“A DESCRIPTIVE STUDY TO ASSESS THE SPECIFIC LEARNING DISABILITY [DYSCALCULIA] AND ITS COMORBIDITY AMONG THE SCHOOL GOING CHILDREN IN SELECTED SCHLOOLS AT KOLAR.”

PROJECT REPORT-2021

BY

MS. ANISHA MARIA BENNY
MS. ANGEL MARY THOMAS
MS. ALURU SWATHI
MS. ANIT MATHEW
MRS. NITYA
MS. SREELAKSHMI
MS. SONIA SARA MANI
MS. ANJALI KRISHNA
MS. SINI JOSEPH
MS. SREEKUTTY

GUIDED BY

Mr. R RAJESH
PROFESSOR
Dept. of Psychiatric Nursing
Sri Devaraj Urs College of Nursing, Tamaka
Kolar-563103

RAJIV GANDHI UNIVERSITY OF HEALTH SCIENCES, BANGALORE, KARNATAKA.

2021

RAJIV GANDHI UNIVERSITY OF HEALTH SCIENCES-2021
SRI DEVARAJ URS COLLEGE OF NURSING, TAMAKA; KOLAR

CERTIFICATE

This is to certify that the project work entitled has been successfully carried out by:

MS. ANISHA MARIA BENNY
MS. ANJALI KRISHNA
MS. ANGEL MARY THOMAS
MS. SREELAKSHMI
MS. ALURU SWATHI
MS. SONIA SARA MANI
MS. ANIT MATHEW
MS. SINI JOSEPH
MS. SREEKUTTY SOMASHEKARAN

Submitted as a partial fulfillment for the Degree of Bachelor of Sciences in Nursing for Rajiv Gandhi University of Health Sciences; Bangalore.

PRINCIPAL

Dr. G. Vijayalakshmi
Principal
SDUCON
Tamaka, Kolar-563103

GUIDED BY

Mr. R. Rajesh
Professor
Dept. of Psychiatric Nursing
SDUCON
Tamaka, Kolar-563103

DECLARATION BY THE CANDIDATES

We here by declared that this project entitled, **"A DESCRIPTIVE STUDY TO ASSESS THE SPECIFIC LEARNING DISABILITY [DYSCALCULIA] AND ITS CO-MORBIDITY AMONG THE SCHOOL GOING CHILDREN IN SELECTED SCHOOLS AT KOLAR",** is a bonafide and guidance research work carried out by us under the guidance of Mr. R. Rajesh Professor, Department Psychiatric Nursing, Sri Devaraj Urs College of Nursing, Tamaka, Kolar-563103.

Name and signature of the candidates,

Place:

Date:

MS. ANISHA MARIA BENNY

MS. ANGEL MARY THOMAS

MS. ALURU SWATHI

MS. ANJALI KRISHNA

MS. ANIT MATHEW

MS. SINI JOSEPH

MS. SREELAKSHMI

MS. SONIA SARA MANI

MS. SREEKUTTY

CERTIFICATE BY THE GUIDE

This is to certify that the project entitled, **"A DESCRIPTIVE STUDY TO ASSESS THE SPECIFIC LEARNING DISABILITY [DYSCALCULIA] AND ITS CO-MORBIDITY AMONG THE SCHOOL- GOING CHILDREN IN SELECTED SCHOOLS AT KOLAR."** is a bonafide project work done by Ms. Aluru Swathi, Ms.Sreelakshmi.KR, Ms. Angel Mary Thomas, Ms. Sreekutty Somashekaran ,Ms. Anisha Maria Benny ,Ms. Soniya Sara Mani , Ms. Anit Mathew ,Ms. Sini Joseph, Ms. .Anjali Krishna, in partial fulfillment of the requirement of the Degree of Bachelor of Science in Nursing.

PLACE: Tamaka, Kolar

DATE:

Name and signature of the guide,

Mr. R. Rajesh

Professor

Dept. of Psychiatric Nursing

SDUCON

Tamaka, Kolar-563103

ENDORSEMENT BY THE HOD AND PRINCIPAL \HEAD OF THE INSTITUTION

This is to certify that research project entitled **"A DESCRIPTIVE STUDY TO ASSESS THE SPECIFIC LEARNING DISABILITY (DYSCALCULIA) AND ITS CO-MORBIDITY AMONG THE SCHOOL- GOING CHILDREN IN SELECTED SCHOOLS AT KOLAR."** Is a bonafide research work done by **Ms. Aluru Swathi, Ms. Sreelakshmi.KR, Ms. Angel Mary Thomas, Ms. Sreekutty Somashekaran ,Ms. Anisha Maria Benny ,Ms. Soniya Sara Mani , Ms. Anit Mathew ,Ms. Sini Joseph, Ms .Anjali Krishna** under the guidance of, **Mr. R. Rajesh** , Professor , Department of Psychiatric Nursing .Sri Devaraj Urs College Of Nursing, Tamaka ,Kolar in partial fulfillment of the requirement of conducting research in IIIrd year Bsc Nursing in Psychiatric Nursing.

Signature of the HOD

Prof . Jairakini Aruna
HOD Dept. of Psychiatric Nursing
SDUCON
Tamaka, Kolar-563103

Place: Kolar
Date:

Signature of the Principal

Dr. G. Vijayalakshmi
Principal
SDUCON
Tamaka, kolar-563103

Place: Kolar
Date:

COPY RIGHT DECLERATION BY THE CANDIDATES

We hereby declared that Sri Devaraj Urs College of Nursing Tamaka, kolar-563103 shall have the right to preserve, use and disseminate the project in print or electronic format for academic\research purpose.

PLACE: KOLAR

DATE:

MS. ANISHA MARIA BENNY

MS. ANGEL MARY THOMAS

MS. ALURU SWATHI

MS. ANIT MATHEW

MS. ANJALI KRISHNA

MS. SREEKUTTY

MS. SREE LAKSHMI

MS. SONIA SARA MANI

MS. SINI JOSEPH

@ RAJIV GANDHI UNIVERSITY OF HEALTH SCIENCES, BANGALORE, KARNATAKA.

2021

ACKNOWLEDGEMENT

"Gratitude makes sense of our past, Brings peace for today, creates a vision for tomorrow"

We raise our art with profound gratitude to **god almighty** showering his blessings on us by giving us the strength and wisdom for successful completion of the study.

We thank **Dr. G. Vijayalakshmi,** Principal of Sri Devaraj Urs College of Nursing, Tamaka, Kolar for giving learning atmosphere and constant support to conduct the study.

We express our sincere gratitude to Prof. **Dr. Lavanya Subhashini**, vice principal, Sri Devaraj Urs of College of Nursing, Tamaka, Kolar for the constant support and guidance during the research study.

Our heartfelt thanks and gratitude to our research guide Mr. **R. Rajesh**, Professor, Dept, of Psychiatric Nursing, Sri Devaraj Urs College of Nursing, Tamaka, Kolar who deserve respect and gratitude for his constant guidance and encouragement in understanding the research subject which made this research journey easy and fruitful.

Our special thanks to **Prof. Mr. Ravishankar,** statistician, Dept of Community **Medicine** of Sri Devaraj Urs Medical College for his guidance and valuable suggestions in statistical analysis of the data.

We express our gratitude to **Mrs. Uma Devi**, Assistant Professor 3rd year Bsc(N)**,**class co-coordinator, Sri Devaraj Urs College of Nursing for guidance and support throughout our research work.

Our special thanks to **Mr. Srinivas**, Principal of Field Marshal KM Karyappa School for his immense support.

Our special thanks to all the **subject experts** for their guidance in tool validation and support to complete the study.

We express our sincere gratitude to all the **HODs** of various departments and all **Teaching faculties** of Sri Devaraj Urs College of Nursing for their encouragement, suggestions and guidance in tool validation which helped us to complete the study.

Our special thanks to **Librarians** of Sri Devaraj Urs College of Nursing for their constant support and in terms of orienting us to broader range of source where appropriate literature was available.

We express our sincere and deep sense of gratitude to all the **study participants** who have cooperated and participated in the study in giving information about

We offer our gratitude to our **Parents** for their constant support, prayer and inspiration for the successful completion of this research study.

We express our sincere gratitude to our **Friends and well-wishers** for their timely help and most of all their prayers.

Thank you very much from all of us…!!!!!

LIST OF ABBREVATIONS USED

ADHD **:** Attention deficit hyperactivity disorder

IQ **:** Intelligent Quotient

EI **:** Emotional intelligence

SLD : Specific Learning Disability

LD : Learning Disabilities

ABSTRACT

Introduction:-

Dyscalculia is s developmental disorder found in children. The teachers are found spending more time with the children, so they can quickly recognize children with dyscalculia and manage the condition very well. The research's topic of choice was “A descriptive study to assess the specific learning disability (Dyscalculia) and its co-morbidity among the school-going children in selected schools at kolar.”

Objectives: -

1. To identify the school- going children with Dyscalculia by using Dyscalculia checklist.
2. To find out the co-morbidity conditions towards Dyscalculia among school-going children.
3. To determine the association between the identification of Dyscalculia and the selected socio-demographic variables of school-going children.

Methodology:-

A non-experimental descriptive research study made use of design. 100 school-going students were selected by using non-probability convenient sampling technique from Field Marshall KM Karayappa School, Kolar. The data was collected by using Dyscalculia checklist. The analysis as completed by using descriptive and inferential statistically.

Results: -

The maximum number of children 52% belongs the age range of 6-7 decades and 48% belongs to 8-9 years. In the school-going children, 59% were female children and 41% were male children. With regard to the religious status, 89% were Hindu, 8% were Muslim, 2% were Christian and 1% were of other religions.

With respect to place of residence, 79% were living in rural areas and 21% were living in urban areas. In relation to number of siblings in the family,55% were having only 1 siblings, 34% were having 2 siblings, 9% were having 3 or more siblings and only 2% were single children. There are 84% of children speaking kannada, 11% speaking telugu, 2% speaking hindi, 2% speaking other languages and 1% speaking English.

In this study, 28% of school-going students have dyscalculia and 72% are found without dyscalculia. The mean was 7.42, mean percentage was 37 and standard deviation was 3.31 respectively.

The frequency and percentage of co-morbid conditions related to dyscalculia among school-going children states that the majority of students 83% are regularly present in classes and 17% have a history of prolonged absence from school. Only 11% of students have school phobia and 89% doesn't have school phobia. Majority of students 92% are not having any memory or visual impairment and 08% of students having it. Only 08% children have symptoms of ADHD and 92% of the students don't have any symptoms of ADHD. Most of the students 79% are having normal IQ and 21% have low IQ. Only 32% of students lack self-confidence and 68% are having confident in attending class. Majority of students 84% doesn't have any reading disabilities and 16% of students have difficulty in reading. Majority of students 95% doesn't have any history of family problems and only 5% of students have it. Only 8% students suffer with poor vision, hearing problems and 92% of students don't have any poor vision or hearing problem. Majority of students 81% doesn't have any language disorders and 19% of students are facing difficulty in communicating with others. Chi square value of Age and Class of studying is proven to be statistically significant at $P < 0.05$, whereas the other socio-demographic variables are identified as not statistically significant at $P < 0.05$ with an understanding of dyscalculia.

Conclusion:-

The study reveals that the vast majority of school-going students are found without dyscalculia. The majority of students, 28% of school-going students have characteristics of dyscalculia. However, exists a need for training and educational programs for instructors' capacity to identify and manage the schools-going students with dyscalculia. Early screening with all children in school and intense intervention services should be forced on the students who demonstrate warning signs of dyscalculia and related problems is the best way from preventing from behavioral problems and for a better result.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ANNEXURES

CHAPTER-I

INTRODUCTION

“LEARNING IS NEVER DONE WITHOUT ERROR AND DEFECT”

-VIADIMIR LENIN”.

Multiple types of disorders characterised by severe challenges in the improvement and application of listening, speaking, reading, writing, or arithmetic skills are collectively commonly known as learning impairments. Conditions known as learning impairments a person's capacity for spoken or written language, mathematical computation, attention, or motor coordination. They can happen to even if they are young, typically not recognised until the child is old enough to attend school. Children with learning impairments are equally intelligent in the same way as their contemporaries or perhaps more intelligent. (1)

The common cause in the range there are learning impairments are genetics, psychological complication during the prenatal or neonatal stage can increase the risk of learning disabilities, physical trauma, low birth weight, alcohol consumption during pregnancy. (2)

The common types of learning problems include dyslexia and dyscalculia., dysgraphia, non-verbal learning disabilities, oral/written language disorder and specific reading comprehension deficit, dyspraxia, executive functioning, dysphasia, impairment of visual and auditory processing disorder, ADHD (attention deficit hyperactivity disorder), autism spectrum disorder. (3)

Specific learning deficits are a developmental disorder, manifesting as a challenge in reading typing, comprehending or using language, calculations where in the student has normal intelligence and conventional schooling, adequate motivation and opportunities.

Dyscalculia is a math learning disability that affects a person's capacity to understand concepts related to numbers, carry out precise math calculations, reason and solve problems, and carry out other fundamental math skills.

The early sign of dyscalculia is often a loss in the capacity to estimate the number of things in a small group from a quick scan and without counting. Six objects can be subsidised by children as young as five, particularly if they are staring at a die. However, student with dyscalculia can subsidize fewer things, and even when they get it right, it takes longer than it would for peers of the similar age at different ages, dyscalculia can take many different forms. While symptoms might show up as soon as preschool, they tend to become more noticeable as children get older. Children who struggle with maths in many ways. Signs may be unique to each individual. In other children, the difficulties become apparent as maths gets more challenging in school.

The common symptoms of dyscalculia include.

1) Clutching the meanings of quantities.

2) Realising that the numerical 5 is equivalent to the term ‘five’ and that both of these indicate five

3) Learning basic math concepts from school, such as measuring distance or speed.

4) Counting cash or creating change.

5) Estimating time.

6) Calculating distance or speed

7) Knowing the reasoning behind math.

8) Retaining numbers in their minds as they work through issues.

Many children and adolescent accompanied by dyscalculia associated cognitive dysfunction (e.g., impairment of working memory and visuospatial skills), and 20% to 60% of those affected have comorbid disorder such as dyslexia or attention deficit disorder. Difficulty in learning arithmetic, like difficulty in learning to read and write, is a common learning disorder in childhood. Dyscalculia often associated with mental disorders. Many affected children acquire a negative attitude to counting and arithmetic, which, in turn, often develop into a specific mathematics anxiety or even a generalized school phobia. Unless specifically despite treatment, dyscalculia continues until adulthood it can lastingly impair personality development, schooling, and occupational training. The early identification and as well as dyscalculia treatment are very important in view because of its recurring connection to mental disorder. The effects of having dyscalculia are not educational outcomes: individuals with dyscalculia may experience social problems as well. Neuropsychological differences can influence the accurate perception not only experience negative effects on account of their learning distinction, but likewise as an outcome of carrying a stigmatizing label. Dyscalculia can remain into adulthood if untreated, which puts individuals at a disadvantage for success in higher education and the workforce.

Dyscalculia is a learning disability like any other, and there is no medication that can be used to treat it. Most people have weak math skills by the time they are diagnosed.

Therefore, the objectives of treatment are to close as many gaps as possible and to create coping skills that can be applied throughout life. This is often accomplished by specialised training, modifications, and other interventions, all of which must be implemented by the teachers and parents at the very beginning.

1.2 NEED FOR THE STUDY

A math learning disability known as dyscalculia makes it difficult for a person to understand number-related concepts, conduct precise math calculations, reason and solve problems, and perform other fundamental math abilities. Dyscalculia which affects the school level mathematical skills. Those students who experience difficulties dyscalculia cannot grasp basic number concepts and work hard to memorize them, however inadvertently miss the logic behind the concepts. Some children may understand the concepts, but struggles with the application of concepts. Children with dyscalculia could be performing well in the other subjects but struggling in maths. They often fall behind in primary schooling and are unable to catch up without proper intervention.

The dyscalculia has worldwide prevalence of 3-6% estimations vary somewhat depending on country and sample size on the whole population. It was found that 11% children who also have dyscalculia ADHD in 2015.

According to a study conducted in India, reading and written expression impairments than those, were more typical in mathematics, with 22% and 16%, respectively. India's primary school students' predominance of dyscalculia, dyslexia, dysgraphia has reportedly been 11.2%,12.5%, and correspondingly 10.5%. In Children with dyscalculia should be identified and categorised in primary schools. Both inclusionary and excluding criteria were applied to identify dyscalculia. When other potential causes of arithmetic failure were ruled out, the prevalence of dyscalculia was found to be 5.9% (15 instances out of 251 total cases) in one study and 5.54% (78 out of 1408) in another.

In the subsequent survey, it was discovered that 40 out of the 78 (51.27%) also struggled with reading and writing.

A research of students with dyscalculia and their mathematical abilities at primary school in Karaikudi. Primary school students find these difficulties in learning of number concepts and basic arithmetic. The study under investigation is to identify students who are affected by dyscalculia in schools of Karaikudi. The investigator purpose of use survey method for this study. Population for the research is primary school students in in Karaikudi. The random for the investigation, a sampling technique was adopted. The instance is 100 primary schoolchildren in Karaikudi. Instrument for the study is adopted screening tool for identifying the dyscalculic students. The research showed 9% students elementary school in Karaikudi were discovered to be dyscalculia. Hence identifying the dyscalculic students and giving them the necessary intervention program to improve their challenges in math learning and it is need of the hour. Experts concur that dyscalculic students can present lifelong difficulties if not at all diagnosed and not managed at the age of 6-12 years. Thus, study aimed to determine the school going students with dyscalculia and its co-morbidity selected schools at Kolar. By doing this study, once the children are identified, it's important for the school teachers to advocate and promote optimal outcomes for the child academic, social and overall well-being. (5)

CHAPTER II

OBJECTIVES

2.1 STATEMENT OF THE PROBLEM

A descriptive study to assess the specific learning disability [Dyscalculia] and its co-morbidity among school-going children in selected schools at kolar.

2.2 OBJECTIVES OF THE STUDY

1. To identify the school- going children with Dyscalculia by using Dyscalculia checklist.

2. To find out the co-morbidity conditions towards Dyscalculia among school-going children by using co-morbid checklist.

3. To determine the association between the identification of Dyscalculia and the selected socio-demographic variables of school-going children.

2.3 OPERATIONAL DEFINITIONS

Identification: - In this research, It alludes to the screening of every the students studying in 1st to 7th standard by using Dyscalculia checklist to ascertain if they are affected by Dyscalculia or not.

Dyscalculia: - In this study, it refers to specific learning the presence of impairment of math's. Which includes weakness in understanding the meaning of numbers and difficulty in applying mathematical principles in solving problems such as addition, subtraction, multiplication and division.

Co-morbidity: - In this study co-morbidity conditions included are visual spatial difficulties trouble processing what the eyes sees, or language processing difficulties, trouble processing or making sense of what the ear hears]. Which is measured by Co-morbid checklist.

School-Going Children: - In this study, it refers to children from 6 -12 years old studying in 1st to 7th standard.

Selected schools: - In this study, it refers to different schools which provides primary education to children at kolar.

2.4 HYPOTHESIS

Ho: There is no statistically significant association between school-going children with Dyscalculia and their selected socio- demographic variables.

2.5 ASSUMPTIONS

1. School-going children especially in 1st and 2nd standard may have some problems related to mathematical or associated with that.

2. Screening the school-going children will help in early identification of Dyscalculia and monitor for further any problems associated with math's.

2.6 DELIMITATIONS

The study is delimited to:

1. Only the school- going students of selected schools at Kolar.
2. The sample size of 100 school –going children.
3. Only on identification of students with Dyscalculia and its co-morbidity.

CHAPTER-III

REVIEW OF LITERATURE

3.1 INTRODUCTION

A review of literature is description and analysis of the literature relevant to a particular field or topic. It provides an overview of world already had been carried out, who are the key researchers, who did that work.

1. Studies related to learning disabilities
2. Studies related to specific learning disabilities
3. Studies related to dyscalculia and its co-morbidity.

3.1.1 STUDIES RELATED TO LEARING DISABILITIES

This research is being done on students with learning difficulties.by Siti Farida Suraitin, Mahadi Bahari, Faculty of Computing, University. Technology Malaysia, skudai Johor Malaysia. This paper aims to identify the presences of learning disabilities course wares in Malaysia and to purpose the most successful course ware designed for learning disability children. Utilizing the fourth stage method from Bandara's systematic literature review. It is formed the multimedia application should be considered as most effective component for developers while designing the learning course ware for learning disability. The result of the course ware provides an interactive teaching those who have learning disabilities

This study was conducted on learning disabilities with challenges by Monika thapliyal, neelu, Jyoti Ahuja and research and developmental university of petroleum and energy studies, Dehradun, India. This paper reviews the research work on "learning challenges for learning disabled studies reveals that 5/15% of learns have learning disability to some extent. There is a provision for an extra time of about 25% for learning disabled in written examinations. 25% of them find difficulty in fluent reading, 43 % cannot solve simple divisions, 55% cannot read an English sentence and 79% of that 55% could not understand the meaning, 76% cannot count money. The result show that the meaning score of the percentage of learners learning capability. [7]

This study conducted for the social and educational challenges for learning disabled, and details research in India, concerning the aspect of diagnosis, assessment and measures for improvement. The paper critically examines the development in their teaching- learning process over the years. It highlights the role of special educator in their education and explores the impact of technology and specific teaching aids in the education of learners with learning disability. It concludes the possible solutions, learner progress based on the recommendation from detailed analysis of the available literature. According to annual status of educational report 2017, a survey on 28323 youth of age of 24 states suggest children in elementary school have difficulty in foundation skills like reading skills and basic arithmetic calculations and head urgent efforts. 25% of them find difficultly in fluent reading. 43% can't solve simple division. 55% cannot read an English sentence and 79% of that 55% could not understand the meaning. 76% can't count money, 40% have trouble telling time and 55% have problems in sums of the unitary method. Findings shows that research on learning disabilities has quite a few barriers such as those of language, ignorance and vastness

of the curriculum. Educational institution needs advanced assessment tools to identify learning disabilities in early childhood that is as early as possible. The study concluded that learning disability is no longer a neglected problem in India. In the last two decades' significant measures for research has taken place in the areas of assessment and diagnosis of learning disability. Many government policies are open for the upliftment and betterment of children with special needs. This gradual but consistent increase is anticipated to deliver promising result in near future. [8]

This study is conducted on 5th December 2014 by Dr. KC Chanduru foundation to evaluate the occurrence and distribution of learning disabilities in school-aged children in a northern Indian metropolis. In the current cross-sectional investigation, teachers used a specialised screening tool for learning difficulties to identify students who were at risk. The final stage involved evaluating the pupils who tested positive for learning disorders using the Brigance Diagnostic Inventory, which is a component of the NIMHANS Index of Specific Learning Disabilities. The sample size is n=3600, and the results indicate that out of the 3600 children who were evaluated in total, 1211 (or 33-60%) were identified by teachers as being at risk in the first stage, and 360 of those children tested positive for a specific learning disability at the second stage. The most prevalent shortcoming was missing words disability. According to the study's findings, learning disabilities are prevalent in roughly 3% of third- and fourth-graders.

3.1.2 STUDIES RELATED TO SPECIFIC LEARNING DISABILITIES

The research was conducted on investigation into the participation incentives and obstacles for students with particular learning disabilities. The purpose of this research is to compare children with SLD to students without disabilities in terms of participation and environmental characteristics. A case-controlled design was used for creating this research. In this research, the participation and environment measure for students and teens was completed by parents of students with SLD aged 5 to 17 (n = 90) and non-disabled children (n = 88). (PEM- CY) In the home, school, and community settings, D40IFFERENCE BETWEEN GROUPS was discovered to be statistically significant for both involvement and contextual variables (p0.05). Students with SLD took part in school activities less frequently and were less active in their homes and classrooms. SLD-afflicted student's parents wanted to see more changes

Children "at risk" of developing certain learning difficulties in primary schools were the subject of this study. This study examines the percentage of kids between the ages of 5 and 7 who are at risk for specific learning disorders (SLD) along with sociodemographic risk variables. Six schools in Puducherry took part in a cross-sectional survey based on schools. There were 408 enrolled students, and the research was done in a triphasic manner. 109 out of the 480 registered kids tested positive for SLD-SQ. In phase 2, twelve students were excluded. The remaining 97 were assessed using the NIMHANS SLD score, and 36 (7.55%) were positive on screening. In comparison to girls (4.9%), boys (9.6%) were much more affected. Similar to this, risk was much higher (12.1%) among students attending government school’s comparison to girls (4.9%), boys (9.6%) there more than affected. In a similar vein, risk was noticeably higher among pupils in government schools (12.1%) than in private schools

This research was carried out by specific learning impairments among students at primary level by Muhammed Jved Aftad, Muhammed Ashfaq, Rukhsana Bashir, Arshad Mehmood Qamar, and Hamid Ali Nadeem. The objectives of the research were to figure out the prevalence of students who suffer from certain learning difficulties at primary level in Punjab. The study population was children studying in the primary schools of Punjab. The information was gathered from 2392 children. The methodology utilized for this research was WIAT-111 test was utilized to gather student data. According to the findings, which are addressed in the paper in brief, 50% of children have learning difficulties in a number of categories. [12]

This investigation into the prevalence Among students with particular learning difficulties was conducted. Experience of pre-registration physiotherapy education by M. Norris, J. Hammand, and S. Walker. Attainment gaps for those with disabilities have been noted in pre-registration physiology courses in the UK. This research objective was to explore disabled physiology students experience a part of their schooling so as to clarify elements that could have an impact success. The methodology used for the study drawing on qualitative study for focus groups including 15 students with disabilities was conducted. The result concluded the contrast between the 24-h nature of having a specific learning condition and the somewhat piecemeal nature of adjustment during their education. [13]

This study was conducted on specific learning disability: a 5-year study from India by Shipra Singh, Vishal Sawani, Mahesh Deokate Samindra Panchal, Alka A. Subrahmanyam, Ravindra M. The method of the research has a descriptive design children diagnosed with SLD over a 5 years' period were included total being 2015.The

data were gathered with a semi-structured proforma. The outcome of his research more than half of the students came from an English-medium school, in 8-12 years' age group were referred mostly by the teachers for academic issues. (14)

3.1.3 STUDIES REALTED TO DYSCALCULIA

This research is conducted on students with dyscalculia and their mathematical skills at the primary school in karaikudi by A. Adaikala Jeya, Dr. A. Pio Albina. Learning difficulties is a major contributing factor for the children's in schools, which requires immediate concern. Primary school students find these difficulties in learning of number concepts and basic arithmetic's. The method random sample technique was utilized in this investigation. This study. The sample is 100 primary school students in karaikudi. Instrument for research is adopted screening tool for identifying students. Outcome of this research revealed 9% students of the primary school karaikudi where proven to be dyscalculia. (15)

This research is conducted on school for improving mathematical skills in children with dyscalculia by Josie Brinton. Students need to employ math daily activities. The estimated prevalence rate of dyscalculia is between 3% and 6%. The two searches were combined and duplicates removed resulting in 239 articles in total. The result of this research was able to provide evidence regarding intervention that might implemented in schools and for children with dyscalculia or similar specific mathematical learning difficulties. (16)

This research is conducted on learning difficulty related to dyscalculia. The goal of this research is to identify learning difficulties in mathematics and to ascertain the support needed by teachers. About one- fifth of students have signs of dyscalculia. As stated by

a survey of teachers, just 7% of of students have no mathematical learning difficulty. The research Additionally show that learning often occur between age of 9 and 11. 75% of parents of children age group report that their children's sometimes count on their fingers. All parents of children aged 4 to 6 years answered that their children request more help than usual when doing mathematics tasks. [17]

CHAPTER-IV

RESEARCH METHODOLOGY

4.1. INTRODUCTION

This chapter describes the methodology formulated for the problem selected, "A descriptive study to assess the specific learning disability [Dyscalculia] and its co-morbidity among school-going children in selected schools at kolar. This phase of study comprises a research strategy, a research design, and variables, setting, population, sample, size, and sampling methodology, data collection, procedures and a strategy to make inferences.

4.2 RESEARCH APPROACH

A quantitative approach is considered appropriate for the current research with non-experimental study.

4.3 RESEARCH DESIGN

Chosen as the study's research methods is descriptive survey research design.

4.4 VARIABLES UNDER STUDY

Study variable

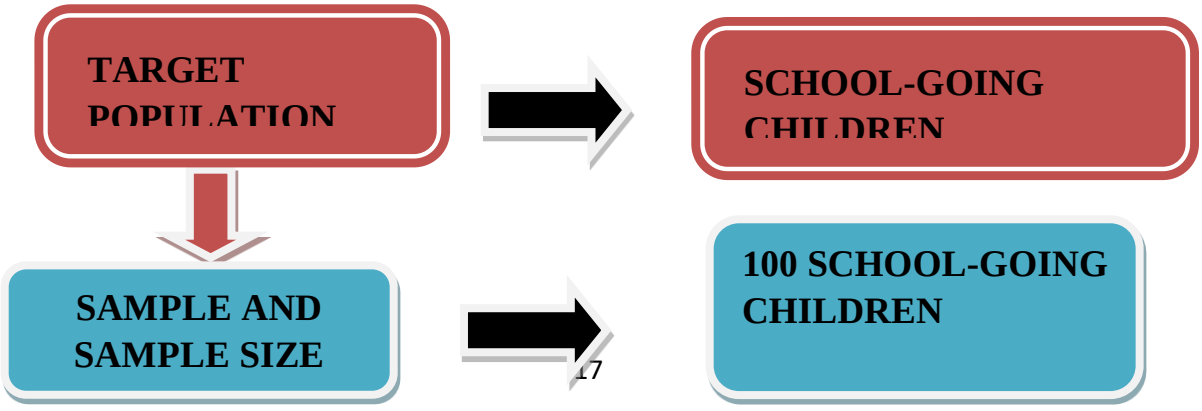
Identification of Dyscalculia among school-going children and its co-morbidity.

Attribute variables

In in this study, it's the characteristics of the school- going children like age, gender, class of study, occupation of the parents, academic performance, religion, educational status of parents, place of residence.

4.5 SETTING BASED TO THE STUDY

This research was done in the picked school Field Martial K.M Karyappa School Hurchalla Village. Field Martial K.M Karyappa School was established in 1987 and its managed by the Pvt. Aided. Its located in rural area. Its located Bangarapete block of Kolar district of Karnataka. The school consists of grade from 1st to 6th. The school is co-educational. Kannada is the medium of instructions in the school. This schools will be selected as said in the approval of the permission from the concerned school authorities.



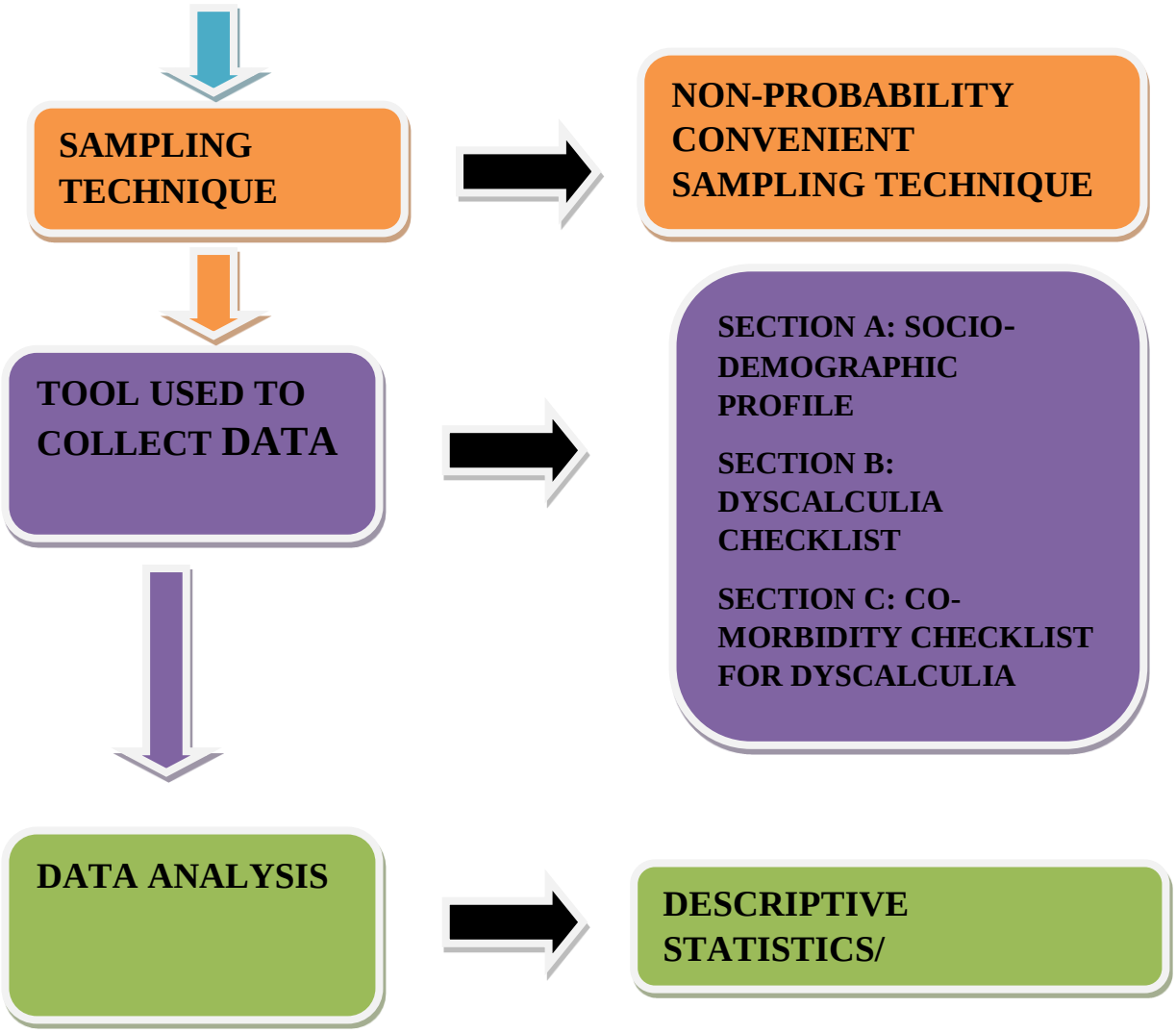


Fig 1: - FIGURATION IN SCHEMATICAL FORM OF STUDY DESIGN

4.6 Population

All the students studying from 1st to 7th standard in primary schools at Kolar.

4.6 Sample and sample size

The research sample consists of 100 school-going children learning in a chosen schools at Kolar who fulfills the inclusion criteria.

4.7Sampling technique

Method of sampling for the research is non-probability convenient sampling technique.

4.9 Sampling Criteria

❖ 4.9.1 Inclusion Criteria

1) Pupils in primary schools who are studying in 1st and 2nd standard.

2) Who are willing to engage in the study.

3) Kids in preschools who are available during the data collection period.

4) School teacher who are involved in taking care of those primary school children of their respective classes.

❖ 4.9.2 Exclusion Criteria

1. Students apart from 2nd standard and kinder garden students are excluded.
2. School going pupils who are apprehensive about taking part in the study.
3. Who are sick and unable to respond

4.10. Data Gathering Instrument

It consists of three sections: -

Section A: - Socio-demographic profile:-

It includes questions regarding the personal details of the school-going children e.g., age, gender, class of study, religion, academic performance, occupation of parents, educational status of parents, place of residence, language they speak at home.

Section B: - Dyscalculia Checklist:-

The tool consists of 20 items related to Dyscalculia and identify most of the key behaviours that contributes to maths failure, which includes;-

1. Visual spatial difficulties (trouble processing what the eyes sees) or
2. Language processing difficulties (trouble processing or making sense of what), which is measured by Dyscalculia checklist e ear hears.

Section C: - Co-morbidity checklist regarding dyscalculia:-

It consists of 10 items with Yes/No options related to the co-morbid factor of dyscalculia characteristics.

Score interpretation:-

The score was prepared by Section A:-By coding the socio-demographic variable.

Section B: - If the score is <10, no dyscalculia present. If the score is >10, dyscalculia is present.

Section C:-By coding how many response are found with Yes/No.

4.11 Techniques for Collecting Data.

1. Group members had collected the data after receiving official approval from Institutional ethics committee [IEC] of SDUCON additionally from the relevant authorities of the selected school.

2. Participants in the study were chosen depending on the investigators convenient who fulfils the selection criteria. The study's goal was to determine, explained to them and informed written concerns was obtained from the students as together with their teachers in school..

3. The data was accumulated by using Dyscalculia checklist through interview method on one to one basis until the desired sample size is obtained, as well as the support of their teachers.

4.12. Plan for Data Analysis

Statistics, both descriptive and inferential, were used to analyse the data.

- Frequency and allocation by percentage for socio-demographic variables and identification of primary school children with Dyscalculia.
- Chi-square test is used for correlation between the children with Dyscalculia and their selected socio-demographic variables.

CHAPTER -V

RESULTS

Analysis of data and interpretation: -

In order to diagnose dyscalculia among school-age children, the Field Marshal KM Karyappa School in Kolar collected data from 100 students. This chapter deals with the interpretation and analysis of such data. The information was gathered from 100 school-age children and analyzed using descriptive and inferential statistics in accordance with the plan for data analysis. The following headings have been used to arrange and display the findings:

Section A: Socio-demographic characteristics of students, including their frequency and percentage distribution.

Section B:-Identification of dyscalculia in school-going children, including frequency and percentage distribution.

Section C: The frequency and distribution of co-morbidities associated with dyscalculia in school-going children.

Section D: Scores for dyscalculia in school-going children include mean, mean percentage, and standard deviation.

Section E: Association between certain socio-demographic characteristics of school-going children and the diagnosis of dyscalculia.

SECTION A

Table 1: Socio-demographic characteristics of students, including their frequency and percentage distribution.

N=100

Sl.No.	**Socio-demographic variables**	**Frequency (f)**	**Percentage (%)**
1.	Age (in years) a) 6-7 b) 8-9	 52 48	 52 48
2.	Gender a) Male b) Female	 41 59	 41 59
3.	Religion a) Hindu b) Muslim c) Christian d) Any others	 89 08 02 01	 89 08 02 01
4.	Educational Qualification of Father a) No formal education b) SSLC		

	c) PUC d) Degree e) PG & Others	18 47 28 07 -	18 47 28 07 -
5.	Educational Qualification of Mother a) No formal education b) SSLC c) PUC d) Degree e) PG & Others	 15 53 29 03 -	 15 53 29 03 -
6.	Occupational Status of Father a) Govt. employee b) Private employee c) Daily wages d) Business e) Any other, specify	 10 17 55 07 11	 10 17 55 07 11
7.	Occupational Status of Mother a) Housewife	 66	 66

	b) Govt. employee c) Private employee d) Daily wages e) Any other, specify	05 05 23 01	05 05 23 01
8.	Class of Studying a) 1st Standard b) 2nd Standard	 43 57	 43 57
9.	Place of Residence a) Urban b) Rural	 21 79	 21 79
10.	No. of Siblings a) None b) 1 c) 2 d) 3 or more	 02 55 34 09	 02 55 34 09
11.	Language spoken by the students at home a) English b) Kannada c) Telugu d) Hindi	 01 84	 01 84

	e) Any others	11 02 02	11 02 02
12.	Academic Performance (through records/ class teachers) a) Below average (below 50%) b) Average (50-60%) c) Good (60-75%) d) Excellent (above 75%)	08 45 31 16	08 45 31 16

Table1:-Reveals the distribution of socio-demographic characteristics of school-going children. The maximum number of children 52% is within the age range of 6-7 years and 48% belongs to 8-9 years.

In the school-going children, 59% were female children and 41% were male children. In relation to the religious status, 89% were Hindu, 8% were Muslim, 2% were Christian and 1% were of other religions.

The level of education that father, 47% were SSLC, 28% were PUC, 18% were with no formal education, 7% were degree and 0% were with PG and others. The educational status of the mother, 53% were SSLC, 29% were PUC, 15% were with no formal education and 0% were PG and others.

Regarding the occupational status of father, majority were doing daily wages 55%, 17% were private employee,11% were doing other jobs, 10% were government employee,

7% were doing business and while considering the occupational status of mother most of them were housewife 66%, 23% were doing daily wages, 5% were government employees,1% were doing other jobs.

Among the 100 sample 57% were selected from 2nd standard and 43% were selected from 1st standard.

With regard to place of residence, 79% were living in rural areas and 21% were living in urban areas.

Referring to number of siblings in the family, 55% were having only 1 siblings, 34% were having 2 siblings, 9% were having 3 or more siblings and only 2% were single children.

There are 84% of children speaking kannada, 11% speaking Telugu, 2% speaking Hindi, 2% speaking other languages and 1% speaking English.

In relation with academic performance, 45% are having average academic performance, 31% were having good academic performance, 16% were having excellent academic performance and 8% were having below average academic performance.

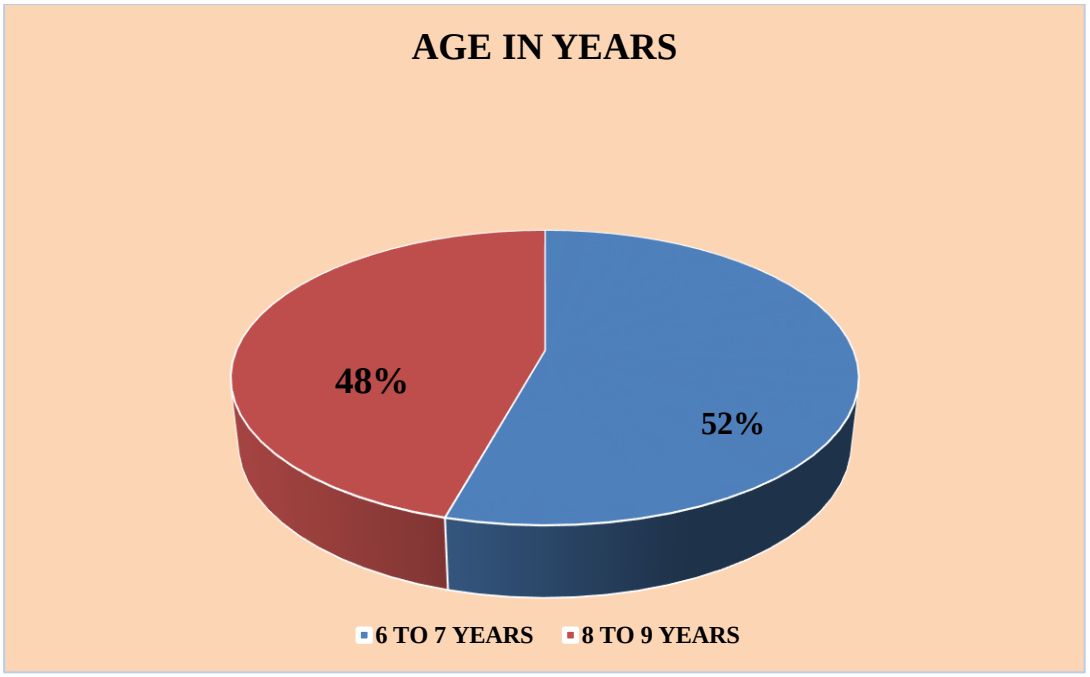


Fig 2 :- Age-specific percentage distribution of students in school

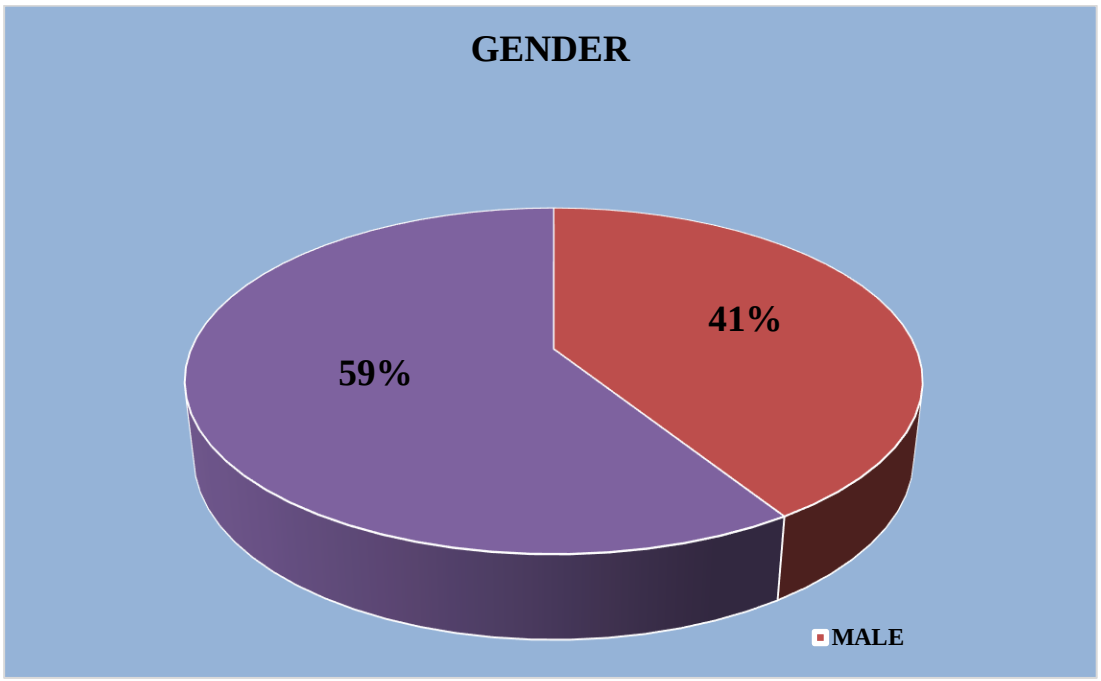


Fig 3 :- The gender distribution of students at school as a percentage..

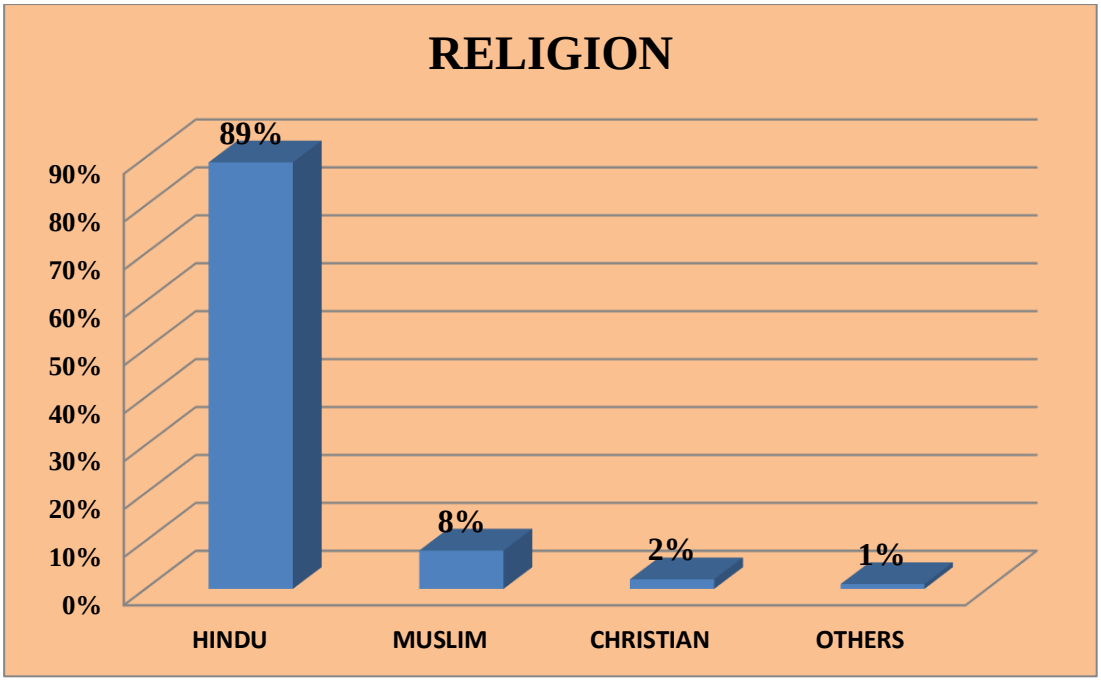


Fig 4 :- Religious affiliation among students, by percentage

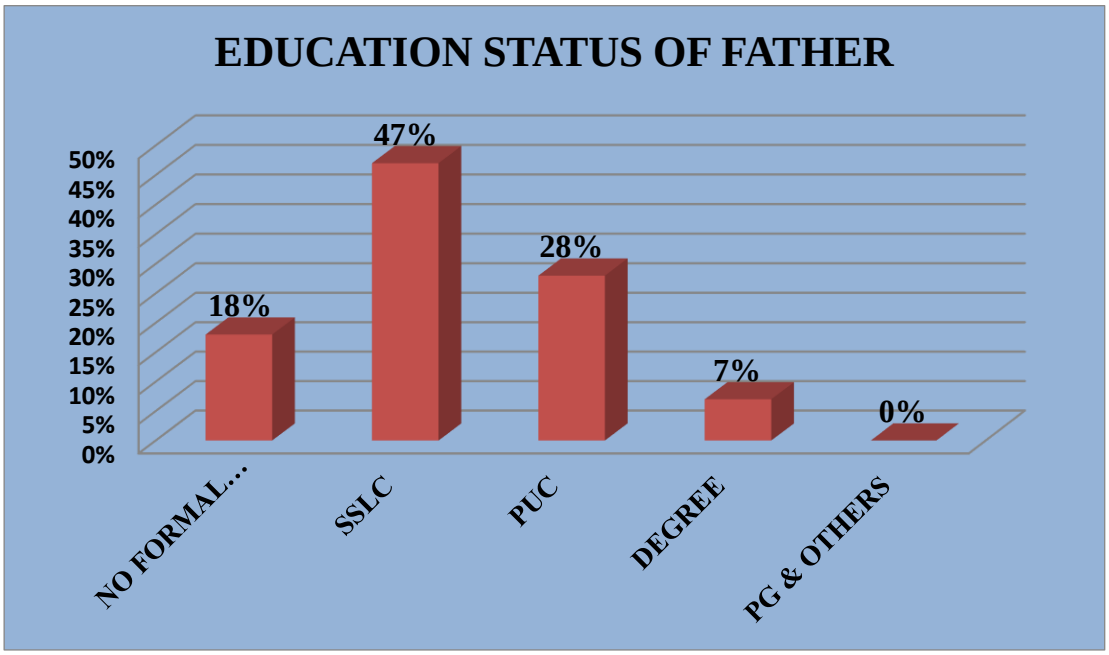


Fig 5: - Percentage distribution of fathers of school-going children's educational status.

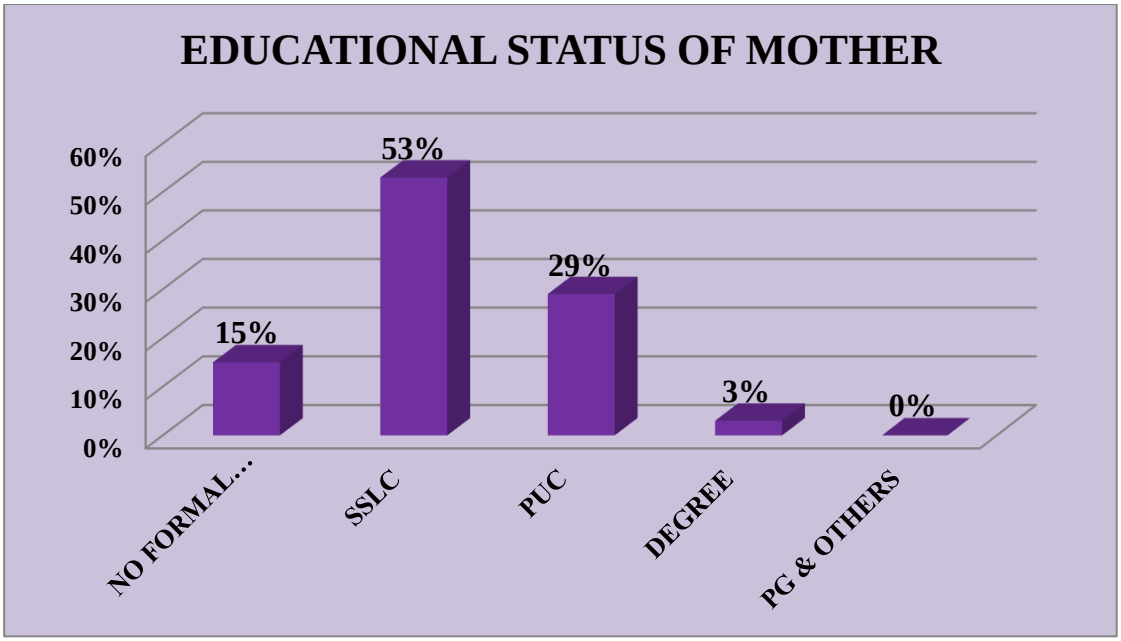


Fig 6:- Percentage distribution of mothers of school-going children's educational status.

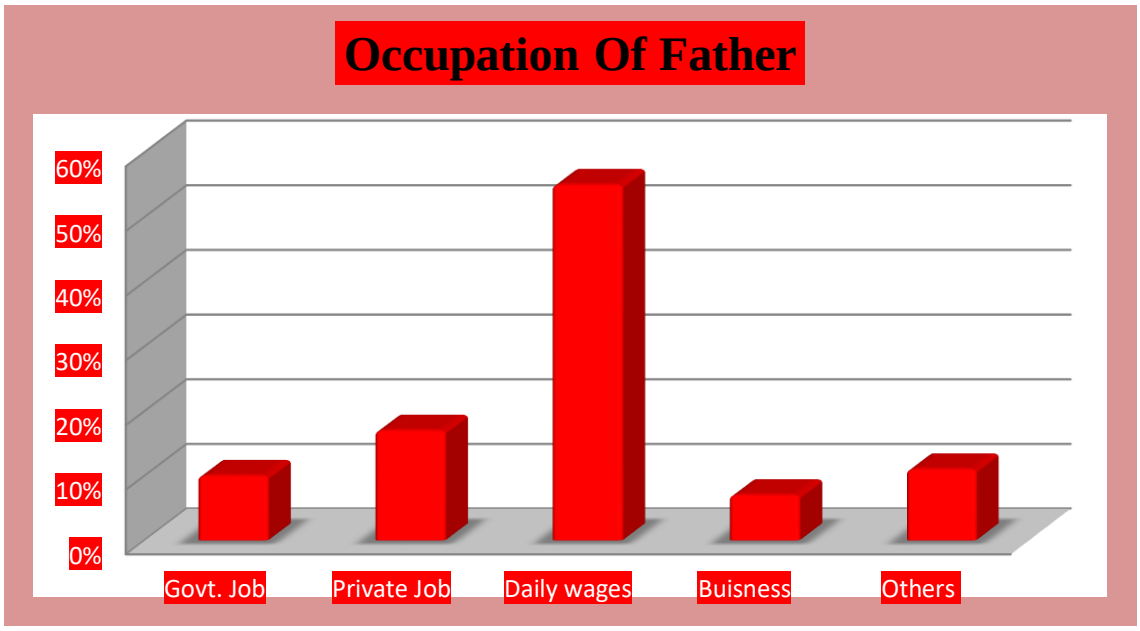


Fig 7 :- Percentage distribution of occupational status of father of school-going children.

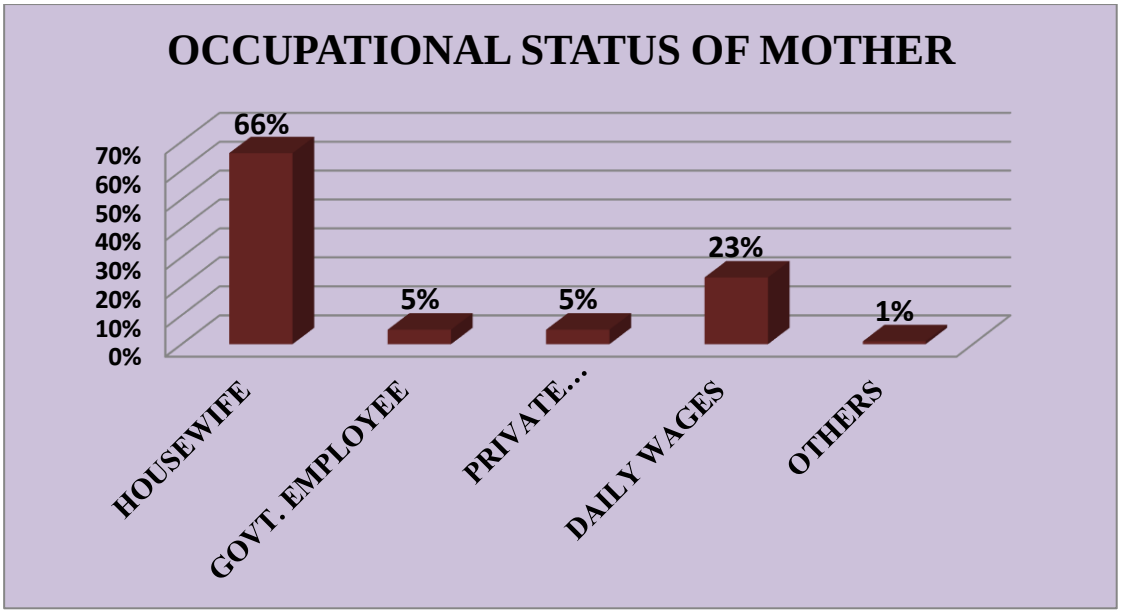


Fig 8 :- Percentage distribution of occupational status of mother of school-going children.

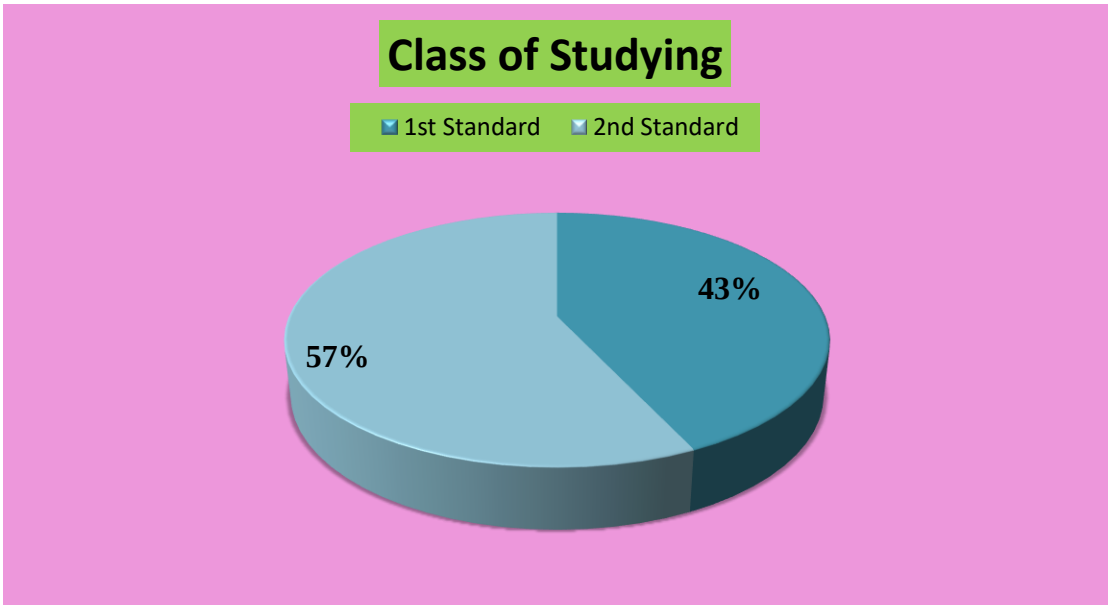


Fig 9 :- Percentage distribution of school-going children's class of studying.

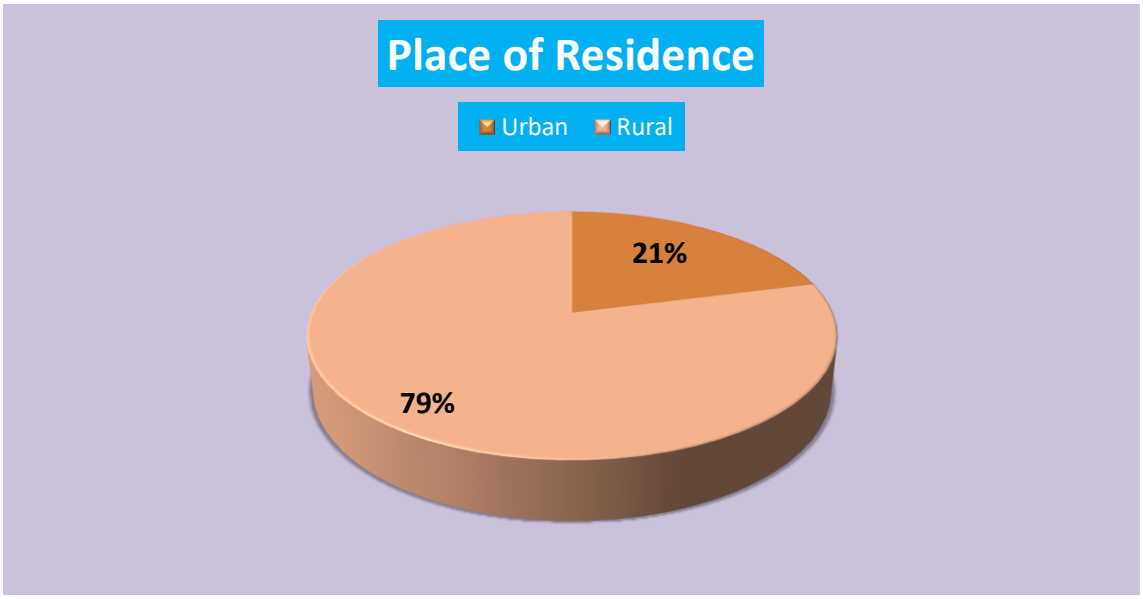


Fig 10 :- Percentage distribution of school-going children place of residence.

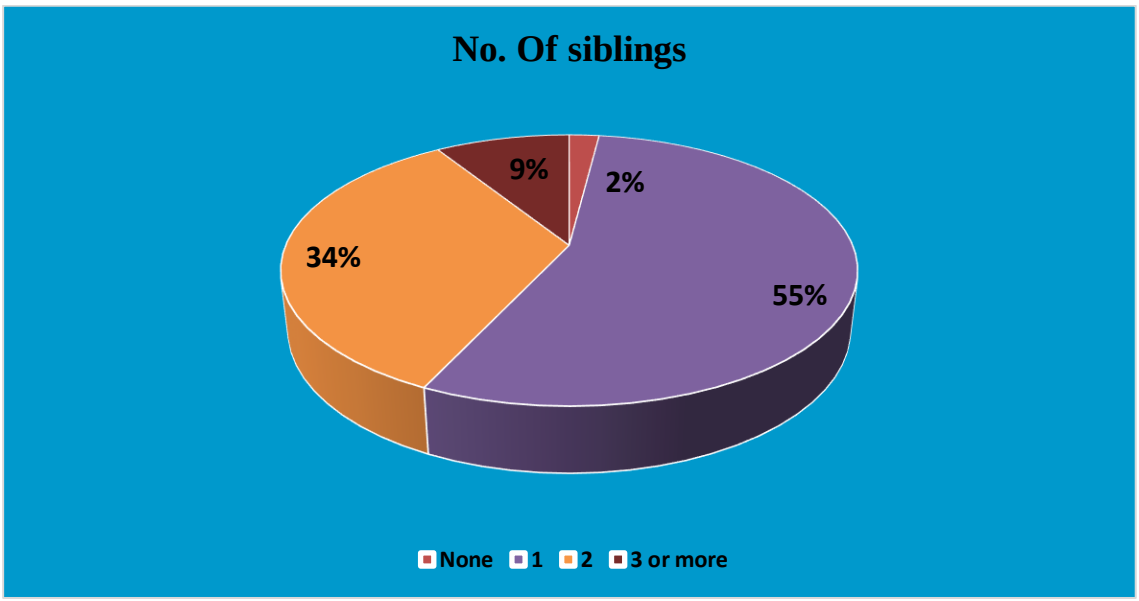


Fig 11 :- Percentage distribution of school-going children number of siblings.

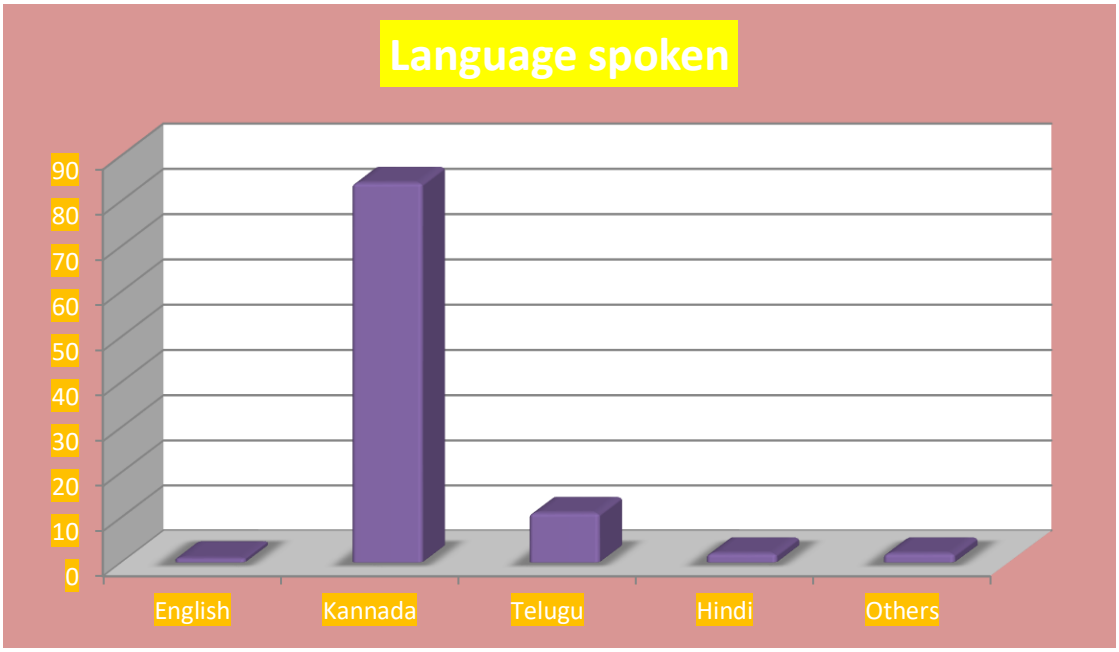


Fig 12 :- Percentage distribution of language spoken by school-going children at home.

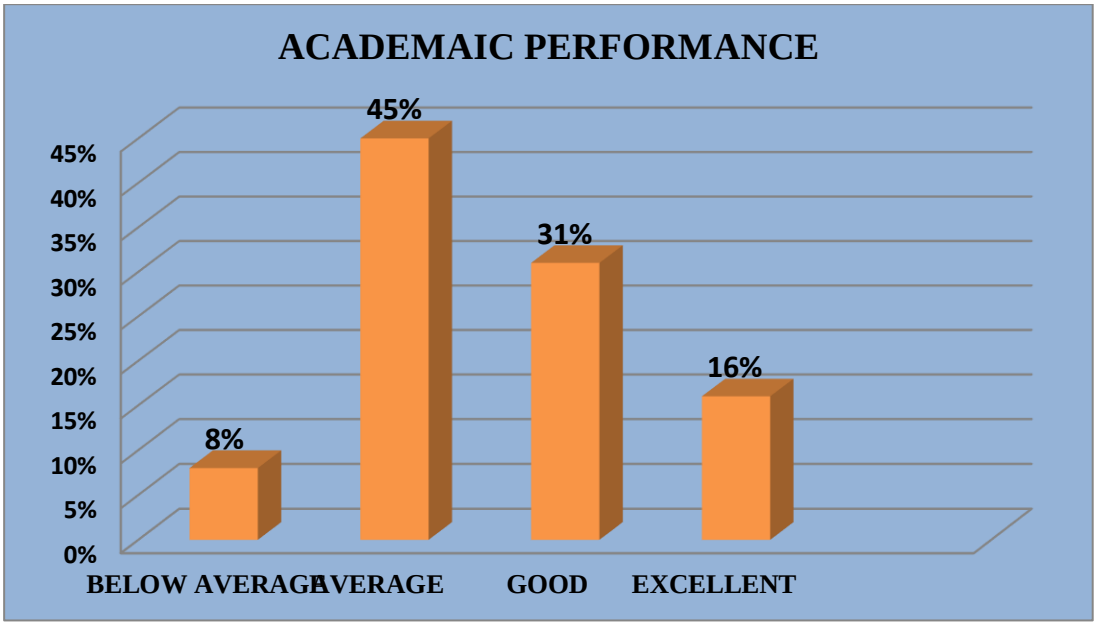


Fig 13 :- Percentage distribution of academic performance of school-going children.

Section B

Table 2:- Frequency and percentage distribution of identification of dyscalculia among school-going children.

N=100

Sl. No.	Study variable	Frequency (f)	Percentage (%)
1.	School-going children with dyscalculia	28	28
2.	School-going children without dyscalculia	72	72

Table 2:- Describes the frequency and percentage distribution of dyscalculia in school-going children which states that majority of students 72% had no dyscalculia and only 28% of them had dyscalculia and its characteristics.

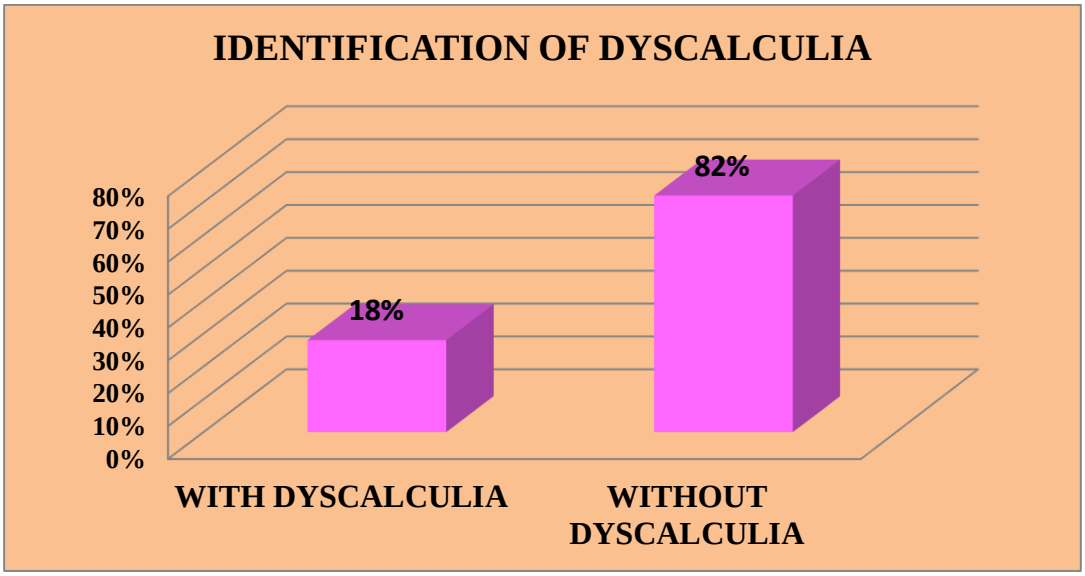


Fig 14:- Percentage distribution of identification of dyscalculia among school-going children.

Section C

Table 3:- Frequency and percentage distribution of co-morbid conditions related to dyscalculia among school-going children.

N=100

Sl.No.	Components of co-morbid factors	Frequency (f)	Percentage (%)
1.	Is there any history of prolonged absent from school. Yes	17	17
	No	83	83
2.	Does the child have any school phobia/anxiety? Yes	11	11
	No	89	89
3.	Any impairment/ disturbance in memory/visual spatial skills. Yes	08	08
	No	92	92

4.	Does the child have symptoms/ characterization of ADHD. Yes	08	08
	No	92	92
5.	Whether the child IQ/ Intellectual ability is normal. Yes	79	79
	No	21	21
6.	Does the child lack in their level of confidence. Yes	32	32
	No	68	68
7.	Whether the children have any reading disability. Yes	16	16
	No	84	84
8.	Does the child have any history of family problems/issues/disturbances? Yes	05	05

	No	95	95
9.	Is the child suffering with poor vision/hearing? Yes	08	08
	No	92	92
10.	Does the child have any language disorder/understanding with language? Yes	19	19
	No	81	81

Table3 :- Describe the frequency and percentage of co-morbid conditions related to dyscalculia among school-going children states that the majority of students 83% are regularly present in classes and 17% have a history of prolonged absence from school. Only 11% of children have school phobia and 89% doesn't have school phobia. Majority of children 92% are not having any memory or visual impairment and 8% of children having it. Only 8% children have symptoms of ADHD and 92% of the children doesn't have any symptoms of ADHD. Majority of students 79% are having normal IQ and 21% have low IQ. Only 32% of children lack self-confidence and 68% are confident in class. Majority of children 84% doesn't have any reading disabilities and 16% of children have difficulty in reading. Majority of children 95% doesn't have any history of family problems and only 5% of children have it. Only 8% children suffer with poor vision, hearing problems and 92% of children doesn't have any poor vision or hearing problem. Majority of children 81% doesn't have any language disorders and 19% of children are facing difficulty in communicating with others.

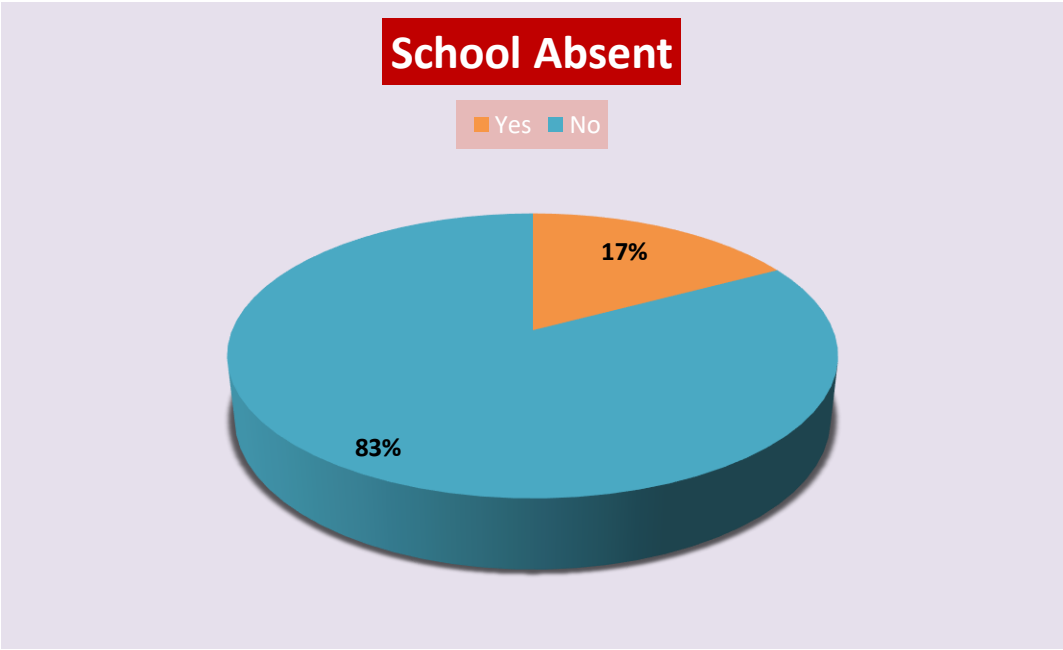


Fig 15:- Percentage distribution of school-going children with history of prolonged absence from school.

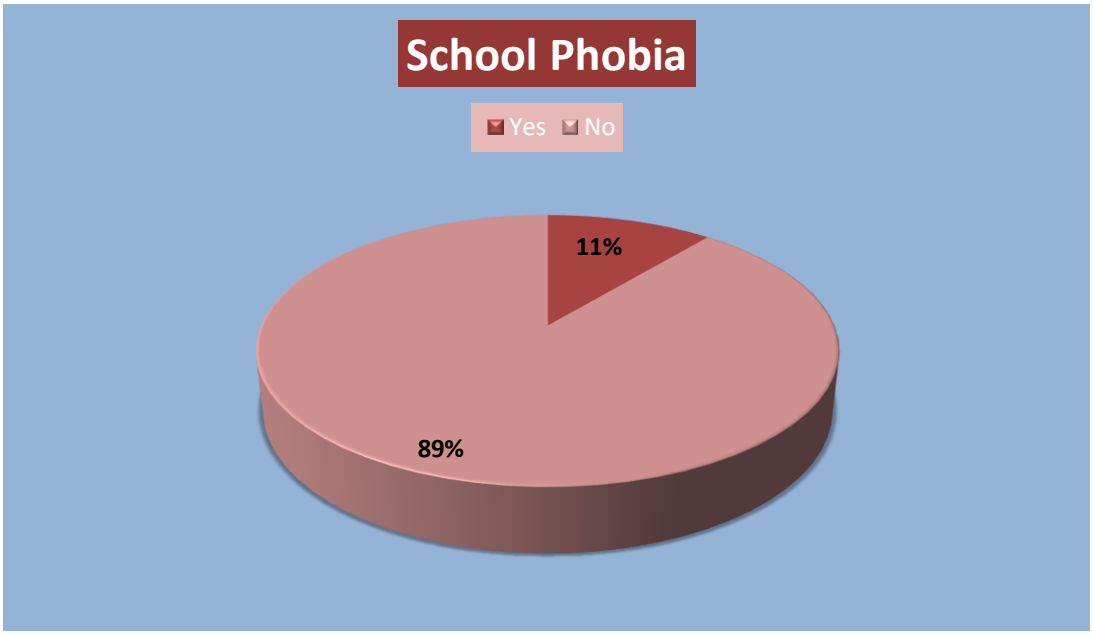


Fig 16:- Percentage distribution of school-going children having school phobia and anxiety.

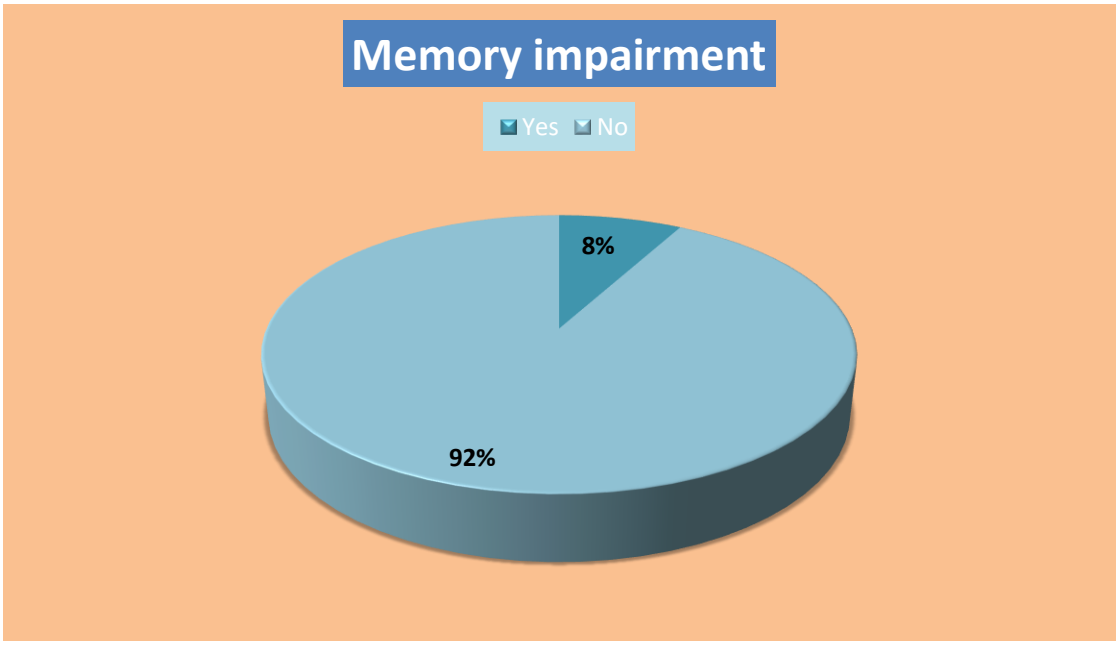


Fig 17:- Percentage distribution of school-going children having some memory/visual impairment.

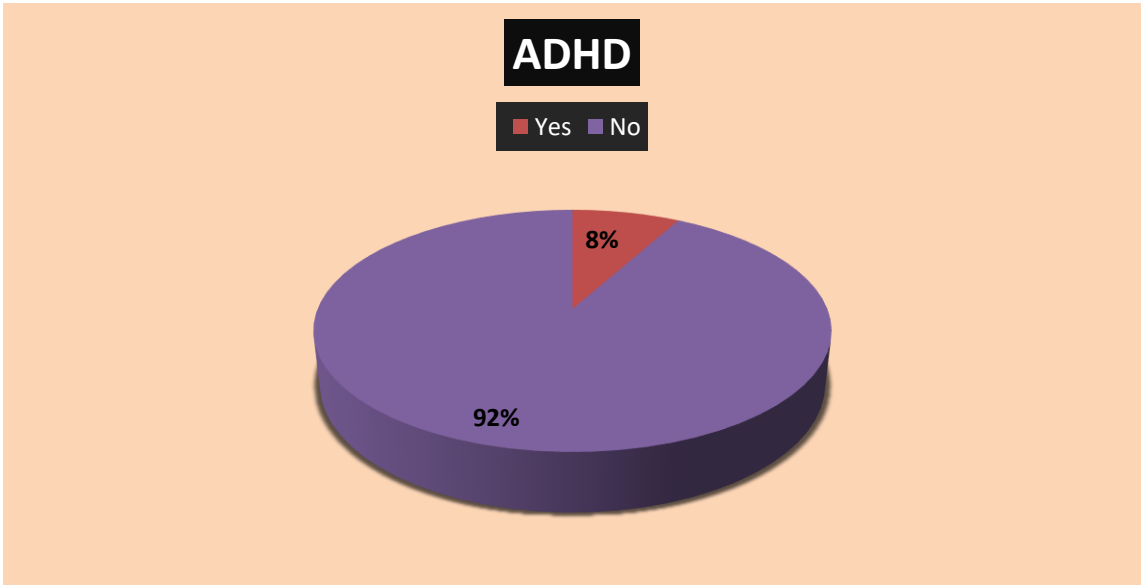


Fig 18:- Percentage distribution of school-going children having some symptoms of ADHD.

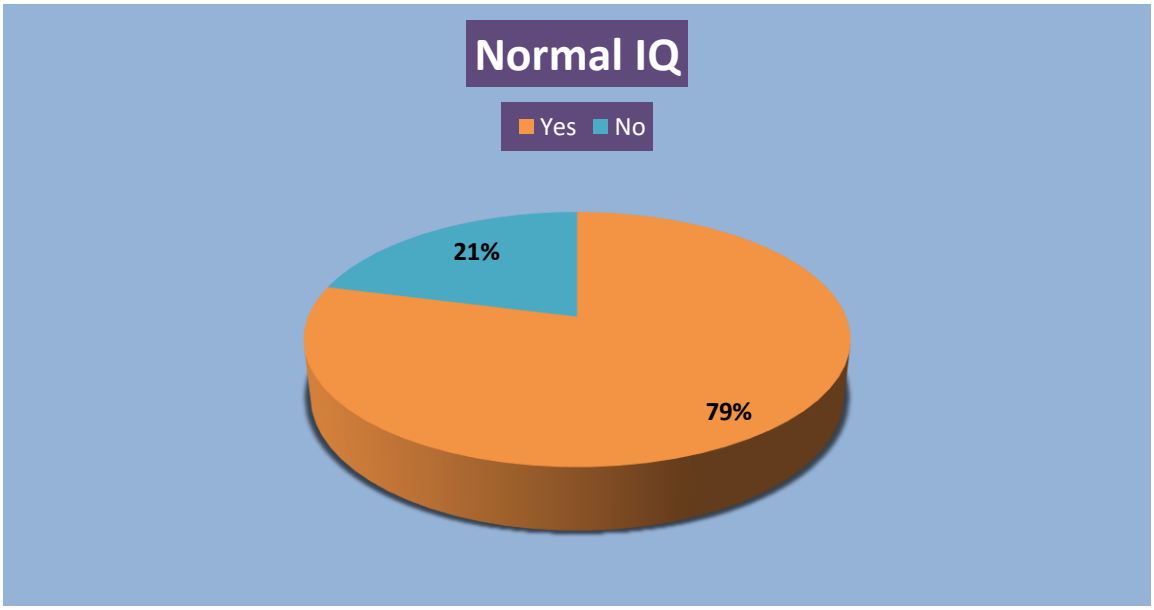


Fig 19:- Percentage distribution of school-going children having their normal IQ status.

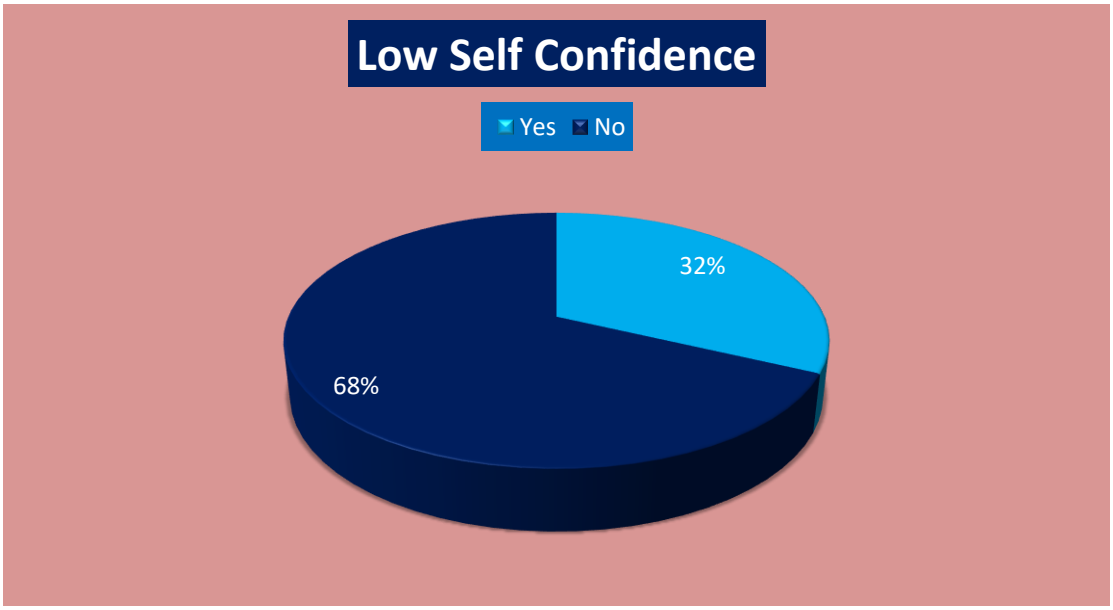


Fig 20:-Percentage distribution of school-going children lacking in their level of confidence.

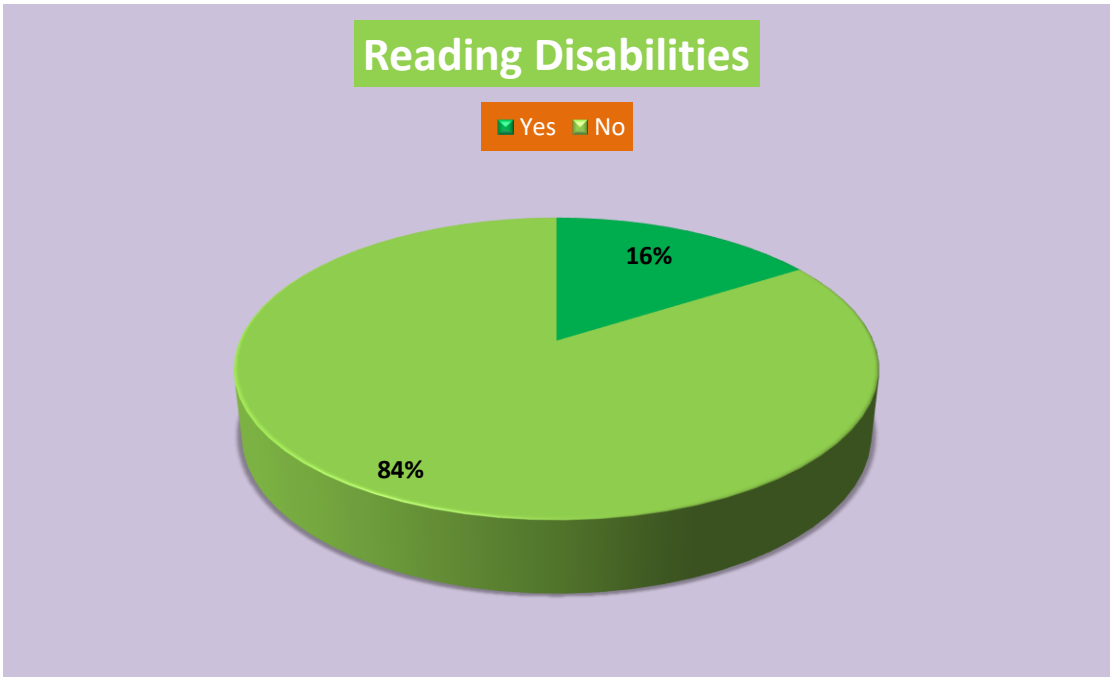


Fig 21:- Percentage distribution of school-going children having some reading disabilities.

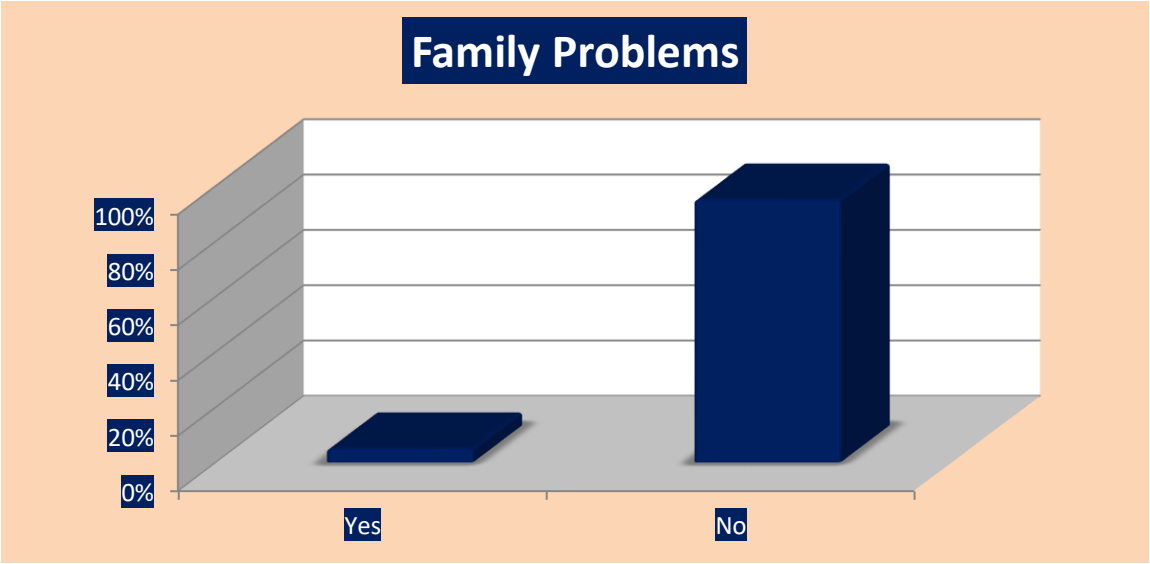


Fig 22 distribution of percentages of school-going children having any family problems.

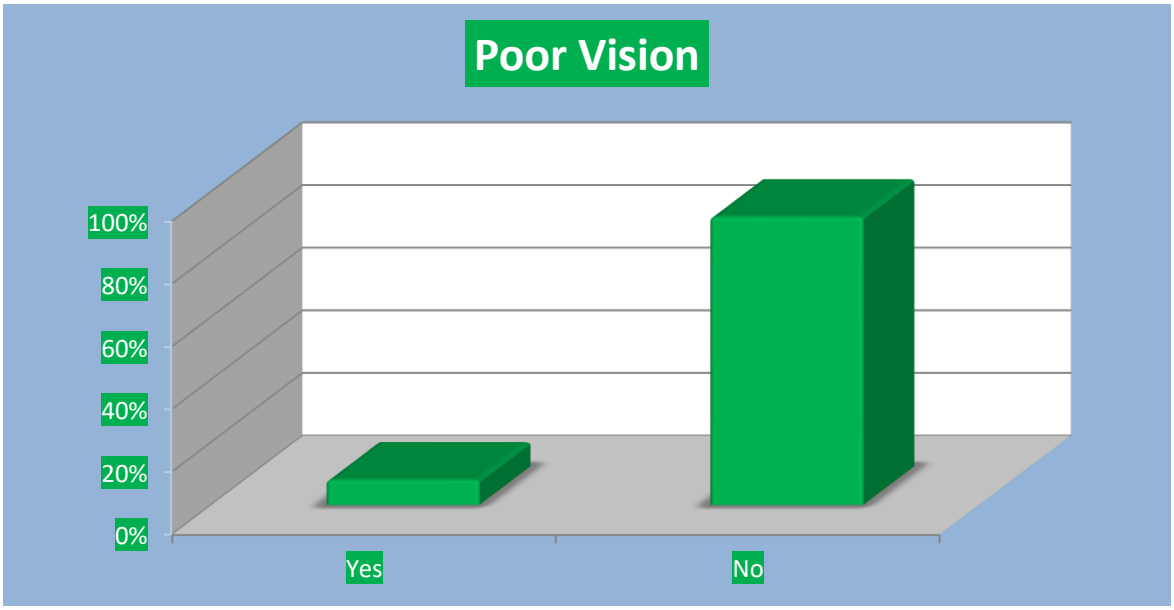


Fig 23:- Percentage distribution of school-going children having poor vision/hearing problems.

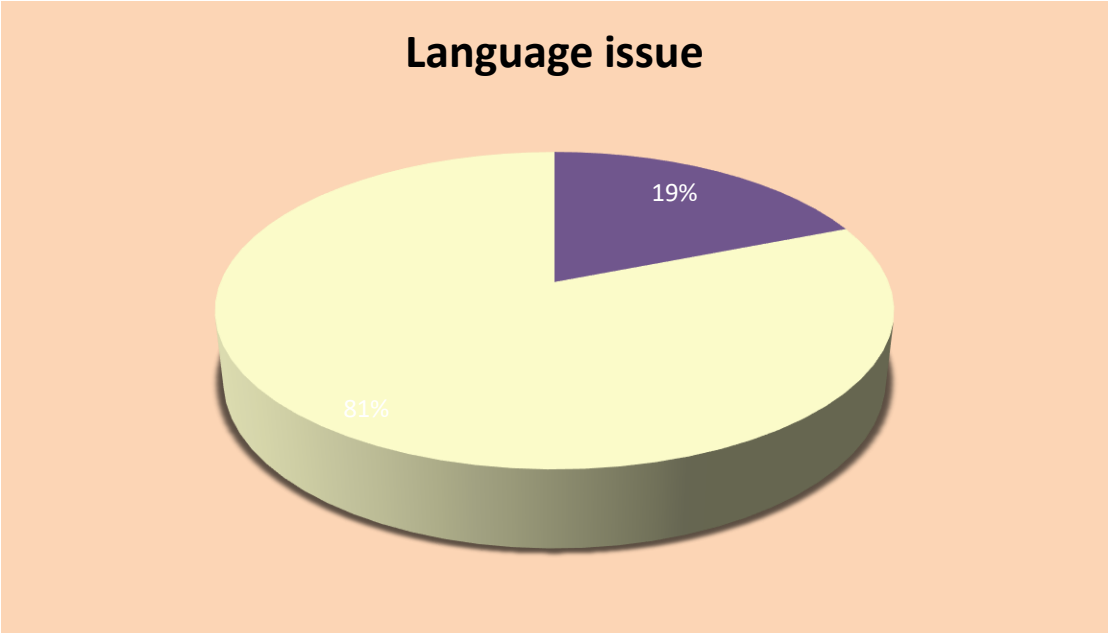


Fig 24:- Percentage distribution of school-going children having language disorder.

Section D

Table 4:- Overall mean, mean percentage and standard deviation of dyscalculia scores in school-going children.

N=100

Variable	Statement	Maximum score	Minimum score	Overall mean score	Overall mean percentage	Overall standard deviation
Overall mean, mean percentage and standard deviation of dyscalculia scores in school-going children.	20	16	0	7.72	37	3.31

Table 4:- Discusses about the overall mean was 7.72 with standard deviation of 3.31 and overall mean percentage was 37 which also state that the maximum score obtained was 16 and the minimum score was 0 respectively.

Section E

Table 5:- Association between the identification of dyscalculia and selected socio-demographic variables of school-going children.

N=100

Sl.no	**Socio-demographic variables**	**Identification of dyscalculia**		**Chi square value (x^2)/degree of freedom/significance**
		With dyscalculia	**Without dyscalculia**	
1	Age in years a) 6-7	14	38	5.78 df=1 (S)
	b) 8-9	04	44	
2	Gender a) Male	05	36	1.589 df=1 (NS)
	b) Female	13	46	
3	Religion a) Hindu	16	73	0.000386 df=1 (NS)
	b) Muslim and others	02	09	

4	Education qualification of father a) No formal education	02	16	3.7 df=2 (NS)
	b) SSLC	12	35	
	c) PUC and degree	04	31	
5	Education qualification of mother a) No formal education	02	13	0.292 df=2 (NS)
	b) SSLC	10	43	
	c) PUC and degree	06	23	
6	Occupation of father a) Govt. Job & others			4.98 df=3

		01	19	(NS)
	b) Private job	01	17	
	c) Daily wages	14	41	
	d) Business	02	05	
7	Occupation of mother a) Housewife	08	58	6.031 df=3 (NS)
	b) Govt. Job & others	01	05	
	c) Private job	01	04	
	d) Daily wages	08	15	
8	Class of studying a) 1st standard	09	34	11.8 df=1 (S)
	b) 2nd standard	09	48	
9	Place of residence a) Urban	05	16	0.6087 df=1

				(NS)
	b) Rural	13	66	
10	Number of siblings a) None	01	01	3.1728 Df=3 (NS)
	b) 1	09	46	
	c) 2	05	29	
	d) 3 or more	03	06	
11	Language a) English and kannada	14	71	3.1 df=2 (NS)
	b) Telugu	02	09	
	c) Hindi and others	02	02	
12	Academic performance a) Below average	03	05	3.5996 df=3 (NS)
	b) Average	08	37	
	c) Good	06	25	

	d) Excellent	01	15	

NS: Not significant at P<0.05 df: Degree of freedom

S: Significant at P<0.05

Table 5:- Describes the association between the recognition of dyscalculia and selected socio-demographic variables of school-going students which declares the calculated Chi square value of Age and Class of studying discovered to be statistically significant at $P < 0.05$, whereas the other socio-demographic variables were not proven to be statistically significant at $P < 0.05$. Since the estimated value fell short of the value in the table for their respective degree of freedom

CHAPTER-VI

DISSCUSSION

This chapter focuses on the study's key findings and compares them to similar studies carried out by other researchers.

The study's objective was to assess the specific learning disability (Dyscalculia) and its co-morbidity among the school-going children in Field Marshal KM Karyappa School at Kolar with a view to identification of dyscalculia and its co-morbidity among school-going students. Data collection and analysis were performed using the objectives of the study.

OBJECTIVES OF THE STUDY

1. To identify the school- going children with Dyscalculia by using Dyscalculia checklist.
2. To find the co-morbidity conditions towards Dyscalculia among school-going children.
3. To determine the association between the identification of Dyscalculia and the selected socio-demographic variables of school-going children.

The first objective of the study was to identify the school-going children with dyscalculia.

The study's conclusions (Table 2) showed that the majority i.e., 72% of school-going children had no dyscalculia and 28% of them had dyscalculia and its characteristics.

A similar investigation was made on "Assessment of learning disabilities (Dyscalculia) among school-going children" by Sudha Pandey and Dr. Shalini Agarwal from Dept. of Human Development and Family Studies, Babasaheb Bhimrao Ambedkar University's School of Home Sciences, Lucknow, India. The study sample comprises 60 school going children (boys and girls) of different boards from three private schools of Lucknow city. The dyscalculia children were assessed through standardized learning disability Battery Part I accustomed to screen dyscalculia children. The reliability and validity of the scale was 0.82 and 0.69 respectively. The outcome showed a big difference between types of board and category of dyscalculia. The study highlights the need to educate the parents and teachers about learning disabilities and to make these families' social support systems stronger.

The second objective of the study was to find out the co-morbidity conditions towards Dyscalculia among school-going children.

The study's conclusions (Table 3) showed that the vast majority of children 82% are regularly present in classes and 17% have an overview of prolonged absence from school. Only 11% of children have school phobia and 89% doesn't have school phobia. Majority of children 92% are not having any memory or visual impairment and 8% of students having it. Only 8% children have symptoms of ADHD and 92% of the children don't have any symptoms of ADHD. Majority of children 79% are having normal IQ and 21% have low IQ. Only 32% of children lack self-confidence and 68% are confident in class. Majority of children 84% doesn't have any reading disabilities and 16% of children have difficulty in reading. Majority of children 95% doesn't have any

history of family problems and only 5% of children have it. Only 8% children suffer with poor vision, hearing problems and 92% of children don't have any poor vision or hearing problem. Majority of children 81% doesn't have any language disorders and 19% of children are facing difficulty in communicating with others.

A similar research was done on "Prevalence of specific learning disabilities among primary school children in a South Indian city" by Vijayalaxmi V Mogasale [1], Vishwanath D Patil, Nanasaheb M Patil, Vittal Mogasale of Department of Pediatrics, J N Medical College, Belgaum, India students in the third and fourth standards, whose ages ranged from 8 to 11, were the subjects of a cross-sectional study using multi-staged stratified random cluster sampling. These students underwent a six-level screening process that started with the detection of academic underachievement and progressed to the step-by-step elimination of subnormal IQ, chronic medical issues, and vision and hearing impairment. The last step involved administering particular examinations for reading, comprehension, writing, and mathematical calculation to the remaining students. In the selected students, particular learning disorders were present in 15.17% of cases, whereas dysgraphia, dyslexia, and dyscalculia were present in 12.5%, 11.2%, and 10.5% of cases, respectively.

The third objective of the study was to determine the association between the identification of Dyscalculia and the selected socio-demographic variables of school-going children.

The finding of the research (Table 5 showed that which the connection between the identification of dyscalculia and selected socio-demographic variables of school-going children which declares the calculated Chi square value of Age and Class of studying

is proven to be statistically significant at $P < 0.05$, whereas the other socio-demographic variables are identified as statistically significant with $P < 0.05$.

A similar a study was done on “school students with specific learning disabilities have lower emotional intelligence abilities” by S Karande, S Bhavani, NJ Gogtay, MP Shiledar, S Kelkar,and AS Oke of Department of Paediatrics, Seth G. S. Medical College and K. E. M. Hospital, Mumbai, Maharashtra, India. The current research goal was to was to evaluate the emotional intelligence (EI) abilities of these afflicted students. Its secondary objective was to analyse the impact of socio-demographic variables on their EI abilities. Cross-sectional single-arm questionnaire-based research was completed in the Learning Disability clinic in a public medical college in Mumbai. SpLD students studying in class standards VII–IX were recruited by non-probability sampling. Their EI (overall, subscales, and settings) scores were measured using the Four EsScale of Emotional Intelligence-Adolescents (FESEI-A) questionnaire; and compared with Indian norm scores by utilizing the Mann - Whitney U test. To evaluate the unadjusted impact that each of the “variables” had on the FESEI-A scores, linear regression or the Mann-Whitney U test, or the Kruskal-Wallis test, was utilized as applicable. SpLD students had similar “overall” EI abilities as their regular peers. Their EI scores in school setting were significantly lower ($P = 0.001$), but significantly higher in social setting ($P = 0.005$). At univariate level, presence of co-occurring attention-deficit/hyperactivity disorder was strongly connected to a lower “school setting” score ($P = 0.040$). Greater socioeconomic status was strongly linked to higher “overall” score and “family setting” score ($P = 0.023$ and $P = 0.041$, respectively).

CHAPTER -VII

SUMMARY

The study's objective was “to assess the specific learning disability and its co-morbidity among the school-going children in Field Marshal KM Karayappa School at Kolar.”

100 school-going students were selected by using non-probability convenient sampling technique from Field Marshall KM Karayappa School, Kolar and evaluation was performed using on screen dyscalculia checklist so as to evaluate the identification of dyscalculia and co-morbid conditions related to dyscalculia. The data gathered were analysed and interpreted according to the objective of the study.

OBJECTIVES OF THE STUDY

1. To identify the school- going children with Dyscalculia by using Dyscalculia checklist.
2. To find out the co-morbidity conditions towards Dyscalculia among school-going children.
3. To determine the association between the identification of Dyscalculia and the selected socio-demographic variables of school-going children.

The data collected from 100 school-going students in Field Marshal KM Karayappa School, according to inclusion and exclusion criteria, by using a tool, which was

validated by 6 nursing experts it was found that feasible for the research. The tool includes 3 sections: -

- **Section A** deals with socio-demographic variables of school-going students which includes 12 items.
- **Section B** contains screening checklist of dyscalculia in school-going children which includes 20 items.
- **Section C** contains checklist of co-morbidity of dyscalculia which includes 10 items.

Review of literature was done to gain an insight into the problem of development on the tool and or the examination of the data

MAJOR FINDINGS OF THE STUDY

A sample of 100 school-going students were analysed the information collection, the following were the inclusive features of the findings: -

- The maximum number of students 52% belongs to the age range of 6-7 years and 48% belongs to 8-9 years.
- In the school-going students, 59% were female students and 41% were male students.
- With regard to the religious status, 89% were Hindu, 8% were Muslim, 2% were Christian and 1% were of other religions.
- The educational status of father, 47% were SSLC, 28% were PUC, 18% were with no formal education, 7% were degree and 0% were with PG and others. The educational status of the mother, 53% were SSLC, 29% were PUC, 15% were with no formal education and 0% were PG and others.

- With respect to the occupational status of father, majority were doing daily wages 55%, 17% were private employee, 11% were doing other jobs, 10% were a government worker 7% were doing business and while considering the occupational status of mother most of they were among housewife 66%, 23% were doing daily wages, 5% were government employees, 01% were doing other jobs.
- Among the 100 sample 57% were selected from 2nd standard and 43% were selected from 1st standard.
- With respect to place of residence, 79% were living in rural areas and 21% were living in urban areas.
- In relation to number of siblings in the family, 55% were having only 1 sibling, 34% were having 2 siblings, 9% were having 3 or more siblings and only 2% were single children.
- There are 84% of children speaking kannada, 11% speaking telugu, 02% speaking Hindi, 2% speaking other languages and 1% speaking English.
- In relation with academic performance, 45% are having average academic performance, 31% were having good academic performance, 16% were having excellent academic performance and 8% were having below average academic performance.
- Majority of students 72% had no dyscalculia and 28% of them had dyscalculia and its characteristics.
- Majority of students 83% are regularly present in classes and 17% have a history of prolonged absence from school.
- Only 11% of students have school phobia and 89% doesn't have school phobia.

- Majority of students 92% are not having any memory or visual impairment and 8% of students having it.
- Only 08% children have symptoms of ADHD and 92% of the students doesn't have any symptoms of ADHD.
- Majority of students 79% are having normal IQ and 21% have low IQ. Only 32% of students lack self-confidence and 68% are confident in class.
- Majority of students 84% doesn't have any reading disabilities and 16% of students have difficulty in reading.
- Majority of students 95% doesn't have any history of family problems and only 5% of students have it.
- Only 8% students suffer with poor vision, hearing problems and 92% of students don't have any poor vision or hearing problem.
- Majority of students 81% doesn't have any language disorders and 19% of students are facing difficulty in communicating with others.
- The overall mean was 7.72 with standard deviation of 3.31 and the mean percentage 37 which also state that the maximum score obtained was 16 and the minimum score was 0 respectively.
- The relationship between the presence of dyscalculia and selected socio-demographic variables of school-going students which states that the calculated Chi square value of Age and Class of studying is proven to be statically significant at $P < 0.05$, whereas the other socio-demographic variables are identified as statically significant with $P < 0.05$.

CHAPTER - VIII

CONCLUSION

The study concluded that the explorative study of dyscalculia in school-going students state that 18 % of school-going students are having dyscalculia and 82% are not having dyscalculia The contrary theory was rejected as the relationship between the being present dyscalculia and selected socio-demographic variables of school-going children which declares the calculated Chi square value older and Class of studying is determines to be statistically significant at $P < 0.05$, whereas the other socio-demographic variables are discovers that be statistically important at $P < 0.05$. The possible co-morbid condition maintained with dyscalculia among the school-going children was also screened.

IMPLICATIONS

The study's conclusions have consequences for nursing service, nursing education, nursing administration, and nursing research

Nursing practice

- As a clinician, the nurse has various functions and responsibilities in the promotion of student's health with some behavioural problems.

- ❖ Nurse clinician should periodically evaluate themselves by assessing their knowledge on dyscalculia and its characteristics.
- ❖ The expertise on dyscalculia help the clinical nurse to impart health information to the parents regarding the signs and symptoms and treatment of dyscalculia with children who visit the OPD.
- ❖ Nurse practitioners can expand and extend their practice beyond the hospital and share their knowledge in community.

Nursing education

- ❖ Nurse educators have an important function in educating the nursing students regarding the dyscalculia.
- ❖ the current research points out that integrating dyscalculia detection and assessment in nursing education curricula will also benefit nursing students studying child psychiatry.
- ❖ Nursing educator should emphasize more on preparing students to impart information to pubic regarding dyscalculia and its characteristics.

Nursing administration

The nurse as an administrator should: -

- ❖ Prepare protocols for the intention of dyscalculia and its characteristics at OPD level in addition at the school.
- ❖ Organize and conduct in-service education program regarding dyscalculia.
- ❖ Provide opportunity for nursing students to attend the workshop and conference or training programs regarding dyscalculia and its co-morbidity.
- ❖ Collaborate with the governing bodies in conducting programs regarding dyscalculia and its other disorders.

Nursing research

- Research provides nurses the credibility to influence the decision making policies and protocol formation regarding research on dyscalculia and its types. The nurse educators and administrator should encourage the nurse to read, discuss and conduct further research studies on dyscalculia and other specific learning disabilities.
- Distribute the results through conference, journals and seminars.

RECOMMENDATIONS

- The same study can be carried out among school-going students at various settings.
- A information pamphlet can be prepared on managing the child with dyscalculia and its effectiveness can be determined.
- A comparison can be done among the parents and teachers for the identification of dyscalculia among school-going students.
- Workshop that may be done for the teachers and parents to be able to create awareness towards early reorganization and interventional methods towards dyscalculia.
- Similar study on assessing the teacher knowledge and attitude towards dyscalculia can be done for future.

LIMITATIONS

- Size of the sample consists only 100 school going students who are studying in Field Marshal KM Karyappa School at Kolar, the generalization of the conclusions will be only applicable for the research population.

- The research was done only in Field Marshal KM Karayappa School, Kolar. Hence the generalization is only possible to selected settings.
- The study has limited only to the students enrolled in 1st and 2nd standards.
- The information is completely assessed from the students and teachers.

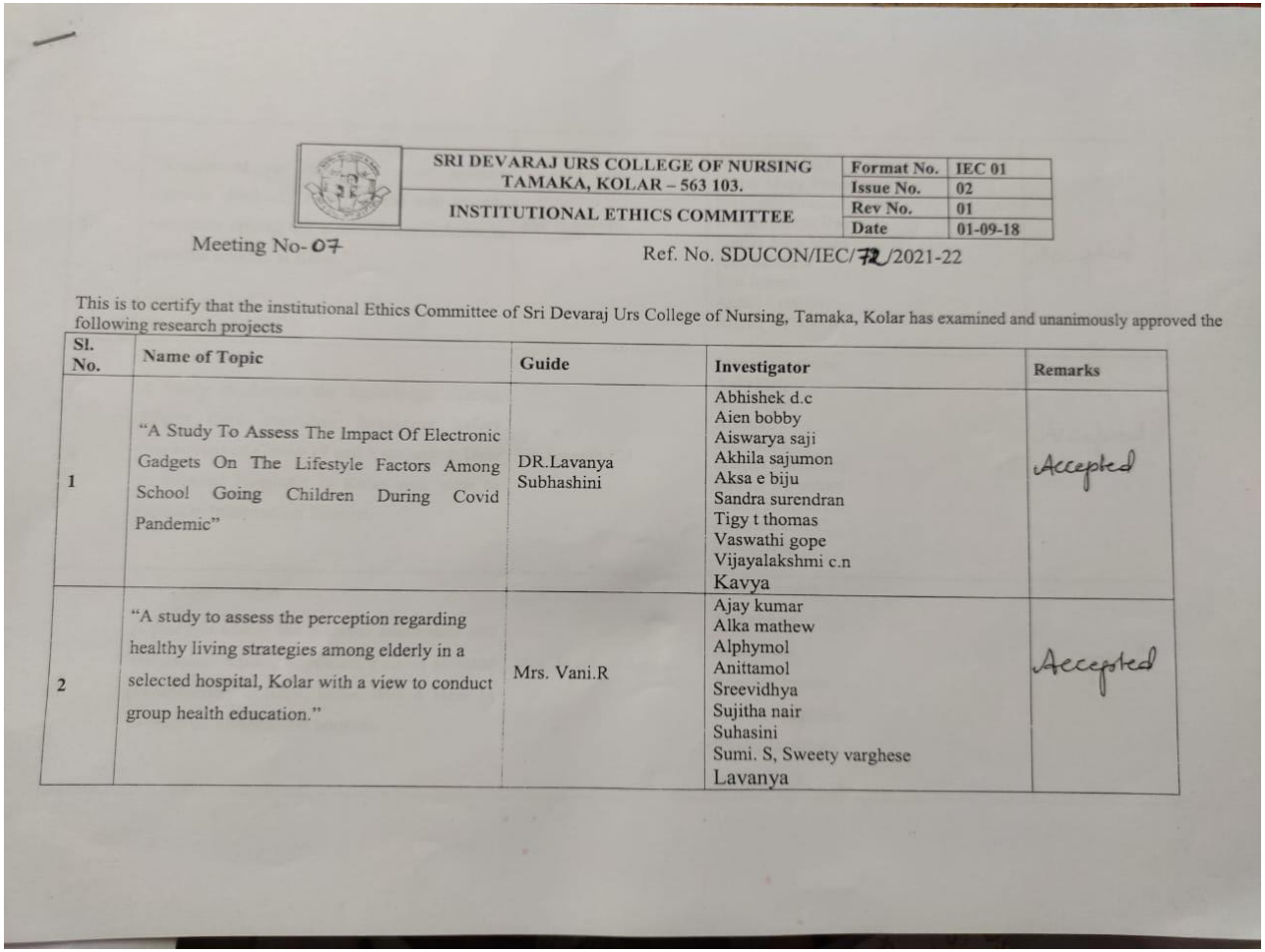
REFERENCES

1. Psychology Today Staff; Learning Disabilities; 2022 Sussex Publishers, LLC; https://www.psychologytoday.com/intl/conditions/learning-disability
2. Dr. Mohit Shah, Learning Disabilities, Types, Courses, Symptoms and treatments; 6th May'2019; https://www.practo.com/healthfeed/learning-disabilities-types-causes-symptoms-and-treatments-38169/post
3. Learning Disabilities Association Of America, Type Of Learning Disabilities 4068 Mount Roya l Boulevard, Suite 224B, Allison Pork, PA15101; https://ldaamerica.org/types-of-learning-disabilities/
4. Liane Kautmann, A6.A0. Prof. Dr. Rer. Nat and Micheal Won Aster etc., The Diagnosis and Management of Dyscalculia, Deutsches Arzteblatt International, Dtsch Arztebl Int. 2021 Nov; 109 (45), 7672-778; https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3514770/
5. A.Adaikala Jeya and Dr. A. Pioalbin, a study of students with dyscalculia and their mathematical abilities at primary schools in karayakudi, Volume 4, Global Research and Development Service; 5thFeb'2019; https://www.researchgate.net/publication/330884277_a_study_of_students_with_discalculia_and_their_mathematical_abilities_at_primary_schools_in_karaikudi .

6. http:/www.academia.edu/ 38760347/ A-Critical- review on learning disabilities with specific reference to India challenges research advances and government policies.
7. http://www.jpediatrics.com/index.php/ijcp/view/879
8. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC6149300.
9. http://www.researchgate.net/publication/27802976-Study of awareness of learning disabilities among elementary school teachers.
10. https://www.researchgate.net/publication/330884277 A Study of dyscalculia and their mathematical abilities at primary schools in Karaikudi.
11. https://www.researchgate.net/publications/273137402 Dyscalculia and mathematical difficulties implications for transition to higher education.
12. https://bmcmededu.biomedcentral.com/articles/10.1186/s12909-019-1913-3
13. https://www.researchgate.net/publications/273137402- dyscalculia and a mathematical difficulties implication- for transition to higher education.
14. https://www.researchgate.net/publication/230808520-learning disabilities.
15. https://www.kingston.ac.uk/faculties/faculty of health social care education/ research/ cahscr/learning disabilities.
16. http://www.academia.edu/35519419/ a study of identification of learning disabilities among elementary school students in Jammu province of Jammu and Kashmir state an issue in early education.
17. https://www.researchgate.net/publication/278029676 study of awareness of learning disabilities among elementary school teachers.

Annexure I

ETHICAL CLEARANCE CERTIFICATE



SRI DEVARAJ URS COLLEGE OF NURSING TAMAKA, KOLAR – 563 103.	Format No.	IEC 01
	Issue No.	02
INSTITUTIONAL ETHICS COMMITTEE	Rev No.	01
	Date	01-09-18

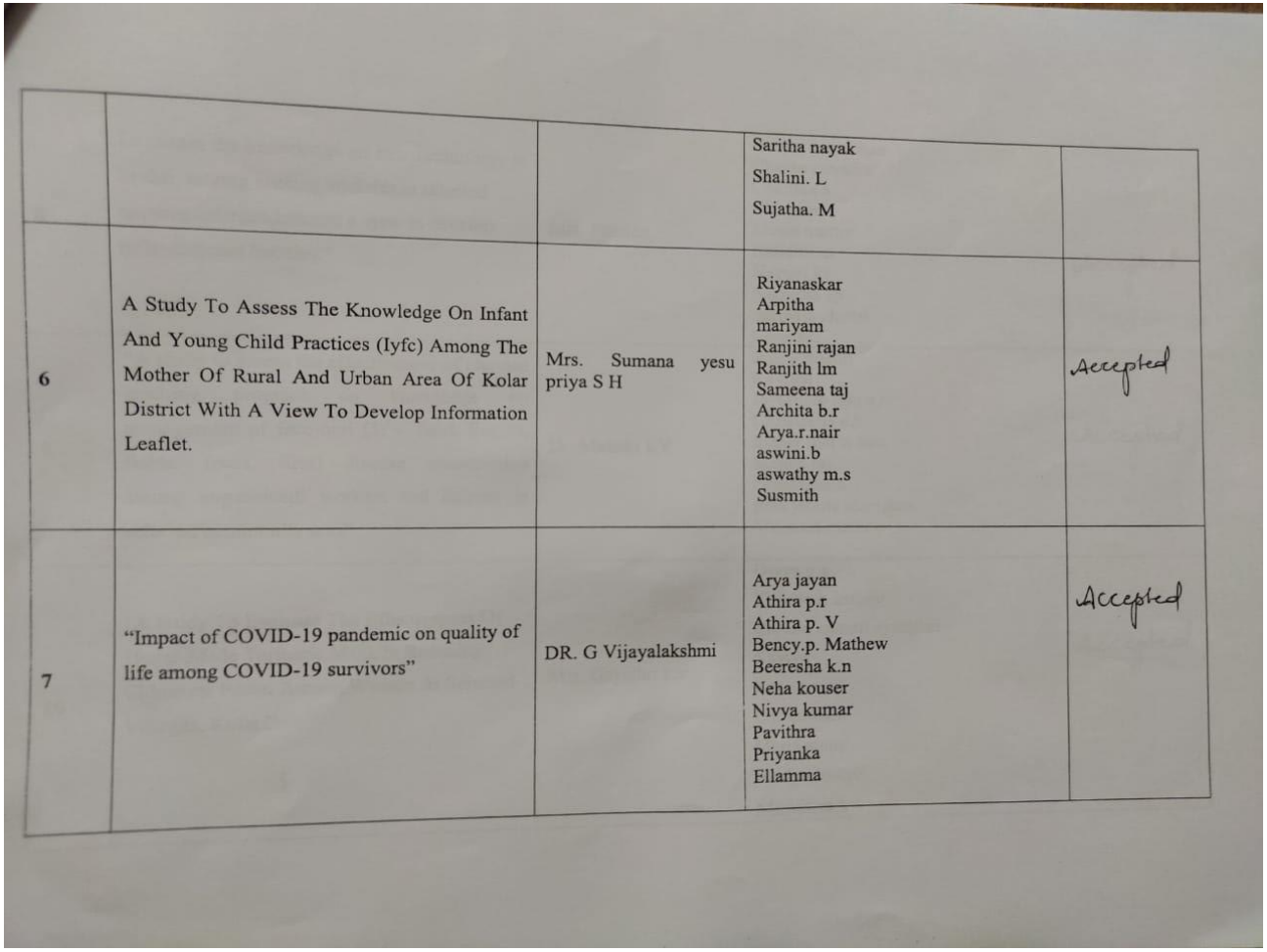
Meeting No- 07

Ref. No. SDUCON/IEC/72/2021-22

This is to certify that the institutional Ethics Committee of Sri Devaraj Urs College of Nursing, Tamaka, Kolar has examined and unanimously approved the following research projects

Sl. No.	Name of Topic	Guide	Investigator	Remarks
1	"A Study To Assess The Impact Of Electronic Gadgets On The Lifestyle Factors Among School Going Children During Covid Pandemic"	DR.Lavanya Subhashini	Abhishek d.c Aien bobby Aiswarya saji Akhila sajumon Aksa e biju Sandra surendran Tigy t thomas Vaswathi gope Vijayalakshmi c.n Kavya	Accepted
2	"A study to assess the perception regarding healthy living strategies among elderly in a selected hospital, Kolar with a view to conduct group health education."	Mrs. Vani.R	Ajay kumar Alka mathew Alphymol Anittamol Sreevidhya Sujitha nair Suhasini Sumi. S, Sweety varghese Lavanya	Accepted

3	"Assessment on identification of specific learning disability (Dyscalculia) and its co-morbidity among the school-going children in selected schools at Kolar."	Mr. R Rajesh	Aluru Swathi Sreelakshmi KR Angel Mary Thomas Sreekutty Somashekaran Anisha Maria Benny Soniya Sara Mani Anit Mathew Sini Joseph Anjali Krishna Nitya (PPBSc.N)	Accepted
4	A Study to Assess the Knowledge Among Health Care Providers Regarding Safety Precautions of Covid-19 and Vaccination Uses in Selected Hospitals in Kolar with view to Develop Information Booklet.	Dr.Zeanath.C.J	Amala Varghese Anju Siby Anu Sajan Anusree Likhitha.L Sharlet Maria Reji Smitha Sebastian Sneha Kunjumon Shumatha.M.C Saraswathi	Accepted
5	A study to assess the parental attachment and self-esteem among adoescent girls in selected pre-university college, kolar, with a view to develop an information booklet.	Mrs. Jairakini Aruna	Antara mishra Anumol ps Aparna tm Aparnna benny Archana krishnan Blessy hamima Sangeetha.k	Accepted



			Saritha nayak Shalini. L Sujatha. M	
6	A Study To Assess The Knowledge On Infant And Young Child Practices (Iyfc) Among The Mother Of Rural And Urban Area Of Kolar District With A View To Develop Information Leaflet.	Mrs. Sumana yesu priya S H	Riyanaskar Arpitha mariyam Ranjini rajan Ranjith lm Sameena taj Archita b.r Arya.r.nair aswini.b aswathy m.s Susmith	Accepted
7	"Impact of COVID-19 pandemic on quality of life among COVID-19 survivors"	DR. G Vijayalakshmi	Arya jayan Athira p.r Athira p. V Bency.p. Mathew Beeresha k.n Neha kouser Nivya kumar Pavithra Priyanka Ellamma	Accepted

11	A study to assess the attitude on nursing profession and its practice among newly enrolled students at selected college, Kolar	Prof. Mary Minerva	Athira s Mareena joseph Preethi Maria varghese Meghana L Merlin elizabeth Nanditha c Naveenkumar k s Sreelakshmi	Accepted

Sl. No.	Name	Signature
1	Dr.V.Lakshmaiah	Absent
2	Dr. Mohan	Absent
3	Dr.Bhuvana	present
4	Mr.Sridhar	Absent
5	Mr.Suresh	present
6	Swamy Acharyananda Avadutha	present
7	Mrs.Lakshmi	Absent

Member Secretary

MEMBER SECRETARY
ETHICS COMMITTEE
ARAJ URS COLLEGE OF NURSING
TAMAKA KOLAR - 563103.

Chairperson

CHAIR PERSON
IEC (Human studies)
ETHICS COMMITTEE
COLLEGE OF NURSING
563103.

11	A study to assess the attitude on nursing profession and its practice among newly enrolled students at selected college, Kolar	Prof. Mary Minerva	Athira s Mareena joseph Preethi Maria varghese Meghana L Merlin elizabeth Nanditha c Naveenkumar k s Sreelakshmi	Accepted	

Sl. No.	Name	Signature
1	Dr.V.Lakshmaiah	Absent
2	Dr. Mohan	Absent
3	Dr.Bhuvana	present
4	Mr.Sridhar	Absent
5	Mr.Suresh	present
6	Swamy Acharyananda Avadutha	present
7	Mrs.Lakshmi	Absent

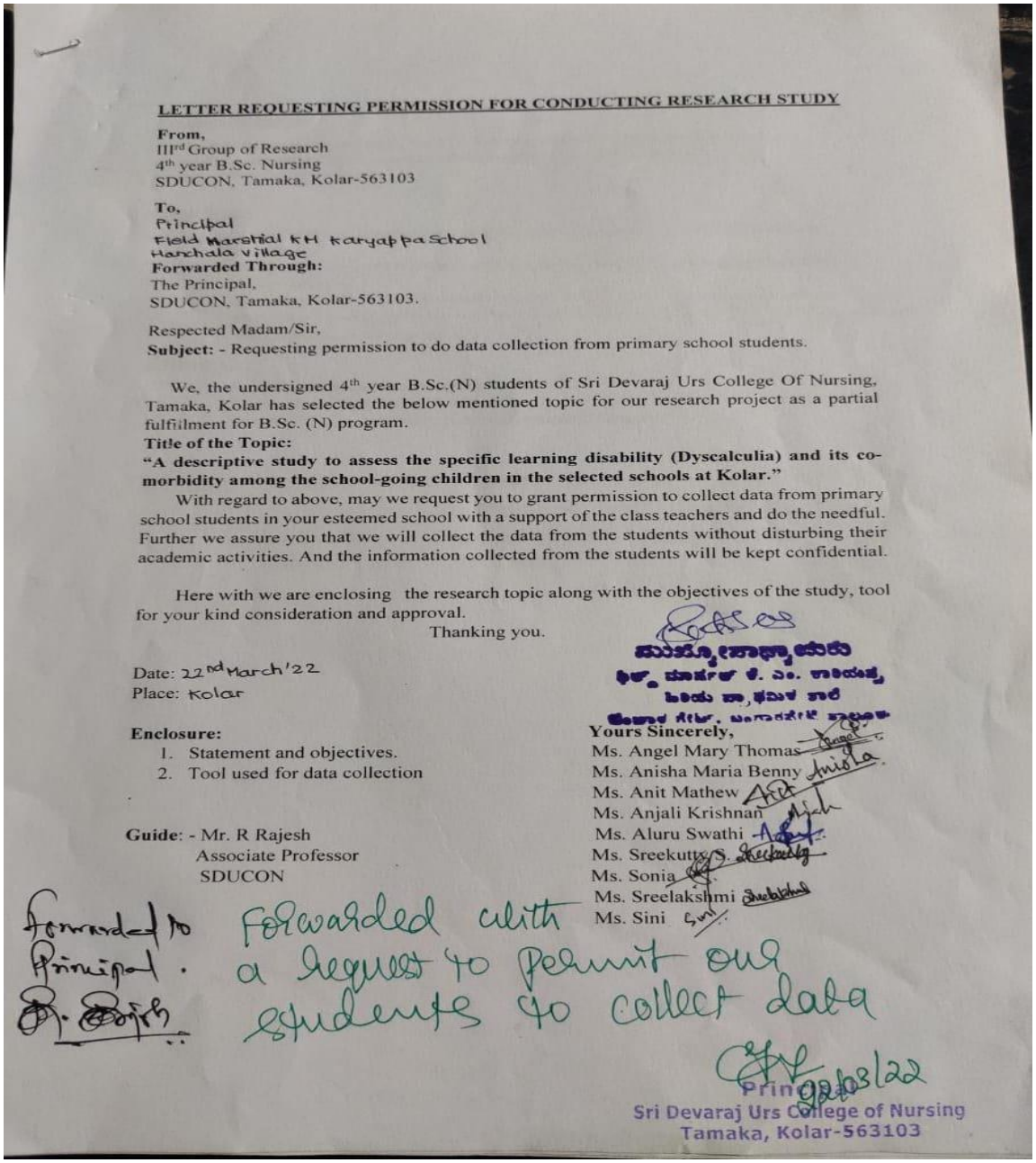
Member Secretary

Chairperson

CHAIR PERSON
IEC (Human studies)

Annexure II

LETTER REQUESTING PERMISSION FOR CONDUCTING RESEARCH STUDY



LETTER REQUESTING PERMISSION FOR CONDUCTING RESEARCH STUDY

From,
IIIrd Group of Research
4th year B.Sc. Nursing
SDUCON, Tamaka, Kolar-563103

To,
Principal
Field Marshal KM Kariappa School
Hanchala Village
Forwarded Through:
The Principal,
SDUCON, Tamaka, Kolar-563103.

Respected Madam/Sir,
Subject: - Requesting permission to do data collection from primary school students.

We, the undersigned 4th year B.Sc.(N) students of Sri Devaraj Urs College Of Nursing, Tamaka, Kolar has selected the below mentioned topic for our research project as a partial fulfillment for B.Sc. (N) program.

Title of the Topic:
"A descriptive study to assess the specific learning disability (Dyscalculia) and its co-morbidity among the school-going children in the selected schools at Kolar."

With regard to above, may we request you to grant permission to collect data from primary school students in your esteemed school with a support of the class teachers and do the needful. Further we assure you that we will collect the data from the students without disturbing their academic activities. And the information collected from the students will be kept confidential.

Here with we are enclosing the research topic along with the objectives of the study, tool for your kind consideration and approval.

Thanking you.

Date: 22nd March'22
Place: Kolar

Enclosure:
1. Statement and objectives.
2. Tool used for data collection

Guide: - Mr. R Rajesh
Associate Professor
SDUCON

Yours Sincerely,
Ms. Angel Mary Thomas
Ms. Anisha Maria Benny
Ms. Anit Mathew
Ms. Anjali Krishnan
Ms. Aluru Swathi
Ms. Sreekutty S.
Ms. Sonia
Ms. Sreelakshmi
Ms. Sini

Forwarded to Principal.

Forwarded with a request to permit our students to collect data

22/03/22

Principal
Sri Devaraj Urs College of Nursing
Tamaka, Kolar-563103

Annexure III

PERMISSION TO CONDUCT RESEARCH PROJECT.

From,

III year Bsc nursing SDUCON Tamaka,Kolar

To,

The principal, SDUCON Tamaka, Kolar

Respected Madam,

Subject: Permission to conduct research project.

With the reference of the above, we are III yr Bsc Nursing students of SDUCON would like to conduct the research project on **"A descriptive study to assess the specific learning disability (Dyscalculia) and its co morbidity among the school going children in the selected schools at Kolar"**

Hence kindly we request you to accord permission to conduct the research project work**.**

Thanking you"

Yours Faithfully,

Guided by: Mr. Rajesh. R

Professor

SDUCON

Tamaka, Kolar

Psychiatric Research group students

Date:

Place:

Signature of principal

Dr. G. Vijayalakshmi

Annexure IV

OBJECTIVES OF THE STUDY.

Problem Statement: -

"A descriptive study to assess the specific learning disability (Dyscalculia) and its co-morbidity among the school-going children in selected schools at Kolar."

Objectives: -

1. To identify the school-going children with Dyscalculia by using Dyscalculia Checklist.
2. To find out the co-morbidity, condition towards Dyscalculia among the school-going children.
3. To determine the association between the identification of Dyscalculia and the selected socio-demographic variables of school-going children.

Annexure V

PERMISSION FOR DATA COLLECTION

FROM

III year Bsc Nursing Students

SDUCON

Tamaka, Kolar

TO,

The Principal

SDUCON

Tamaka,Kolar

Respected Madam,

Subject: Permission for data collection.

With the reference of the above, we are III yr Bsc Nursing students of SDUCON would like to conduct the research project on **"A descriptive study to assess the specific learning disability (Dyscalculia) and its co morbidity among the school going children in the selected schools at Kolar"**

Hence kindly we request you to accord permission to conduct the research project work**.**

Thanking you,

Yours faithfully,

Research students

Annexure VI

LETTER REQUESTING OPINIONS AND SUGGESTIONS OF EXPERTS FOR ESTABLISHING CONTENT VALIDITY OF RESEARCH TOOL

From,

3rd year BSc(N) Students

SDUCON

Tamaka, Kolar

To,

Respected Madam,

Subject:- Letter requesting opinions & suggesting for establishing content validity of the tool.

We the students of 3rd year BSc(N), belongs to department of Psychiatric Nursing have selected below mentioned topic for the research project for the fulfilment of requirements of nursing research subject of BSc(N) degree.

Title of the topic:

"A descriptive study to assess the specific learning disability (Dyscalculia) and its co-morbidity among the school-going children in selected schools at Kolar."

With regards to the above, we kindly request your good-self to validate the tool for its relevancy and adequacy. Here by, we are enclosing the objective of the study and structured questionnaire for your kind reference. We will highly obliged and thankful for your great help.

Thanking You. Yours Faithfully,

Research 3rd Group

Students

Through Research Guide

Annexure VII

INFORMED CONSENT FORM

Name of the Principal Investigator: Mr. R Rajesh, Prof.

Name of the Co-investigator: Ms. Angel Mary Thomas, Ms. Aluru Swati, Ms. Anisha Maria Benny, Ms. Anit Mathew, Ms. Anjali Krishnan, Ms. Sreelakshmi K R, Ms. Sreekutty S., Ms. Soniya Sara Mani, Ms. Sini Joseph.

Name of the Organization: Sri Devaraj Urs College of Nursing, Tamaka, Kolar

Title of the study: "A descriptive study to assess the specific learning disability (Dyscalculia) and its co-morbidity among the school-going children in the selected schools at Kolar."

If you agree to participate in the study, We will collect information (as per Performa) from you as a person responsible for you or both. We will collect relevant details.

You are invited to participate in this research study. You are being asked to participate in the study because you satisfy our eligibility criteria. The information in the given document is meant to help you decide whether or not take part. Please be free to ask any queries. I give my consent to collect the information and also can be used for research, test validation or education as long as my privacy is maintained.

I have read this information or it has been read and explained to me in my own language. I have understood the purpose of the study, the nature of information that will be collected and disclosed during the study. I had the opportunity to ask questions and the same has been answered to my satisfaction. I understand that I remain free to withdraw from the study at any time and this will not change my future care. I the undersigned agree to participate in this study and authorized the collection and closure of my personal information of presentation and publication and agree to take part in the research.

Annexure VIII

LIST OF TOOL VALIDATORS

1. **DR. G VIJAYLAKSHMI**

   PRINCIPAL

   SDUCON, TAMAKA, KOLAR

2. **DR. ZEENATH C J**

   CNO OF RLJH & HOD OF MSN

   SDUCON, TAMAKA, KOLAR

3. **DR. LAVANAYA SUBHASHINI**

   VICE PRINCIPAL & HOD OF

   CHILD HEALTH NURSING

   SDUCON, TAMAKA, KOLAR

4. **PROF. MARY MINERVA**

   HOD OF COMMUNITY HEALTH NURSING

   SDUCON, TAMAKA, KOLAR

5. **PROF. JAIRAKHINI ARUNA**

   HOD OF MENTAL HEALTH NURSING

   SDUCON, TAMAKA, KOLAR

6. **PROF. PUNITHA M**

   HOD OF OBG DEPT.

   SDUCON, TAMAKA, KOLAR

7. **DR. MALATHI K V**

   ASSO. PROF. OF COMMUNITY HEALTH NURSING

   SDUCON, TAMAKA, KOLAR

8. **MRS. GAYATHRI K V**

   ASSO. PROF. OBG

   SDUCON, TAMAKA, KOLAR

9. **MRS. VANI R**

   ASST. PROF OF DEPT OF NURSING FOUNDATION

   SDUCON, TAMAKA, KOLAR

10. **MRS. SUMANA YESHUPRIYA**

    ASST. PROF. OF COMMUNITY HEALTH NURSING

    SDUCON, TAMAKA, KOLAR

Annexure IX

CONTENT VALIDITY CERTIFICATE

I hereby certified that, I have validated the tool of 3rd group of 3rd year BSc. nursing students of Sri Devaraj Urs College of Nursing, Tamaka, Kolar, who are undertaking a research project as a requirement for Bachelor of Science in Nursing Degree on :-

"A descriptive study to assess the specific learning disability (Dyscalculia) and its co-morbidity among the school-going children in selected schools at Kolar."

Signature of the expert:

Name and Designation:

Remarks:

Annexure X

SECTION A

SOCIO DEMOGRAPGIC PROFILE

INSTRUCTIONS

Instruct the class teacher/students to read the following questions carefully and encircle the answers. Please do not skip any questions or leave unanswered. The information that provided is kept confidential and used only for study purpose.

SL.NO.	SOCIO DEMOGRAPHIC VARIABLES
1.	Age (in years) c) 6-7 d) b) 8-9
2.	Gender c) Male d) b) Female
3.	Religion e) Hindu f) Muslim g) Christian h) d) Any others
4.	Educational Qualification of Father

	f) No formal education g) SSLC h) PUC i) Degree j) PG & Others
5.	Educational Qualification of Mother f) No formal education g) SSLC h) PUC i) Degree j) PG & Others
6.	Occupational Status of Father f) Govt. employee g) Private employee h) Daily wages i) Business j) Any other, specify
7.	Occupational Status of Mother f) Housewife g) Govt. employee h) Private employee i) Daily wages j) Any other, specify
8.	Class of Studying

	c) 1st Standard d) 2nd Standard
9.	Place of Residence c) Urban d) Rural
10.	No. of Siblings e) None f) 1 g) 2 h) 3 or more
11.	Language spoken by the students at home f) English g) Kannada h) Telugu i) Hindi j) Any others
12.	Academic Performance (through records/ class teachers) e) Below average (below 50%) f) Average (50-60%) g) Good (60-75%) h) Excellent (above 75%)

SECTION-B

DYSCALCULIA CHECKLIST

This checklist is adapted/modified from the standardized Sendiss Access-Achieve-Empower Dyscalculia checklist and Lafayette University's Dyscalculia checklist.

INSTRUCTIONS: Instruct the class teacher/students to read the following questions carefully and tick the Yes/No option. Please don't skip any questions or leave unanswered.

Sl. No.	**Items**	**Yes**	**No**
1.	Difficulty in remembering the names of the numbers.		
2.	Has difficulty counting a collection of different objects.		
3.	Difficulty in counting in order- may count randomly: 1, 2, 3,7,,5,6,9…		
4.	Continued errors in counting.		
5.	May write numbers the wrong way round e.g. 23 instead of 32, or misinterpret digits, e.g. confusing 3 and 5, 2 and 5, 1 and 7, or reversing digits.		

6.	Difficulty in understanding concept of quantity: which is more or less.		
7.	Continued difficulty in understanding the concept of how many more/ less?		
8.	Difficulty in learning times tables		
9.	May confuse simple symbols such as +and x.		
10.	Difficulty in learning number bonds, odd and even .		
11.	Difficulty in deriving information from a known. e.g. if 6+4= 10, 6+5 must be 11		
12.	Difficulty in following word problems.		
13.	Difficulty in understanding coin values and giving change.		
14.	Difficulty in learning to tell the time.		
15.	Inability to recall schedules and sequences of past or future events.		
16.	Poor mental math ability.		
17.	May have fear of money and cash transactions.		
18.	When writing, reading and recalling numbers, often mistakes are made.		
19.	Inability to grasp and remember math concepts, rules, formulas, sequences.		

20.	May be able to do all book work, but fails or tests and quizzes.		

SECTION C

CO-MORBIDITY CHECKLIST REGARDING DYSCALCULIA

Sl. No.	Items	Yes	No
1.	Is there any history of prolonged absent from school.		
2.	Does the child have any school phobia/anxiety?		
3.	Any impairment/ disturbance in memory/visual spatial skills.		
4.	Does the child have symptoms/ characterization of ADHD?		
5.	Whether the child IQ/ Intellectual ability is normal.		
6.	Does the child lack in their level of confidence.		

7.	Whether the children have any reading disability.		
8.	Does the child have any history of family problems?		
9.	Is the child suffering with poor vision/hearing?		
10.	Does the child have any language disorder?		

ANNEXURE XI

MASTER SHEET

SECTION A

Sl.No.	Age	Gender	Religion	EQ of F	EQ of M	OS of F	OS of M	Class	POR	Nsiblings	Language	Academic
1	b	b	a	c	c	c	d	b	b	b	b	d
2	a	b	c	a	a	c	d	a	a	c	b	c
3	b	b	a	a	b	c	d	a	b	b	b	c
4	a	b	a	b	c	a	a	a	b	c	b	b
5	b	a	a	b	b	c	d	b	b	b	c	b
6	b	a	a	b	b	d	a	b	b	d	b	d
7	b	b	a	c	c	c	c	b	b	b	b	d
8	b	a	a	d	d	b	c	b	b	c	b	c
9	a	b	c	c	b	c	a	a	a	c	b	c

10	a	b	a	a	a	c	a	a	b	b	b	b
11	a	a	a	a	b	c	a	a	b	c	b	b
12	a	a	a	a	a	c	a	a	b	b	b	b
13	a	a	a	a	b	c	a	a	b	b	b	b
14	a	b	a	b	c	b	d	a	b	c	c	b
15	a	b	a	b	c	c	d	a	b	c	c	a
16	a	a	a	c	b	c	d	a	b	b	c	a
17	a	b	a	b	c	c	d	a	b	d	b	a
18	a	b	a	c	b	c	d	b	b	b	b	b
19	a	b	a	c	b	c	d	b	b	c	b	b
20	a	b	a	b	c	c	d	b	b	b	b	b
21	a	a	a	b	c	c	d	a	b	d	c	a
22	a	b	a	b	c	c	d	a	b	c	e	b
23	a	a	a	b	b	e	a	b	b	d	c	a
24	b	b	a	b	c	e	a	b	b	b	b	d
25	a	a	b	a	c	c	b	b	b	b	b	d

26	a	a	a	b	b	b	a	b	b	d	b	d
27	b	a	a	b	c	b	a	b	b	b	b	d
28	b	a	b	b	a	c	d	b	b	b	b	d
29	a	b	a	a	a	c	a	a	b	b	b	b
30	a	a	a	a	b	c	d	a	b	c	b	b
31	a	a	a	b	b	c	a	b	a	b	b	c
32	a	a	a	b	b	c	a	a	b	c	b	c
33	a	b	a	c	b	b	a	a	b	b	b	c
34	a	b	a	b	a	c	a	a	b	b	c	b
35	a	b	b	b	a	c	a	b	b	b	b	b
36	b	b	a	c	b	d	a	b	b	a	b	c
37	a	a	a	b	b	d	a	a	b	c	c	b
38	a	b	a	b	c	c	d	b	a	b	b	b
39	b	a	a	b	b	a	a	b	b	b	b	b
40	b	b	a	c	b	a	a	b	b	b	b	c
41	b	a	b	b	b	c	a	b	b	b	b	b

42	b	a	a	a	c	b	b	b	b	b	b	c
43	a	a	b	c	b	c	d	a	a	c	b	b
44	a	b	a	c	b	b	a	a	b	b	c	c
45	a	a	a	d	c	b	e	a	b	a	b	c
46	b	a	d	a	a	c	a	a	b	d	d	a
47	a	b	b	c	d	a	a	b	a	d	b	d
48	a	b	a	a	b	c	b	a	b	b	b	b
49	a	b	a	c	a	d	a	a	b	b	b	c
50	b	a	a	c	b	e	a	b	b	b	b	b
51	b	b	a	d	c	c	a	b	b	c	b	c
52	a	b	a	c	b	e	a	a	b	b	b	b
53	a	a	b	b	c	c	a	b	a	b	b	b
54	b	b	a	a	a	e	a	b	b	b	b	c
55	a	b	a	b	b	c	a	a	a	b	a	d
56	b	a	a	b	c	c	d	b	b	c	b	c
57	b	b	a	a	a	c	c	b	b	b	c	d

58	a	b	a	c	b	a	a	b	a	b	b	d
59	a	b	a	b	c	e	a	a	b	c	b	b
60	a	b	a	b	b	c	d	b	b	d	b	c
61	b	b	a	d	c	b	a	b	a	c	b	c
62	a	b	a	d	b	c	a	a	b	b	b	b
63	a	b	a	b	b	c	a	a	b	b	b	b
64	a	a	a	b	b	c	a	a	b	c	b	b
65	a	a	a	b	b	a	c	a	a	c	b	b
66	a	b	a	b	b	c	a	a	b	c	b	b
67	a	a	a	b	b	c	a	a	b	b	b	b
68	a	b	a	a	b	c	d	b	a	b	b	b
69	a	b	a	c	d	d	a	b	a	d	b	a
70	a	b	a	b	c	c	a	a	b	c	b	c
71	a	b	a	c	b	c	a	b	a	c	b	b
72	a	b	a	c	b	b	a	a	a	c	b	c
73	b	b	a	c	b	b	a	a	b	b	b	d

74	b	b	a	b	a	e	a	b	b	c	b	b
75	a	a	a	b	b	c	d	a	b	c	b	b
76	a	b	a	b	c	e	a	a	a	b	b	c
77	a	b	a	c	c	d	a	b	a	c	b	c
78	b	a	a	a	b	c	a	b	a	b	b	c
79	b	a	a	b	a	a	a	b	b	c	b	b
80	a	b	a	b	b	c	d	a	b	b	b	c
81	b	a	a	b	c	a	a	b	b	b	b	b
82	b	a	a	c	b	a	b	b	b	b	b	c
83	b	a	a	b	b	a	b	b	b	b	b	c
84	a	a	a	c	b	c	a	b	b	c	b	d
85	b	b	a	b	b	c	a	b	b	c	b	b
86	b	b	a	a	b	c	a	b	b	b	b	c
87	a	a	a	a	a	c	a	a	b	b	b	b
88	b	b	a	b	c	d	a	b	a	b	e	d
89	b	b	b	c	b	b	a	b	b	b	d	c

90	b	b	a	c	c	b	a	b	b	b	b	c
91	b	b	a	d	b	b	d	b	b	c	b	c
92	a	a	a	b	b	c	a	b	a	c	b	b
93	b	a	a	c	c	b	c	b	b	b	b	c
94	b	a	a	d	b	b	a	b	b	b	b	c
95	b	b	a	c	c	c	a	b	b	b	b	b
96	b	b	a	c	c	c	a	b	b	c	b	b
97	b	b	a	b	b	e	a	b	b	b	b	b
98	b	b	a	b	b	e	a	b	a	b	b	d
99	b	b	a	b	a	e	a	b	b	b	b	b
100	b	a	a	b	b	b	a	b	b	c	c	b

SECTION B

Sl.No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total
1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
2	0	0	0	0	0	0	1	0	0	0	0	0	1	1	0	0	1	0	0	0	4
3	0	0	0	0	0	0	0	1	0	0	1	0	1	0	0	0	1	0	0	0	4
4	0	0	0	1	1	0	0	1	0	1	0	0	0	1	1	0	1	1	1	1	10
5	0	0	0	0	0	0	0	0	1	1	0	0	1	0	0	0	1	1	0	0	5
6	0	0	0	0	0	0	0	1	1	1	0	1	0	1	0	0	0	1	1	0	7
7	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	2
8	0	0	0	0	1	0	0	0	1	0	1	1	1	1	0	0	1	1	0	0	8
9	0	0	0	0	0	1	1	0	1	1	1	1	1	1	0	0	1	1	1	0	11
10	0	0	0	1	1	0	0	1	0	1	0	1	0	1	0	0	1	1	0	1	9
11	0	0	0	1	1	0	0	1	0	1	0	0	0	1	1	0	1	1	1	1	10
12	0	0	0	1	1	0	0	1	0	1	0	0	0	1	0	0	1	1	0	1	8
13	0	0	0	1	1	0	0	1	0	1	1	1	0	1	0	0	1	1	0	1	10
14	0	0	0	0	0	0	0	1	1	0	0	0	1	0	0	0	1	1	0	0	5

15	0	0	1	0	0	0	0	1	0	0	0	0	1	0	0	0	1	0	0	0	4
16	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	0	12
17	0	0	0	0	0	1	1	0	1	1	0	1	1	0	0	0	0	0	1	0	7
18	0	0	1	0	1	1	1	1	1	1	1	0	0	1	1	1	0	1	1	1	14
19	1	1	0	0	0	0	0	1	1	1	1	1	0	1	1	0	0	1	1	1	10
20	0	1	1	1	1	0	0	0	1	1	0	1	1	1	1	1	0	1	1	1	14
21	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	16
22	0	0	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	0	15
23	0	0	0	0	1	0	0	1	1	1	1	1	1	0	0	0	1	0	0	1	9
24	0	0	0	0	0	0	0	0	1	1	0	1	0	1	0	0	0	1	1	0	6
25	0	0	0	0	0	1	1	1	0	1	0	1	1	1	0	0	1	1	0	1	10
26	0	0	0	0	0	0	0	0	1	1	0	1	0	1	0	0	0	1	1	0	6
27	0	0	0	0	0	0	0	1	0	1	1	0	0	0	1	0	0	1	1	0	6
28	0	1	1	0	0	0	0	0	1	1	1	0	1	1	0	0	1	0	0	0	8
29	0	0	0	1	1	0	0	1	0	1	0	0	0	1	0	0	1	1	0	1	8
30	0	0	0	1	0	0	0	1	1	1	0	0	0	0	0	0	0	0	1	1	6

31	1	0	0	1	1	0	1	0	1	1	0	0	0	1	0	0	0	0	0	0	7
32	0	0	1	0	0	1	0	0	0	1	0	1	0	1	0	1	0	0	0	0	6
33	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	1	0	0	1	0	4
34	0	0	0	0	0	0	0	1	1	1	0	1	1	0	0	1	1	0	1	0	8
35	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
36	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	1	1	5
37	0	0	0	1	0	1	0	1	0	1	0	0	0	0	0	0	1	0	1	0	6
38	0	0	0	1	1	1	0	0	0	1	1	1	1	1	1	0	0	1	1	0	11
39	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	4
40	0	0	0	0	0	0	0	1	0	1	0	0	0	1	1	0	1	0	0	1	6
41	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	3
42	0	0	0	1	0	1	0	0	0	1	0	1	0	0	1	0	0	1	0	0	6
43	0	0	1	0	1	1	0	0	0	1	1	1	1	1	1	1	0	0	1	0	11
44	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0	1	0	0	1	1	9
45	0	0	0	0	0	0	1	1	1	1	1	1	1	1	0	0	0	1	1	1	11
46	0	0	0	1	0	0	0	1	0	1	0	0	0	0	0	1	0	0	1	1	6

47	0	0	0	1	0	0	0	1	0	1	1	0	0	0	0	1	0	0	1	1	7
48	0	1	1	0	0	0	1	0	1	1	0	0	0	0	1	0	0	1	0	1	8
49	0	0	1	0	1	0	0	1	0	0	1	1	0	1	0	0	0	0	1	0	7
50	0	1	0	0	1	0	0	1	0	1	0	0	1	1	0	0	1	0	0	1	8
51	0	0	1	0	0	1	0	0	1	0	0	0	0	1	0	0	0	1	0	0	5
52	0	0	0	1	0	0	0	0	1	0	1	0	0	0	1	0	0	1	0	0	5
53	0	1	0	0	0	0	1	0	0	0	1	0	1	1	0	0	1	0	0	1	7
54	0	0	0	1	1	1	0	1	0	0	0	1	1	1	1	0	1	1	0	1	11
55	1	0	0	1	0	0	0	1	0	0	1	0	0	0	1	0	0	0	1	0	6
56	0	0	1	1	0	1	0	0	1	0	0	0	1	0	0	1	0	0	1	0	7
57	0	1	0	0	0	1	1	1	0	1	1	1	1	1	1	1	1	1	1	0	13
58	0	0	0	0	1	0	0	0	0	1	0	0	0	0	1	0	1	0	0	1	4
59	0	0	1	0	0	1	0	0	1	1	0	0	1	0	1	1	1	1	0	0	9
60	1	1	0	0	0	1	1	0	0	0	1	1	1	1	0	0	0	1	1	1	11
61	0	0	0	0	0	0	1	0	0	1	1	1	1	0	0	0	0	0	1	0	6
62	1	0	0	0	0	1	0	1	0	0	0	1	1	0	0	0	1	1	0	0	7

63	1	1	0	1	0	0	1	0	1	1	0	1	1	1	1	0	0	0	1	1	12
64	0	0	1	1	1	1	1	0	0	0	0	1	0	1	1	1	0	0	1	1	11
65	0	0	0	0	1	1	0	1	1	1	0	0	0	0	1	1	1	1	0	0	9
66	0	0	0	0	0	1	1	1	0	0	1	0	1	1	1	0	0	0	1	1	9
67	1	0	0	0	1	0	0	1	1	1	0	0	1	1	1	1	0	0	0	0	9
68	0	0	0	0	1	0	0	0	0	1	1	1	0	0	0	0	1	1	1	0	7
69	1	1	0	0	1	0	0	0	1	1	1	1	1	0	0	1	1	1	1	0	12
70	1	0	1	0	1	1	0	1	1	0	1	0	0	0	1	0	1	0	1	0	10
71	0	1	0	0	1	0	0	0	0	1	1	1	1	1	1	0	0	1	1	0	10
72	0	1	0	0	0	1	0	1	1	0	0	0	0	1	0	0	1	0	1	0	7
73	1	0	1	0	0	1	1	0	0	1	0	1	0	0	0	0	1	0	1	0	8
74	0	0	0	0	0	0	0	1	1	0	1	0	0	0	0	0	0	0	0	0	3
75	0	1	1	0	1	1	1	0	1	0	0	0	1	0	0	1	0	0	1	0	9
76	1	1	0	0	1	1	1	0	1	0	1	0	0	1	1	1	1	1	1	0	13
77	0	1	0	0	0	1	0	0	0	1	1	1	0	1	1	1	1	0	1	0	10
78	0	0	0	1	0	0	1	0	0	1	0	0	0	1	0	0	1	0	1	0	6

79	0	0	0	0	0	0	0	1	0	1	0	0	1	0	0	0	1	0	0	0	4
80	0	0	0	0	1	1	0	1	1	0	1	1	1	0	0	0	1	0	1	0	9
81	1	1	0	0	1	0	0	1	0	1	1	1	1	1	0	0	1	0	0	0	10
82	0	0	0	0	1	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	3
83	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	4
84	0	0	0	0	0	1	0	0	1	1	0	0	0	1	0	0	0	0	0	0	4
85	0	0	0	1	1	1	1	1	1	0	1	1	0	1	1	1	1	1	1	1	15
86	0	0	0	0	1	1	1	0	1	1	0	1	1	1	0	1	1	1	0	1	12
87	0	0	0	1	1	0	1	0	0	0	0	1	1	1	1	0	1	1	0	1	10
88	0	0	0	0	1	0	1	0	0	0	0	1	0	1	1	0	1	1	0	1	8
89	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	1	1	0	5
90	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1	0	3
91	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	2
92	1	0	0	1	0	0	0	1	0	0	0	0	1	0	0	0	1	0	0	0	5
93	0	0	0	0	0	0	0	1	0	1	0	1	0	0	0	1	0	0	1	0	5
94	0	0	0	0	1	0	0	0	0	0	0	1	1	0	0	0	1	0	1	0	5

95	1	0	0	0	0	0	0	1	1	1	0	1	1	0	0	0	1	0	1	0	8
96	0	0	0	0	0	0	0	1	1	1	0	1	0	0	0	0	0	0	1	0	5
97	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2
98	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
99	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
100	0	0	0	0	0	0	0	1	1	1	0	1	0	0	0	1	0	0	1	0	6

SECTION C

Sl.No.	School Absent	School Phobia	Memory/Visual Impairment	ADHD Symptoms	Child IQ	Low Self-confidence	Reading disability	H/o Family Problems	Poor Vision/ Hearing	Language Disorder
1	0	0	0	0	1	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	1	0	0	0	0
4	1	0	0	0	1	1	0	0	0	0
5	0	0	0	0	1	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	1	0	0	0	0	0
8	0	0	0	0	1	0	0	0	0	0
9	0	0	0	0	1	0	0	0	0	0
10	1	0	0	0	1	1	0	0	0	0
11	1	0	0	0	1	1	0	0	0	0

12	1	0	0	0	1	1	0	0	0	0
13	1	0	0	0	1	1	0	0	0	0
14	1	0	1	0	1	1	1	0	0	0
15	1	1	0	0	0	1	1	0	0	0
16	1	0	0	0	1	1	1	0	0	0
17	1	1	0	0	1	1	1	0	0	0
18	0	0	1	0	1	1	1	0	0	0
19	0	0	0	0	1	1	0	0	0	0
20	0	0	0	0	1	0	0	0	0	0
21	1	0	1	0	1	1	1	0	0	0
22	0	0	0	0	1	1	1	0	0	0
23	0	0	0	0	1	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	1	0	0	0	0	0

28	0	0	0	0	1	0	0	0	0	0
29	1	0	0	0	1	1	0	0	0	0
30	1	0	0	1	1	0	0	0	0	0
31	0	0	0	0	1	0	0	0	1	0
32	0	0	0	0	1	0	0	0	0	0
33	0	0	0	0	1	0	0	0	1	0
34	0	0	0	0	1	0	0	0	0	0
35	0	0	0	0	1	0	0	0	0	0
36	0	1	0	0	1	1	0	0	0	0
37	0	0	0	0	1	0	0	0	0	0
38	0	0	0	0	1	0	0	0	0	1
39	0	0	0	0	0	0	1	0	0	0
40	0	0	0	0	1	0	0	0	0	0
41	0	0	0	0	0	0	0	0	0	0
42	0	0	0	0	1	0	0	0	0	0
43	0	0	0	1	0	0	0	0	0	1

44	0	1	0	0	1	1	0	0	0	0
45	0	0	0	0	1	1	0	0	0	0
46	1	0	0	1	1	0	0	0	0	1
47	1	0	0	0	1	1	0	0	0	1
48	0	0	0	0	1	0	0	0	0	1
49	0	1	0	0	1	1	0	0	0	0
50	0	1	0	0	1	0	1	0	0	0
51	0	0	0	0	1	0	1	0	0	0
52	0	0	0	0	1	0	1	0	0	0
53	0	0	0	0	1	0	0	0	0	0
54	0	1	0	0	0	1	0	0	0	1
55	0	0	0	0	1	0	0	0	0	1
56	0	0	0	0	1	1	0	0	0	0
57	0	0	0	0	1	1	1	0	1	1
58	0	0	0	0	1	0	0	0	0	0
59	0	0	0	0	1	0	0	0	0	0

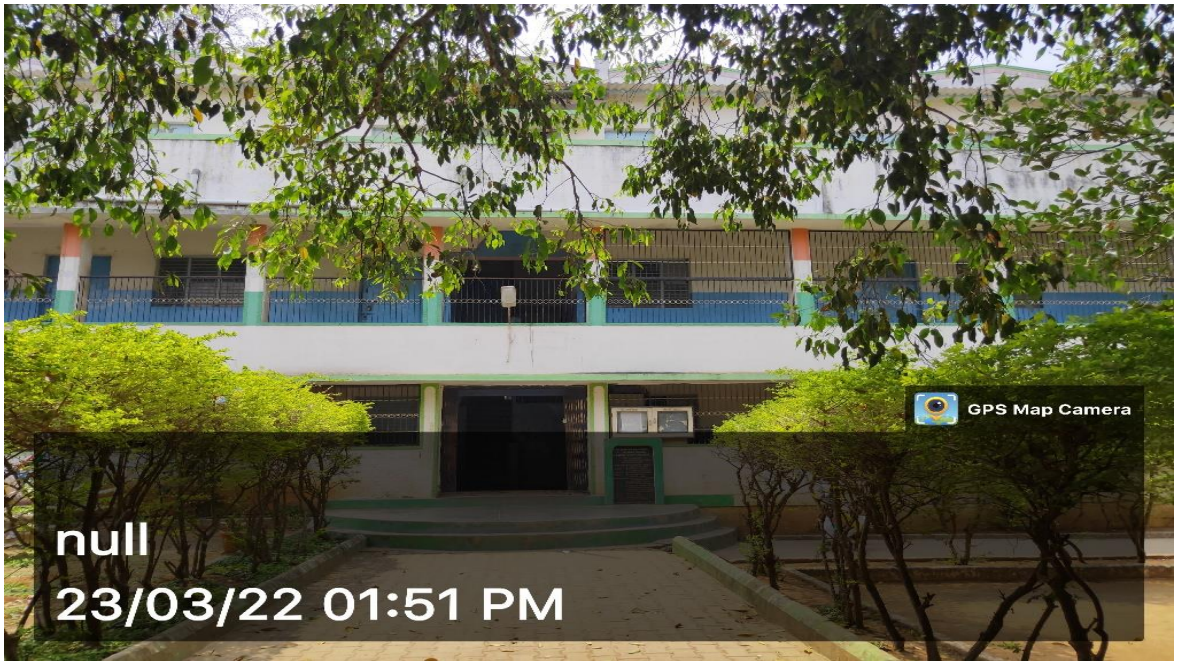
60	0	0	0	1	0	0	0	0	0	0
61	0	0	0	0	0	0	0	0	0	0
62	1	0	0	0	0	0	0	0	0	0
63	0	0	1	1	0	0	1	1	0	1
64	1	1	0	0	0	0	0	0	1	1
65	0	0	1	1	0	1	0	1	1	0
66	0	0	0	1	1	0	0	0	0	0
67	0	0	0	0	0	0	0	0	0	0
68	0	0	0	0	1	1	0	0	0	1
69	0	0	0	0	1	0	1	0	0	1
70	0	0	0	0	1	1	0	0	1	0
71	0	0	0	0	1	0	0	0	0	1
72	0	0	0	0	1	0	0	1	0	1
73	0	0	1	0	1	0	1	0	0	0
74	0	0	0	0	0	0	0	0	0	0
75	0	0	0	0	1	0	0	0	1	0

76	0	0	1	1	1	1	0	1	0	1
77	1	0	0	0	1	0	0	0	0	1
78	0	0	0	0	1	0	0	0	1	0
79	0	0	0	0	1	0	0	0	0	0
80	0	1	0	0	1	0	0	0	0	0
81	0	0	0	0	1	1	0	0	0	0
82	0	0	0	0	1	1	0	0	0	0
83	0	0	0	0	1	1	0	0	0	0
84	0	0	0	0	1	0	0	0	0	0
85	0	1	0	0	0	1	0	0	0	0
86	0	0	0	0	1	0	1	0	0	1
87	0	0	1	0	1	0	0	0	0	1
88	0	1	0	0	0	1	0	0	0	1
89	0	0	0	0	1	0	0	0	0	0
90	0	0	0	0	1	0	0	0	0	0
91	0	0	0	0	1	0	0	0	0	0

92	0	0	0	0	1	0	0	0	0	0
93	0	0	0	0	1	0	0	0	0	0
94	0	0	0	0	1	0	0	0	0	0
95	0	0	0	0	1	0	0	1	0	0
96	0	0	0	0	1	0	0	0	0	0
97	0	0	0	0	1	0	0	0	0	0
98	0	0	0	0	1	0	0	0	0	0
99	0	0	0	0	1	0	0	0	0	0
100	0	0	0	0	1	0	0	0	0	0
Total	17	11	8	8	79	32	16	5	8	19

ANNEXURE XII

PHOTOGRAPHS OF DATA COLLECTION




GPS Map Camera
Mallappanahalli, Karnataka, India
Unnamed Road, Doddiganahalli, Karnataka 563127, India
Lat 13.138162°
Long 78.290474°
23/02/22 11:06 AM
Google


GPS Map Camera
Mallappanahalli, Karnataka, India
Unnamed Road, Doddiganahalli, Karnataka 563127, India
Lat 13.138163°
Long 78.290474°
23/02/22 11:06 AM
Google


GPS Map Camera
null
23/03/22 01:45 PM


GPS Map Camera
null
23/03/22 01:44 PM

ANNEXURE XIII

PLAGIARISM CERTIFICATE

Sri Devaraj Urs Academy of Higher Education and Research

Certificate of Plagiarism Check for Dissertation

Author Name	ANISHA MARIA BENNY
Course of Study	B.Sc. Nursing
Name of Guide	R. Rajesh
Department	Psychiatric Nursing
Acceptable Maximum Limit	10%
Submitted By	sduconlib@gmail.com
Paper Title	A DESCRIPTIVE STUDY TO ASSESS THE SPECIFIC LEARNING DISABILITY [DYSCALCULIA] AND ITS COMORBIDITY AMONG THE SCHOOL GOING CHILDREN IN SELECTED SCHLOOLS AT KOLAR
Similarity	4%
Paper ID	628826
Submission Date	2022-09-29 11:12:49

Signature of Student

Signature of Guide

Librarian
Librarian
Sri Devaraj Urs College of Nursing
Tamaka, Kolar-563103

Head of the Department
Head of the Department
Dept. of Psychiatric Nursing
Sri Devaraj Urs College of Nursing
Tamaka, Kolar - 563 101.

* This report has been generated by DrillBit Anti-Plagiarism Software