ABSTRACT

Introduction

This study was intended to evaluate the effectiveness of an informational booklet on enhancing knowledge of myopia among primary school teachers in selected government and private schools in Punjab. This study synthesizes four decades of peer-reviewed research to examine the prevalence, geographic disparities, and future trends of myopia in India, highlighting the urgent need for comprehensive school-based vision health programs and public health strategies to address this growing epidemic.

Methodology

The study targets primary school teachers, with an accessible population of 149 teachers selected through full enumeration sampling from purposively chosen schools. Inclusion criteria encompass male and female teachers available during data collection, while exclusion criteria eliminate unwilling participants or those providing incomplete information. A self-structured knowledge questionnaire and socio-demographic profile sheet were developed following a literature review and expert consultation in child health nursing, with the questionnaire achieving high reliability ($r=0.82$) using the alpha method. Validity was ensured through expert feedback. A pilot study conducted in December 2024 confirmed the study's feasibility. Data collection spanned one month, involving 76 teachers in the experimental group receiving the booklet intervention over six days and 73 in the control group, with pre- and post-tests administered

Result

The following conclusion were drawn based on the findings of the study i.e pre-test scores were similar (experimental: 13.07 ± 2.517; control: 12.49 ± 2.517; $p=0.13$), but post-test scores revealed significant improvement in the experimental group (19.93 ± 0.249) versus the control group (13.05 ± 2.385; $p\leq0.001$), confirming the intervention's effectiveness. Descriptive and inferential statistics (t-tests, chi-square) analyzed demographic associations and knowledge gains. The informational booklet effectively addressed knowledge gaps, particularly in prevention and management, supporting the need for targeted educational interventions to enhance teachers' ability to identify and manage myopia, promoting early detection and better developmental outcomes for school children.

Keywords

Myopia, informational booklet, eye health.

BACKGROUND OF STUDY

INTRODUCTION

"A child is the means by which we grasp the heavens"
-Henry Ward Beecger

Myopia is a medical condition in which a person has difficulty in seeing far objects clearly, although he's able to see the near one's. This condition is also called near-sightedness, and is treatable through medical surgical procedures or contact lenses eyewear glasses. Usually, this condition is self-detectable and a person can reach professionally qualified refractions who is able to verify the problem and ophthalmologist could diagnose the underlying condition.[1]

Approximately 41% of the people living in India are under the age of 18, making it the most popular country in the world. The lack of scientific literature in the Indian context means that the growing number of myopia patients is not being given the attention they need in India.[2]

It is now considered a serious global public health issue, with estimates indicating that by 2050, 50% of the world's population will be myopic. Significant social, psychological, economic, and developmental repercussions may arise from myopia. Furthermore, the seemingly inevitable irreversible sequel that threatens eyesight may result from the degenerative alterations in the optic disc and retina.[1]

However, the aetiology of myopia in Indian eyes very clearly involves genetics and environmental factors. Studies that forecast worldwide trends in myopia have a poor representation of India. The authors' earlier research found that among school-age children in North India, the prevalence of myopia was just 13.1%, with an annual incidence of 3.4%. However, the precise amount of myopia burden among school-age children in India and its trajectory over time remain unknown due to the significant regional variations in culture, habits, socioeconomic status, educational attainment, and urbanization. The cost of refractive errors can be very high for society. Due to the potential harm that untreated refractive defects can do to both their physical and cognitive development, school-age children are regarded as a high-risk population. The implications of uncorrected refractive errors on children's learning capacities and development should be explained to parents and teachers through periodic screenings conducted in schools.[2]

The emotional, social and physical development of young children has a direct effect on their overall development and on the adult they will become. School children is the most critical educational years since children achieve basic literacy and numeracy during this period. Teacher's knowledge about refractive error plays an important role in encouraging students to seek treatment that helps in reducing burden of visual problems. [2]

Myopia can impose a heavy financial burden on the society. School children are considered a high-risk group because uncorrected refractive errors can negatively affect their learning abilities and physical health. Periodic screening in school should be performed by teachers and their parents should be educated about the effects of myopia on the learning abilities and development of children.[3]

The school years are a very important time in every child's life. All parents want to see their children do well in school and most parents do all they can to provide them with the best educational opportunities. But too often one important learning tool may be overlooked - a child's vision.[4]

As children progress in school, they face increasing demands on their visual abilities. The size of print in schoolbooks becomes smaller and the amount of time spent in reading and studying increases significantly. Increased class work and homework place significant demands on the child's eyes. According to prevent Blindness America, one in four school-age children have vision problems that, if left untreated, can affect learning ability, personality and adjustment in school. School-age children also spend a lot of time in recreational activities that require good vision.[6]

Myopia are one of the leading causes of visual impairment and blindness, particularly in school children. In order to reduce the occurrence of avoidable visual impairment caused by myopia, it is necessary to obtain information on visual acuity and myopia among school children.[6]

Refractive errors affected approximately more than half of the students. Myopia was the more frequent refractive problem. Most of the children were unaware of their refractive errors. The majority of the students were never examined for visual acuity. Most refractive errors can be corrected early in the life. Therefore, every child should receive eye examination by an ophthalmologist at the time of entry into school.[7]

Children may not know that they have a myopia. Changes in a child's vision happen very slowly. A child may think that everyone else sees the same way, especially if a child develops near-sightedness (myopia) and faraway objects appear blurry. Globally, uncorrected refractive errors are the main cause of visual impairment in children aged 5-15 years. The prevalence of myopia (short-sightedness) is increasing dramatically among children, particularly in urban areas of South- East Asia.[7]

Nearly 3 % of children younger than 18 years are blind or myopia, define as having trouble seeing even wearing glasses or contact lenses, according to the National Health Interview Survey. Due to the survey's methodology, this estimate may include children with under-corrected, but correctable, vision disorders. Too many children with myopia have unmet needs for care, leaving them vulnerable to negative effects on learning and development. Racial and socioeconomic inequities in assess to care are evident across a variety of measures and studies. Children from families with higher incomes are more likely than other children to have diagnosed eye or vision disorders, suggesting greater access to diagnostic eye care.[9]

Healthcare providers who specialize in children's eye care say kids usually become near- or farsighted between ages 6 and 12. Farsightedness may be diagnosed even earlier, sometimes in infancy. Even infants can wear glasses if they need help to see well. Experts agree that all children should have an eye screening before they enter school. The American Academy of Ophthalmology (AAO) and the American Optometric Association (AOA) recommend that all infants and children be screened for vision problems. [9]

Among children with special health care needs (CSHCN), an estimated 6 % have unmet vision care needs, but again, rates differ significantly across racial/ethnic and socioeconomic groups. Vision screenings, eye examinations, population- based data systems, and measures of accountability are the cornerstones of a comprehensive system to ensure children's vision and eye health.[10]

Vision screenings usually conducted in a school, primary care practice, or community health centre identify general vision problems at an early stage. Screening results must be recorded and communicated to the child's parents, medical home/primary care provider, and school, along with the necessary state agency, with subsequent referral to an ophthalmologist or optometrist for examination and treatment when indicated.[11]

Vision impairment in children are common and uncorrected vision problems can impair child development, lead to behaviour problems in the classroom, interfere with early literacy and learning, and lead to permanent vision loss. Early detection and treatment are critical. Additionally, visual functioning is a strong predictor of academic performance in school-age children, and vision disorders of childhood may continue to affect health and well-being throughout the adult years. A comprehensive vision health program is a school.[10]

The world health organization ensuring strategies to promote school eye – health programmes for the diagnosis and management of common conditions, such as refractive errors, and trachoma and vitamin A deficiency in endemic areas, to promote a healthy environment; and to educate children in looking after their eyes as part of the normal school curriculum. [11]

In areas where significant myopia affect more than 2% of primary school children aged 5-10 years, ensure that children undergo a simple vision screening examination, ideally as part of the school health programme, with provision of spectacles to those who will benefit and ensure that all children in special education establishments are examined by an ophthalmologist and receive medical, surgical, optical or low-vision services to maximize their vision and ensure good linkages between eye-care services and those providing education and rehabilitation services for incurably blind children.[11]

The VISION 2020 global initiative intensively promotes awareness of the extent of uncorrected refractive errors and the means for correcting them. Uncorrected refractive errors are increasingly being addressed in national plans for the prevention of blindness, and low-cost, good-quality spectacles are becoming available the latter does not allow an estimate of the contribution of uncorrected refractive error to the visual impairment.[11]

The overall growth of children significantly impacts their future development and the adults they grow into. The school-age period is a vital phase in education because it is when children acquire essential skills in literacy and numeracy. Teachers who are knowledgeable about myopia can effectively guide and motivate students to obtain necessary treatment, thus preventing the myopia in school children.[12]

NEED FOR THE STUDY

The amount of time spent in front of a screen has significantly increased in this digital age. Children are not an exception. Their everyday routine now includes using TV displays, laptops, PCs, and cell phones. The children's time spent playing outside has drastically decreased in the last few years, and they are now more housebound and engaged in nearsighted activities. Given that over 50% of urban children may eventually live without power, it is even more crucial that children receive annual eye exams starting at age three. It may be beneficial to encourage kids to play more outside games and to use fewer digital gadgets, Because of all these things children are suffering from myopia.[12]

The COVID pandemic has contributed to the rise in screen time as more time is spent on smart phones for online learning. Over exposure to smart phone screens has caused a sharp increase in myopia occurrences worldwide. Numerous researches have shown that the environmental risk factor is also linked to the onset and progression of myopia.[12]

Other modern treatments for myopia include dilute the drug atropine and imaginatively designed eyeglasses. The colour spectrum that makes up sunshine includes red, orange, yellow, blue, and green light. Still, most of the blue light emitted by these devices is extremely energetic and has a short wavelength. Blue light is harmful to eyesight and is more common on screens for smart phones even though it is a natural part of the environment. Children's eyes absorb more blue light from these devices than do adults', according to one study a generation of kids is very susceptible to progressive myopia as a result of long school days, early start times, excessive screen usage, and little outside play. Nowadays, myopia is a lifestyle illness.[13]

According to a study, children with myopia use their cell phones that the increasing radiation contact from such electronics leads to eye strain and, more seriously, a condition called retinal degeneration. According to a 2020 forecast, the global incidence of myopia could increase to 52% during the coming thirty years. This raises some concerns. Overuse of computer and cell phone displays can accelerate the onset and growth of myopia. In children, it may also result in issues with sleeping, consuming food, and various other behavioural issues. I thus beg parents to make responsible use of all these gadgets, to keep their kids from using them pointlessly, and to encourage or involve them as part of a range of outdoor endeavours. The study was conducted. The investigation was carried out to close this gap by

utilizing all of the peer-reviewed research from Indian over the previous four decades to investigate the incidence of myopia, geographic variations, and future forecast.[14]

In India, we do not have any screening protocol as such done in all the schools. We need to improve significantly in early detection, by educating our school teachers regarding symptoms of myopia and its management .so there by we can detect earlier and prevent. So the investigator felt the need of educating school teachers regarding myopia.

Vision screenings usually conducted in a school, primary care practice, or community health centre identify general vision problems at an early stage. Screening results must be recorded and communicated to the child's parents, medical home/primary care provider, and school, along with the necessary state agency, with subsequent referral to an ophthalmologist or optometrist for examination and treatment when indicated.

The world health organization ensuring strategies to promote school eye – health programmes for the diagnosis and management of common conditions, such as myopia, trachoma and vitamin A deficiency in endemic areas, to promote a healthy environment; and to educate children in looking after their eyes as part of the normal school curriculum.

PROBLEM STATEMENT

A quasi-experimental study to determine the efficacy of informational booklet in terms of knowledge of myopia among school teachers working at selected primary schools of Punjab.

AIM OF THE STUDY

To assess the effectiveness of knowledge of myopia among school teachers working at primary school.

OBJECTIVES

1. To assess the knowledge of myopia among school teachers.
2. To develop and implement informational booklet on myopia among school teachers working at primary school.

3. To determine the relative effectiveness of informational booklet in terms of posttest knowledge score comparison of myopia among subjects in experimental and control group.

HYPOTHESIS

H1- Teachers who participate in intervention program on myopia may have different mean post-test knowledge scores than those who didn't participate at α 0.05

ASUMPTIONS

1. People are aware of the experiences that most affect their life choices.
2. Health is a priority of all the human being.
3. Eyes are an important part of our health and work nonstop.
4. School teachers are in the best position to teach students.
5. Teachers have pervasive impact on student's life.
6. Behaviour is a learned phenomenon.
7. Hypothesis testing is the subject to statistical consideration.

DELIMITATIONS

1. One time measure of study constructs
2. Self-reported measure
3. Sample size based on power analysis.

OPERATIONAL DEFINITION

Informational booklet: It refers to the small book prepared by the investigators that give information regarding detection, prevention and management of myopia.

Children: It refers to kids between the age group of 5-10 years.

Teacher: Teacher provides education to the children in primary school.

CONCEPTUAL FRAMEWORK

The conceptual framework acts as a roadmap for future study and a launching point for testing hypotheses. The term is used to describe a set of ideas relating to impediment that have been arranged in a logical fashion.

This investigation makes use of the theoretical framework established by Ludwig Von Bartalenffy's General System Theory (1968), It provides a feedback-based description of the human system and its constituent parts, their inputs and their outputs.

In this study, the researcher views the knowledge of school teachers regarding the prevention of myopia as an open system that interacts with the environment. This knowledge can be influenced and improved through educational intervention using an informational module.

Input- To maintain the equilibrium this system uses the input through self-regulation. In present study the inputs refer to the socio demographic variables like age, gender, educational qualification, teaching experience, and type of school.

Throughput- It is the step that happens between the processes of input & output, which allows the inputs to be transmitted as output in a fashion that the system can utilize. Throughput refers to the process whereby a system transforms, creates and organizes the data. It serves as a link between the input and the output. It makes it possible for the input to become an output that the system can use. Throughput in the current study is the knowledge of myopia among school teachers working at selected primary schools.

Output- It facilitates the transmission of material, energy & information to the environment. It helps to maintain the equilibrium between the system & environment. So, the ultimate output after giving informational module expected increase in knowledge score regarding prevention of myopia as determined by comparing pre-test and post-test knowledge levels.

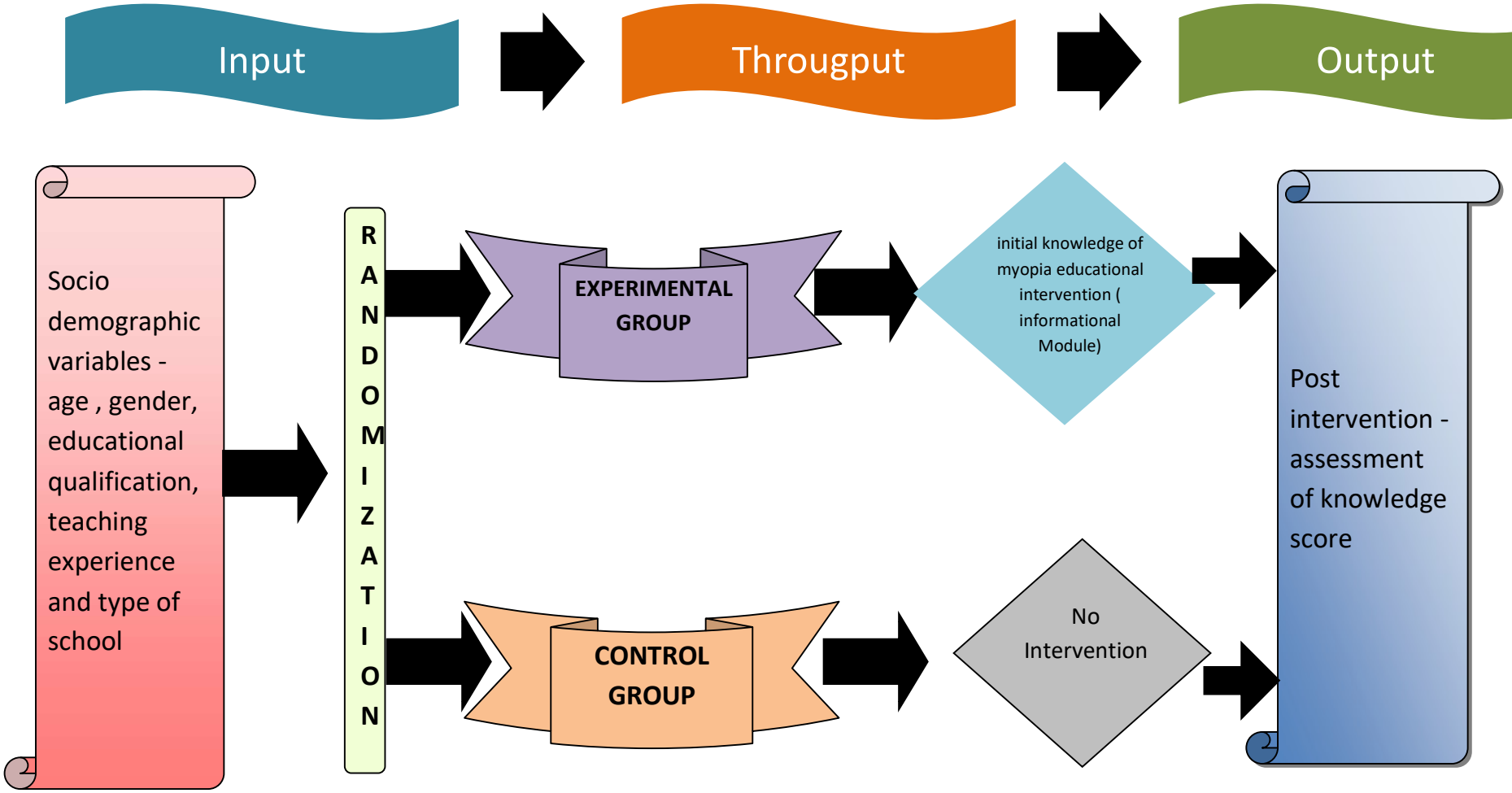

Figure No. 1: Conceptual Framework Based on Modified Ludwig Von Bertalanffy General System Model

REVIEW OF LITERATURE

Review of literature is a broad, comprehensive, systematic and critical view of scholarly publication, unpublished print materials, audio and visual materials and personal communication.

The researcher presents the review of related literature which helps the studying of problems in depth. It also serves as a valuable guide to understand what has been done, what is still unknown and untested

Review of literature is critical summary of research on a topic of interest generally prepared to put a research problem is content to identify gaps and weakness is prior studies so as to justify a new investigation.

Yujing Tian and Yingqing Yu (2024), conducted a cross-sectional study to investigate the knowledge, attitude, and practice toward myopia among parents of primary school students. Total 552 participants were included in the study and the data was collected among parents of primary school students by a self-administered questionnaire. The research concluded that parents were having inadequate knowledge regarding Myopia.[10]

David Turbert et. Al (2023) conducted a study on need of School children's. A child's eyes are constantly in use in the classroom and at play. When his or her vision is not functioning properly, education and participation in sports can suffer. Results showed that a higher proportion of children were visual problem. Conclusion of the study was REACH programmed screened a high proportion of school children, providing further care and follow-up to optimize visual outcome.

Sarah Polack, et.al., (2023) conducted A cross-sectional study to assess the prevalence of refractive errors among school children. 5,470 school children from 14 schools in rural central Ethiopia. The result showed that 4,238 children were myopic. Myopia is the most prevalent refractive error. The study concluded that uncorrected refractive error is a common cause of myopia among schoolchildren in rural central Ethiopia. They recommended that the need for regular school-screening programs that provide glasses at low cost or free of charge for those who have refractive errors.[24]

N Inchara et. al. (2023), conducted a mixed-methods cross-sectional study to appraises the

+various aspects of the school eye screening program and explores the challenges encountered in the Kolar district of Southern India. Participants were asked to fill out the semi-structured questionnaire, including Likert's questions, followed by brief interviews on the various aspects of the program. Forty-percent believe schools are unwilling to conduct the program and 58% think training time for teachers is insufficient. 78.5% agree that the program is child-friendly and parents are willing to participate. Eighty-eight percent claim referral to higher centres; however, children do not follow up. Twenty-six percent think that diseases besides refractive error are not appropriately addressed. Conclusion of this study indicates that to improve their knowledge and promote a positive attitude toward myopia .[12]

Sil Asim et. al. (2023), conducted a survey to optimize outcomes of school-based vision screening in India by collaborating with hospitals and monitoring eye care throughout school attendance. Results showed that a higher proportion of children in private or urban schools were referred for detailed evaluation than those in government-funded or rural schools. Conclusion of the study was REACH programmed screened a high proportion of school children, providing further care and follow-up to optimize visual outcomes.[11]

R. Vishnuprasad, et.al., (2023) conducted a cross-sectional study to assess visual impairment among 10–14-year school children in Puducherry. The total sample size was 1884 school students. The Results showed that overall prevalence of visual impairment among the study. The study recommended that the prevalence of visual impairment population was Children with a positive family history of spectacle use were more likely to have visual impairment. [18]

UmamaheswariKannan, et.al., (2022) conducted a cross-sectional study to find the influence of risk factors on myopia among rural and urban school children and its prevalence. The study sample were 1300 school children's and cluster sampling was done. The results showed that the proportion of children with myopic was significantly more in urban than in the rural area. The study concluded that the teachers play an important role in shaping the child's career and behaviour.[22]

Adeoti. A, et.al., (2022) conducted a prospective study to determine the magnitude and pattern of refractive errors in order to provide facilities for its management. The result showed that refractive errors was found in 1824. The conclusion of the study was to recommended that refractive error is common in this environment.[19]

K Kiruthi et. al. (2022), conducted a study to assess the effect of refractive errors among school children due to online classes. School-going children who were attending online classes between five and fifteen years were subjected to ophthalmic evaluation. A questionnaire including sections like demographics, gadget use, on-screen time, and physical complaints were administered to collect the required data. Conclusion of the study reports that children were exposed to prolonged screen time which led to a rise in the number of myopia cases.[13]

Ngozika.EEzinne, et.al., (2022) conducted a cross-sectional study to determine the prevalence of myopia and visual problem in primary school children. Total 1020 children in 102 schools in the field practice areas were enumerated in Onitsha, Anambra state, Nigeria. The study recommended that the prevalence of myopia and visual problem among primary school in Onitsha was relatively high, highlighting the need for services and strategies to address these conditions in that area. [17]

Maul, et.al., (2021) conducted descriptive study to assess the prevalence of refractive errors and visual impairment in school age children on sample size 6,998 children in La Florida, the results showed refractive error with reduced vision. Refractive error, associated primarily with myopia, is a major cause of reduced vision in school age children in La Florida. Conclusion of the study was REACH programmed screened a high proportion of school children, providing further care and follow-up to optimize visual outcomes.[26]

Alemayehu Maru Abiy et.al. (2021), conducted a cross-sectional study on 565 primary school teachers in Gondar city using pretested and structured self-administered questionnaire to determine the knowledge, attitude and associated factors among primary school teachers regarding refractive error in school children. The conclusion of the study was knowledge and attitude of study subjects were low which needs training of teachers about the refractive error.[15]

American Optometric Association (2021) conducted a study to vision problems are common among school children's. The sample size was 250 children (5-10 years). The study results showed that most of the children's have visual problem being hypermetropia. They recommended that important to promote public education on the significance of early detection of visual problems, and have periodic screening in schools. The study concluded to that School children also spend a lot of time in recreational activities that require good vision.

RadhikaParanjpe, et. al., (2021) conducted a prospective, cross-sectional study, to identify a range of potential issues relating to parental awareness and perception of common eye diseases affecting children. The sample size 200 (5-10 years) children's parents. The results showed that refractive errors were found to be 103 children's out of 200 children's. They recommended that as the number of mothers attending the eye department, so there is more need of educating the mothers about the eye conditions of the child. The study concluded to that education and socioeconomic conditions affect the knowledge and awareness levels of the parents regarding eye problems. [23]

Kabindra Deva Sarma (2021) conducted a cross-sectional study to assess the magnitude of refractive error and assess the degree of myopia among school-going children. The total Sample size was 400 children, the sample selected by randomized method. The 6 to16 years children of selected schools of Guwahati City. The results showed that Prevalence of refractive errors was 23.5%. Myopia was the major refractive error among total refractive errors, followed by astigmatism and hypermetropia. The study concluded to that students, parents and teachers must be educated about sign and symptoms of myopia, so that they can get early detection and correction with spectacles to prevent progression of myopia. [21]

Gogate.P, et.al., (2021) conducted descriptive study to assess the knowledge of primary school teachers regarding eye health needs among school children in selected school of New Delhi. A sample of 100 children were included. The result showed that the majority of them had poor knowledge on eye health and visual problems. They recommended that teachers need adequate knowledge of children's eye disorders. [20]

Nitm.U, et.al., (2021) conducted randomized study regarding early signs and management of myopia in school children. The result showed that 957 students aged 6-12years were screened 67 had myopia with visual acuity of 6/12. The study recommended that the most common eye defect in the students was myopia. The study concluded that myopia is one of the most common refractive error presents to students.[18]

Robaei, et.al., (2020) conducted a cross- sectional study, to describe the prevalence of myopia among 6-12 years children the randomly selected samples in Australian school children. The result showed that prevalence of myopia among children 6-12 years. The study concluded the myopia was strongly associated with many common eyes condition. The study

has documented a relatively low prevalence of myopia in a population of Australian children.[24]

Asmaa G. Mohamed, et.al., (2020) conducted a descriptive cross-sectional study to assess the myopia among a school children under 10 years. The total sample size 241 students in Assiut City. The sample selected by stratified random sampling technique. The results showed that 241 students participated in the study and 201 students was the visual problem. The conclusion of the study was that School should be responsible for the early detection of myopia and basic eye health services should be provided in schools.[26]

Agrawal Deepika et. al. (2020) conducted a study to find the knowledge levels of private school teachers regarding healthy vision practices and eye screening training the teachers in eye screening assess the level of improvement after the training. Total 14 schools in the field practice areas of the department of Community Medicine were included in the study. The conclusion of the study was that we can easily utilize the school teachers to improve the eye screening services in private schools by training the teachers.[16]

Elham.R Al-Tamimi, et.al., (2019) conducted a cross-sectional observational study, to determine the distribution and pattern of myopia, strabismus, and amblyopic in children. The sample size was 1350 children (1-15 years) and conducted ophthalmic examination in a private hospital in Saudi Arabia. The study results showed that most of the children's have Refractive errors being hypermetropia. They concluded that focus was on the frequency of refractive error, strabismus, and amblyopic which were considerably high. They recommended that important to promote public education on the significance of early detection of refractive errors, and have periodic screening in schools.[27]

Fan, et.al., (2019) conducted cross sectional to determine the progression of myopia of school children, sample size 7560 children in specified random sampling in Hong Kong. The results showed myopia was the most common refractive error and was found in 36.71% of children, incidence of myopia was 144.1 per 1000 primary school children per annum. The studies conclude that the prevalence and progression of myopia in children was much higher than those previously reported in western countries.[25]

Rai Geeta (2018), conducted a pre-experimental study regarding early signs and management of visual impairment in children and to evaluate the effectiveness of Structured informational method regarding early signs and management of visual impairment in children

among the teachers. This was done in selected primary schools of Nelamangala, Bengaluru. Total 60 teachers were included in the study. On the basis of findings of the study the below set conclusions were given various aspects like nursing education, nursing practice, nursing administrations and it also gives insight in to the future studies.[14]

Jang JU (2015) conducted a descriptive study to assess the prevalence of myopia among elementary school children. The total sample size was 245073 school children in South Korea. The study results showed that conducted visual acuity test5.7% have better eyes, 5.2% of them already wore corrective spectacles. The prevalence of myopia, hyperopia and astigmatism was 46.5% confidence interval 6.2% and 9.4% respectively. So, the higher prevalence of myopia among school children's. The study recommended that genetics and educational influences, such as studying and learning, may play a role in the progression of myopia in school childrens.[26]

Sethis.G, et.al., (2015) conducted cross sectional study to prevalence of refractive error in school children, the sample size was 1647 school children at Ahmadabad city. The study result was most of the students were found to be having refractive errors of myopia. The study concluded that these data support the assumption that vision screening of school children in developing countries. The conclusion of the study was that to correctable causes of decreased vision especially refractive errors and in minimizing long term visual disability. [26]

METHODOLOGY

Research methodology is the systematic, theoretical analysis of the methods applied to a field of study. It comprises theoretical analysis of body of methods and principles associated with branch of knowledge. Research methodology indicates the generalized pattern of organizing the procedure for gathering valid and reliable data for investigation. It includes strategies to be used to collect and analyse the data to accomplish the research objectives and test research hypothesis. Methodology of research indicates the general pattern of organizing the procedures of answering the research question.

This chapter deals with

i. Research approach

ii. Research design

iii. Research variables

iv. Research setting

v. Target population

vi. Accessible population

vii. Sample and sampling technique

viii. Inclusive and exclusive criteria

ix. Selection and Development of tool

x. Description of tool

xi. Validity of tool

xii. Reliability of tool

xiii. Pilot study

xiv. Data collection procedure

xv. Ethical consideration

xvi. Plan of data analysis

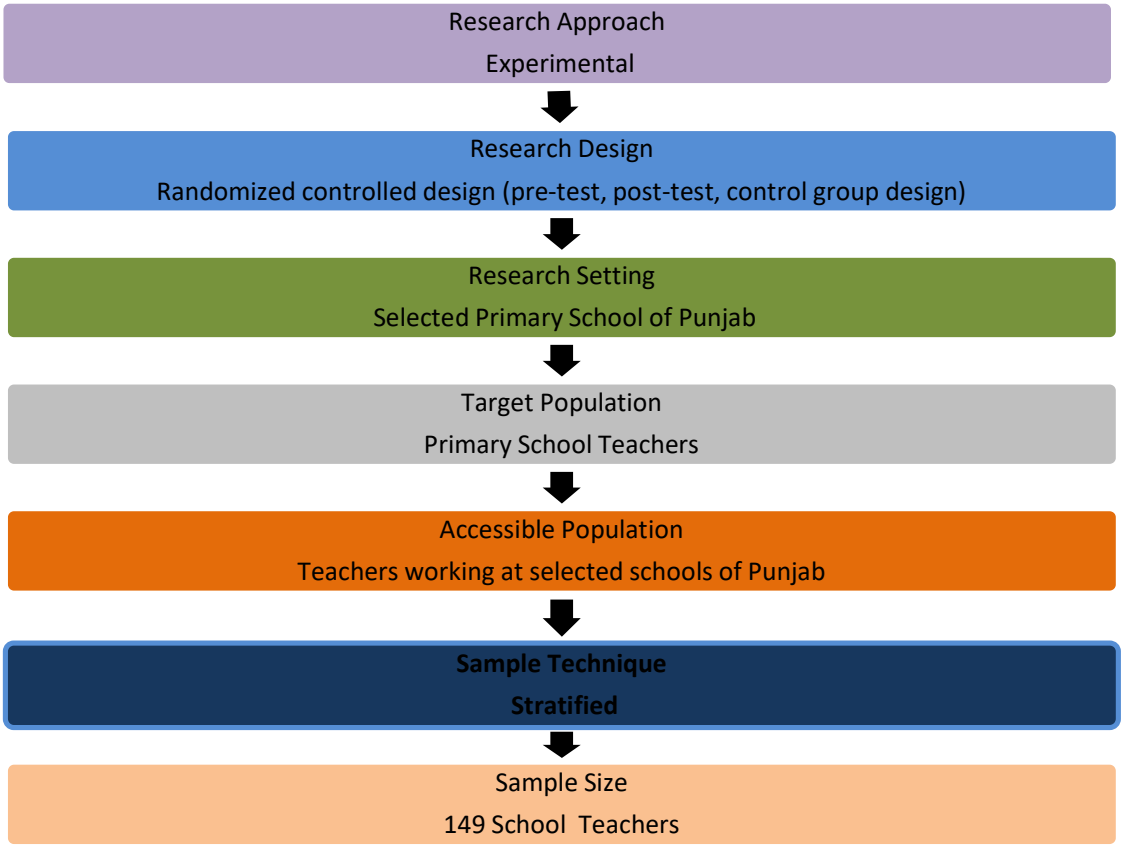

Figure No 1: Methodology Flow Chart

Research Approach

A research approach tells the researcher what data collected and to analyze. It is the overall plan chosen to carry out the study; it also suggests the possible conclusion to be drawn from the data.

A quasi-experimental study to determine the efficacy of informational booklet in terms of knowledge of myopia among school teachers working at selected primary schools of Punjab.

Research Design

The word "research design" is used to describe the strategy and process behind performing research which includes everything from the formulation of general hypotheses to the selection of particular methods for gathering and analyzing data. The major goal of research design is to improve the amount of control over the investigation. The researcher is in charge of the study's conditions. To accomplish the objectives of the current research, a quasi-experimental study design is employed. Non-equivalent pre-test and post-test control group.

DESIGN LAYOUT

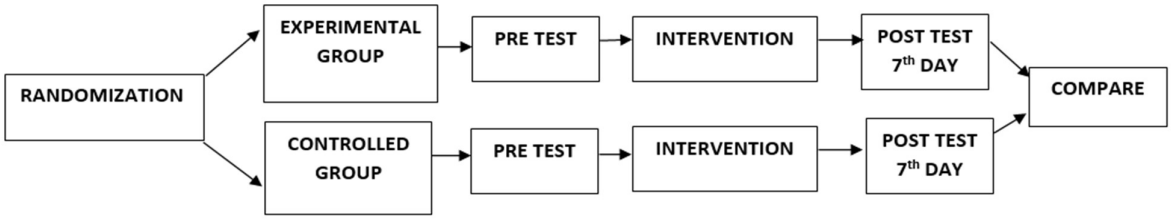

Figure No 2: Design Layout of Research Study

RESEARCH VARIABLES

1. **Independent variable**: Informational booklet of myopia served as independent variable.
2. **Dependent variable:** Knowledge of myopia among school teachers.
3. **Demographic variables**: The demographic variables under the study are Age in years of teacher, Gender of teacher, educational qualification, Teaching experiences and Type of school.

RESEARCH SETTING:

A data collecting setting is the physical or environmental context in which the data is gathered. Depending on the specifics of the research questions being asked and the data that will be required to answer them, data collecting will take place in a variety of distinct settings.

Data was collected from the chosen schools. The following two schools in SAS Nagar Mohali, Punjab, served as research sites.

Setting 1: This setting is the physical location and condition in which data collection took place in the study**.** The school was selected for data collection. The study was conducted at Manuraj Public School at Punjab. It is located at Vikas Nagar, SAS Nagar, Mohali (Punjab), it is 1 km away from Chandigarh and 20 km away from Gharuan. The school has started on 1977. Total students in this school are 780 and there are 30 teaching staffs. The working hours of this school is 9.00am – 1.00pm and 2.00 pm – 4.00 pm.

Setting 2: Control Setting was Blossom Convent School. It is located at Vikas Nagar, SAS Nagar, Mohali (Punjab), it is 2.5 km away from Chandigarh and 18 km away from Gharuan. The school has started on 1977. Total students in this school are 1208 and there are 37 teaching staffs.

Setting 3: This setting is the physical location and condition in which data collection took place in the study**.** The school was selected for data collection. The study was conducted at Manav Public School at Punjab. It is located at SAS Nagar, Mohali (Punjab), it is 1.5 km away from Chandigarh and 15 km away from Gharuan. The school has started on 1997. Total students in this school are 1124 and there are 38 teaching staffs. The working hours of this school is 9.00am – 1.00pm and 2.00 pm – 4.00 pm.

Setting 4: This setting is the physical location and condition in which data collection took place in the study**.** The school was selected for data collection. The study was conducted at Rose Public School at Punjab. It is located at Adarsh Nagar, Mohali (Punjab), it is 2 km away from Chandigarh and 18 km away from Gharuan. The school has started on 1989. Total students in this school are 1180 and there are 44 teaching staffs. The working hours of this school is 9.00am – 1.00pm and 2.00 pm – 4.00 pm.

TARGET POPULATION

It's the group of people to whom the study's results will ultimately be applied. Primary school teachers were the focus of this investigation.

ACCESSIBLE POPULATION

Teachers working at selected schools of Punjab.

Sample and Sampling Technique

Sample

For conducting the present study 149 teachers were taken as the sample.

SAMPLING TECHNIQUE:

Selection of setting- Purposive sampling

Selection of sample **-** Full enumeration sampling.

CRITERIA FOR THE SELECTION OF SAMPLE

Inclusion criteria:

1. Government & Private primary school teachers (Male/Female) available at the time of data collection.

Exclusion criteria:

1. Teachers who are not willing to participate in study.

2. Subjects who provides incomplete on illegitimate information.

Sample size

For prevalence the sample size was 149 school teachers.

- Sample size for intervention was calculated by using "Cochran" formula. Power analysis was used to estimate in advance how big a sample is needed. It is estimated by calculating effect size based on mean and standard deviation scores of the pilot

study with the desire alpha of 0.05. Calculation is done based on following information.

$$n \geq \frac{\left(z_{1-a/2} + z_{1-\beta}\right)^2 \left(\sigma_1^2 + \sigma_2^2/r\right)}{(\mu_1 + \mu_2)^2}$$

We had drawn 102 sample size withdrawn by using formula comparing two means of both groups. Hence, we had taken 149 sample size.

Group 1	**Group 2**
M_1	M_2
12	19
SD_1	SD_2
2.25	0.42

SELECTION AND DEVELOPMENT OF THE TOOLS

The tool was developed after the review of literature from various sources like textbook, journals and discussion with the experts in the field of Child Health Nursing.

DESCRIPTION OF TOOL

Tool 1: Socio-demographic profile sheet- It consist of 5 items for obtaining the personal information about respondent school teachers such as age, gender, education qualification, teaching experience and type of school.

Tool 2: Structured Knowledge Questionnaire- Structured knowledge questionnaire to assess the knowledge regarding detection of myopia in children at selected primary school. It consists of 20 items for obtaining knowledge about myopia.

Description of intervention

Guide, co-guide, and other specialists in the area of child health nursing were consulted as the intervention was developed after a thorough assessment of the literature, books, and online sources. The intervention in this research was a well-organized course on myopia, which included topics like what is myopia, what is the prevention of myopia, what are the causes of myopia, what are the sign and symptoms of myopia, what is the treatment of myopia in children.

Validity of tool

To ensure validity, tool (self-structured knowledge questionnaire and self-informational teaching module) were given to experts of various field in Child Health Nursing. According to their valuable suggestions modification were made in the tool.

Reliability of Tool

Alpha method was used to determine the reliability of a structured knowledge questionnaire on knowledge of myopia, the reliability obtained was r= 0.82. Hence the tool was determined highly reliable for the study.

Pilot Study

The pilot research was done 2 weeks of December. Full enumeration sampling was utilized to choose the samples. Before undertaking the research, formal approval was acquired from the relevant authority. The informed consent was obtained before completing the criterion. The feasibility of the investigation was determined to be positive. “Descriptive And Inferential Statistics” were used to analyse the data. Pilot study was conducted on 10 school teachers, to ensure reliability of tool and feasibility of the study.

Data Collection Procedure

In Dec 2024, data was gathered from a sample 149 teachers and data were collected for nearly one month. Full enumeration sampling technique was used to select samples. Who matched the study's inclusion requirements were randomly assigned to one of two groups: the experimental group (n = 76) or the control group (n = 73). Full enumeration sampling was used to choose research samples. The investigator gave self-introduction to the school teachers and explained the purpose of gathering information. To get their full co-operation and to assure the cordiality of the data, written consent was taken from the school principal.

Immediately after the introductory session, socio demographic profile sheet was filled up and intervention (informational booklet) was given to the experimental group for consecutive 6 days. On 7-day post-test was done and the data was gathered among 76 teachers in primary schools, who met the inclusion criteria, all teachers cooperated well with the investigator during the data collection.

Data collection scheme

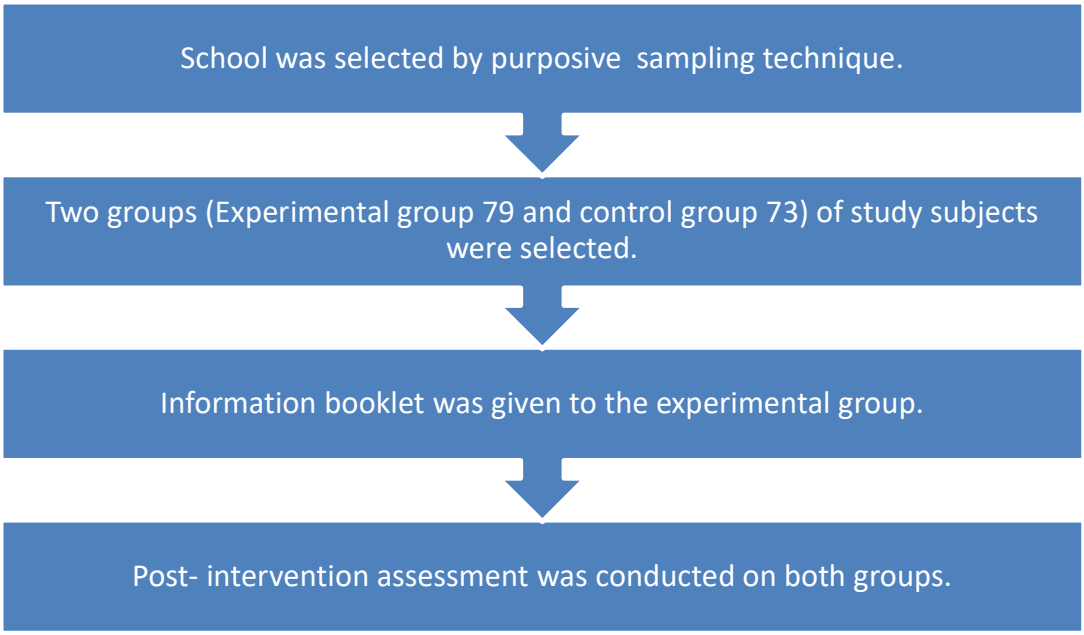

Figure 3: Data Collection Scheme

ETHICAL CONSIDERATION

1. Ethical institute of Saraswati Professional and Higher Education College of Nursing gave ethical approval for the study to be conducted.
2. The researcher has taken written permissions from concerned authorities of to collect the data.
3. The responded received guarantees that the information they provided would be kept confidential and privacy of the subject will be maintained.

Descriptive statistics

1. Frequency and percentage distribution were used to describe demographic variable.

2. Mean and standard deviation were used to analyses the pre-test and post-test level of knowledge of myopia among the primary school teachers.

Informational Booklet

Two group (Experimental group 76 and control group 73) of study subjects were selected

Schools were selected by convenient sampling technique

Inferential statistics

1. Paired t-test was used to compare the pre-test and post-test level of knowledge of myopia among primary school teachers.

2. Unpaired' test was used to compare the post-test level of knowledge of myopia among the primary school teachers in experimental group and control group

3. Chi-square test was used to associate knowledge of myopia parameters score with selected demographic variables in experimental group and control group

PLAN OF ANALYSIS

Analysis and interpretation were done the study objective. The demographic data were analysed in the terms of frequency & percentage. The remaining analysis was carried out with "descriptive and inferential statistics". Descriptive statistics were used to frequency, percentage and mean, standard deviation. Inferential statistics were calculated by t-test to find the relative effectiveness of the "level of knowledge of myopia among the primary school teachers".

CHAPTER SUMMARY

This chapter comprises of the methodology adopted for the study. This included the research approach, research design, population sample and sampling technique, variables, setting of the study, development of the tool, testing of the tool, pilot study, data collection process and plan for data analysis. The next chapter highlights analysis and interpretation of the data.

ANALYSIS AND INTERPRETATION OF DATA

Data analysis is the systemic organization and synthesis of research data and the testing of research hypothesis.

This chapter presents the analysis and interpretation of data collected to assess the knowledge regarding myopia among school teachers working at selected primary schools.

Analysis and interpretation of data is based on the data collection through self-structured knowledge questionnaire regarding myopia in children.

Analysis and interpretation were done as per the objectives of the study and the hypothesis to be tested.

The objectives of the study were:

OBJECTIVES

1. To assess the knowledge of myopia among school teachers.
2. To develop and implement informational booklet on myopia among school teachers working at primary school.
3. To determine the relative effectiveness of informational booklet in terms of post test knowledge score comparison of myopia among subjects in experimental and control group.

HYPOTHESIS

H1- Teachers who participate in intervention program on myopia may have different mean post-test knowledge scores than those who didn't participate at α 0.05

SECTION-I
DESCRIPTION OF SELECTED DEMOGRAPHIC VARIABLES

This section describes the selected demographic profile among school teacher

Table no. 1: Frequency and percentage distribution of selected demographic variables of school teacher

Demographic data of the teacher

(N=149)

SOCIO-DEMOGRAPHIC VARIABLES (Frequency table)		F (%)
Age	Up to 29	37 (24%)
	30-35	42 (28%)
	36-40	53 (35%)
	41-46	14 (9%)
	Above 47	3 (2%)
Gender	Male	0 (0%)
	Female	149 (100%)
Educational qualification	Graduation	114 (76%)
	Post graduation	5 (3%)
	Other	30 (20%)
Teaching experiences	Less than 1year	4 (2%)
	1-3 year	56 (37%)
	4-6 year	35 (23%)
	7-9 year	35 (23%)
	10-12 year	16 (10%)
	Above 13 year	3 (2%)
Type of school	Government	0 (0%)
	Private	149 (100%)

Interpretation: -

The demographic data reveals several key characteristics of the sample population. Most participants are relatively older, with the majority (35%) aged between 36 to 40 years followed by 28.18 % in the 30-35 years range. The older age groups (41-46 years and above 47 years) represent a much smaller portion of the sample.

In terms of **gender,** majority of participants were female. In **teaching experience**, most of the teachers have (1-3 years) teaching experience with 37.58%, followed by 23.48 % in the 4-6 years and 7-9 years. While 2.68 % teachers have less than 1 year and above experience 13 years and last 10 % teachers have 10-12 years' experience. In terms of **type of school,** majority of teachers are form private schools.

SECTION-II

Objective: 1. To assess the knowledge of myopia among school teachers.

Table No. 2: Percentage distribution among school teachers according to their knowledge regarding myopia.

N= 149

Sr no.	Criterion measurement	Range	Frequency	Percentage (%)
1.	Below average	0-11	42	28%
2.	Average	12-13	52	34%
3.	Above average	>14	55	36%

Interpretation: The interpretation of the table is as follows:

The table categorizes school teachers' knowledge of myopia into three groups: below average, average and above average. A small portion of teachers, 28%, fall into the below average category, indicating that they have limited knowledge of myopia. The majority, 34%, fall into the average category, suggesting that most school teachers possess a moderate understanding of the subject, but there is still room for improvement. Additionally, 36% of teachers have above-average knowledge, showing that a significant portion of the participants is well-informed about myopia. Overall, these results indicate that while most teachers have a basic understanding, there is a need for targeted educational efforts to improve knowledge, particularly for those in the below-average and average categories.

SECTION-III

Objectives 3. To determine the relative effectiveness of informational booklet in terms of post-test knowledge score comparison of myopia among subjects in experimental and control group.

Table No. 3: Showing comparison between the pre-test experimental & control group with unpaired T test of knowledge of myopia.

N=149

Variables		**Group**	**Mean ±SD**	Std. Error	95% CI		T	df	p-value
Knowledge of Myopia	**Pre test**	Experimental	13.07± 2.517	0.26	U	L	-1.492	147	0.13 NS
		Control	12.49± 2.517		0.19	-1.36			

*=*p<0.05*= significant *p>0.05*= non-significant **=p≤0.001 level of significance

Interpretation: -Table No. 3: Depicts that the mean and SD score of knowledge of myopia in the experimental and control group was non-significant value 0.13. Hence it was found to be that in the experimental and control group both were homogenous.

Table No.4: Post -test experimental & control group with unpaired t test represent effectiveness

N-149

Variables	Post test	Group	Mean ± SD	Std. Error	95% CI		T	Df	p-value
Knowledge of myopia		Experimental	19.93± 0.249	0.028	U	L	-25.00	73	0.00
		Control	13.05± 2.385		-6.32	-6.33			

*=*p<0.05*= level of significant *p>0.05* NS= non-significant **=p≤0.001 level of significance

Interpretation: The mean and SD score of knowledge of myopia in the Post experimental & control group was statistically significant **(p≤0.001).** Hence it was concluded that effectiveness of informational booklet in terms of post-test knowledge score comparison of myopia among subjects in experimental and control group.

The purpose of the discussion is interpretation and narrating the significance of study findings, what has been already known about the research problem being investigated.

The present study was aimed to assess the effectiveness of knowledge of myopia among school teachers working at primary school".

Myopia is a medical condition in which a person has difficulty in seeing far objects clearly, although he's able to see the near one's. The emotional, social and physical development of young children has a direct effect on their overall development and on the adult they will become. School children are the most critical educational years since children achieve basic literacy and numeracy during this period. Teacher's knowledge about refractive error play an important role in encouraging students to seek treatment that helps in reducing burden of visual problems.

The study targets primary school teachers, with an accessible population of 149 teachers selected through full enumeration sampling from purposively chosen schools. Inclusion criteria encompass male and female teachers available during data collection, while exclusion criteria eliminate unwilling participants or those providing incomplete information. A self-structured knowledge questionnaire and socio-demographic profile sheet were developed following a literature review and expert consultation in child health nursing, with the questionnaire achieving high reliability ($r=0.82$) using the alpha method. Validity was ensured through expert feedback. A pilot study conducted in December 2024 confirmed the study's feasibility. Data collection spanned one month, involving 76 teachers in the experimental group receiving the booklet intervention over six days and 73 in the control group, with pre- and post-tests administered.

The results of the current study are compared to those of previous investigations in this chapter. The aims of the study have established findings and conclusions that have been explored. The literature that is currently accessible on the variables under investigation is used to discuss that current study.

The objectives framed for the study and the findings based on them are as follows:

Post test mean scores in experiment group showed significant improvement in both knowledge of myopia experimental and control group compared to the pre-test mean scores in experiment group in both knowledge of myopia experimental and control group was statistically significant.

Comparing the results of the present study with previous research findings

The outcome of the present study is based on the core component i.e.; informational booklet was delivered to the school teachers. The result of the present study revealed the effectiveness of informational booklet to improve the knowledge of myopia among school teachers. In the present study, the prevalence of myopia among school-aged children was found to be increasing globally, with various factors contributing to its rise. Similar study conducted by **Yujing Tian and Yingqing Yu (2024)** conducted a cross-sectional study among 552 teachers of primary school students to assess their knowledge toward myopia. **David Turbert et al. (2023)** also conducted that importance of vision in children's learning and play activities. Their findings revealed that a large proportion of school children suffered from visual problems. The study also found that teachers generally had inadequate knowledge regarding myopia, indicating a need for better awareness and education programs for teachers.

The result of the study supported by **Sarah Polack et al. (2023)** study shows that there will be significant the myopia was the most prevalent refractive error affecting children**. N. Inchara et al. (2023)** did similar research comparing the effectiveness of informational booklet to increase the knowledge of myopia among school teachers.

In addition, **Sil Asim et al. (2023)** research demonstrates that knowledge of myopia on primary school teachers was statistically significant **($p \leq 0.001$).** Hence it was concluded that effectiveness of informational booklet in terms of post-test knowledge score comparison of myopia among subjects in experimental and control group.

Supporting these findings **R. Vishnuprasad et al. (2023)** research on the school children in Puducherry and found a notable prevalence of visual impairment, particularly among children with a family history of spectacle use. Likewise, **Umamaheswari Kannan et al. (2022)** compared rural and urban school children and observed a higher proportion of myopia in urban areas. The authors also highlighted the significant role of teachers in early identification and management of visual problems among students.

In another study, **Adeoti A. et al. (2022) investigated** the pattern of refractive errors and found a high prevalence, recommending the establishment of specialized facilities to manage these conditions effectively. Adding further evidence, **K. Kiruthi et al. (2022)** studied the impact of prolonged screen time during online classes and found that excessive use of digital

devices led to an increase in myopia among children aged 5–15 years. Similarly, **Ngozika E. Ezinne et al. (2022)** conducted a study in Onitsha, Nigeria, revealing a relatively high prevalence of myopia and other visual problems among primary school children, they also agree that school teachers play a important role for the prevention of myopia among school children's.

The present review concluded that factors such as inadequate teachers' awareness, limited school-based screening, increased urbanization, and prolonged screen exposure contribute significantly to the rising trend of myopia among school-aged children.

These findings are strongly supported by all the reviewed studies, which consistently recommended implementing regular vision screening programs, enhancing teacher training, and improving public awareness to ensure early detection and effective management of myopia in children.

Overall, the reviewed studies collectively highlight that myopia is increasingly prevalent among school-aged children worldwide. Factors such as inadequate teachers' awareness, limited school-based screening, urban lifestyle, and prolonged screen time contribute significantly to this problem. There is a consistent recommendation across studies for implementing regular vision screening programs in school, improving teacher training, and increasing public awareness to ensure early detection and management of myopia in children.

SUMMARY

The present study's findings have been compared to those of similar research described in the literature in this chapter. In conclusion, the current study is substantially compatible with prior research findings indicating that to determine the efficacy of informational booklet was significantly effective in terms of knowledge of myopia among school teachers.

CHAPTER-VI
SUMMARY CONCLUSION IMPLICATION LIMITATIONS AND RECOMMENDATIONS

Summary of the study

The result of the present study has been discussed in this chapter in relation to the findings of the similar studies reported in the literature. Credibility of research study has been determined. In conclusion of discussion, the current study is strongly consistent with the previous research findings indicated that to determine the efficacy of informational booklet was significantly effective in terms of knowledge of myopia among school teachers.

The investigator used a Randomized controlled trial experimental approach pre- intervention post- intervention control group design to assess the effectiveness of informational booklet was significantly effective in terms of knowledge of myopia among primary school teachers in Punjab. Teachers are Selected primary schools of Punjab. Simple randomization Sampling was used to select (N=76) in experimental group and (N=73) in control group.

Credibility of research findings

1. This study used randomized control trial to enhance the validity of the study
2. consecutive sampling technique was used to select study participants
3. Power analysis was used to estimate in advance how big sample is needed for the main study.
4. Simple random sampling technique was used to select study sample.
5. A control group was included to account for confounding variables and strengthen the causal inference.
6. Post test only after 30 days allowed the researchers to evaluate the immediate short-term impact of gratitude journaling.
7. Inclusion and exclusion criteria were clearly defined, minimizing variability and ensuring a homogeneous sample population.
8. Parametric tests were used for analysis.

Objective of the study:

1. To assess the knowledge of myopia among school teachers.

2. To develop and implement informational booklet on myopia among school teachers working at primary school.

3. To determine the relative effectiveness of informational booklet in terms of post-test knowledge score comparison of myopia among subjects in experimental and control group

The Conceptual framework used in the present study was based on General system theory by Ludwig Von Bartanlenffy (1968). A review of literature involved related studies conducted in recent years and it provided a strong foundation for formulation of tools.

MAJOR FINDINGS OF THE STUDY Socio-demographic characteristics of study participants:

1. In **Experimental group,** all the study participants were equally distributed. The majority of teachers were aged between 36-40 years (35%), with females comprising (100%) of the sample. Most participants and were graduated (76%) and majority of they have 1-3 (37%) years teaching experiences. A large number are from private schools.
2. **InControl group all,** the distribution was also uniform across demographic variables. A majority of participants were aged between 35-40 years (34%), and 100% were females. The majority were graduated (76%) and they have 1-3 (37%) years teaching experiences. A large number are from private schools.

There was no statistically significant difference in demographic variables between the two groups, indicating homogeneity and reducing sampling bias.

CONCLUSION

The study1 was carried to assess the efficacy of informational booklet was significantly effective in terms of knowledge of myopia among primary school teachers in Punjab. Based on statistical findings, in experimental group the mean score on the knowledge of myopia among primary school teachers were 13.07in pre-intervention and 19.93 in post-intervention respectively. The calculated unpaired “t “ values were found to be statistically significant at $p \leq 0.001$. Hence the research hypothesis (H1) is accepted. The study proves that the efficacy

of informational booklet was significantly effective in terms of knowledge of myopia among school teachers.

The study's conclusions include the following implications for nursing practice, nursing education, nursing administration, and nursing research that are of utmost significance.

NURSING IMPLICATIONS

1. Informational booklet is effective and affordable.
2. This study found to be effective in increasing knowledge of myopia among school teachers.
3. Intervention protocol regarding myopia given by the school teachers will help the children's.
4. Nursing service department can arrange health education programmes in the outpatient department for teaching the mothers how to maintain prevent their children from myopia.
5. Nurses can use informational module for educating the children's who have myopia.

NURSING PRACTICE

This study emphasis in improving the knowledge of myopia in selected primary school children among teachers through educative measures.

1. Teaching programme can be conducted for the teachers.
2. More knowledge of myopia will help for early identification of the selected visual problems of primary school children.
3. Health education can also provide with informational booklet, pamphlets which will help the teachers to increase the knowledge of myopia in primary school children among the teachers.
4. Nurses' active participation in school health programme by providing direct and indirect care helps to achieve the goals of health services. Lack of knowledge among teachers in knowledge of myopia indicate the needs for arranging health education in related topics.
5. Nurses should focus on rehabilitation in the community setting by using health teaching regarding management of selected visual problems.

NURSING EDUCATION

1. Nurse Educator should emphasize more on preparing students to impact health information to the public regarding children with myopia.
2. The study has clearly proved that structured teaching programme was effective in improving the knowledge of myopia. To practice this, the nursing personal needs to be equipped with adequate knowledge, attitude and practice regarding structured teaching programme.
3. The curriculum of nursing education should enable student nurse to equip themselves within the Knowledge of myopia in the primary school children.
4. The nursing education should give more importance to the application of theory in to a practice.

NURSING ADMINISTRATION

1. Nurse as a administrator should take initiative measures in formulating policies and protocols for short- and long-term health teaching.
2. The nursing administrator should motivate the subordinate for participating in various educational programmes and improve their knowledge and skills.
3. The administrator serves as a resource person for young nursing students, parents and school teachers for providing guidance and counselling for children with myopia.
4. The nurse administrator has the power to formulate pamphlets and flashcards for the awareness of management of myopia in school age children among teachers.
5. Cassettes about management of selected visual problems of primary school children can made available to nurse educator in nursing education institution.

NURSING RESEARCH

1. There is a good scope for nurse to conduct research in this area, to find out the effectiveness of various teaching strategy to educate the teachers and parents.
2. The effectiveness of the research study can be made by further implication of the study.
3. Can be used for evidence-based nursing practice as a rising trend.
4. Nurse researcher should be motivated to conduct more studies on prevention of myopia.
5. Nurse researcher should come forward to develop and validate new strategies and standard tool to develop and create awareness regarding prevention of myopia.

LIMITATION

1. The study finding can be generalized only to the selected school teachers.
2. The size of the sample only 30 hence the finding should be generalized with caution.
3. Study was limited to only the 1st – 5thstd taking teachers and improvement in knowledge of myopia.
4. The study did not use any control group. There was a possibility of threat to internal validity such as events occurring between pre-test and post-test session like mass media or other people can influence the primary school teachers' knowledge.

RECOMMENDATION

1. Similar study can be conducted in a large group to generalize the study findings.
2. The study can be conducted to assess the knowledge of teachers towards children with myopia.
3. Comparative study can be done between urban and rural areas.
4. A quasi-experimental study can be conducted with control group for the effective comparison.
5. A study can be conducted in term of knowledge, attitude and practice of alternative education methods among primary school teachers of primary school children with knowledge of myopia.
6. A study can be conducted in the community the prevalence of myopia among primary school children.

CHAPTER SUMMARY

This chapter deals with the overall summary, major findings, implications, limitations and recommendations and conclusion of the present study.

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