

# Effects of Basic Body Awareness Therapy on patients suffering from Depression, Fatigue and Social isolation

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## Abstract

**Background:** Depression is a medical illness that disturbs feelings, mood and physical health. Depression and other psychiatric issues may be the reason for fatigue and social isolation. Depression, fatigue and social isolation together can affect person's life, quality of life and social wellbeing. Basic Body Awareness therapy is movement based method which enhances awareness and quality of movement to make a person more aware of his/her movement patterns and body. This therapy addresses the interaction of body and mind by the use of simple and slow movements, it is also a well-known therapy to treat mental health and behavior problems.

**Materials and method:** 20 participants with ages between 30-50 years were included in the study. The participants received Basic Body Awareness therapy session for 40 mins/ twice a week for 4 weeks. The outcome measures were assessed before and after the intervention by Montgomery Åsberg Depression Rating Scale, Fatigue Assessment Scale and Revised UCLA Loneliness Scale.

**Result:** The Basic Body Awareness therapy showed highly significant decrease in the Depression ( $t = 10.162$ ,  $p = 0.001$ ) Fatigue ( $t = 10.145$ ,  $p = 0.001$ ) and Social Isolation ( $t = 12.645$ ,  $p = 0.001$ ) in participants after giving the therapy for 4 weeks.

**Conclusion:** The present study concluded that Basic Body Awareness therapy for 4 weeks, a physiotherapeutic approach as an add-on treatment for depression has significant effect on the condition. This therapy is effective in reducing the severity of depression, fatigue and social isolation.

**Keywords:** Basic Body Awareness Therapy, Depression, Fatigue, Social-Isolation, Montgomery Åsberg Depression Rating Scale, Fatigue Assessment Scale, Revised UCLA Loneliness Scale.

## 1. INTRODUCTION:

Psychological dysfunction states the cessation of purposeful functioning of cognition, emotions or behavior. The suffering from a mental illness can come as a by-product of other problems caused by mental illness[13]. It includes broad range of problems with different symptoms like abnormal thoughts, emotions, behavior and relationships with others.[14]

Depression is a medical illness that disturbs feelings, mood and physical health. It is a most important health problem which cause lack of energy, insomnia and inability to enjoy life.[2] Depression and other psychiatric issues may be the reason for fatigue.[15] Fatigue is a self-protective mechanism against the impairment of contractile machinery of muscle. It can also be defined as the lack of energy and motivation.[3] Social isolation is a condition that many people experience at some point of their life with possible implications to health and happiness. It is a state of separation, in which social connections are limited or absent.[5] Loneliness is the unfriendly experience that occurs when a person's link of social relations is lacking in some important way either quantitatively or qualitatively.[6]

The world health organization (WHO) has ranked depression the 4<sup>th</sup> leading cause of disability worldwide.[16] The lifetime prevalence rate for major depression is 5% to 17%. The mean age of onset for major depressive disorder is about 40 years with 50% of all patients having an onset between the ages of 20 to 50 years.[1] Surveys account that 5%-20% of the general population suffer from persistent and bothersome fatigue.[4] The prevalence of loneliness differs with age, its association with depression remains stable across lifespan.[6]

A major depressive episode last a minimum of least 2 weeks[1] and the risk factors for depression, fatigue and social isolation are biological, psychological, social, cultural, economic factors.[15]

## Management:

1. Pharmacotherapy: Antidepressants may produce some improvement within the first week or two of use. Longer term care treatment could also be suggested to decrease the danger of future episodes and its symptoms for certain people at high risk.[15]

2. Psychotherapy: Psychotherapy or talk therapy is used for the treatment of mild depression. For moderate to severe type of depression -a combination of psychotherapy and pharmacotherapies more effective. There are 3 types of short-term psychotherapy- 1. Cognitive therapy, 2. Interpersonal therapy, and 3. Behavior therapy.[1] Persistent fatigue also needs active management, before it develops into chronic.[4]

Treatment session – 10 to 15.[15]

3. Self-help coping: Regular exercise helps to create positive feeling and improve mood.[15] Exercise may act as a change from negative feelings. Early and active management of fatigue in primary care may prevent progression to chronicity.[4]

### **Basic Body Awareness Therapy**

Basic Body Awareness therapy is an evidence based physiotherapeutic treatment first developed in Swedish psychiatry during the 1970s and 80s.[8] It has since gradually developed and expanded among physiotherapies in Scandinavia and northern Europe.[9] It represents holistic approach to human movements considering physical, physiological, psychological aspects. It has roots in a many different movement patterns in different tradition (tai chi, yoga, meditation, movement therapy, dance therapy).[8]

The aim of Basic Body Awareness therapy is to make a person more aware of his/her movement patterns and body. [8] The movement based method addresses the interaction of body and mind by the use of simple, slow movements and reflections on body experiences, aiming at enhanced awareness and quality of movement. The therapy involve movements of daily living such as in sitting, standing, lying in bed and walking. Breathing exercise and balance, walking and postural stability are the central component of this therapy.[9]

Basic Body Awareness therapy is a multi-perspective view based on biomechanical, physiological, and biopsychosocial.[10] People with serious mental illness including major depression, schizophrenia, and bipolar disorder, often have poor physical health and experience psychiatric, social, and cognitive disability. Physical activities improve physical health, psychiatric and social disability.[7] Basic body awareness therapy is a well-known therapy to treat mental health and behaviour problems. [8]

Basic Body Awareness therapy reduces self-assessed depression severity. Physiotherapy intervention in particular guided aerobic exercise, also it mediate changes in the depressed persons self-experience and improve depressive symptoms[9]

#### **Purpose of the study:**

Depression is an insidious condition which requires early treatment. It is usually treated with medications and psychotherapy, or a combination of two. Exercise as an add on treatment has a clinically relevant effect on depression severity. There is limited therapy research evidence on Basic Body Awareness therapy in India. Basic Body Awareness therapy has an effect on reducing the severity of depression, fatigue and social isolation.

#### **Aim of the study:**

To study the effects of Basic Body Awareness therapy on patients suffering from depression, fatigue and social isolation.

#### **Objectives of the study:**

1. To study the effects of basic body awareness therapy given for 4 weeks on patients suffering from depression.
2. To study the effects of basic body awareness therapy given for 4 weeks on fatigue and social isolation.

## **2. METHODOLOGY**

Ethical clearance was obtained from the Institutional Ethical Committee. The study was an Pre Post Test type Experimental Study which involved simple random sampling.. The samples were the Out-patients of Psychiatry Department of Pravara rural hospital, Pravara Institute of Medical Sciences, Loni. A sample size of 20 with depression, fatigue and social isolation patients within the age group of 30 years to 50 years who were able co-operate were included. The intervention period was of 4 weeks including Sundays and 2 session per week. Each session lasted for 40 minutes.

#### **Outcome measures:**

The patients were assessed for Depression, Fatigue and Social isolation pre and post therapy. The scale used for assessing depression was Montgomery Åsberg depression rating scale, for fatigue was fatigue assessment scale and for social isolation was revised UCLA loneliness scale. The participants were scored accordingly.

#### **Intervention:**

The intervention protocol was built to reduce the severity of depression, fatigue and social isolation in patients in order to improve their quality of life. The intervention consists of Basic Body Awareness therapy which is of 40 mins/ twice a week for 4 weeks. The patients were assessed for depression, fatigue and social isolation thorough Montgomery Åsberg depression rating scale, fatigue assessment scale and revised UCLA loneliness scale. The scales were assessed before and after the intervention of 4 weeks.

**Basic Body Awareness Therapy:**1) Preparation phase (3-5 min)

Room open, mats on the floor, pillows available, calm background music. Resting in sitting or lying down position, Calming down, preparing for session

2) Phase 1 (10 min)

Supine movements on the floor, on mats

Body scanning, exploring contact with the ground and breathing pattern, stretching and releasing movements. Grounding, relaxation, and connecting to one's body

3) Phase 2 (20 min)

Standing and walking exercises

Balancing in and exploring a functional posture and wholeness, for example: slowly moving up and down along one's midline flexing in the knees and hips, letting the arms float up when rising, and softly sinking down when lowering one's body, integrating the whole movement with breathing

Postural stability, flow and rhythm of movements, force, coordination

4) Phase 3 (5 min)

Seated meditation Aligning and anchoring oneself in a seated position on a meditation cushion or stool, 5 min silent focus on features of the body, such as the breathing

Postural stability, free breathing, mental awareness

5) Phase 4 (5 min)

Verbal reflection Taking turns to share something about today's experiences, Sharing and verbalizing body experiences

**3. STATISTICAL ANALYSIS:**

Data analysis was done by various statistical measures such as mean, standard deviation [S.D.] and test of significance such as Student's Paired 't' test were utilized to analyze the data. The results were concluded to be statistically extremely significant with  $p < 0.001$ . Paired 't' test was used to compare the difference in scores between the pre-intervention and post-intervention values.

**DEMOGRAPHICS**

A total of 20 participants were screened and eligible for the study considering the inclusion and exclusion criteria. The participants who agreed to participate in the study were selected. There was no drop out of participants during the intervention.

The mean age of the participants are  $43.05 \pm 6.361$  years.

The gender ratio of the study was 10:10(10 men and 10 women).

The baseline demographic data was comparable.

**Table 1: Showing demographic profile**

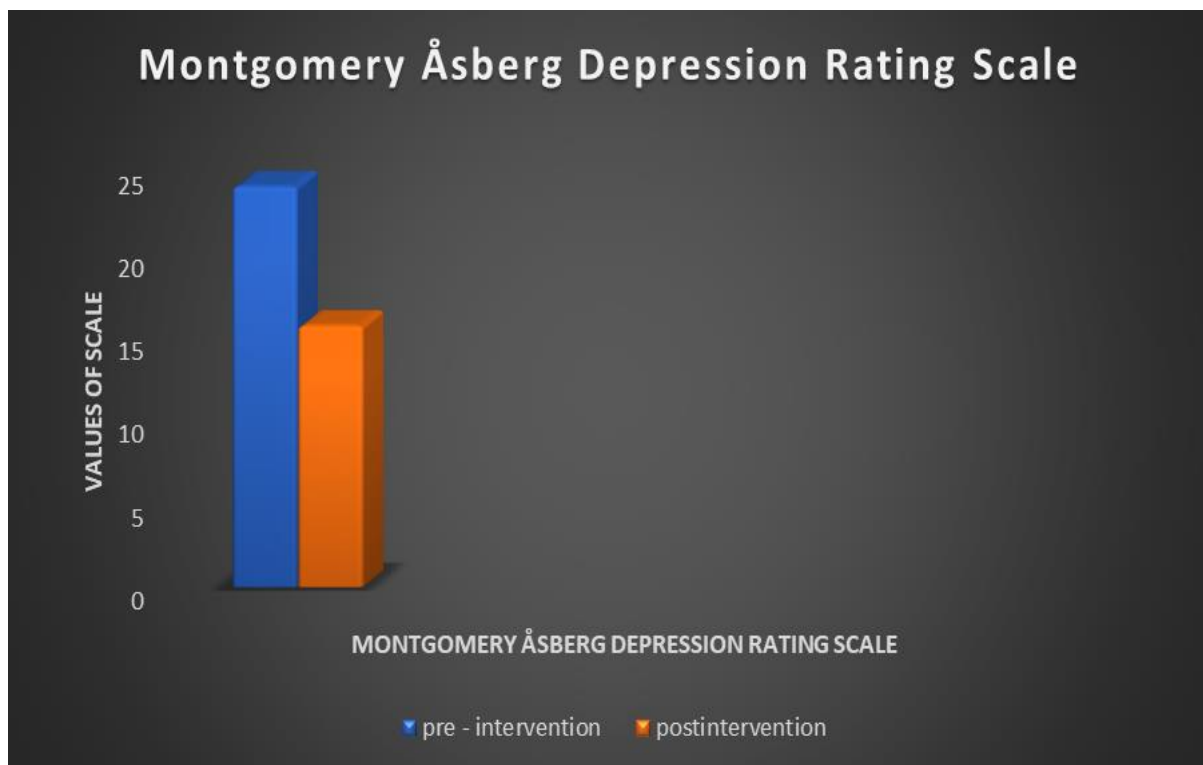
Group item	Age(years)	Gender(M/F)
Participants	$43.05 \pm 6.361$	10(50%): 10(50%)

**The Montgomery Åsberg depression rating scale:**

The mean of Montgomery-Åsberg depression rating scale values was  $24 \pm 5.015$  before intervention and  $15.65 \pm 3.328$  after intervention. The results were calculated by students paired 't' test showed significant result in Montgomery-Åsberg depression rating scale.

**Table no 2: Comparison of pre-intervention and post-intervention values of Montgomery-Åsberg depression rating scale**

Outcome measure	Pre-intervention Mean $\pm$ SD	Post-intervention Mean $\pm$ SD	Students paired 't' test value	'p' values and results
Montgomery Åsberg depression rating scale	$24 \pm 5.015$	$15.65 \pm 3.328$	10.162	P= 0.001 Extremely significant



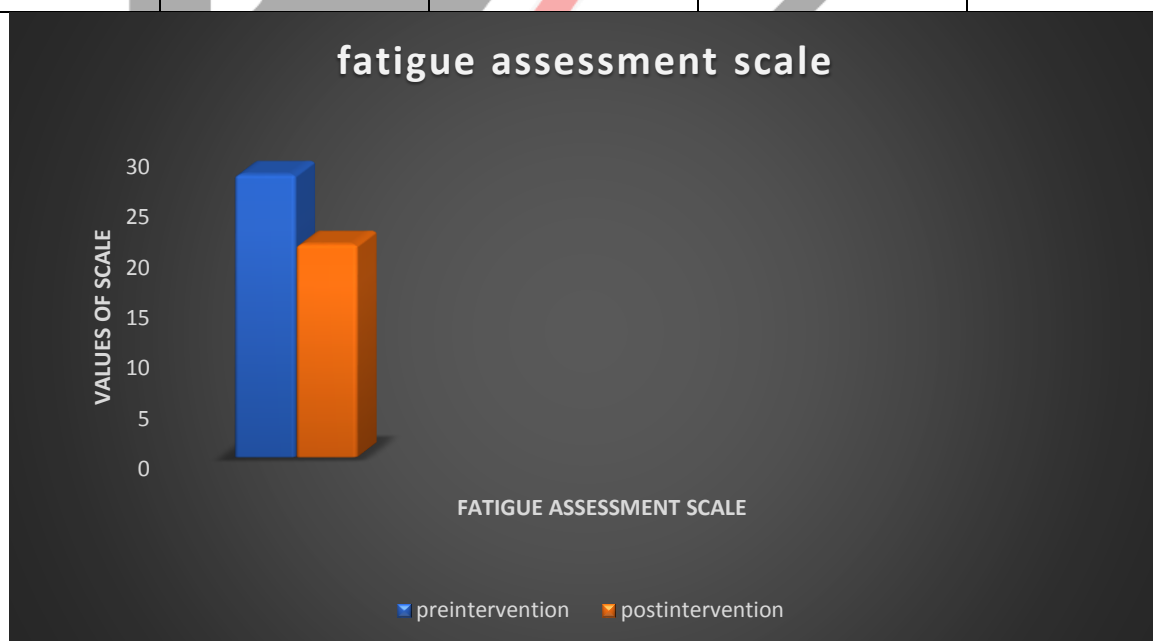
**Graph no 1 : comparison of pre-intervention and post-intervention values of Montgomery Åsberg depression rating scale.**

**Fatigue assessment scale:**

The mean of fatigue assessment scale values was  $27.9 \pm 4.063$  before intervention and  $21 \pm 2.635$  after intervention. The results were calculated by students paired 't' test showed significant result in fatigue assessment scale.

**Table no 3: Comparison of pre-intervention and post-intervention values of Fatigue assessment scale**

Outcome measure	Pre-intervention Mean $\pm$ SD	Post-intervention Mean $\pm$ SD	Students paired 't' test value	'p' values and results
Fatigue assessment scale	$27.9 \pm 4.063$	$21 \pm 2.635$	10.145	P= 0.001 Extremely significant



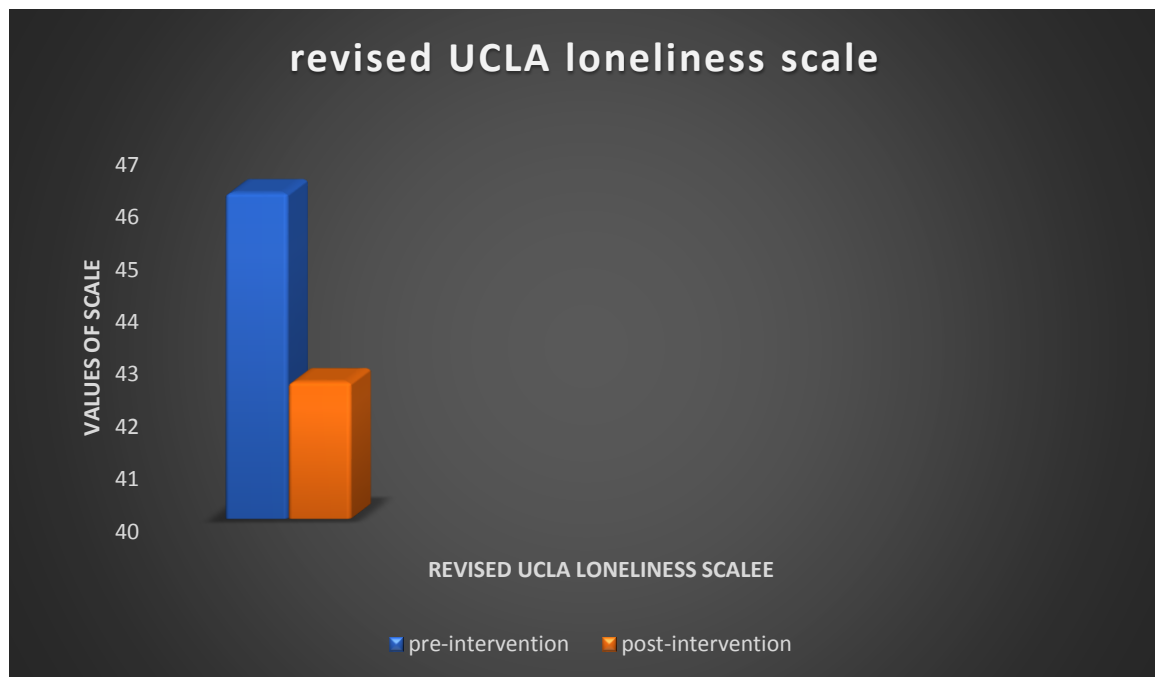
**Graph no 2: comparison of pre-intervention and post-intervention values of Fatigue assessment scale.**

**Revised UCLA Loneliness scale:**

The mean of revised UCLA loneliness scale values was  $46.2 \pm 7.230$  before intervention and  $42.6 \pm 7.192$  after intervention. The results were calculated by students paired 't' test showed significant result in revised UCLA loneliness scale.

**Table no 4: Comparison of pre-intervention and post-intervention values of revised UCLA loneliness scale.**

Outcome measure	Pre-intervention Mean $\pm$ SD	Post-intervention Mean $\pm$ SD	Students paired 't' test value	'p' values and results
Revised UCLA loneliness scale	$46.2 \pm 7.230$	$42.6 \pm 7.192$	12.645	P= 0.001 Extremely significant



**Graph no 3: comparison of pre-intervention and post-intervention values of Revised UCLA loneliness scale.**

#### 4. DISCUSSION:

The present result of the study suggests that Basic Body awareness therapy for 4 weeks helps in reducing the severity of depression, fatigue and social isolation.

In Previous studies, exercise as an add on treatment for major depression is effective on its severity and also improves cardiovascular fitness. The results also concluded that BBAT has an effect on self-rated depression symptoms but this approach needs to be further explored. In contrast to these studies, the present study showed results in severity of depression, fatigue and social-isolation by using Basic Body Awareness therapy as an add on treatment for major depression.[11]

Basic Body Awareness therapy increases body awareness which leads to somatosensory amplification, subjective bodily experiences are processed and established through the interoceptive network. The interoceptive system is activated via stimuli such as heartbeat, hunger, thirst and light touch. This afferent input from A-delta and C fibres follow the lamina 1 spinothalamocortical tract and project information of the physiological condition of the body to the thalamus and subsequently to the insular cortex. The anterior insular cortex (AIC) is the highest integrative level which leads to a meta-representation of the bodily state. The motivational and behavioral aspect and the subjective feelings together form a global emotional moment. It is concluded that the AIC is a unique neural substrate that regulates homeostasis based on physiological health of the body and subjective well-being and consequently highlights its role in body awareness. [12]

#### CONCLUSION:

The conclusion is based on the results of differences in pre-post mean scores of Montgomery Åsberg Depression Rating Scale, Fatigue Assessment Scale and Revised UCLA Loneliness Scale. The scales showed decreased severity in the level of depression, fatigue and social isolation.. This study concluded that Basic Body Awareness therapy a physiotherapeutic approach as an add-on treatment for depression has significant effect on the condition. This therapy reduces the severity of depression as well as on fatigue and social isolation.

**LIMITATION OF STUDY:**

- The study included smaller sample size.
- The study was conducted on limited age group(30-50 years)
- The intervention was done only for 4 weeks i.e. a short-term study.
- The study was limited to Pravara Rural Hospital.

**FUTURE SCOPE OF STUDY:**

- The study can be conducted on younger age group suffering from depression.

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