

<https://doi.org/10.48047/AFJBS.4.4.2022.161-166>



African Journal of Biological Sciences

Journal homepage: <http://www.afjbs.com>



Research Paper

Open Access

STUDY OF FACTORS ASSOCIATED WITH SCHOLASTIC BACKWARDNESS IN STUDENTS REFERRED FROM SCHOOL – RETROSPECTIVE STUDY

Dr. Salunkhe Rajkiran¹, Dr. Duggad Pooja², Dr Khobragade Vaibhav³

FIRST & CORRESPONDING AUTHOR- Dr. Salunkhe Rajkiran, Associate Professor, Department of Psychiatry, Government medical college, Miraj, Maharashtra, India.

SECOND AUTHOR- Dr. Duggad Puja, Junior Resident, Department of Psychiatry, Government Medical College, Miraj, Maharashtra, India.

THIRD AUTHOR- Dr. Khobragade Vaibhav, Junior Resident, Department of Psychiatry, Government medical College, Miraj, Maharashtra, India.

Corresponding email id- Salunkhe Rajkiran, 57/A, Vidhata colony, vishrambag, Sangli, 416415, Maharashtra, India. salunkhe.rajkiran@gmail.com

Article History

Received: 04 August 2022

Accepted: 22 October 2022

Published: 30 November 2022

[doi:10.48047/AFJBS.4.4.2022.161-166](https://doi.org/10.48047/AFJBS.4.4.2022.161-166)

ABSTRACT

Background- Academic backwardness of children is a big concern among parents and teachers in present day competitive society. It is reported that around 5- 20% of schoolchildren have scholastic backwardness. Aim of present study is to find out the etiological factors behind the scholastic backwardness which are prevailing indifferent socio-economic background of the children attending normal school. **Materials and Methods:** A retrospective chart review of students aged 6–16 year, referred to clinical psychologist for the structured assessment of scholastic backwardness, after evaluation by psychiatrists, over 4 year was done. **Results:** Total 400 students were assessed. Children aged 10-14 years were the majority (69.00%). Most of them were males (69%) and from rural background (88.00%). The principal diagnosis was intellectual disability (59.00%). About 12.75% had specific learning disorder (SLD), 28.25% had educational backwardness due to environmental factors. **Conclusion:** Varying degrees of intellectual impairment was the main cause of scholastic backwardness. Specific learning disability is also major risk factors for scholastic backwardness due to lack of awareness about it in teachers and parents. Other risk factor includes family factors, school factors, socioeconomic status, parental education etc. Students with SB were identified and referred for professional services. **Keywords:** Retrospective study, Scholastic backwardness, Intellectual disability, Specific Learning disability.

INTRODUCTION

Education is very important in today's competitive society. Scholastic backwardness in children is a big concern in present day society. It is found that around 20% of school going children have scholastic backwardness.¹ Factors responsible for scholastic backwardness are physical as well as psychological. Physical factors which include chronic medical illnesses, perinatal insult, birth complications, seizure disorder, genetic conditions. Psychological factors include intellectual disability, learning disorders, psychiatric disorders, specific learning disability. history of mental illness and mental retardation, parental alcoholism, parental separation/divorce and low educational and employment status of parents are also associated with educational backwardness in children.¹

Scholastic backwardness in children is defined as a child who, failed repeatedly in one or more subjects or in one or more classes and a child who is in the lowest 10th percentile in class despite adequate attendance in school.²

Children with academic backwardness do not get adequate attention in the mainstream education. Such children usually fail repeatedly in examinations and they become school dropouts.³ Unrecognized scholastic backwardness has a lifelong impact on academics as well as social life of children and adversely affects not only the child but their parents too.

Specific learning disability (SLD), which often goes unrecognized is also an important cause of scholastic backwardness in children, due to lack of awareness and resources in the community.⁴ Specific Learning Disability (SLD) is commonly defined as heterogeneous group of disorders characterised by significant difficulties in the acquiring and the use of reading, writing, listening, reasoning, speaking or mathematical abilities.⁵ Specific learning disabilities has prevalence of 15.17% in sampled children.⁶ Dyslexia, dysgraphia, dyscalculia usually do not exist in isolation. Prevalence of SLD in India is 1.6%-15%.⁷ They occur most commonly with other cortical-based disorders such as organization and executive function disability, language disorders, motor disorders.⁸ SLD is neurodevelopmental disorder of biological origin and occurs in the absence of neurological dysfunction, intellectual disability, or environmental deprivation.⁹

According to some studies, repeated failure and poor performance lead to self-doubts about general intellectual abilities, which lead to reduced effort, poor academic outcomes, and further failure.¹⁰

The distress it causes to child, the parents and the school is considerable. Scholastic backwardness has a lifelong impact on the child as it affects the child's self-esteem, higher education, employment opportunities, interpersonal relationships, marriage and almost every other sphere of his/her life. Whenever we identify a child who is not performing well in academics, remember always to proceed managing the child under the premise that 'No child performs poorly in studies on purpose'. Every child has the inner desire to excel in whatever he/she does and wants to be looked upon as 'good' by parents, teachers and peers. Therefore, if a child is performing poorly in studies, there has to be an underlying cause. Every such child must be given the benefit of an assessment. Early identification of scholastic backwardness absolutely vital as early remediation and intervention has the best chance of favourable outcome.¹⁰ In India very little work has done in the understanding of scholastic backwardness.

Keeping the paucity of literature regarding scholastic backwardness, and importance of its awareness, this study aims at assessment of risk factors associated with scholastic backwardness in school going children.

Aim: To study the factors associated with scholastic backwardness in students referred from school from semi urban and rural area.

Objectives:

1. To study socio-epidemiological factors associated with scholastic backwardness.
2. To study psychological factors associated with scholastic backwardness.

MATERIALS AND METHODS

This is retrospective study design. The study was conducted in the psychiatry department of a tertiary care teaching hospital after approved by the institutional review board and ethics committee.

This is record based study. Data of all the students in the age group of 6 to 16 years studying in normal schools and referred to tertiary care centre (learning disability centre) under psychiatry department for structured assessment of academic backwardness during year 2018 to 2022 is studied. 400 student's data who had satisfied inclusion (1. Students in the age group of 6-16 years. 2. Students attending normal school) and exclusion criteria (1. Students with incomplete record) were evaluated.

The evaluation procedure adopted was as follows. Students with academic backwardness who were referred by schoolteachers and parents to tertiary care hospital (Learning disability centers) are assessed by team of psychiatrist, psychologist and special educator, ophthalmologist, paediatricians, ENT specialist.

Assessment of children includes a detailed clinical evaluation followed by standard psychometric assessments of child's cognitive abilities and academic skills. After gathering detailed history from parents and evaluation report from

teachers, intelligence tests were administered to all students. Intelligence was measured using either the VSMS Binet–Kamath Scale of intelligence or Malins Intelligence Scale for Indian Children. After assessment of IQ test to evaluate academic abilities need to be evaluated. The assessment of specific learning disability (SLD) was done in students with average intelligence quotient (IQ-90-110) and above, using a combination of curriculum-based assessment and NIMHANS battery of SLD where suitable. The traditional ability-achievement discrepancy model is used for assessment due to reasons of feasibility. According to this model, the diagnosis of SLD is based on whether the child's scores showed a discrepancy between ability and achievement, usually assessed by comparing the child's IQ with the levels attained on an achievement test.

The mental health issues were assessed and appropriate interventions were done. Those who did not require the services of clinical psychologist were managed by the psychiatrists’ team. Those who required structured academic assessment were referred to clinical psychologist. This is the routine procedure adopted.

RESULTS

The results analysis was done by using descriptive statistics. Total 400 students registered with clinical psychologist for scholastic backwardness during last 4 year were assessed. Children aged 10-14 years were the majority (55.75%). Most of them were males (69%) and from rural background (88.00%). More than half (59%) were from primary school. About (94%) studied in Marathi medium, and (7%) in English medium. Most of the student were referred by teacher and some by parents.

The principal cause of scholastic backwardness was examined. The main diagnosis was intellectual disability (59.00%), followed by specific learning disability (SLD), (12.75%), and (28.25%) had educational backwardness.

Majority of students with academic backwardness have borderline intelligence (76.69%), (22.46%) belongs to mild ID, (00.85%) have moderate IQ.

Table No.01 Distribution of patients as Social Academic variables of students

| Variable | Category | N (%) |
|-----------|-----------|--------------|
| Gender | Female | 124 (31.00%) |
| | Male | 276 (69.00%) |
| Age group | < 10 | 57(14.25%) |
| | 10-14 | 223(55.75%) |
| | > 15 | 120(30.00%) |
| Education | Primary | 236(59.00%) |
| | Secondary | 164(41.00%) |
| Residency | Rural | 352(88.00%) |
| | Urban | 48(12.00%) |
| Medium | English | 26(07.00%) |
| | Marathi | 374(94.00%) |

Table No.02 Distribution of patients as per diagnosis

| Diagnosis | N (%) |
|------------------------------|-------------|
| Educational backwardness | 113(28.25%) |
| Intellectual disability | 236(59%) |
| Specific learning disability | 51(12.75%) |
| Total | 400 |

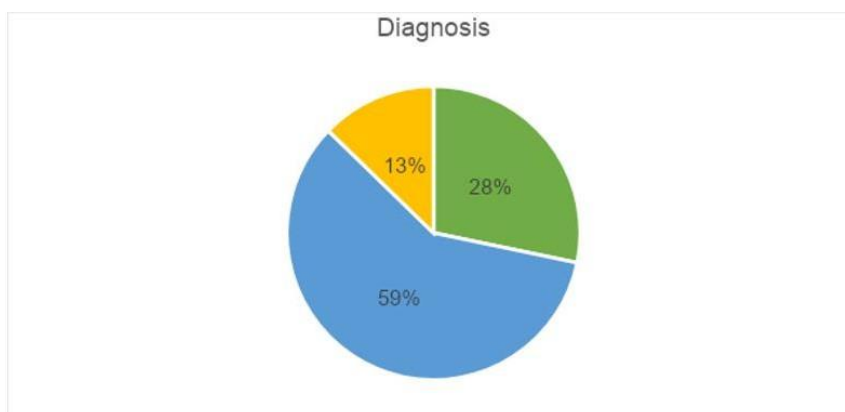


Chart No. 01 Pie chart showing distribution of patients as per diagnosis

Table No. 3 Distribution of patients as peer Id severity

| ID Severity | N (%) |
|-------------|-------------|
| Borderline | 181(76.69%) |
| Mild | 53(22.46%) |
| Moderate | 2(00.85%) |
| Severe | 0(00.00%) |
| Total | 236(59.00%) |

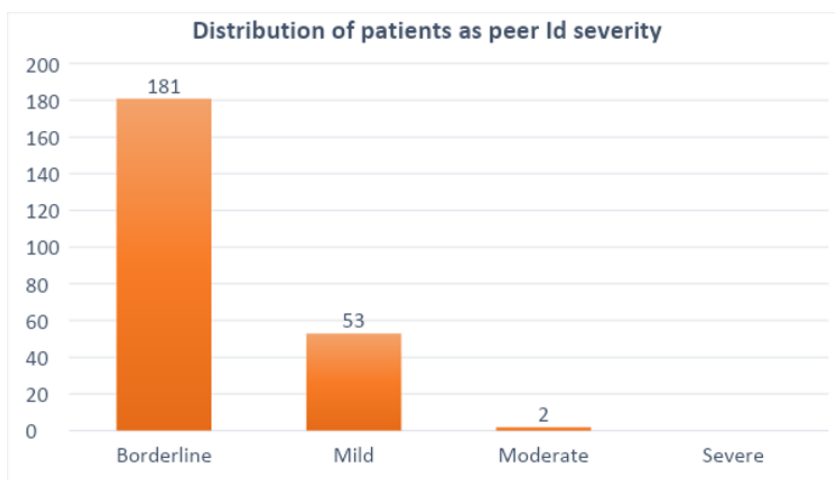


Chart No.02 Bar graph showing distribution of patients as peer Id severity

DISCUSSION

This study was done to identify risk factors of scholastic backwardness in normal school going children and students were referred to psychiatrist for academic assessment.

In our study of 400 students, main cause of scholastic backwardness was found to be intellectual disability. (59%, n-236) followed by educational backwardness (28.25%,113). Prevalence and rates of scholastic backwardness were different in different study. In study conducted by Ram Pratap et al.,¹¹ prevalence of scholastic backwardness was 11.46%. and boys were affected more compared to girls. Study carried out by Shenoy et al reported 10.23% prevalence of scholastic backwardness among school children.¹² These variations are due to multiple factors such as differences in age range of study population, area of study population (urban/rural) type of school (government /private), sample size, inclusion and exclusion criteria.¹¹

Out of 400 children (69%, n-276) were male, (31% n-124) were female, this variation may be due to cultural background, socio-economic status of family. Study revealed that female children have better scholastic performance than male children.¹³

In our study, 14.25% (57) children were less than 10 years, 55% (123) were between 10-14 years and 30% (120) were >15 years, the cause of clustering in 10-14 years may be due to high prevalence of scholastic backwardness in the beginning of middle school,¹⁴ and some parents may neglect it during primary school or some may be in denial that their children may have some medical issue. In Study conducted by K. Raghavendra et al.,¹⁵ the majority of children were from primary school (56%) compared to middle (25%) and high school (18%), in their study majority of students were from urban area and having upper socioeconomic status. A similar observation were made in other studies. This is because, with each passing year, children are introduced to more complex concepts which challenge them and make their disability obvious, and there may be inability of children to cope up with complexities of syllabus.

The frequency of scholastic backwardness among rural students was greater than urban students. In present study Rural population is affected more (88% n-352) as compared to urban population (12.00%) because there are less resources available and there is lack of awareness regarding issue like intellectual disability, specific learning disability and other psychiatric illness. Lower education of parents and Non availability of family members who can help children in their education and lack of proper facility and resources in the village and home were also the important reasons. In rural area there are lack of coaching classes which can also contribute to poor academics. In rural area children are involved early in agriculture, caring of younger siblings and other health conditions like stomache, headache and frequent illness due to their unhygienic environment were also the important reasons responsible for backwardness in studies.¹⁶ Mostly Children from

rural background have single teachers for many classes, lack of basic classroom materials and overcrowding may also contribute to the problem to some extent. The study concludes that socioeconomic status does influence scholastic backwardness & the impact is more on rural children.¹⁷ Medium of instructions, multilingual subjects apart from the child's mother tongue, child abuse and neglect also play a significant role in undermining the academic performance of the child.¹⁸ In our study, main cause of scholastic backwardness is intellectual disability (59%). Study conducted by Haneesh et al. found low IQ as the most common cause of scholastic backwardness.¹ In Study conducted by Karande S. et al.,¹⁹ it is found that most common cause of scholastic backwardness is specific learning disability (72.76%) followed by borderline intellectual functioning. (8.94%) this variation may be due to differences in sample, their sample was different from ours, in their study 95% were from English medium and belonged to upper, middle socioeconomic status. In our study out of 59% of intellectual disabled children, most common diagnosis was borderline intelligence (76.69% n-181) followed by mild (22.46%, n-53), and there were only 2 % of children having moderate IQ. In study conducted by Ramdas et al it is found that majority of students with scholastic backwardness were slow learners (34.8), which was followed by intellectual disability (28%), (11.6%) had specific learning disability.⁷

It is found that children with normal intelligence also have scholastic backwardness, they are diagnosed with SLD. (12.75% n-51). In a recent school – based study in south India carried by Bandhla S et al, prevalence of SLD was found to be 6.6%, in children aged 6-12 years, which is much less than our sample.⁸ In Hemchand et al study 12 out of 50 children were diagnosed as Specific Learning Disability.⁵ In India information about specific learning disability is very limited, In study conducted by Karande et al. the incidence of dyslexia in primary school children in India is found to be 2-18%, of dysgraphia 14%, and dyscalculia 5.5%.²⁰ It is observed that in spite of having average intelligence, they had limited English proficiency, this may be due to familial environment as their parents had received education in vernacular medium and some were illiterate, and majority of their study population was from rural area and taking education from government school. In Raghavendra et al study, the most common cause of SB found was attention deficit disorder (ADD) combined with SLD (30.4%) followed by SLD (24.1%) and SL (20.6%),¹⁵ this may because majority of their study population is from urban area and taking education from private school. In our study, majority of students belongs to rural area and are from government school.

In Other students, precise cause of scholastic backwardness could not be identified due to limited data availability and they are categorised as educational backwardness due to environmental factors. (28.25% n-113). The cause for poor school performance in them may range from preterm birth, medical/chronic illness in children, cerebral palsy, epilepsy, family environment, parents with psychiatric illness, lower socio-economic status etc.¹⁹ Study conducted by Florence et al reported that students with lower diet quality had significantly poor school performance.²¹ Factors in the family environment also influence academic functioning of children. Comparative study conducted by K. Haneesh et al found significant differences in the educational status and employment level of parents of children with educational backwardness and those without educational backwardness.¹ Disturbing factors at home including quarrels between parents and siblings, broken homes, substance abuse in parents and burden of domestic responsibility were seen more in low achievers than high achievers. Choudhary et al study reported significant association between low-birth-weight baby and educational underachievement I.e., low IQ.²² Overall reasons behind the educational backwardness of youth were parental education, birth and developmental complications, occupation and family economic condition.

In our study language barrier is also big issue, majority of students are studying in Marathi medium, but their mother tongue is Kannada, so these students faces difficulties in academics. Study done by Nagarathna DA et al took into consideration a sample population that received two different medium of instructions - Kannada and English, of which most students learnt lessons in Kannada medium. All English medium students belonged to the urban population. This discrepancy may also be a reason for difference in prevalence noted as compared to previous studies.¹⁷

Ours is among the very few studies which included children with normal intelligence and without any significant chronic medical ailments. This helped us to evaluate other important reasons for scholastic backwardness. Involvement of teachers and parents in assessment, good sample size and strong methodology were other strengths of this study. Limitation of our study was it is record based study, adequate data is not available. Being a record-based study, the results were dependent on the accuracy of data entry. Second, there was no control group with good scholastic achievement for comparison.

Our study found that very few children in our area get referred for scholastic assessment and that too after significant delay, there is need to improve awareness among school teachers and parents about scholastic backwardness and they should understand that timely evaluation is necessary, when child is in primary school. There is need to develop centers for its proper assessment and accurate diagnosis.

Psychoeducation of the family and explaining the disorder to the child would be necessary. Family counselling may also be required to combat the negative attitudes and behaviour.

CONCLUSION

We conclude that academic backwardness is common in school going children. There are multiple risk factors for scholastic

backwardness. Combination of family/social factors, psychiatric problem, personal factors, neurodevelopmental factors and school related factors are responsible. It is possible to identify high risk children using these factors and intervene early. Timely intervention is necessary. This has implications for teachers and parents involvement to help in student achievement. Since, psychological disturbances play a significant role in SB, counselling for the students, teachers and parents individually can help in appropriate academic achievement.

Clinical significance:

REFERENCES

1. Haneesh K, Krishnakumar P, Sukumaran SK, Riyaz A. Risk factors for scholastic backwardness in children. *Indian Pediatrics*. 2013 Jul;50(7):655-8.
2. Sharma N, Das RC, Srivastava K, Upasani R. A study of family-related factors associated with scholastic backwardness in urban lower middle class school children. *Industrial Psychiatry Journal*. 2022 Jan 1;31(1):98.
3. Santosh AK. Scholastic backwardness in children attending normal school. *Andhra Pradesh J Psychol Med*. 2014 Jul 1;15(2):251-4
4. Singh S, Sawani V, Deokate M, Panchal S, Subramanyam AA, Shah HR, Kamath RM. Specific learning disability: A 5 year study from India. *Int J Contemp Pediatr*. 2017 May;4(3):863
5. Hemchand KP. A Study on scholastic backwardness in children (Doctoral dissertation, Madras Medical College, Chennai).
6. Mogasale VV, Patil VD, Patil NM, Mogasale V. Prevalence of specific learning disabilities among primary school children in a South Indian city. *The Indian Journal of Pediatrics*. 2012 Mar;79(3):342-7.
7. Ramadas S, Vijayan VV. Profile of students referred for the assessment of scholastic backwardness at a tertiary care center. *Indian journal of psychiatry*. 2019 Sep;61(5):439.
8. Bandla S, Mandadi GD, Bhogaraju A. Specific learning disabilities and psychiatric comorbidities in school children in South India. *Indian journal of psychological medicine*. 2017 Jan;39(1):76-82.
9. Muthusamy K, Sahu JK. Specific learning disability in India: Challenges and opportunities. *The Indian Journal of Pediatrics*. 2020 Feb;87(2):91-2.
10. Shah HR, Trivedi SC. Specific learning disability in Maharashtra: Current scenario and road ahead. *Annals of Indian Psychiatry*. 2017 Jan 1;1(1):11.
11. Beniwal RP, Sachdev A, Kumar V, Bhojak MM, Tambi A. Scholastic backwardness among school students: Prevalence and correlates. *Telangana Journal of Psychiatry*. 2018 Jan 1;4(1):11-5.
12. Shenoy J, Kapur M. Prevalence of scholastic backwardness among five to eight year old children. *Indian journal of psychiatry*. 1996 Oct;38(4):201.
13. Srinivas P, Venkatkrishnan S. Factors affecting scholastic performance in school children. *IOSR Journal of Dental and Medical Sciences*. 2016;15(7):47-53.
14. Gohiya P, Shrivastav J. Factors associated with academic backwardness in school children: A hospital based observational study. *Int J Contemp Pediatr*. 2015 Oct;2:371-4.20. Karande S, Kulkarni M. Poor school performance. *The Indian Journal of Pediatrics*. 2005 Nov;72:961-7.
15. Raghavendra K, Reddy AV. Etiology and risk factors for scholastic backwardness in children—A retrospective study. *Indian Journal of Child Health*. 2020 Mar 27:125-9.
16. Anju et al., *American International Journal of Research in Humanities, Arts and Social Sciences*, 15(1), June-August, 2016, pp. 59-62.
17. Nagarathna DA. SOCIOECONOMIC STATUS AMONG SCHOLASTIC BACKWARD CHILDREN. *Journal of the IAP Karnataka State Branch*.;3:45.
18. Tiwari G, Galundia R. Academic backwardness among rural adolescents: Challenge for society. *International Journal*. 2016;4(3):438-43.
19. Karande S, Doshi B, Thadhani A, Sholapurwala R. Profile of children with poor school performance in Mumbai. *Indian pediatrics*. 2013 Apr;50:427-.
20. Karande S, Kulkarni M. Specific learning disability: the invisible handicap. *Indian Pediatr*. 2005.
21. Florence MD, Asbridge M, Veugelers PJ. Diet quality and academic performance. *J Sch Health*. 2008;78:209-15
22. Chaudhari S, Otiv M, Chitale A, Pandit A, Hoge M. Pune low birth weight study-cognitive abilities and educational performance at twelve years. *Indian pediatrics*. 2004 Feb 1;41(2):121-8.