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CASE REPORT

# **Basic Body Awareness in Postnatal Depression: A Case Study**

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#### Abstract

Currently, there is limited evidence that a physiotherapy intervention may reduce depressive symptoms as well as the conventional interventions of medications and psychotherapy. We describe the effect of basic body awareness, a form of physiotherapy intervention, on the physical and psychological well-being of a 32 year old mother with postnatal depression. After six weeks of basic body awareness intervention, there was considerable reduction in her depressive symptoms, thus enhancing physical and psychological well-being. Hence, we propose that basic body awareness may be considered as an adjunct to the management of postnatal depression.

**Key words:** Postnatal care, Depression, Maternal health, Basic body awareness, Physiotherapy.

### Introduction

Postnatal depression, also known as postpartum depression,

is a form of clinical depression that typically occurs after childbirth and is often missed by primary care physicians (1). Studies have reported a prevalence rates among women from 5% to 25%. Among men, in particular new fathers, the incidence of postpartum depression is estimated to be between 1.2% and 25.5% (2). Postpartum depression occurs in women after they have carried a child, usually in the first few months, and may last up to several months or even a year (3). Specifically, the onset of postpartum depression is 4 weeks and may last up to 6 months after giving birth (4). Postnatal depression does not usually have a single cause, but it may be the result of a combination of factors, including genetic predisposition, hormonal imbalance, worry and anxiety about the responsibility of having a new baby, a difficult delivery, lack of support at home, relationship worries, financial stress, lack of nearby family and friends, and mental health problems in the past (5). Symptomes include sadness, fatigue, changes in sleeping and eating patterns, reduced libido, crying episodes, anxiety, irritability, hopelessness, low self-esteem, guilt, a feeling of being overwhelmed, inability to be comforted, exhaustion, emptiness, anhedonia, social withdrawal, lack of energy, frustration, feeling inadequate in taking care of the baby, impaired speech and writing, anger toward others, panic attacks, and decreased sex drive (6-10). The medical treatment of postnatal depression includes antidepressants, hormonal treatment and psychotherapy. In addition, certain physical modalities such as light therapy, massage therapy and electroconvulsive therapy have been tested on a limited scale (11). At present, there is a good evidence for the effectiveness of exercises in the treatment of postnatal depression. Meta-analyses have concluded that exercise may be effective in reducing depression in the general populations as well(12-14).

Basic body awareness (BBA) is an evidence-based form of physiotherapy that has physical, physiological and psychological effects, which have been reported to increase body awareness, improve self-esteem and ability to think in a better way in patients with psychological/psychiatric problems (15). However, there is a paucity of information on the effectiveness of BBA in postnatal depression. Hence, we are describing this case study to draw attention to the potential clinical utility of this technique in physiotherapy management of a woman with postnatal depression.

## Case Study

### History

We describe a 32 year old woman. Her height was 161 centimeters, weight was 64 kilograms and body mass index (BMI) was 24.7 kg/m<sup>2</sup>. She was a science graduate, house wife and delivered of a full-term female baby by caesarean section 3 weeks earlier. She had pregnancy-induced hypertension and gestational diabetes. She was referred for postnatal physiotherapy and was diagnosed by a psychiatrist to have postnatal depression. The patient was seen by a physiotherapist and enrolled for daily treatment. The patient complained of a lack of interest in exercises, self-care and feeling of sadness. She had no history of similar complaints in the past, although she had some antenatal anxiety. She belonged to a middle socioeconomic class and had limited family and social support. She had no family history of psychiatric problems, had adequate relationship with her parents and had a nuclear family structure with a satisfactory and adequate family income. There was no history of problems with her spouse's parents. She wished for a son and she had limited help at home postpartum. She has no history of serious adverse life events.

Physical examination: Her vital signs including blood pressure were normal. Postural findings included increased lumbar lordosis and anterior pelvic tilt. Her sitting tolerance time was 10 minutes; she reported discomfort with static postures; abdominal muscle power was 2+; presence of diastasis recti; multifidus power was 2+. Pelvic floor muscle power was 2/5 with manual/digital muscle testing of pelvic floor muscle as per the Modified Oxford Scale (16). Her Edinburgh Postnatal Depression Scale (17) score was 19/30 and self-efficacy for exercise score was 10.3 (18).

## Procedure

Ethical approval was granted from the Institutional Ethical Committee and the patient gave an informed written consent. Her demographic data, physical examination, Edinburg postnatal Depression scale score, self-efficacy for exercises, scale of perceived social support (19), pelvic floor muscle strength, sitting tolerance time, six-minute walk test and 10-meter walk test were recorded. She first saw a video demonstration and then was trained to perform BBA exercises independently under the supervision of a physiotherapist. BBA was performed for 20 minutes a day for six weeks (20-22). Reassessment was performed again. For BBA, the participant was asked to be with bare feet and then in standing she was asked to shift her weight forward, backward, sideways and in a circular fashion (Figure 1). Further, she was asked to straighten her body as if she could get taller or vertex was attached to a string and then she was instructed to bounce in a vertical fashion and slowly increase those bounces like springs, leaving the arms free. The entire session takes about 20 minutes.

Before participation in this study, the patient's baseline Edinburg Postnatal Depression scale score (EPDS) was 19/30, six-minute walk test score was 250 meters, 10-meter walk test score was 76.3 meters/minute and pelvic floor muscle strength was 2/5. After six weeks of BBA and Kegel exercises, EPDS score was 11/30, six-minute walk test score was 460 meters, 10-meter walk test score was 83.2 meters/minute and pelvic floor muscle strength was 3/5. She showed . She showed an interest in self-care, baby's care, reading newspaper and wanted to know more about how she can come out of this stressful situation in her life and recurrence of similar episodes in future. Her self-efficacy for exercise score was 10.3 and after BBA it was 7.5. Multi-dimensional scale of perceived social support was 35/84 and after BBA it was 58/84.

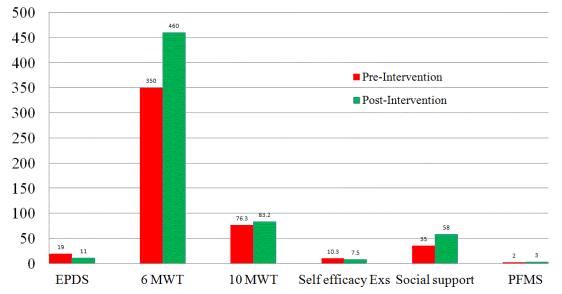
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**Figure 1.** A photographic representation of the BBA. The participant is asked to have bare feet and while standing, she was asked to shift her weight forward, backward, and sideways in a circular fashion (see text).

#### Discussion

This case provides information on the use of a BBA technique in the treatment of postnatal depression and is the first case report to investigate this in a new multiparous mother. The term body awareness therapy was first used in the late 1960s in connection with physiotherapy for neurotic patients (20,21) Considering this fact, a 32 year old female attending postnatal physiotherapy and subsequently diagnosed with postnatal depression was selected as a study participant and evaluated after six weeks of BBA intervention. In the present study, the Edinburgh Postnatal Depression scale was used to assess how this woman felt and estimate the extent of her depressive symptoms. There was significant improvement in her EPDS score after the intervention. This could be due to direct effect of BBA exercises reducing depressive symptoms, improving functional ability, physcial and mental helath, social and recreational activities, wellbeing effect, emotional status, increasing vitality and interest, and also improving the ability to accept more unpleasant experiences, such as discomfort and distress. Improved body awareness and self-esteem, changes in body posture and balance, the ability to move with an increased sensory awareness, and better contact with the surroundings are also beneficial in improving the depressive symptoms. BBA is believed to alter the ability to think, affect regulation, body awareness and self-esteem. BBA is believed to offer the opportunity to get in contact with oneself, which can be difficult sometimes (15).



**Figure 2.** Baseline and post-BBA results of Edinburg Postnatal Depression scale score (EPDS), six minute walk test (6MWT) score, 10 meter walk test (10MWT) score, Self-Efficacy Exercises Score, Social support and Pelvic floor muscle strength (PFMS).

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The 6 minute walk test and 10 meter walk test was used to assess the physical exercises capacity as an objective measure. The improvement in these parameters suggests a better physical status after the BBA intervention. Kegel exercises also helped in the physiological restoration of pelvic floor muscle strength. There was appreciable increase in self-efficacy for exercises. The higher selfefficacy for exercise indicates that the basic body awareness intervention was successful in promoting the participant to believe that she could achieve regular participation. Selfefficacy could be a proximal predictor of behavior that would impact on mood (22). Given the predominantly psychosocial view of the etiology of postnatal depression, the multidimensional Scale of Perceived Social Support was assessed to evaluate social support from family, partner, friends and other associates. After the basic body awareness there was significant improvement in social support perceived by the participant. This could be due to the change in her ability to perceive social support as a result of reduction in depressive symptoms or an increased sympathetic approach from the members of her social support system. This finding is in accordance with a study by Daley et al who reported the feasibility of an exercise intervention for women with postnatal depression (22).

Limited published research exists as to the benefits of BBA in postnatal depress. Hence, interpretation of our results in relation to previous evidence becomes difficult at this juncture. In the present study, we could not study the exact cause and effect relationship and considering the nature of this study design, generalization of the results of this study has limitations. Hence, evidence from a larger, placebo-controlled trial is needed with adequate follow-up to determine whether BBA will reduce depression in postnatal women.

In summary, this case showed the feasibility of basic body awareness therapy in a woman with postnatal depression. It resulted in improving her depressive symptoms, physical well-being, body dissatisfaction, body attitude and thereby, quality of life. Basic body awareness may be considered an adjunct to the management of postnatal depression.

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