Original Research Article

EFFICACY OF MINDFULNESS MEDITATION ON EMOTIONAL MATURITY OF MOTHERS OF CEREBRAL PALSY CHILDREN.

ABSTRACT

Background: Cerebral palsy (CP) is a disorder of movement that is seen in early childhood. Children with CP sometimes are not able to walk, sit, crawl, or rollover, as early as other kids of their age. This study aims to find the impact of mindfulness meditation on the emotional maturity of mothers of cerebral palsy children**.**

Methods: We did this research at Acharya Vinoba BhaveRural Hospital, Sawangi (Meghe), Wardha, we included 50 mothers of children of cerebral palsy visiting at Paediatric therapy unit at Ravi Nair physiotherapy college, Sawangi (Meghe), Wardha. The Purposive Sampling Method was used and the study duration was 6 months. We used variables such as age, educational status, occupational status, income, marital status, region, and emotional maturity scale questionnaire.

Result: The research analysis revealed a high degree of emotional immaturity in the mothers of children with CP from the rural population. 4% of the women were emotionally immature and 96% of them had an extremely immature type of EMS. After giving intervention there was an improvement and the EMS score at 12 weeks was 2% were emotionally immature and 48% were extremely emotionally immature at 24 weeks 0 % were emotionally immature and 24% were extremely emotionally immature.

Conclusion: Education has a marked effect on people. Mental health training is among the most efficient way of controlling emotional debility and making mothers emotionally strong and

preventing social harm. This research looked at the impact of mindfulness meditation on the mental health of mothers of cerebral palsy children.

Keywords: cerebral palsy, emotional maturity, mindfulness meditation

INTRODUCTION:

The most common movement disability in children is Cerebral Palsy (CP). It appears in around 2.1 per 1,000 live births (1). It is "a group of permanent disorders of the development of movement and posture, causing activity limitations, which are attributed to non-progressive disturbances that occurred in the developing fetal or infant brain (2)."Itis induced by an irregular development or injury to the brain sections that regulate balance, posture, and movement (3). Since there is no known cause in some cases, common causes of CP include issues in intrauterine development, brain hypoxia and pregnancy complications during labor and childbirth, and issues during birth or childhood (4). CP is handled through supportive drugs, surgery, and therapies. There are various types of treatment are available for patients living with cerebral palsy and even for parents and caregivers (5). Therapy can involve one or more of the following: physiotherapy; speech therapy, occupational therapy, aquatic therapy; medications for seizure management, pain relief, or relaxation of muscle spasms (e.g. benzodiazepines); surgeries to fix structural anomalies or relieve rigid muscles; orthosis and braces; rolling walkers; and communication aids including such as computers with attached voice synthesizers (6). Therapists can help kids and adults optimize their work, adjust to their disabilities, and function independently. For children with CP, a family-centered approach was used. Therapists work carefully with the family members to resolve their children’s issues and priorities (7). The involvement of acerebral palsy

child in a family causes intense emotional tension and a sense of despair, fear, and guilt (8). The disability associated with cerebral palsy is after all lifelong in duration and frequently exerts considerable ongoing and evolving burdens on the affected child and the family. Additionally, families with disabled children have to deal with additional economic burdens, more regular interruption with daily life, and less social interaction outside the home (9).

The maturity is an important phase of growth of a living organism. The development phase of personality correlates to psychological and biological development (10). The young infant is very dependent on the mother and he strives satisfaction from the mother for his requirements; his security was based on being cared for and loved by the mother (11). The biggest action towards independence is achieved by developing intelligence functions that cause the world around them to have a high degree of independent orientation (12). Caregiver load is a strain that carers perceived. This strain has a detrimental impact on carers as well as caregivers. Taking Care of a disabled child can result in a greater level of load to the caregiver (13). The CP's widespread complications and interdisciplinary management have a huge effect on the lives of those affected as well as their mothers who are the primary caretakers (14). The workload of caretaker mothers, however, needs to be measured regularly. Numerous studies have found that mothers of CP children report significantly more emotional distress than mothers of normal children (15). While caring is a common routine part of the day-to-day life of a young child's parents, this role takes a completely different meaning when a child perceives functional limitations and long-term dependence(16). Subsequently, caring for a child with chronic disabilities at house may be very disturbing for carers, and providing such care can be hazardous to both the psychological well-being and physical well-being of families with children with complex disabilities.

Mindfulness meditation (MM) is usually based on intervention strategies (MMBIs) based on an approach, which depends on upon1. Mindfulness-Based Stress Reduction (MBSR), 2.mindfulness-based cognitive therapy which has been used in many therapy settings. MM is being used as a medical treatment and has inspired a surge of scholarly and scientific activity. MBSR is a standardized initiative of meditation programs created in 1979.MBSR encompasses three different approaches: body scanning, feeling, or sensation in body regions using periodic breath awareness and relaxation suggestions. Therefore we are conducting the study to see the effect of mindfulness meditation on the emotional maturity of mothers of cerebral palsy

children**.** The aim is to assess the emotional maturity and to find out the impact of mindfulness meditation on mothers of cerebral palsy children**.**

METHODS / DESIGN

Study design:

This study was carried out in the Acharya VinobaBhaveRural Hospital, Sawangi(Meghe), Wardha. It was a Cross-Sectional Study. The sample size of the study was 50 mothers of children of cerebral palsy visiting Paediatric therapy unit at Ravi Nair physiotherapy college, Sawangi(Meghe), Wardha. Purposive Sampling Method was used. The duration of the study was 6 months. Study variables were age, educational status, occupational status, income, marital status, region, and emotional maturity scale questionnaire, etc.

PARTICIPANTS:

Inclusion criteria

1. Mothers who were the primary caregivers of the child.
2. Mothers who gave written consent to participate in the study.
3. Mothers who had a child diagnosed with cerebral palsy and the age of the child are between 2 to 12 years.

Exclusion criteria

1. Mothers having past or current psychiatric illness.
2. Mothers having a history of chronic illnesses like diabetes, cardiovascular disorder, pulmonary disorders, or renal disorders.

Intervention design:

Mothers of cerebral palsy children visiting A.V.B.R.Hospital, Sawangi (Meghe), Wardha were recruited for the study after meeting the inclusion criteria. Before performing the intervention pre EMS score were recorded. Mothers were asked to perform mindfulness meditation for 45 mins a day, 5 days a week for 4 weeks. After the completion of the intervention, and emotional maturity scale was used for assessment at 3 months and re-assessed at 6 months. The outcome measure

used in the study was the Emotional Maturity Scale(EMS)**.**EMS is a self-reporting five-point scale.

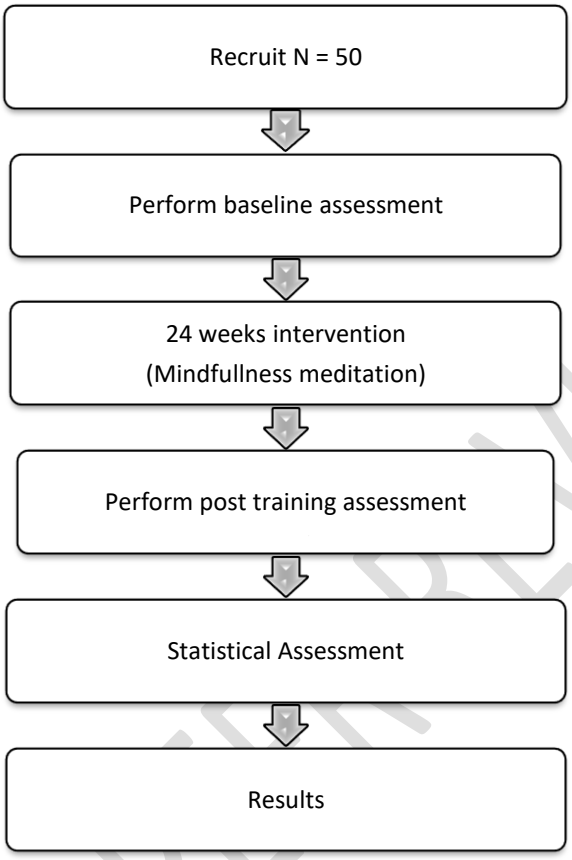


Fig. 1. Study protocol

STATISTICAL METHOD

Statistical analysis was done by using descriptive and inferential statistics using factor analysis, correlation analysis, and reliability analysis. The software used in the analysis was SPSS 17.0 and $p<0.05$ is considered as the level of significance ($p<0.05$).

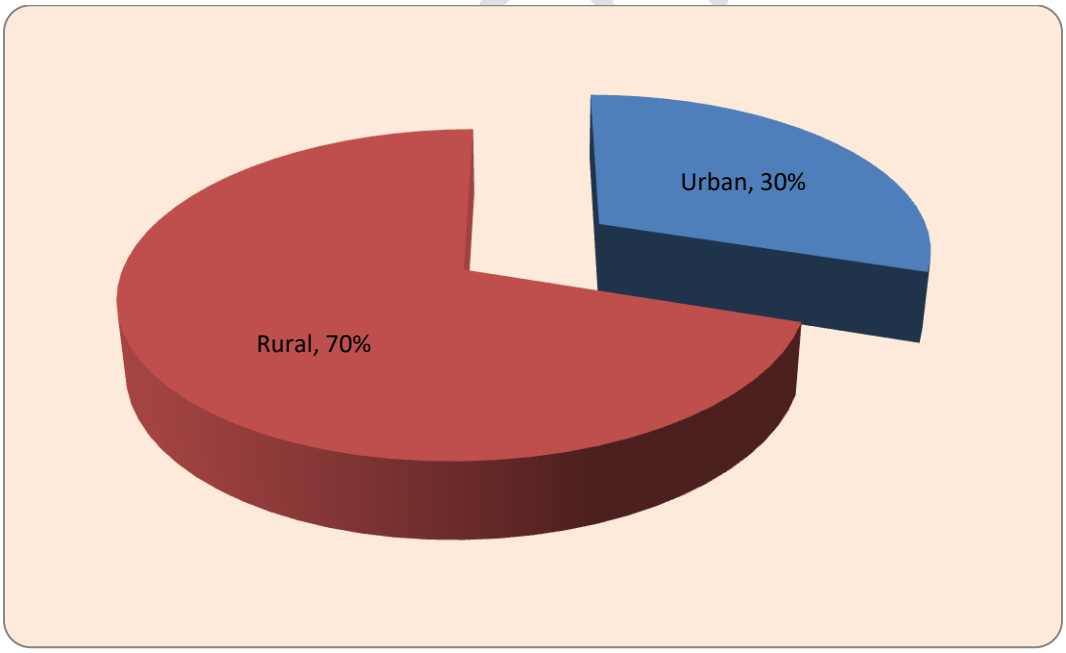
DATA COLLECTION:

The data gathering was conducted from 2019-2020. The investigators visited and the necessary permission from the concerned authority was obtained after explaining the objectives and purpose of the study.

RESULTS AND STATISTICS:

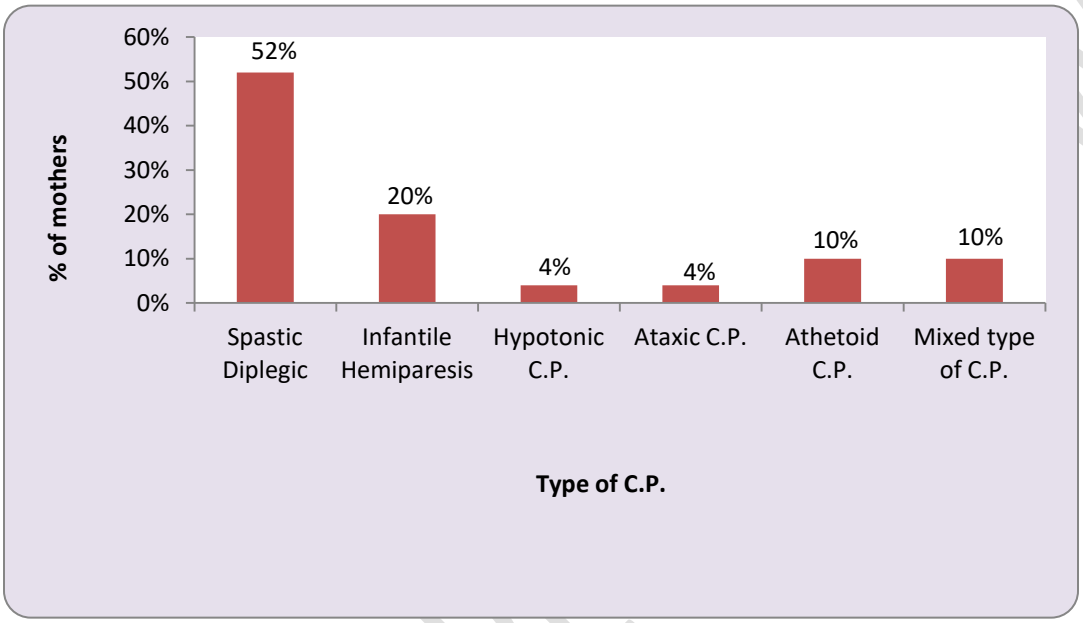
The results of our study showed that 26% of the mothers were in the age group of 20-25 years, 38% in the age of 26-30 years, 30% in the age of 31-35 years, 4% in the age of 36-40 years and only 2% were in the age of 41-45 years respectively. The mean age of the mothers were29.42±5.34(20-45 yrs) years.62% of the mothers were educated up to secondary, 20% up to higher secondary, 16% were graduated and only 2% were educated up to postgraduates.2% of the women were doing business, 26% were farming work, 62% were housewives, 6% were laborer and 2% each were servicemen and unemployed.30% of the mothers of children were residing in an urban area and 70% of them were residing in rural areas i.e. most of the women were from rural areas.4% of the women had emotionally immature and 96% of them had an extremely emotionally immature type of EMS at the first visit, 2% of women had emotionally immature and 48%of them had extremely emotionally immature at 12 weeks and 0% women had emotionally immature and 24% women had an extremely emotionally immature type of EMS at 24 weeks respectively.

Graph 1: Distribution of patients according to area of residence



30% of the mothers of children were residing in urban area and 70% of them were residing in rural areas i.e. most of the women were from rural areas.

Graph 2: Distribution of CP patient



Graph 3: Distribution of patients according to emotional maturity score

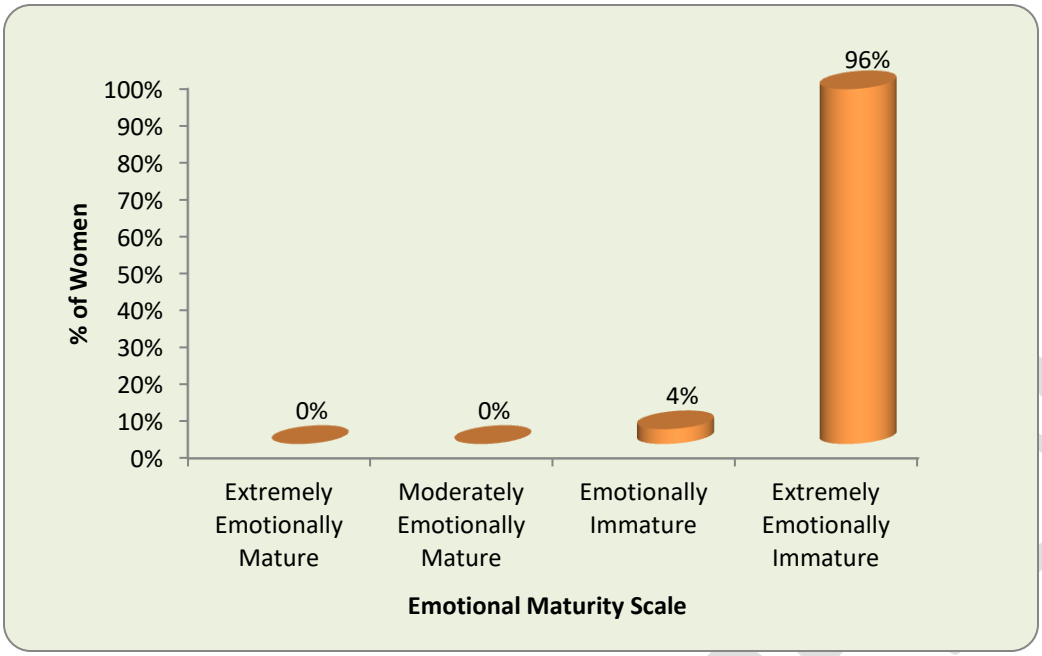


Table 1: Distribution of patients according to emotional maturity score at 12 weeks

EMS	Score Range	No of patients	Percentage(%)
Extremely Emotionally Mature	50-80	0	0.00
Moderately Emotionally Mature	81-88	0	0.00
Emotionally Immature	89-106	1	2.00
Extremely Emotionally Immature	107-240	24	48.00
Total		50	100.00

Table 2: Distribution of patients according to emotional maturity score at 24 weeks

EMS	Score Range	No of patients	Percentage(%)
Extremely Emotionally Mature	50-80	0	0.00
Moderately Emotionally Mature	81-88	0	0.00
Emotionally Immature	89-106	0	0.00
Extremely Emotionally Immature	107-240	12	24.00
Total		50	100.00

DISCUSSION:

Barog et al (2015) studied the efficacy of mindfulness-based cognitive therapy on the quality of life of mothers of children with cerebral palsy. Findings revealed that the MBCT program elevated the quality of life of the participants. The improvement quotient for the quality of life of each participant was good. The results have implications for the efficacy of mindfulness for improvement of the psychosocial life of families of children with cerebral palsy. We have also found that after giving intervention of mindfulness meditation their emotional immaturity stage of mothers with cerebral palsy children was reduced and they were able to actively participated in the treatment session of their children (17).

Bostock et al (2019) studied the effects of a mindfulness meditation app on work stress and well-being. The results showed that the intervention group reported significant improvement in well-being, distress, job strain, and perceptions of workplace social support compared to the control group. This trial suggests that short guided mindfulness meditations delivered via smartphone and practiced multiple times per week can improve outcomes related to work stress and well-being, with potentially lasting effects. In our study, the result showed that the stressful condition being a prime caregiver was hampering their children's outcome. After giving sessions of

mindfulness meditation the mothers got relaxation and thus reduced strain of handling their children (18).

Another study by Wielgosz et al (2019) on Mindfulness Meditation and Psychopathology showed that mindfulness meditation is a promising basis for interventions, with particular potential relevance to psychiatric comorbidity. The successes and challenges of mindfulness meditation research are instructive for broader interactions between contemplative traditions and clinical psychological science. After finishing the study we also agree that mindfulness meditation is a promising intervention for relieving overall stress and psychiatric comorbidities. Fattahi et al (2019) performed mindfulness education on the resilience and happiness of mothers with children with learning disabilities. This study shows that mental education for mothers with children with learning disabilities is useful, and it is effective in increasing the resilience and happiness of mothers. In other words, this study suggests that Mindfulness Education can be used for mothers with children with learning disabilities and can be used as a psychological intervention along with other interventions. It can also be an excellent treatment to increase the resilience and happiness of mothers with children with learning disabilities. Our findings in this analysis revealed a high degree of emotional immaturity in the mothers of children with CP from remote regions. The mothers of disabled children suffered from extreme psychological distress linked to levels of impairment. In light of these findings, we thought that a successful treatment program would provide ample opportunities for mothers to release their stress and provide focus family-centered care for children with disabilities (19). Therefore we designed a mindfulness meditation program to improve Emotional maturity which reflects on the functional outcomes of their children.

CONCLUSION:

The physical health and psychological health of caretakers, who were predominantly mothers in this research, was highly affected by numerous children's issues and demands on care. The child's practical day-to-day problem related to their impairment created multiple challenges for parenting. In families of children with CP, interventions for improving physical and psychological wellbeing include supports for behavioral therapy and day-to-day functional tasks as well as methods for stress reduction and self-efficacy. The results showed that the mothers of children with cerebral palsy suffered from more psychological distress than mothers with normal

children. In light of these findings, the effective intervention program, mindfulness meditation is an effective tool for relieving psychological stress and providing sufficient opportunities for building confidence and strength to face challenges related to the rehabilitation of the cerebral palsy patients.

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