



Maternal awareness and perceptions regarding factors affecting the learning ability of school children: A cross sectional study using mixed methods approach

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Abstract

Introduction:

The learning ability of the child is influenced by a variety of factors. Though, genetics plays a role in the learning ability of the child, environmental influences like parental contributions to learning of children are also a major determinant of the child's ability to learn new things. Thus, this study was done to assess the maternal awareness and perceptions about the factors affecting the learning ability of school children.

Material and Methods:

This study was a cross-sectional study that used a mixed methods approach. About a hundred mothers of the children studying in grades 3 to 5 attending the OPD (outpatient department) at a PHC (Primary Health Centre) affiliated to a tertiary care institute were included as respondents. Focus group discussions (FGDs) using a semi-structured interview module on the maternal perceptions regarding the factors affecting learning ability of the child were conducted for twenty mothers based on reaching the saturation point for the interview questionnaire. Grounded theory approach was utilized for analyzing the maternal responses.

Results:

The study showed that > 90% of the mothers were aware about the learning ability of their children. Mothers from nuclear families ($p=0.0018$) and those having lesser number of children ($p=0.023$) were significantly contributing to the child's studies. It was also observed that nearly 80% of the mothers discussed about their child's school performance with their teachers irrespective of their own education status. On assessing the maternal perceptions on the child's learning ability, major themes generated were parental education, socio-economic status, parental support, teacher's role in learning, home and surrounding environment, peer influence as well as psychological inter-individual differences.

Conclusion: There was high awareness among the mothers about the learning ability of their children. Factors that play a crucial role in the child's learning ability were teacher's and parental support, surrounding environment, peer influence as well as psychological and inter individual differences in learning patterns.

Keywords: Learning ability;Cognitive;Reading;Writing;Language;Perceptions



1 Introduction

In India, around 13-14% of all school children are known to be having one or the other learning disorders (Arifa, 2019). Unfortunately, these are not recognized at an early stage, hence these children are mostly abused by their parents and teachers and are at a high risk of scholastic failures and being labelled as failures. Learning encompasses well defined specific areas of cognitive capacity such as development of language functions both verbal and written, perceptual organization and ability to understand and complete task (Madhamani, 2021). This is defined as the leaning ability of a child. This begins at an early age and is facilitated by the parental efforts at supporting the child in learning and acquiring skills (Aksa, 2020).

When a child is able to read and write effectively, there is an overall development of other intellectual and social areas that depend on the child's ability to comprehend (Madhamani, 2021). Therefore, development of literacy ability is an important facet for child's overall development. The early development of the reading and writing skills takes place at home under the parental guidance before the child starts schooling. At 2-3 years of age the child scribbles and is attuned to phonetics of the spoken alphabets. After schooling begins, the child starts to get acquainted with the spoken and written language. During this period, proper parental support is necessary for the child to achieve his or her full potential in the reading and writing domains. Several studies have shown that children of mothers who support the learning processes perform better at school as compared to children of mothers who are unaware or do not pay much attention to the child's learning processes (Kemp, 2021).

Learning disabilities, or learning disorders, is the term used to describe a wide variety of learning problems (Cortiella, 2014). It does not necessarily mean poor intelligence or motivation of the child or that the child is lazy or dumb. It is the basic inability of the child to understand and follow the learning processes at the same pace as any other child (Jose,

2009). This affects information processing through seeing, hearing, and understanding things differently which may lead to difficulty in learning new information and skills, and applying them. The most common types of learning disabilities involve problems with reading, writing, math, reasoning, listening, and speaking (Sadaket, 2009). These disabilities occur early in life and can be corrected when identified at an early stage with appropriate interventions (Buttner, 2011).

Thus, parental awareness about the learning ability of their child plays a crucial role in identifying any derailment from the learning process in the child. If the parents are knowledgeable about the normal learning milestones, it becomes easier for them to identify the manifestations of learning disabilities at the very first occurrence and tackle the problem (Sharma, 2014). Therefore, this study was planned to understand the perceptions of mothers about learning ability of their child with specific reference to difficulties in reading, writing and comprehension.

The aim of the present study was to assess the perceptions of mothers about learning ability of a child among mothers of children studying in the 3rd to 5th grades visiting the OPD of a PHC from a tertiary care institute.

The Objectives were:

- 1) To assess the awareness of a mother regarding learning ability of a child
- 2) To assess the mothers' involvement in education of her child
- 3) To Evaluate the factors influencing the child's learning ability.

2 Materials and Methods

Study Design: The study was a cross sectional study using a Mixed Methods Design (Quantitative + Focus Group Discussions with mothers to assess their perceptions about the learning ability of the child for the qualitative aspect of the study)

Sampling Technique and Sample Size: A convenience sample of 100 mothers (Quantitative) was obtained on first come first

served basis from the mothers attending the OPD of the PHC affiliated to our institute. For the qualitative study, a subsample of 20 mothers was included and two FGDs with 10 participants each were conducted.

Inclusion Criteria: The mothers of children studying in 3rd to 5th standard and willing to provide a written informed consent were included in the study.

Study Duration: 3 months from January 2022-March 2022

Methodology: After obtaining ethical approval from the institutional ethics committee, the present study was conducted in the OPD of the PHC. The mothers of 3rd to 5th grade children attending the OPD were requested to participate in the study after explaining the study procedures and obtaining a written informed consent from them. A predesigned and pretested proforma comprising of the socio-demographic information and knowledge about the mother on the learning ability of the child was obtained by conducting face to face interviews with the mothers. The FGDs were scheduled at a later date and conducted at a secluded confidential place within the PHC premises with prior appointment of the participants. A semi-structured interview guide focusing on the mother's knowledge, perceptions, involvement in child's learning processes and her perceptions about the factors affecting the same was prepared for conducting the FGDs. A written consent was obtained for audio-recording the proceedings

of the FGDs. The facilitator conducted the FGD while the note-taker took the field notes during the session.

Statistical Analysis: The obtained data was entered in MS Excel. Descriptive statistics were used for continuous variables and were summarized using means and standard deviation. Categorical variables were summarized using frequencies and percentages and compared between the groups using Chi-Square or Fisher exact test. The qualitative data along with the FGD audio-recordings and the field notes were transcribed verbatim and coded in order to generate nodes and themes. Grounded theory approach was utilized for conducting thematic analysis.

3 Results and Discussions

This study was conducted among 100 participants, who were the mothers of children attending grades 3 to 5 and visiting the OPD at the PHC affiliated to our institution. It was observed that mean age of mothers was 31 years with standard deviation of 10 years. Most of the participants belonged to lower middle class (51%) with only 16% who belonged to upper middle class according to the B G Prasad's socio-economic status classification. It was observed that, 40% of the mothers were educated upto high school and only 8% were illiterate. Overall literacy rate was 92% among the mothers who hailed from rural areas.

Table 1: Socio-demographic profile of mothers participated in the study

Age of Mothers (in years)	Frequency	Percentage
20-30	55%	55%
31-40	38%	38%
41-50	7%	7%
Mean age of mothers	31	
SD	10	
Socio-economic status (B G Prasad Scale)		
Lower Middle Class	51%	51%
Middle Class	21%	21%
Upper middle class	16%	16%
Education of Mothers		
Graduate	2%	2%
High school	40%	40%
Middle School	36%	36%
Illiterate	8%	8%



Figure 1: Awareness of mothers regarding cognitive skills and overall study performance of her child

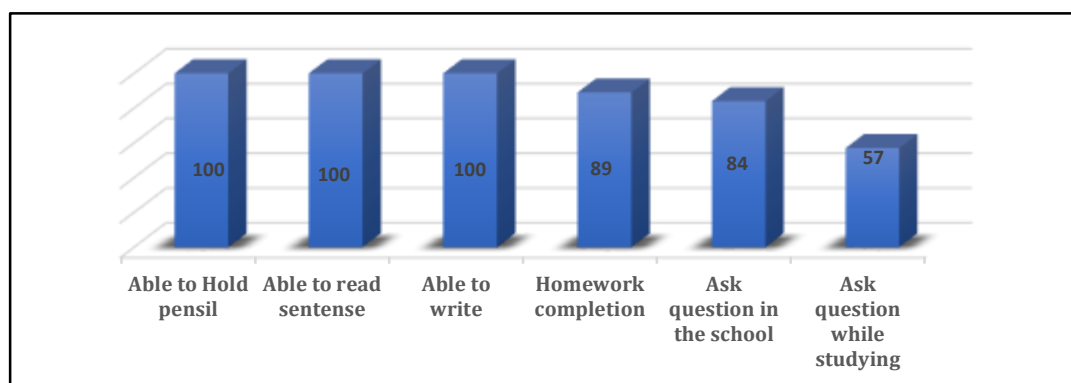


Figure 1 depicts that all the mothers were aware about ability of their child to hold the pencil, to read the sentence and ability to write on the paper. Most of the mothers (94%) perceived learning ability of their child based on their ability to hold pencil or pen with fingers, writing words and reading sentences.

220

Table 2: Involvement of mothers for completion of child's homework.

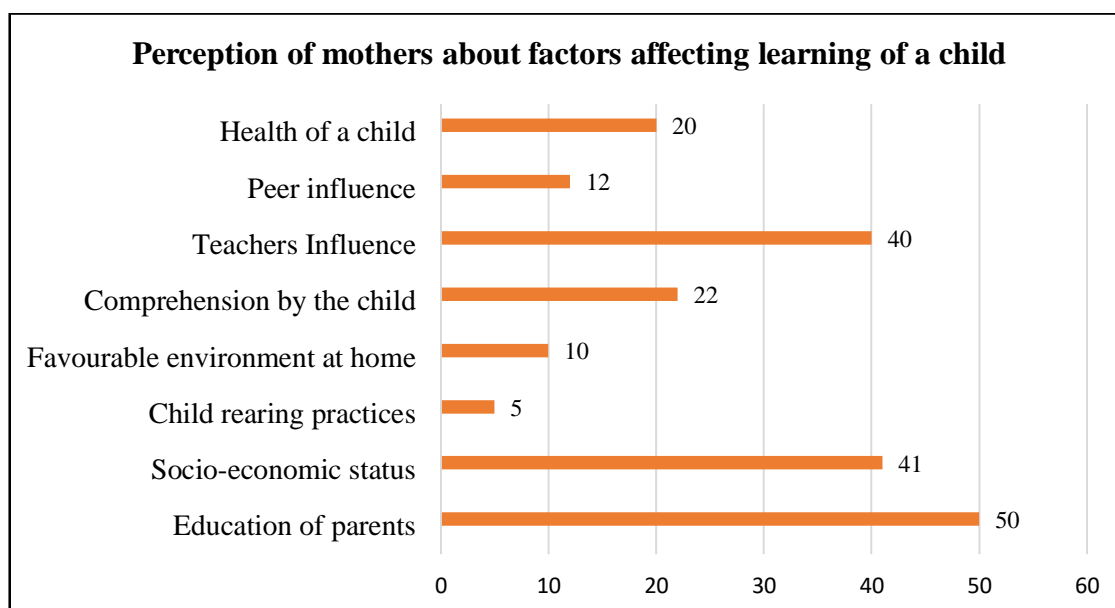
Characteristics	Mothers helping children for doing homework		
	YES	NO	
Type of Family			
Nuclear	29	59	P=0.0018
Joint	20	42	
No. of Children in the Family			
Less than or equal to 2	25	28	P=0.023
More than 2	11	36	

It was observed that 36% of mothers actually helped their child for doing the homework. Of these, 70% had 2 or less children and remaining 30% had 3-4 children. It was also observed that nearly 80% of the mothers discussed about their child's school performance with their teachers irrespective of their own education status. In our study, 98% of the mothers were satisfied by the performance of their child though the teacher had complaints about nearly 14% of the children's performance at school.

When mother's participation in child's learning was assessed as indicated by the number of mothers who helped the child in completing their homework, it was observed that those from nuclear families ($p=0.0018$) and those having lesser number of children in the family ($p=0.023$) were significantly contributing to the completion of homework by the child (Table 2). It might be the result of lesser division of time and attention by the mother with fewer children.



Figure 2: Perception of mothers about factors affecting learning of a child



Majority of the mothers (nearly 50.0%) stated that parental education, Socio-economic status and teachers influence affect child's learning ability. This was followed by the comprehension by the child and the child's health as the main determinants for their learning ability. Lesser significance was given to peer factors, home environment and child rearing practices as the influencers for a child's learning ability (**Figure 2**).

On assessing the maternal perceptions on the child's learning ability, 4 main themes were obtained regarding perceptions and factors influencing learning ability of children. These includes the following:

- 1-Teacher's role in learning
- 2- Parental support and attitude
- 3- Surrounding environment and company
- 4-Psychological inter-individual differences

Teacher's role in learning

The attitude of teachers plays an important role in facilitating the learning of children at school. Most of the mothers agreed to the fact that their child follows instructions given by teacher during study than what they tell the children to do. This was emphasized by a mother of 3rd grade student who says,

"My child exactly does as his teacher says. If she tells them to write on alternate lines then they do it like that only"

Similarly, another mother of a 5th grader says that her son insists that, *"The methods of solving the mathematical problems taught by my teacher are the best and I will use them only"*

This shows that the teachers create a long-lasting impact on the learning ability of the children. The methods used by the teachers are followed by the children and it helps them to learn better. This is also reflected in the parental satisfaction about their child's learning ability based on the feedback obtained from teachers. One of the parents of a 4th grade student says,

"Nothing reassures me more than hearing from her class teacher that she is doing perfectly well in the class."

Another mother of a grade five student says that,

"When his teacher says that he has improved a lot since the last assessment, it makes me worry less about his studies."

There was an overall positive response of the mothers with regards to the feedback from teachers about the child's studies or even with regards to any complaints about their child. The mothers liked to receive feedback



as it also reflected the culmination of their efforts in their child's education. The importance of teacher's feedback is revealed when some of the mothers failed to get feedback or were not satisfied with the teacher's feedback as reflected in a quote by a mother of a 3rd grade student who said that, ***"Now a days, the teachers give feedback on very general lines, so I need to discuss specifically about each and every subject in details at the parent teachers meeting, however the time is insufficient."***

Teachers form the backbone of the early childhood learning and thereby are the strongest influencers for the language, writing and communication skills among children (Blandon, 2010). They are the earliest point of contact for the child next to its parents and are at the best position to identify any deviation from the normal learning process at the earliest (Capella, 2012). Teachers are therefore the strong pillars of support for promoting the learning abilities in children (Emmer, 2001).

Parental support and attitude

Mothers were supportive of the fact that parental encouragement in child's learning plays a vital role in the child's school performance. One of the mothers of a grade 3 student said that,

"I need to sit beside him when he is studying because kids get easily distracted"

One of the mothers of a fifth-grade student stated that, ***"These days mobile distracts kids and time for study gets wasted. So, when he is studying, I hide my mobile somewhere"***.

One of the mothers of a class four student mentioned that, ***"With so many students in one classroom, it is difficult for the teacher to pay personalized attention to each child, therefore we as parents need to help them study"***.

Another important influencer for better studying was the presence of father at home when the children were studying as expressed by a mother who said, ***"He begins to study only when his dad comes home"***.

In our study, 90% of the mothers were of the opinion that paternal presence increases duration of study and 80% of the mothers

responded positively to the fact that teachers expect child to study not only at school but also at home and parents should contribute to their children's studies as well. This was emphasized by a mother who said that her child's teacher says, ***"It is equally important to revise the things taught at school, so that the child is able to learn well"***. Another mother of a 3rd grade student said that, ***"Practising at home has improved his writing and language skills"***.

The parental influence on child learning outcomes have been emphasized by several intervention studies targeting child development through parent-based protocols (Shea, 2016, Grossmann, 2002 & Brown, 2012). As the child is attached to parents, the parental sensitivity and responsiveness is a primary determinant of attachment and security that provides a strong and scientific approach for understanding how positive parent-child relationships and parental support positively affects children's development and learning ability (Brown, 2012).

Surrounding environment and company

When discussed about the effect of the immediate environment and the child's peer influence on their studies, a mother stated that, ***"In our area, there is a constant nuisance of loud music being played at the marriage halls which distracts our kids from their studies"***. Another mother emphasized the positive effect of silent surroundings on the study by quoting that, ***"I have observed that he is able to complete his studies much faster at the morning hours when it is quiet and peaceful"***.

Home and surrounding environment is the combination of physical and psychological environment around the child. Physical environment includes basic and other physical needs of the individuals, while the psychological environment includes the healthy mutual interactions of family members with society, respect and peaceful surrounding. It is also observed in various studies that quarrels and problem families have negative impact on studies and overall development of the child. Both the aspect i.e.



home along with peaceful surrounding environment has a proven influence on the development of students and concentration in studies (Mukama, 2010, Muola, 2010, Parveen, 2007).

On inquiring about the peer influence on their child's studies one of the mothers said that, ***"Keeping company of those children who don't study makes my child score less marks"***. One of the mothers said that, ***"When my son stopped playing with the mischievous kids of the colony, he was not concentrating on his studies but when I do not allow him to mix with them, he can focus well on his studies"***.

Several studies stated that peers serve as powerful sources of reinforcement in increasing or maintaining both the positive and negative behaviors of their friends (Smith, 1984). Children from 3rd to 5th grade have higher quality organization interaction with their classmates and thus have more influence of friends than teacher as pro-social behaviour with teacher is less as compared to the peers. Therefore, it is important to have peers with good attitude and behaviour which then be incorporated into the child to have better academic performance. (Luckner, 2011).

Psychological and inter-individual differences

In our study, 80% of the mothers believed that presence of any psychological barriers like fear or asking their difficulties freely and inability to communicate effectively hampers the learning ability of the child. One of the mothers said that, ***"It is important for a child to be able to communicate the difficulties he is facing while learning, so that the teacher or parent is able to help them properly"***. One of the mothers whose kid was shy said that, ***"If he hesitates to ask about his difficulties, then he will not be able to learn well"***.

Among the inter-individual differences were the differential inherent ability of the child to learn things as some children were quick learners and some slow learners. In the present study, 30% of the mothers mentioned that, their children have to be taught repeatedly to understand and also teachers suggested them to send their kids for tuitions.

This was indicated by the following quotes by some of the mothers. One of the mothers stated that

"My elder son is a quick learner but for the younger one, I have to spend lot of time for getting him to complete his homework". One of the mothers also said that, ***"No matter how hard he studies, he still lags behind"***.

Children are known to exhibit differential learning preferences from an early age. They may learn better under some conditions or from some specific individuals over others based on various characteristics, a phenomenon referred to as selective social learning (Koenig, 2013). Some children prefer perceptual access to information (Nurmsoo, 2009) that drives their learning decisions. Whereas, some children may prefer other learning modes like phonetic, kinaesthetic or visual (Brosseau-Liard, 2011). Therefore, depending on the specific learning method preference as well as the inherent learning ability of the child, there may be variations in the learning ability exhibited by different individuals. This needs further evaluation at individual level to assess the exact underlying causes and mechanisms for the differential learning ability among children.

4 Conclusion

Conclusion:

There was high awareness among the mothers about the learning ability of their children. Factors that play a crucial role in the child's learning ability were teacher's and parental support, surrounding environment, peer influence as well as psychological and inter individual differences in learning patterns.

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