

FACILITATION OF PRESCHOOL ENROLMENT BY ALTERING MOTIVATION AND ATTITUDE OF PARENTS THROUGH SOCIO-MOTOR GAMES

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Abstract

Background: The child's development is impacted when parents' with significant stress allow use of screen (mobile/TV) by their children, in an attempt to overcome their limitation of spending free time with them. Parental stress and other issues limit their time with children, which have an adverse effect on their development. In general, parents of child with developmental delays are hesitant to enroll their children in preschool; instead, they may choose to address the delay before enrolling their kid. **Objectives:** This study aims at understanding the effect of parental involvement, through sociomotor games for Early Intervention, on improving their attitude and motivation towards spending quality time with children thereby increasing preschool enrolment. **Design & settings:** Using a Combination design (Quasi experimental; non-equivalent group) following TREND guidelines, 140 parents of children with developmental delay between 1 to 5 years, were recruited by convenience sampling for the study. "Global Motivation Scale-28" (GMS) for assessing motivation and "Parental attitude towards Pre-school Education" for assessing attitude of parents were used. **Results:** The majority of parents(62%) reported drastic improvement in experimental group with A grade (highly favourable attitude), resulting in considerable decrease in grade E parents (Extremely low favourable attitude). Though in control group also similar trend was seen in grade E, similar results were not observed in grade A or B, post intervention. Motivation scores in experimental group showed an increase in the intrinsic motivation with a corresponding decrease in a motivation, indicating a positive effect among parents. In control group also similar trend was seen in both a motivation and intrinsic motivation but not in extrinsic motivation. Comparison of mean motivation score between the groups in post intervention (experimental-171, control-166.8) reveals that experimental group has higher value than control group. **Conclusion:** Sociomotor games increased the attitude and motivation of parents to overcome their initial hesitance for enrolling their children to preschool, resulting in better preschool enrolment of children with developmental delays.

Keywords: Developmental Delay, Preschool Enrolment, Parental Attitude, Motivation, Sociomotor Games.

INTRODUCTION

Developmental delay is a condition in which the child has not gained the developmental skills expected of him or her, compared to others of the same age. Delays may occur in the areas of motor function, speech and language, cognitive, play and social skills^[1]. Neuro developmental disorders like Attention Deficit hyperactivity disorder (ADHD), autism, learning disabilities, cerebral palsy, conduct disorders, intellectual disability, and impairments in vision and hearing are mainly affect the functional aspect of brain and nervous system^[2]. Children who suffer from neuro developmental disorders may struggle with behaviour, memory, learning, speech and language, motor skills, or other neurological processes^[3]. Early intervention is a system of services that helps babies and toddlers to prevent developmental

disabilities and usually is given to children less than 5 years. It focuses on helping high risk newborns and toddlers learn the basic and new skills that typically develop during the first three years of life, such as physical (reaching, rolling, crawling and walking); cognitive (thinking, learning, solving problems); communication (talking, listening, understanding); social/emotional (playing, feeling secure and happy); and self-help (eating, dressing) [4]. Preschool childhood is the time when a child enters the world of social relations through play, movement, and communication. Children have always been drawn to the realm of social life. [5] Play helps to build the safe, stable, and nurturing relationships that buffer against toxic stress and build social-emotional resilience in children, in addition to improving their health and development. Play, with its mutual joy and one-on-one interaction, can help to manage the body's stress response. [6]

Developmental delay should be intervened with early intervention to prevent developmental disabilities as soon as a delay is identified. [7] As a child grows and develops, his or her first human interactions are typically with family members [8]. However the child's development is affected as the time spend by the parents is limited due to stress and other factors, especially when time spent is not interactive and is predominantly revolving around TV/mobiles. [9] Parents are generally reluctant to send children with developmental delay to preschool; they may want to correct delay first and then enrol for pre schooling there by denying/delaying opportunities. This study is done to assess the effect of increase in parental involvement on improving attitude and motivation towards spending quality time with children leading to increase pre-school enrolment

METHODS AND MATERIALS

Study proceeded throughout, including manuscript preparation, following TREND guidelines. A quantitative approach with a Combination design (Quasi experimental and non-equivalent group) was used for studying the effect of intervention. Mothers were recruited based on convenient sampling technique according to inclusion and exclusion criteria. Before commencing the data collection, authorised setting permission was obtained from the concerned authorities. The investigator introduced and explained briefly about aims and methods of the study to the participants, and obtained the informed written consent. The data was collected for 10 months from parents of children with developmental delay; the demographic data was collected using self-administered structured questionnaire. Motivation and attitude were assessed before educating the parents about importance of implementing early intervention among children with developmental delay. Then early intervention implementation was effected through social motor games after properly training them. The sociomotor games intervention was offered to experimental group and the control group continued with their regular therapy for 18 months following which motivation and attitude level were reassessed and the pre-test and post-test levels were compared.

Motivation assessment was done using "Global Motivation Scale-28". GMS subscales are extrinsic motivation, amotivation, and intrinsic motivation. Parental Attitude towards preschool enrolment was assessed using "Parental Attitude towards Pre-school Education" by S. Venkatesan. Inclusion and exclusion criteria:

Mothers of children with developmental delay who are less than 5 years of age being referred to SCDC toward improve the quality of child's home life, family relationships, increase educational attainment and support good mental health. Children with severe delay, seizure etc were excluded from the study

DATA COLLECTION AND ANALYSIS

Data were entered into Microsoft Excel and statistical analysis was carried out in SPSS software version 20.0. Qualitative variables like gender, socio economic status, education, occupation and income categories between the groups were presented as frequency and percentages. Quantitative variables like age, leisure time and family time spent for the child were presented as mean (standard deviation). The association between the qualitative variables between the groups and attitude grades between the groups were done with chi squared test. Comparison of motivation scores between the groups before and after intervention was done with independent t test. Comparison of motivation total scores and subgroup scores within the group before and after intervention was done with paired t test. A p value of less than 0.05 was considered as statistically significant. Bar diagrams and bar diagram with error bars were used for graphical representation of data.

Ethical considerations:

Study was started after getting the Ethical committee approval (022/11//2023/IEC/SMCH). The parents of the eligible children were explained in detail in the language understood by them regarding the study, the tools that are used, and the benefits to the children and there are no risks involved.

RESULTS

A total of 70 age and sex matched children were enrolled in the study in the age group 0-5 yrs as experimental and control group. In the experimental group 80 % (n=56) were nuclear family, were as in control 73% were nuclear. There was no significant difference in educational status between experimental and control group, but there was significant difference in socioeconomic between the 2 groups ($p=0.009$). Analysis of income group shows that 51% of experimental group were between Rupees 10,000-20,000, where as in control group the main income group was Rs 31-40,000(41%). Time spend on leisure activity shows significantly lower value for control group ($p<0.05$). This is because some parents in experimental group, considered sociomotor games as a leisure time activity. However there was no significant difference between the two groups on family time spent.

Comparison of attitude towards preschool enrolment post intervention between the two groups was highly significant, P value - 0.001. There was a drastic improvement in Grade A factor (highly favourable attitude); in the pre intervention (n-20) 28.6% improved as compared to 62.9% (n-In post intervention).

The least favourable factor, Grade E, which was 17% (n=12) at pre intervention 17% (n-12) considerably decreased following post intervention (0%) in Experimental group. Though in control group also similar trend was seen in grade E, similar results was not seen in grade A or B , post intervention.(Figure 1)

Comparison of motivation scores in experimental group pre and post intervention showed that intrinsic motivation increased to 81.8% from 67.78% and it indicate

positive effect among mothers. Extrinsic motivation decreased to 68.66% from 79.73%, Amotivation decreased to 21.39% from 79.73% in after intervention. In control group also similar trend was seen in Amotivation and Intrinsic motivation but not in Extrinsic motivation.(Table 1) Hence the improvements in intrinsic motivation might have resulted in greater positive 'affect' in the experimental group. Affect is the parent's immediate expression of emotion; these parents showed better scoring of their affect as rhythmic (normal) when compared to dysphoric(depressed, anxiety/guilt) in the other group on mini mental state examination

Children improved on social skills on sociomotor games and attitude and motivation of parents towards their child also changed significantly ($P < 0.05$). Positive effect of intervention resulted in 61.4 % (n-43) of parents confidently enrolling their children in preschool. (Figure 2)

DISCUSSION

The data did not reveal any significance in relation to age; but there was significant difference with respect to gender of the child. This is in line with a previous study done in Turkey using the Denver Developmental Screening Test (DDST) in which normative data for 1176 healthy urban children were examined for variations in performance based on social class and sex. The gender disparities were negligible and comparable to those observed in other nations ^[10]. Family size between experimental and control group showed no significant difference. Significant difference in educational and socio-economic status was noted between Experimental and Control groups. There was higher number of parents in the lower and high-income experimental group. Majority were doing household jobs. Parents doing Socio-motor games with their children could find more leisure time to spent (5.16 hours/day: 4.62hours/day). Many parents could experience comfort and consider the socio-motor games itself as a leisure activity; and hence could get more leisure time than others who could not enjoy the routine parental training activities as it was more educational. A Similar study found that, although families living with ASD spent just as much time engaging in leisure as Typical Development families, caregivers of children with ASD reported less satisfaction with leisure, poorer family functioning, and lower satisfaction with family life. Patterns of lower leisure satisfaction and satisfaction with family life were particularly pronounced in families of children with ASD who had more severe functional impairments. Mediation models suggested that lower leisure satisfaction was associated with poorer family communication, which is in turn was related to less optimal family flexibility and cohesion and lower satisfaction with family life. These findings have several important clinical and research implications. First, leisure satisfaction was much more impactful in models of family functioning and satisfaction with family life, as compared to leisure involvement. This suggests that interventions aiming to support leisure participation for families of children with ASD should focus on quality, rather than quantity. Interventions that help families identify mutually pleasurable family activities, address behavioral difficulties that might arise during leisure, and increase overall satisfaction with leisure are likely to be more beneficial than interventions that simply aim to increase time spent in leisure.^[11] M K C Nair et.al done a Community survey on 1,01,438 children below 6yrs of age in Thiruvananthapuram district were screened by ASHA workers and 2,477 (2.45 %) positive cases were identified and these children were called for the developmental evaluation camps conducted at 80 PHCs

in the district. Among the 1,329 children who reached the evaluation camps 43.1 % were normal. 24.98 % children had speech and language delay and 22.95 % children had multiple disabilities. Developmental delay was observed among 49.89 % children and cerebral palsy in 8.43 % and intellectual disability 16.85 % were confirmed. Visual impairment in 3.31 % and neuromuscular disorders in 1.35 were found among children evaluated in the camp^[12]. Families play a vital role in the success of early intervention programs. Informed and engaged parents or caregivers can reinforce strategies and activities at home, creating a consistent and supportive environment for the child. Moreover, involving families fosters a sense of partnership between professionals and parents, enhancing the overall effectiveness of the intervention^[12]. Comparison of attitude towards preschool enrolment showed that there was a significant increase in “favourable attitude” towards preschool enrolment following experiencing the improvement and understanding of their skills. When parental attitudes were compared, Shobana M, et.al found that Mothers of children with intellectual disability were found to have the most negative attitude towards their child. Mothers of children with autism disorder exhibited higher scores on somatic symptoms, anxiety, and social dysfunction when compared with their counterparts with Down syndrome and intellectual disability. Negative attitude was a significant predictor of psychological problems. Parental attitudes and psychological problems would vary among mothers of children with different types of developmental disability^[13]. A recent study on mothers' motivation in the developmental stimulation of children aged 1-3 years old showed that 62,5% of respondents had low motivation, while 37,5% of respondents had a high motive to perform stimulation in developing children aged 1–3. The study concludes that most mothers have low motivation in developmental stimulation. Health workers should give health education about the developmental stimulation of children to mothers^[14]. Though there was no significant difference in motivation towards preschool enrolment before parental engagement, the study found significant deviation in motivational scores favouring preschool enrolment, post intervention. The researcher found that the level of children enrolling for preschool education was low due to factors such as: parental income, parental education level, size of the family and the marital status of the parents. All these factors were found to affect school enrolment in different ways, for instance the parental level of education affected their children's enrolment in preschools in such that illiterate parents did not see the importance of school, they hardly pay attention to whether their children go to school or not while some do not even check or supervise their children's homework and progress in school [15]. Sociomotor games by parents increased motivation scores in experimental group- Intrinsic motivation increased to 81.8% from 67.78% indicating positive effect among mothers.

Limitations of the study are small sample size and lack of randomization.

Clinical message:

- Socio- motor games induces changes in attitude of caregiver towards timely preschool enrolment
- Engaging in socio- motor games motivates the mother to enhance the child's skills enabling easy acquisition of skills necessary for preschool enrolment.

CONCLUSION

Parental training of implementation of sociomotor games followed by sessions enabling them to implement it along with their children brings in sweeping changes in the mentality and understanding of their child's skills and abilities which changes the prejudices and negative attitude of parents towards enrolling their child in preschool. It also made them more intrinsically motivated; with reduction in amotivation and extrinsic motivation, favouring a better involvement with children resulting in 61.4% children were enrolled in preschool.

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