby, Soren Harnow Klausen and Kirsten Kaya Roessler (2021) concluded a systematic scoping review of the conceptualization of long distance walking and its relation to mental health. A total 8557 records were screened and 26 studies were included, out of which 15 were quantitative, 9 were qualitative and 2 were mixed. The finding shows that long distance walking is positively related to mental health. This was most consistent with regard to emotional distress compared to somewhat inconsistent findings regarding well-being. Therefore long distance walking may be more appropriately used to counter some personal or emotional struggle rather than to achieve hedonic pleasure.

Areum Han, Junhyoung Kim, Jaehyun Kim (February 27, 2021) explored a study of leisure walking intensity levels on mental health and health perception of older adults. This research suggest that different levels of intensity of leisure walking can affect the mental health of older adults. The purpose of this study was to investigate how leisure walking intensity levels are associated with the mental health and health perceptions of older adults. Using purposive sampling method, the data of 4,757 adults over the age of 65 were drown from the 2017, in California health and interview survey. The result of analysis of these data showed that older adults who engaged in moderate and vigorous leisure walking reported higher health perceptions than those involved in light leisure walking.

METHODS

Aim of the study

To study the mental health and psychological well-being of subjects who take daily walk as an exercise.

Objectives

1. To study the difference in mental health among subjects who take low and high distance walk.
2. To study the difference in psychological well -being among subjects who take low and high distance walk.
3. To study the difference in mental health among subjects who walk regularly and irregularly.
4. To study the difference in psychological well-being among subjects who walk regularly and irregularly.

Hypotheses

1. There would be high mental health of subjects who walk more than the subjects who walk less.
2. There would be good psychological well -being of subjects who walk more than the subjects who walk less.
3. There would be high mental health of subjects who walk regularly than the subjects who walk irregularly.
4. There would be good psychological well- being of subjects who walk regularly than the subjects who walk irregularly.

Variables

1. Independent variable

a. Distance of walking (Low vs. High)

b. Regularity of Walk (Regular / Irregular walk)

2. Dependent variable

a. Mental health

b. Psychological well being

Sample

For this study, data has been selected from Sangli district. Data collected on random basis. First we reached on walking track in various cities of Sangli district. We requested subjects to solve the scale. There were 120 samples in which 60 males and 60 females are included. The age range is in between 30 to60yrs.

Tools used in the study

1. Mental Health Scale (2009)

This scale is introduced by Dr. Kamlesh Sharma in 2009.In this scale, total 60 items are included. Each item has three options (Yes, Undecided, No). Client has to tick (✓) for the suitable option. In this test positive and negative items are included. In first part 30 items are positive and in second 30 items are negative. Client has to read each item carefully. All items are related to client's daily life. There is no right or wrong response so be honest in making your preference. The reliability of this test is 0.86 to 0.88 and validity is 0.79 as per manual.

2. Psychological well -being Scale (1995)

Carol D.Ryff published the psychological well- being scale in 1995. It has 18items related to psychological well- being of subjects. This scale measures autonomy, environmental mastery, personal growth, positive relations with others, purpose of life, self-acceptance.

Respondents rate how strongly they agree or disagree with 18 statements using a 7 point scale (1= strongly agree; 7=strongly disagree). Subject should have to mark '✓'sign to one of their seven options which suits him. Subject must have to give response for every statement. According to developers this test is reliable.

Procedure

For the purpose of the data collection researcher's visited to various cities in Sangli district. We requested subjects to solve the scale. Before administer the scale researchersand subjects discussed all importance about research and assured privacy.

All the doubts of the subjects were cleared before solving the questionnaire. They gave good response for the research. Data was collected and scored according to defined rules and analyzed using descriptive statistical techniques such as Mean, Standard deviation &'t' value.

Statistical analysis and discussion

The aim of the study was to study mental health and well-being of subjects who take daily walk as an exercise. So, in the present study distance of walk in km and regularity of walk were treated as independent variables and mental health and psychological well- being were measured as dependent variables. The following table illustrates the statistical analysis.

Table No. 1 Shows mean difference in mental health among the participants doing regularly exercise and walk

Regularity of Exercise	Walk	Mean	Std. Deviation	N
Irregular	High	88.69	12.822	13
	Low	79.30	12.968	47
	Total	81.33	13.408	60
Regular	High	89.64	13.269	47
	Low	83.08	11.644	13
	Total	88.22	13.125	60
Total	High	89.43	13.071	60
	Low	80.12	12.695	60
	Total	84.77	13.656	120

Table 2 Summary of the two way analysis of variance for the effect of Regularity of Exercise and Walk on Mental Health

Source	Sum of Squares	df	Mean Square	F	Sig.
Regularity in Exercise (A)	113.677	1	113.677	6.79	0.05
Walk (B)	1296.277	1	1296.277	7.737	.005
(A X B)	40.867	1	40.867	.244	NS
Error	19434.373	116	167.538		

Interpretation : In order to search the effect of the people who are doing regular exercise (A) and walk (B) are differ significantly on well being is significant or not the data were treated by Two Way ANOVA and which is shown in Table no. 1 and 2. Computed value of F for main effect A and B are 6.79 and 7.73 respectively for 3and 116 df it is significant at 0.05 level. Mean difference in mental health among the

participants doing regularly exercise and walk are differ significantly. In other words the difference observed in the means cannot be attributed to the factor of chance only. But interaction effect between A X B is not statistically significant.

Table No.3 Shows mean difference in Well being among the participants doing regularly exercise and walk

Regularity of Exercise	Walk	Mean	Std. Deviation	N
Irregular	High	93.23	13.905	13
	Low	86.77	13.926	47
	Total	88.17	14.062	60
Regular	High	96.94	10.339	47
	Low	90.77	11.570	13
	Total	95.60	10.822	60
Total	High	96.13	11.182	60
	Low	87.63	13.461	60
	Total	91.88	13.040	120

Table 4 Summary of the two way analysis of variance for the effect of Regularity of Exercise and Walk on well being

Source	Sum of Squares	df	Mean Square	F	Sig.
Regularity in Exercise (A)	302.565	1	302.565	1.976	.163
Walk (B)	812.432	1	812.432	5.305	.023
A X B	.452	1	.452	.003	.957
Error	17763.849	116	153.137		

Interpretation: In order to search the effect of the people who are doing regular exercise (A) and walk (B) are differ significantly on well being are significant or not the data were treated by Two Way ANOVA, and which is shown in Table no. 1 and 2. Computed value of F for main effect A and B are 1.97 and 5.03 respectively for 3and 116 df it is significant at 0.05 level. Mean difference in well being among the participants doing regularly exercise and walk are differ significantly. In other words the difference observed in the means cannot be attributed to the factor of chance only. But interaction effect between A X B is not statistically significant.

Table No. 5 Shows mean comparison on mental health across various selected variables

Variables	**Levels of DV**	**N**	**Mean**	**SD**	**df**	**Significance**
Gender	Male	60	87.33	12.92	118	2.08*
	Female	60	82.22	12.99		
Age	High	60	86.10	13.66	118	1.06 NS

	Low	60	83.43	13.63		
Occupation	Job	87	83.74	13.97	116	1.28 NS
	Business	31	87.42	12.89		
Diet	Veg.	37	86.78	11.55	116	1.07 NS
	Mixed	83	83.88	14.47		

Table no. 5 shows comparison of mental health across gender, age, occupation and diet. It is observed that male is having high mental health than female significantly. However rests of the variables are does not show such significant differences.

Table No. 6 Shows mean comparison on well being across various selected variables

Variables	Levels of DV	N	Mean	SD	df	Significance
Gender	Male	60	94.52	10.35	118	2.25*
	Female	60	89.25	14.89		
Age	High	60	92.27	13.28	118	0.32 NS
	Low	60	91.50	12.89		
Occupation	Job	87	90.85	13.26	116	1.28 NS
	Business	31	94.58	12.59		
Diet	Veg.	37	91.86	13.85	116	0.10NS
	Mixed	83	91.89	12.74		

Table no. 6 shows comparison of well being across gender, age, occupation and diet. It is also observed that male is having better well being than female significantly. However rests of the variables are does not show such significant differences.

Conclusion:

In this study following results are revelled:

1. There is high mental health of subjects who walk more than the subjects who walk less km distance.
2. There is good psychological well-being of subjects who walk more than the subjects who walk less distance.
3. There is high mental health of subjects who walk regularly than the subjects who walk irregularly.
4. There is good psychological well- being of subjects who walk regularly than the subjects who walk irregularly.

Applications of the study

Health is a wealth. Physical and mental health is very important in our life. We face competition regularly. So life has become stressful for almost every person in this world and the lifestyle related diseases are also increased such as Asthma, cardiovascular diseases, cancer. Due to this physical and mental health is worsening. So it has become necessary to think on this subject seriously. There are many factors leads to keep our mental and physical health good. Those may be family environment, good childhood memories, interaction with people, enough sleep, eating healthy food, exercise etc. Walking one of the form of exercise which is so easy that anyone can perform in their daily life. In this study we have explored the relationship between mental health and walking, psychological well-being and walking. Our results

strongly suggest that regular and maximum walking helps to keep mental health and psychological well-being good. So, this research will definitely help people to understand the importance of walking to keep their physical and mental health good and healthy.

Limitations

a. In this study we have considered only highest 6 km walking distance.
b. Data has been collected from only limited area.
c. Sample size was not enough large.

Recommendations

a. Walking distance of subjects should be more than 6 km.
b. We should collect data from large area.
c. Other tests should be used.

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