



A Descriptive Study to Assess the Knowledge Regarding Mission Indradhanush Among Mothers of Under-Five Children in Selected Community Areas in Haridwar, With A View to Develop an Information Booklet

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ENDORSEMENT BY THE PRINCIPAL

This is to certify that the dissertation entitled “A DESCRIPTIVE STUDY TO ASSESS THE KNOWLEDGE REGARDING MISSION INDRADHANUSH AMONG MOTHERS OF UNDER-FIVE CHILDREN IN SELECTED COMMUNITY AREAS IN HARIDWAR, WITH A VIEW TO DEVELOP AN INFORMATION BOOKLET” is a Bonafide research work done by Mr. Anirudh Nair of (Child Health Nursing) under the guidance of Guide Ms. Rajni Devi Associate Professor and Co-guide Mrs. Rajvinder Kaur Associate Professor Shri Swami Bhumanand College of Nursing Haridwar in the partial fulfillment of the requirement for the degree of masters of Science in Nursing.

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This is to certify that the dissertation entitled "A DESCRIPTIVE STUDY TO ASSESS THE KNOWLEDGE REGARDING MISSION INDRADHANUSH AMONG MOTHERS OF UNDER-FIVE CHILDREN IN SELECTED COMMUNITY AREAS IN HARIDWAR, WITH A VIEW TO DEVELOP AN INFORMATION BOOKLET "is a Bonafide research work done by Mr. Anirudh Nair of (Child Health Nursing) under the guidance of Guide Ms Rajni Devi Associate Professor and Co-guide Mrs. Rajvinder Kaur Associate Professor Shri Swami Bhumanand College of Nursing, Haridwar.

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DECLARATION BY THE STUDENT

I hereby declare that the present dissertation titled "A DESCRIPTIVE STUDY TO ASSESS THE KNOWLEDGE REGARDING MISSION INDRADHANUSH AMONG MOTHERS OF UNDER-FIVE CHILDREN IN SELECTED COMMUNITY AREAS IN HARIDWAR, WITH A VIEW TO DEVELOP AN INFORMATION BOOKLET.", outcome of the original research work undertaken and carried out by me, under the guidance of Research Guide Associate Professor Ms. Rajni Devi Shri swami Bhumanand College of Nursing, Haridwar. I also declare that the material of this has not found in any way, the basis for the award of any degree in this University or any other University.

Mr. Anirudh Nair

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“Behold, children are the heritage from the lord The fruit of the womb is his reward”

Psalms 127:3

Praises and glory to the God Almighty, who is the source of Strength, inspiration and blessings in every walk of my life and the function of knowledge and wisdom. I raise my heart in gratitude to God Almighty; He has been my shepherd and guiding force behind all my efforts. His omnipresence has been my anchor through the hard time. With profound sentiments and gratitude, I the investigator of this study own my heartfelt gratitude to all those who have contributed to the successful completion of this dissertation. Any accomplishment requires the effort of many. I feel it a great privilege to express my heartfelt thanks and gratitude to all who directly or indirectly have given valuable guidance and timely suggestion throughout this dissertation work.

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ABSTRACT

"A Descriptive Study to Assess the Knowledge Regarding Mission Indradhanush Among Mothers of Under-Five Children in Selected Community Areas in Haridwar, with a View to Develop an Information Booklet.", was done by Roll number as a partial fulfillment of the requirement of the degree of Master of Science in Nursing at Shri Swami Bhumanand College of nursing, under the HNBUMU University, Dehradun, September 2025.

The objectives of the study were

- **To assess the knowledge of mothers of under-five children regarding Mission Indradhanush in Selected Community Areas in Haridwar**
- **To find out the association between mothers knowledge level with their selected demographic variables in Selected Community Areas in Haridwar**
- **To develop an information booklet based on the findings to enhance awareness about Mission**

Indradhanush among mothers of Under-Five Children in Selected Community Areas in Haridwar

Hypothesis formulated were

H_0 (Null Hypothesis): There is no significant association between

n the knowledge of mothers regarding Mission Indradhanush and their selected demographic variables. H_1 (Alternative Hypothesis): There is a significant association between the knowledge of mothers regarding Mission Indradhanush and their selected demographic variables.

The conceptual framework selected for this study is based on Imogene King's Goal attainment theory. The concept of the theory is perception, action, interaction and transaction. These concepts are interrelated in every nursing situation. These terms are defined as concept in the conceptual framework. The research design was a descriptive survey design. The data collection tools were validated by Nursing experts and Pediatrician too. Reliability was established by Inter rate method. The reliability was found to be $r=0.82$ for Internet self-structured questionnaire = 0.75. 100 samples for the study were chosen using purposive sampling Technique. Background factors of each sample were collected by Self questionnaire method. The setting was at community area, Haridwar. The data collected was edited, tabulated, analyzed and interpreted manually with the help of statistician. The conclusion of the study was that most of the mothers of under five children.

CHAPTER ONE INTRODUCTION

➤ *Introduction*

Mission Indradhanush is India's flagship immunization drive launched in 2014 to boost vaccine coverage for children and pregnant women through phased campaigns. Mission Indradhanush Yojana was launched on December 25, 2014, by Union Health Minister JP Nadda, which is a flagship immunization initiative of the Government of India. It aims to increase the immunization coverage for children under two years and pregnant women. The Mission is also known as "Mission Rainbow," focuses on reducing child mortality due to vaccine-preventable diseases. With targeted strategies, periodic campaigns, and intensive monitoring, it has evolved into multiple phases like Intensified Mission Indradhanush (IMI) and its subsequent versions. It plays a crucial role in enhancing public health infrastructure across the country. The initiative taken by the Government of India was a healthy one, keeping in mind the safety of children but it was difficult to run this program.¹

The Mission Indradhanush Yojana Objectives is to achieve full immunization coverage for all children and pregnant women in India. It strives to close the immunization gaps in underserved, remote, and marginalized communities. The mission seeks to reduce child mortality and morbidity by protecting against life-threatening diseases. By ensuring last-mile delivery of essential vaccines, it supports the government's goal of achieving Universal Immunization. It also encourages inter-departmental coordination to ensure better health outcomes. In addition, migratory populations of slum areas, construction site workers, and brick kiln workers, and nomadic populations who reside in forest and tribal areas are the main targets for immunization.²

The inclusion of Mission Indradhanush Yojana Diseases Covered aligns with WHO-recommended immunization a schedule which is discussed below:

- Diphtheria: A serious bacterial infection that primarily impacts the respiratory system. If left untreated, it can result in complications such as breathing difficulties, heart damage, and even death.
- Pertussis (Whooping Cough): A highly contagious respiratory illness characterized by severe, repetitive coughing fits. It poses significant risks to infants and young children due to its potential complications.
- Tetanus: Triggered by a bacterial toxin, tetanus causes intense muscle stiffness and spasms. Without timely medical intervention, it can be fatal.
- Tuberculosis (TB): A bacterial infection that most commonly affects the lungs, though it can spread to other organs. TB remains a major public health concern due to its contagious nature.
- Polio: A viral disease that can invade the nervous system and lead to paralysis. In its most severe form, polio can be life-threatening.
- Hepatitis B: This viral infection targets the liver and can result in chronic conditions, including liver cirrhosis and hepatocellular carcinoma (liver cancer).
- Measles: A contagious viral infection that can be serious for small children but is easily preventable by a vaccine.

➤ *Intensified Mission Indradhanush (Imi)*

Launched on October 8, 2017, Intensified Mission Indradhanush (IMI) aimed to reach every child under two and pregnant women left out of routine immunization. It focused on 173 districts and urban areas with low vaccination coverage. The goal was to achieve over 90% full immunization by December 2018. It involved four intensified rounds of immunization, each conducted for seven days. Ministries other than Health, like WCD and Urban Development, participated actively to ensure intersectoral coordination. The Intensified Mission Indradhanush (IMI) program was run in 3 stages. IMI 2.0 was run from December 2019 to March 2020 which had four rounds.³

➤ *Mission Indradhanush 2.0*

Mission Indradhanush 2.0 was launched in December 2019 and continued till March 2020. It was designed to build upon the previous gains and address missed targets. The program focused on 272 districts across 27 states and UTs. It used an evidence-based approach to identify areas with low vaccine coverage. Community mobilization, improved logistics, and digital tools were key pillars. This phase was especially important in re-energizing frontline health workers and public health awareness campaigns. Mission Indradhanush Yojana significantly increased India's immunization coverage, with many districts crossing the 90% mark in full immunization. It helped reduce incidence rates of vaccine-preventable diseases like polio and measles. The campaign also improved community-level awareness regarding maternal and child healthcare. It strengthened India's health infrastructure and built intersectoral coordination models that were later used during COVID-19 vaccination drives. Global agencies like WHO and UNICEF have recognized India's commitment and success through this initiative.⁴

➤ *Intensified Mission Indradhanush 3.0*

Intensified Mission Indradhanush 3.0 was introduced in February 2021 to address disruptions caused by the COVID-19 pandemic. It was conducted in two rounds across 250 districts. The campaign focused on vaccinating children and pregnant women who missed doses during lockdowns. It emphasized rigorous micro-planning and community engagement to restore immunization

levels. Special attention was given to urban slums, tribal areas, and hard-to-reach pockets. It helped regain momentum in public health services affected by the pandemic.⁴

➤ *Intensified Mission Indradhanush 4.0*

Intensified Mission Indradhanush 4.0 was launched in February 2022 with the aim to cover 416 districts across 33 states and UTs. This phase conducted three rounds of immunization from February to May 2022. It focused on those who had missed their regular doses in earlier campaigns or during the pandemic. The campaign used a revised strategy with greater focus on urban and peri-urban areas. Technological platforms and real-time data tracking enhanced accountability and effectiveness.⁴

➤ *Intensified Mission Indradhanush 5.0*

Intensified Mission Indradhanush 5.0 was carried out from August to October 2023 and introduced a major upgrade in monitoring through the U-WIN digital platform. It extended the vaccination age group from 0–2 years to children up to 5 years. The campaign focused particularly on improving Measles-Rubella vaccination. The use of a digital platform allowed better beneficiary tracking, improved data quality, and ensured no child was left behind. IMI 5.0 showed a more data-driven and digital future for India's immunization system.⁴

➤ *Need of the Study*

Mothers are those who are mostly responsible for their children's health. Mothers play the major role in their baby's health in the womb and outside the womb and for that mother's knowledge is very much important.⁵

Each year 27 million children are born in India. Around 10 per cent of them do not survive 5 years of age. India contributes to 25 per cent of the over 6.9 million under five death occurring worldwide over years. Mission Indradhanush contributed to an increase in Full Immunization Coverage by 6.7%, as evidenced by Integrated Child Health and Immunization Survey (INCHIS).⁶

Fact and evidence have been provided that children who are unimmunized and partially immunized are at higher risks of being affected by diseases and disabilities. Furthermore, they are more prone and liable to death when compared to those children who are fully immunized. The most common reasons for non-immunization and partial immunization were unawareness, illiteracy, childhood illness, concern regarding adverse effects after immunization, non-availability of vaccines and vaccinators at session, parents prioritizing work over immunization of children, and the immunization session being too far away have been reported the most by the Indian population. In addition, language barriers among migrant workers, unwillingness to immunize children due to insufficient knowledge about the benefits of vaccines and false information being provided that money is required to get children vaccinated have also been significant issues for incomplete and partial immunization of children in India.⁷

According to the National Family Health Survey-5 (2019-21) of Maharashtra, 95 percent of children are at least partially vaccinated; only 5 percent have not received any vaccinations at all. Overall, there was an encouraging change in the coverage of all basic vaccinations (from 56% to 74%). In the Pune district, children aged 12-23 months were surveyed for basic vaccines (BCG, MMR, Pentavalent, DPT, and Polio). 58.1% of children received all basic vaccinations, 36.9% of children received age-appropriate vaccines and 12.6% of children had not been vaccinated. People living in slums are still lacking the awareness and importance of immunization and thus are a prospect for an outbreak of vaccine-preventable diseases. To conclude, parents are not aware of Mission Indradhanush and have very little knowledge regarding this flagship program to immunize children and pregnant women.⁸

This increase would not be sufficient to achieve Full Immunization Coverage of more than 90% of new-borns by 2020 as aimed under Mission Indradhanush. Further, Full Immunization Coverage in selected districts/cities that have shown slow progress in spite of repeated phases of Mission Indradhanush. A total of 528 districts covered during the various phases of Mission Indradhanush and more than 2.47 crore children and 67 lakh pregnant women have been vaccinated. With the launch of Mission Indradhanush, the Government aims at

- Generally high demand for immunization services by addressing communication challenges.
- Enhancing political, administrative and financial commitment through advocacy with key stakeholders and
- Ensuring that the partially immunized and unimmunized children are fully immunized as per National Immunization schedule. The Union Ministry of Health and Family Welfare have launched Intensified Mission Indradhanush (IMI) on 8th

October 2017, to accelerate full immunization coverage to more than 90% by December 2018. Through this programme, Government aims to reach each and every child less than two years of age and all those pregnant women who have been left uncovered under the routine immunization programme and thus to reduce maternal and child mortality to achieve targets of Sustainable Development Goals (SDGs). (Kishore, 2019).⁹

Dr Harsh Vardhan, Minister of Health and Family Welfare (MoHFW), Government of India, launched 'Intensified Mission Indradhanush 3.0' on Friday, February 19. The said mission will be conducted in two rounds, across 250 districts/urban areas across the nation, starting from February 22 and March 22. He launched the IMI 3.0 portal as well at the event. The release stated that the

IMI3.0 has been launched in a bid to vaccinate children and pregnant women who missed their vaccine doses during the COVID-19 pandemic. The IMI 3.0 will identify and vaccinate the beneficiaries in two rounds, where each round will last for 15 days. (Mission Indradhanush, MOH&FW 2021).¹⁰

Mission Indradhanush 2021 the Union Minister also launched the IMI 3.0 portal and released the Operational Guidelines for IMI 3.0 and the awareness material/IEC package developed as part of the campaign. According to a release by the Union Health Ministry, Vardhan expressed his elation at the elaborate preparations to immunize every mother and child. The Intensified Mission Indradhanush 3.0 will have two rounds starting from February 22 and March 22, 2021, and will be conducted in pre-identified 250 districts/urban areas across 29 States/UTs in the country. (WHO, 2021).¹¹

➤ *Statement of the Problem*

"A Descriptive Study to Assess the Knowledge Regarding Mission Indradhanush among Mothers of Under-Five Children in Selected Community Areas in Haridwar, With a View to Develop an Information Booklet."

➤ *Objectives of the Study*

- To assess the knowledge of mothers of under-five children regarding Mission Indradhanush in Selected Community Areas in Haridwar
- To find out the association between mothers' knowledge level with their selected demographic variables in Selected Community Areas in Haridwar
- To develop an information booklet based on the findings to enhance awareness about Mission Indradhanush among mothers of Under-Five Children in Selected Community Areas in Haridwar

➤ *Hypothesis*

- H_0 (Null Hypothesis): There is no significant association between the knowledge of mothers and their selected demographic variables regarding Mission Indradhanush in Selected Community Areas in Haridwar
- H_1 (Alternative Hypothesis): There is a significant association between the knowledge of mothers and their selected demographic variables regarding Mission Indradhanush in Selected Community Areas in Haridwar.

➤ *Operational Definitions*

- Knowledge: In this study, knowledge refers to the awareness, understanding, and information possessed by mothers of under-five children regarding the objectives, benefits, and implementation of Mission Indradhanush.
- Mission Indradhanush: A Government of India initiative launched in 2014 to increase full immunization coverage among children and pregnant women by targeting unvaccinated or partially vaccinated individuals.
- Mothers of under-five children: Women who have at least one child aged 0-5 years and are responsible for making immunization-related decisions for their child.
- Community area: Selected residential localities in Haridwar where the study will be conducted.
- Information booklet: A structured educational material developed based on the study findings to improve knowledge and awareness about Mission Indradhanush among Mothers.

➤ *Assumptions of the Study*

- Mothers play a key role in ensuring the complete immunization of their children.
- Knowledge about Mission Indradhanush can influence a mother's decision to get her child vaccinated.
- Socio-demographic factors like education, income, and cultural beliefs may impact a mother's knowledge about immunization programs.
- Developing an information booklet can help bridge the knowledge gap and improve immunization rates.

➤ *Delimitations of the Study*

• *The Study is Limited to:*

- ✓ Mothers who have children under aged 0-5 years.
- ✓ Selected community areas in Haridwar.
- ✓ The assessment of knowledge only, without evaluating actual immunization status.
- ✓ The development of an information booklet, without conducting a post-intervention effectiveness study.

➤ *Conceptual Framework*

Polit and Hungler (2012) A conceptual frame work is a theoretical approach to the study of problems that are scientifically based and emphasizes the selection, arrangement and classification of its concept. Concepts are words that depict objects, properties or events and are basic components of theory. The conceptual frame work is a general amalgam of all the related concepts in the problem area. Conceptual frame work deals with abstraction or concepts that are assembled by virtue of their relevance to a common theme. Conceptualization is a process of forming ideas which is utilized and forms conceptual frame work for development of research design. It helps the researchers by giving direction to go about the entire research process.¹²

The conceptual framework for the present study is developed based Imogene King's Goal attainment theory. The concept of the theory is perception, action, interaction and transaction. These concepts are interrelated in every nursing situation. These terms are defined as concept in the conceptual framework in this study was aimed at to assess the knowledge regarding mission indradhanush among mothers of under five children. Conceptual frame work is structures together in a meaningful way. Although relationships are to assume in conceptual frame work, frequently neither the direction nor the relationships made explicit for use in practice of for testing in a research project. A conceptual framework or model refers to a set of concept and assumption that integrate them into a meaningful configuration.¹³

➤ *Perception*

In this study the investigator perceives the need to enhance the knowledge of mission indradhanush to improve the level of knowledge among mothers of under five children. The mothers of under five children perceive that they need some intervention to improve to the knowledge regarding mission indradhanush.

➤ *Communication*

The vehicle by which human relations are developed and maintained encompasses interpersonal, intrapersonal, verbal and nonverbal communication. In this study Researcher maintains good rapport with mothers of under five children. He also develops mutual understanding via good communication and then mutual goals are set.

➤ *Action*

Action refers to the activity to achieve goals what the individuals perceive. In this study it is the mutual goal setting to enhance the level of knowledge. Researcher assess the level of knowledge with self-structured questionnaire and interventions like distribution of information booklet regarding mission indradhanush among mothers of under five children.

➤ *Interaction*

Interaction refers to the perception and communication between a person and the environment or between two or more person. In this study the Researcher assess the knowledge with self-structured questionnaire and distribute the information booklet to enhance the level of knowledge regarding mission indradhanush.

➤ *Transaction*

Transaction is a process of interaction in which human beings communicate with the environment to achieve the goals that are evaluated and direct human behavior.

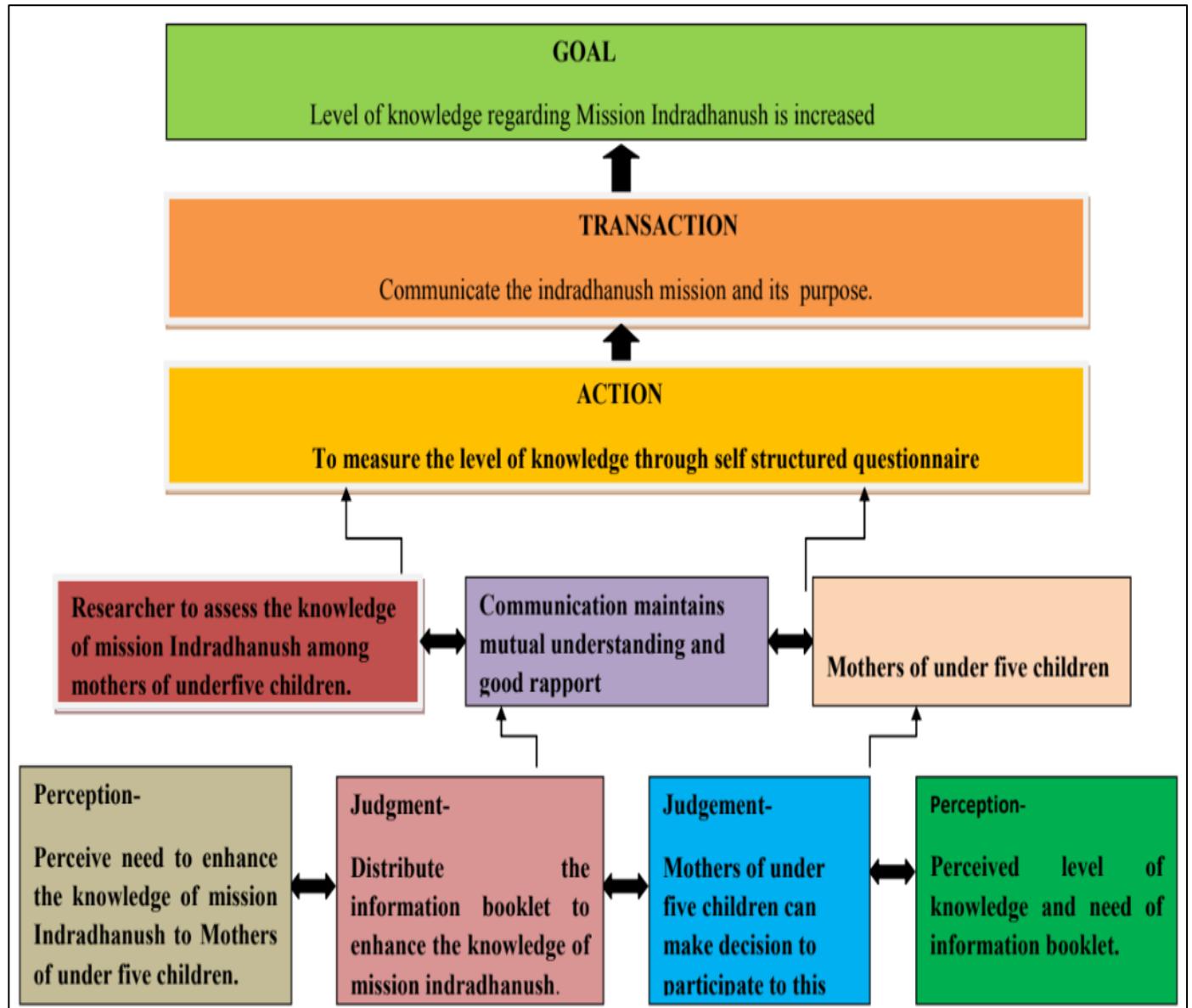


Fig 1 Imogene King's Goal Attainment Theory

CHAPTER TWO

REVIEW OF LITERATURE

S.NO	Researcher's Name/ Year/place	Problem Statement /Objectives	Methodology	Research Tools	Result
1	Ms. Vidhi N. Patel (2025).	<p>“A Study To Evaluate the effectiveness of structured Teaching Programme on Knowledge regarding Mission Indradhanush among mothers of Under Five-Year Children In selected Urban Areas of Ahmedabad city.”</p> <p>Objectives of the study</p> <p>1. To evaluate the pre-test knowledge regarding Mission Indradhanush among mothers of under five year children of selected urban area of Ahmedabad city.</p> <p>2. To evaluate the post-test knowledge regarding Mission Indradhanush among mothers of under five year children of selected urban area of Ahmedabad city.</p> <p>3. To evaluate the effectiveness of structured teaching programme regarding Mission</p>	<p>Research approach: Quantitative research approach.</p> <p>Research Design: (One group pre- test post-test) research design.)</p> <p>Sample: Mothers of under five children.</p> <p>Sampling technique: Non-probability purposive sampling technique.</p> <p>Sample size: 40</p> <p>Setting: Urban area, Ahemdabad.</p>	Semi structured Questionnaire.	<p>The reliability of the tool was determined, by using test and retest method of "Karl Pearson's formula" co-efficient correlation $r = 0.86$, the tool was found to be highly reliable. Pre-test and Post-test semi structured knowledge questionnaire score regarding Mission Indradhanush measured by using paired 't' test and it was found at the 0.05 level of significance. The mean Pre-test score was 9.25 and the mean post test score was 12.03 with the mean difference of 2.78. and Standard deviation of Pre-test score was 2.82 and Standard deviation of post test score was 2.44. The calculated 't' was 11.247 and the tabulated 't' was 2.02 at 0.05 level of significance. It reveals that mean post-test knowledge score was significantly higher than the mean pre-test knowledge score. Therefore the null hypothesis H_0 was rejected and research hypothesis (H_1) was accepted and it revealed that the structured teaching program was effective in increasing knowledge among mothers of under five year children. The findings also revealed that age and education of mother has significant association with pre-test knowledge score. Hence, the research hypothesis (H_2) was accepted. 15</p>

		Indradhanush among mothers of under five year children of selected urban areas of Ahmedabad city. 4. To find out the association of pre-test knowledge scores on knowledge regarding Mission Indradhanush mothers of under five year children with their selected demographical variables			
2	Ms. Sonal Kurane et.al (2024).	<p>A Descriptive study to assess the knowledge regarding mission Indradhanush among parents in selected urban areas of Pune .</p> <p>Objectives of the study</p> <p>1. To assess the knowledge knowledge regarding Mission Indradhanush among parents in selected urban areas of Pune city</p> <p>Regarding mission Indradhanush among parents in selected urban areas of pune city.</p> <p>2. To findout the association between knowledge level with their selected demographic variables.</p>	<p>Research approach: Quantitative approach.</p> <p>Research design: Exploratory research design</p> <p>Sample: Mothers of under five children</p> <p>Sampling technique; purposive sampling technique used.</p> <p>Sample size: 100</p> <p>Setting: urban areas of Pune city.</p>	<p>Self-structured Knowledge Assessment Questionnaire</p>	<p>81% had good knowledge and 17% had excellent knowledge. Similar results were seen in a study conducted at Bhubaneswar as 64% of mothers had adequate knowledge.16</p>

3	Sakshi Pochate (2024).	<p>A Study to Assess the Knowledge Regarding Mission Indradhanush among Mothers of under Five Year Children in Selected Community Area in Jabalpur City.</p> <p>Objectives of the study</p> <ol style="list-style-type: none"> 1. To assess the Knowledge Regarding Mission Indradhanush among Mothers of under Five Year Children in Selected Community Area in Jabalpur City. 2. To findout the association between knowledge level with their selected demographic variables. 	<p>Research approach: Quantitative approach.</p> <p>Research design Quasi experimental one group pre-test and post-test design.</p> <p>Sample: Mothers of under five children.</p> <p>Sampling technique: Convenient sampling technique.</p> <p>Sample size: 60</p> <p>Setting: urban slum area, Bengaluru</p>	Structured interview schedule and Likert scale.	<p>In the pre- test level of knowledge, 45 (75.0%) of mothers had inadequate knowledge, 11 (18.3%) had moderate knowledge and 4 (6.7%) had adequate knowledge whereas in post-test, 26(43.3%) of mothers had moderate knowledge and 34 (56.7%) of them had developed adequate knowledge. The paired t-test was carried out and it was found to be significant at $p < 0.05$.17</p>
4	Emma Clarke-Deelder (2024).	<p>Health impact and cost-effectiveness of expanding routine immunization coverage in India through Intensified Mission Indradhanush.</p>	<p>Research approach: Quantitative approach</p> <p>Research design: cross-sectional study</p> <p>Sampling technique probability convenient sampling technique were used.</p> <p>Sample size: 40</p> <p>Sample: sample of 40 districts in Assam, Bihar, Maharashtra, Rajasthan and Uttar Pradesh. These states were selected because they represented the locations with the greatest number of districts implementing IMI.</p> <p>Setting: 5 selected districts of india.</p>	Structured questionnaire.	<p>The estimated incremental cost of IMI implementation in the 40 sampled districts was \$13 708 000 (95% uncertainty interval: \$10 560 000 to \$17 351 000), including the costs of vaccines and injection supplies. The estimated impact varied across vaccines. The smallest impacts were estimated for vaccines administered at birth apart from the BCG vaccine (49 000 incremental doses of OPV0 and 51 000 incremental doses of HepB0) and for booster doses (31 000 incremental doses of the OPV booster and 77 000 incremental doses of the DTP booster). The largest impacts were estimated for vaccines administered at 6 weeks of age (165 000 incremental doses of DTP1 and 139 000 incremental doses of OPV1). The estimated number of zero-dose children reached was 165 000 (-22 000 to</p>

					340 000). We estimated that, by increasing immunization coverage in the sampled districts, IMI averted 1413 child deaths (–350 to 3129). Without discounting, this translated into 96 000 life years saved (–24 000 to 210 000) and 122 000 DALYs averted (–30 000 to 269 000) in the sampled districts. With discounting, the estimated number
5	Ndaki P, Kinyonga M, Mwita S. (2024)	Knowledge, Attitude, and Practice Towards Child Immunisation Among Mothers Attending Magu District Hospital, Mwanza Objectives of the study This study aimed to assess the knowledge, attitudes, and practices of mothers attending Magu District Hospital in Mwanza, Tanzania, towards child immunization.	A cross-sectional study was conducted among 216 mothers between April and May 2021. A convenient sampling technique was used to recruit mothers who consented to participate in this study.	semi structured questionnaire	About a quarter (27.3%) of respondents had good knowledge, while 64.8% showed positive attitudes towards child vaccination. Vaccine-preventable diseases that were commonly known by study participants were measles (90.7%) and poliomyelitis (81.9%). The majority of mothers (84.3%) would recommend others to vaccinate their children. About half of the children (50.9%) were fully immunized, while over a quarter (26.4%) of their children experienced side effects. ¹⁹
6	Tanneru Sai Pavani at.el (2024).	Intensified mission in dradhanush: Maternal awareness and service utilization in Krishna district, India. Objectives of the study 1. Maternal awareness and service utilization in Krishna district, India.	Research approach: Quantitative approach Research design: A cross-sectional study. Sample: Mothers of under 2years of children. Sampling technique: Convenience sampling technique. Sample size: 255 Setting: Krishna district ,Andhra Pradesh.	Semi-structured questionnaire.	This study concluded that 154 (60.39%) children were fully covered from vaccination and 67 (26.67%) mothers were aware of IMI services. Mothers whose children were fully vaccinated had 59.22% good knowledge, 41.57% positive attitude, and 79.22% proper practice regarding immunization. Lack of awareness to mothers and child illnesses was found to be a major reason for partial vaccination. ²⁰
7	Jayaraj J, Ganesan S, Gemini Ganesan S (2023)	Knowledge, attitude and practices regarding immunization among parents with children in	It is a questionnaire-based observational study involving 95 parents with children aged 12 to 24 months, conducted in a tertiary care hospital in Tamil Nadu.	Structured Questionnaire	Ninety children have been completely immunized according to age. Nearly 60% children did not receive vaccinations according to prescribed schedule. More than half parents believed that vaccines are efficient in preventing diseases, which was

		the age group 12 to 24 months			statistically associated with education of parents. Although there is a good immunization coverage in our locality, 17.89% parents still doubt the safety of vaccines and one-fifth of respondents had misapprehensions that vaccines may cause long-term consequences in children ²¹
8	Jelly, Prasuna, et al. (2023)	Knowledge, Attitude, compliance and barriers of immunization among Parents of under-five children	A cross-sectional study was conducted among 200 parents of under-five children at selected government hospitals in Dehradun district. Study participants were selected by consecutive sampling technique, and data were collected using pre-tested, structured questionnaires. The data was analyzed using descriptive and inferential statistics	Structured Questionnaire	Of 200, 39 (19.5%) parents reported that their child was not vaccinated as per schedule. A vast proportion (84.5%) of parents had an average to good level of knowledge regarding under-five immunization. Out of ten components of attitude, most of the parents had agreed in favor of vaccination. The most common barriers of compliance reported by parents were: unaware of the next scheduled doses, illness in family, and absence of vaccine at health centre. accepted. ²²
9	Veena Dhawan (2023).	Mission Indradhanush and Intensified Mission Indradhanush Success Story of India Universal Immunization Program and the Role of Mann Ki Baat in Bridging the Immunization Gap. Objectives of the study 1. To identify the Mission Indradhanush and Intensified Mission Indradhanush Success Story of India's Universal Immunization Program and the Role of Mann Ki Baat in Bridging the Immunization Gap.	Research approach: A mixed method approach Subsuming review of the literature and secondary data analysis. NA (Govt. Reports)	Secondary data analysis.	India has made significant progress in improving immunization coverage in the last decade through the implantation of periodic immunization intensification drives of MI and IMI. Overall, the success of India's immunization program demonstrates the importance of sustained government efforts, technical advancements, involvement of multiple sectors, and increased community awareness. Continuous monitoring of the program by the leader of the country ensured sincere supervision of the activities for effective implementation. India's achievements from MI/IMI set a global example of strong political will and robust operational and demand generation strategies to be replicated or adapted to eliminate life-threatening VPDs, even in the world's most challenging areas. Continued investment and innovation in this area will be critical in ensuring future generations' sustained progress and protection. ²³

10	Shreya Adavalath, SG Sowmya, K Shreedhara Avabrathe (2023)	<p>Immunization of children under 5 years: Mother's knowledge, attitude, and practice in a rural community.</p> <p>Objectives of the study</p> <p>To assess the knowledge, attitude and practice regarding immunization in mothers of under 5 children in rural area in Bantwal Taluk in Mangalore.</p>	<p>This was a cross sectional questionnaire-based study conducted on 486 mothers of under 5 children in a rural area in Mangalore from November 2021 – January 2022.</p>	Semi Structured Questionnaires.	<p>99.8% mothers were aware that vaccination prevents children from infectious disease and its complications. 23.2% of the mothers had the misconception that multiple doses of the same vaccine were not important for their child's immunity.</p> <p>Vaccination campaigns to vaccinate their children were not considered important by 4.4% mothers. A significant proportion (26.3%) believed that multiple vaccinations at the same time would have a negative impact on their child. Most of the mothers were of the opinion that childhood vaccination was important and vaccination was more beneficial than harmful.</p> <p>77% were of the opinion that the child could not get infected by the disease once vaccinated.</p> <p>99.6% of the children were vaccinated at birth and 98.8% of the children were completely immunized. accepted.24</p>
11	Deepika Badkur, Singh S. (2023)	<p>A cross-sectional study to assess immunization coverage and knowledge, attitude and practice of mothers regarding immunization in seepatBilaspur</p> <p>Objectives of the study</p> <p>To assess immunization coverage in up to 23 mo old children with respect to economic status and Knowledge, Attitude and Practice of mothers regarding immunization.</p>	<p>Research design A cross-sectional study</p> <p>Sample Mothers who had children aged grouped between 0-23 months.</p> <p>Sample size 125 Mothers</p> <p>Setting Seepat, Masturi Tehsil of Bilaspur district</p>	A Semi- Structured Questionnaire	<p>Immunization coverage was found to be 79%. Almost 85% of mothers believe that the vaccine prevents communicable diseases, and 82.4% agree that immunization at birth is important. The majority of mothers (92%) agreed that their children should be vaccinated as soon as possible. Related to the attitude of mothers towards immunization, a maximum (93.6%) percent of mothers believed that even a healthy child should be fully immunized for protection from diseases, and 86% had no fear related to vaccinating their child. More than half (72.8%) of mothers informed that they would contact Anganwadi workers for the next dose of vaccine. Almost 62% of mothers agreed to breastfeed their children after an oral vaccine, and 87.2% of mothers said that they would take their children for regular vaccination. No association ($P>0.05$) was found between the child's immunization status and the socioeconomic status of the family.25</p>

12	Akanksha, Nancy Modi, Nida Shaikh, Suman Swain (2022)	An assessment of knowledge and utilisation of Mission Indradhanush at Qutub Vihar, New Delhi Objectives of the study 1 Assess the knowledge and utilization of mission indradhanush among mothers of under 2 yrs	Research Approach RESEARCH DESIGN Cross sectional study Sample mothers of children of age less than 2 years Sampling Technique Snowball sampling technique Sample size 155 mothers Setting Qutub Vihar, Goya Dairy, South West district, New Delhi	structured questionnaire	Out of a total of 155 participants, 11 percent of mothers were in the age group (less than 20 years), 75 percent in the age group (20-30 years), and 14 percent in the age group (more than 30 years). 33 percent of mothers were illiterate, 49 percent had an education up to high school and only 18 percent had an education above high school. 86 percent of women were housewives and only 14 percent were employed. 92 percent of women had undergone institutional delivery and 8 percent had home delivery. ²⁶
13	Bhumika Patel (2022)	A study to assess the effectiveness of planned teaching programme on mission indradhanush in terms of knowledge among mothers of under five year children in selected rural areas of Mahisagar district, Gujarat. Objectives of the study 1. To assess the knowledge on mothers of under five year children in selected rural area of Mahisagar District Gujarat regarding Mission Indradhanush before and after administration of planned teaching programme. 2. To assess the effectiveness of planned teaching programme on Mission Indradhanush in selected mothers of under five year children in	Research approach: Research design: Pre experimental Study. Sample: mothers of under five year children. Samplingtechnique: Purposive sampling technique Sample size: 60 Setting: Rural area of Mahisagar District, Gujarat	Structured knowledge questionnaire	The mean knowledge Pre test score was 12.01 and the mean post test score is 20.38 regarding Mission Indradhanush. The mean post-test knowledge score was significantly higher than the mean pre-test. knowledge score with mean difference of 8.37 and calculated' value ($t=26.17$) was greater than tabulated' value ($t=2.00$) which was statistically proved at 0.05 level of significance. Therefore, the null hypothesis H_0 was rejected and research hypothesis H_1 was accepted and it revealed that the planned teaching programme was effective in increasing knowledge among mothers of under five year children. 3. There was not significant association between the age, religion, education of mother, occupation of mother, income of family member, immunization status of mother and heard about Mission Indradhanush with the pre- test score of the mother of under five year children. Only number of children that were significant with the knowledge regarding Mission Indradhanush.

		rural area of Mahisagar District, Gujarat. 3. To find out the association between selected demographic variables with pre-test knowledge score among mothers of under five-year children in selected rural area of Mahisagar District, Gujarat.			
14	Kokillamma (2021.)	A Study to assess the knowledge regarding mission Indradhanush among mothers of under Five children at selected municipal maternal and child health centre (Mch), Tirupati. Objectives of the study 1. To assess knowledge regarding mission Indradhanush among mothers of under Five children at selected municipal maternal and child health centre (Mch), Tirupati. 2. To find out the association between knowledge score with their selected demographic variables.	Research approach: Quantitative approach. Research Design: Non-experimental approach, descriptive design Sample: Mothers of under Five children. Sampling technique: Non-probability Purposive sampling technique. Sample size: 100 Setting: Immunization clinic at (MCH) Centre, Tirupati.	Structured knowledge questionnaire.	Revealed that 49 Per cent of mothers had moderately adequate knowledge regarding (MI), with a mean score of 2.09 ± 0.7 . Significant association with religion and occupation of the mothers at <0.01 level and other variables were not significant.28
15	Anumol Joy, (2021)	A Study to assess the knowledge regarding intensified	Research approach: Quantitative research design.	Self-structured questionnaire	Regarding the source of information, the data reveals that 30% of them had information from social media, 31% of them had information from relatives,

		<p>mission indradhanush 2.0 among mothers of under- five children In Kerala with a view to develop an educational booklet.</p> <p>Objectives of the study</p> <ol style="list-style-type: none"> 1.To assess the knowledge regarding Intensified Mission Indradhanush 2.0 among mothers of under-five children, 2.To find out the association between knowledge regarding intensified mission Indradhanush 2.0 among mothers of under-five children and selected demographic variables, 3.To develop an educational booklet regarding intensified mission Indradhanush 2.0 for mothers of under five children. 	<p>Research Design: Non- Experimental survey design</p> <p>Sample: Mothers of under- five children.</p> <p>Sampling technique: Convenience sampling</p> <p>Sample size: 60</p> <p>Setting: Virtual setting through Google form.</p>		<p>26 of them have from health care professionals and 11% of them from magazines. The present study revealed that out of 60 samples 13% of women had poor knowledge, 60% had moderate knowledge and 27% had good knowledge regarding Intensified Mission Indradhanush 2.0 among mothers of under-five children. It was inferred that the present study showed no significant association between Knowledge and demographic variables like age in years, education, occupation and source of information at 0.05 level of significance. Based on the findings the investigators have drawn implication which were of vital concerns in the field of nursing practice, nursing administration and nursing education for future development.29</p>
16	Jyotima Borgohain Handique (2021).	Effectiveness of educational package on level of knowledge and attitude regarding mission indradhanush among mothers of under five children in selected urban slum area.	<p>Research approach: Quantitative approach.</p> <p>Research Design: Quasi -experimental study.</p> <p>Sample: Mothers of under five children</p> <p>Sampling technique Simple Random sampling technique:</p> <p>Sample size: 60</p> <p>Setting: Kengeri Upanagar urban slum area.</p>	<p>Structured interview schedule to assess the level of knowledge.</p> <p>Likert scale used to assess the attitude.</p>	<p>The mean knowledge score in pre-test was 10.17 with SD of 4.49 and the mean attitude score was 30.58 with SD of 2.39. Where as in the post test the mean knowledge score was found 17.00 with SD of 3.36 and attitude score was 37.21 with SD of 2.50. Paired t-test shows that there was statistical significance at $p < 0.001$ level. It showed, there was an establishing impact of educational package on knowledge and attitude regarding</p>

		<p>Objectives of the study</p> <p>1. To assess the existing level of knowledge and attitude regarding Mission Indradhanush among mothers of under-five children.</p> <p>2. To assess the post-test level of knowledge and attitude regarding Mission Indradhanush among mothers of under five children.</p> <p>3. To assess the effectiveness of educational package on knowledge and attitude regarding Mission Indradhanush among mothers of under five children.</p> <p>4. To determine the correlation between knowledge and attitude regarding Mission Indradhanush among mothers of under five children.</p> <p>5. To associate the pretest level of knowledge and attitude regarding Mission Indradhanush among mothers of under five children with their selected demographic variables.</p>			<p>Mission Indradhanush among mothers of under five children and there was significant linear correlation ($r=0.486$) between knowledge and attitude regarding Mission Indradhanush among mothers of under five children at $p<0.05$ level. 30</p>
17	Kala Suneetha (2021).	Effectiveness of educational	<p>Research approach: Quantitative approach.</p> <p>Research design:</p>	Self-structured questionnaire.	The overall pre-test mean knowledge was found to be 24.09%. The Aspect wise pre-

	<p>package on level of knowledge and attitude regarding mission indradhanush among Mothers of under five children In selected urban slum area, bengaluru, India.</p> <p>Objectives of the study</p> <ol style="list-style-type: none"> 1. To assess the existing level of knowledge and attitude regarding Mission Indradhanush among mothers of under-five children. 2. To assess the post-test level of knowledge and attitude regarding Mission Indradhanush among mothers of under five children. 3. To assess the effectiveness of educational package on knowledge and attitude regarding Mission Indradhanush among mothers of under five children. 4. To determine the correlation between knowledge and attitude regarding Mission Indradhanush among mothers of under five children. 5. To associate the pretest level of knowledge and attitude 	<p>Quasi Experimental study.</p> <p>Sample: Mothers of under five children.</p> <p>Sampling technique: Non-Probability convenience sampling.</p> <p>Sample size: 60</p> <p>30 experimental group and 30 control group</p> <p>Setting: KengeriUpanagar urban slum area, Bengaluru.</p>		<p>test knowledge of respondents regarding MIDP. The highest Mean 27.71% was seen in the aspect of knowledge regarding knowledge on Immunization 22.50% followed by knowledge on Mission Indra Dhanush Programme. The overall post-test mean knowledge was found to be 71.57%. The aspect wise post-test knowledge of respondents regarding knowledge On MIDP. The highest mean % was seen in the aspects of knowledge regarding immunization 76.29% and knowledge regarding MIDP 69.50%. The overall pre-test mean knowledge score was 5.54 % and post-test Value was 1.961%. Paired t-test shows statistical significance at 5% level ($p<0.05$) establishing the impact of STP on knowledge regarding Mission Indra Dhanush Programme in selected PHC at Bengaluru.31</p>
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		regarding Mission Indradhanush among mothers of under five children with their selected demographic variables.			
18	Susmita Chatterjee (2021)	The incremental cost of improving immunization coverage in India through the Intensified Mission Indradhanush programme.	Research approach: Qualitative approach Research design: Sampling technique: stratified random sample Sample size: 40 Setting: Five states, Assam, Bihar, Maharashtra, Rajasthan and Uttar Pradesh were purposefully selected because of high concentration of IMI activities.	Structured questionnaire.	Considering the study districts of five study states, the incremental average number of doses delivered during all sessions in IMI ranged from 14 353 in Assam to 183 471 in Uttar Pradesh. Similar variation was observed for children vaccinated during IMI. Average children vaccinated during IMI in the study districts was 3784 in Assam; 6219 in Rajasthan; 7690 in Maharashtra; 17 974 in Bihar and 66 619 in Uttar Pradesh. Over the 4-month period of IMI, sampled ANMs in Maharashtra conducted four sessions (1 session per ANM per month); ANMs in Assam conducted six IMI sessions; in Rajasthan eight sessions; in Bihar 10 sessions; and in Uttar Pradesh, 24 sessions on average. These IMI sessions were incremental to ANMs' ongoing routine immunization sessions. ³²
19	Mr. Gireesh s Pillai (2021).	Effectiveness of video assisted teaching program on knowledge regarding mission indradhanush program among the mothers of under five children in the tribal areas . Objectives of the study 1. To assess the knowledge scores regarding Mission Indradhanush Program among the Mothers of under five children in the tribal areas.	Research approach: Quantitative Research Design: Pre experimental study one group pretest posttest design. Sample: Mothers of under five children. Sample technique: purposive sampling technique. Sample size: 30 Setting: Thenmala in Kollam district	Structured interview knowledge questionnaire.	This study concluded that 154 (60.39%) children were fully covered from vaccination and 67 (26.67%) mothers were aware of IMI services. Mothers whose children were fully vaccinated had 59.22% good knowledge, 41.57% positive attitude, and 79.22% proper practice regarding immunization. Lack of awareness to mothers and child illnesses was found to be a major reason for partial vaccination. Average scores of knowledge before and after Video Assisted Teaching Program in the subjects were 6.233 and 12.633 respectively. The computed t' value of knowledge regarding Mission Indradhanush Program was 13.178 with p' value of 0.001 and it was significant at 0.05 level (p.,>0.05). Result also revealed that there was a

		<p>2.To evaluate the effectiveness of Video Assisted Teaching Program on knowledge scores regarding Mission Indradhanush Program among the mothers of under five children in the tribal areas.</p> <p>3. To find out the association between pretest knowledge scores regarding Mission Indradhanush Program among the mothers of under five children in the tribal areas with selected socio demographic variables</p>			<p>significant association between pretest scores of knowledge and selected socio demographic variable like type of family. Hence the result showed that Video Assisted Teaching Program was effective in improving the knowledge of the mothers regarding Mission Indradhanush Program.33</p>
20	Renu Bala at el. (2020)	<p>A study to assess the awareness and utilization of mission indradhanush programme for under 5 years children among mothers</p> <p>Objectives of the study</p> <p>To assess the awareness of Mission Indradhanush Programme for under five year children among mothers of selected rural area of Naraingarh district Ambala (Haryana)</p> <p>2. To assess the utilization of Mission Indradhanush Programme for under five year</p>	<p>Research approach: Quantitative study</p> <p>Research Design Cross sectional study</p> <p>Sample: Mothers of under five children</p> <p>Sampling technique Random sampling</p> <p>Sample size 200 Mothers</p> <p>Setting Naraingarh, District Ambala (Haryana)</p>	self-structured knowledge questionnaire	<p>The majority of the knowledge showed that Majority of the women had excellent level of knowledge ie: (34%) followed by (27%) had good knowledge and (26%) had average knowledge and (13%) were poor level of knowledge.34</p>

		<p>children among mothers of selected rural area of Naraingarh district Ambala (Haryana)</p> <p>3. To find out the association between awareness and utilization of Mission Indradhanush Programme for under 5 year children among mother at selected rural area of Naraingarh district Ambala (haryana) with selected socio demographic variables</p>			
21	Sarojamma (2019).	<p>Effectiveness of structured teaching programme on knowledge regarding mission indradhanush programme (Midp among mothers of under two year children in selected phc's Bengaluru.</p> <p>Objectives of the study</p> <p>1. To assess the level of knowledge regarding Mission Indra Dhanush Programme among mothers of under two years children.</p> <p>2. To evaluate the effectiveness of STP on knowledge regarding Indra Dhanush programme among mothers</p>	<p>Research approach: evaluative approach</p> <p>Research Design: A pre-experimental Study with one group pre-test and posttest design.</p> <p>Sample: Mothers of under two-year children</p> <p>Sampling technique: Non probability purposive sampling technique.</p> <p>Sample size: 50</p>	<p>Self structured questionnaire.</p>	<p>Overall findings showed that pre-test knowledge scores were found to be 24.09 % and after VAT, knowledge of primigravida was enhanced by 71.57 % regarding MIDP. Hence the result has proved that STP was effective in improving the knowledge of mothers of under two year children visiting PHC regarding Mission Indra Dhanush Programme.35</p>

		of two-year children. 3. To find the association between pre-test knowledge score and selected demographic variables among mothers of under two-year children.			
22	Anand Kumar Patidar (2019)	study to assess the awareness and satisfaction level among the beneficiaries regarding Mission Indradhanush in selected districts of Indore division Objectives of the study 1. was to assess the awareness about the Mission Indradhanush and to assess the satisfaction level of beneficiaries regarding Mission Indradhanush	Research Approach Research Design Cross sectional study Sample mothers and Babies less than 2yrs Sampling technique Simple random sampling Sample Size Mothers 25 Babies 182 Setting Districts in Indore	Semi-structured questionnaire	About 88% were aware about the immunization. Overall 78% beneficiaries agreed that vaccination is compulsory, 62% agreed that vaccination schedule should be followed, 30% beneficiaries considered that vaccination was harmful. Most of the beneficiaries were satisfied with behaviour of the health provider, with all key messages given by health provider.36
23	N. N. Abraham SB, Thomas T, Mary RB Abbas H (2019)	Knowledge and perceptions regarding immunization among mothers of under five children: a community study from South Kerala	A cross-sectional study was conducted among 140 women with children less than 5 years. Sample was drawn from the rural and urban field practice areas of a tertiary care teaching hospital.	Interviewer Administered Questionnaire	In the study group 96.4% of the children were fully immunized. Mean score on knowledge regarding immunization among the study population was 6.45 (SD=1.84). Majority (89%) of the mothers agreed on the importance of vaccination. More than half (57.1%) had heard of anti-vaccination campaign and 24.3% were influenced by it at one time or the other. Higher knowledge score was associated with mothers residing in urban area, better occupation of mother and educational status of father. Age of child, sex, religion, type of family did not influence education status of father and mother.37
24	Mr.Arun Unnikrishnan (2019).	Assess the knowledge of under fivemother	Research approach: Quantitative approach. Research design: Descriptive design.	Self structured questionnaire consisting of 25 multiple	2% mothers were having very poor knowledge, 28% mothers were having poor knowledge, 58% mothers were

		<p>regarding mission Indradhanush.</p> <p>Objectives of the study</p> <p>1. To assess the knowledge of under five mother regarding mission Indradhanush.</p> <p>2. To findout the association between knowledge score with their selected demographic variables.</p>	<p>Sample: Mother s of under five children.</p> <p>Sampling technique: Purposive sampling technique.</p> <p>Sample size: 100</p> <p>Setting: Rural of Pilona, Pachpeda, Ikla Rasoolpur, Dabka in Meerut district.</p>	choice questions.	having adequate knowledge, 12% mothers were having good knowledge, 0% mothers were having excellent knowledge.38
25	Ipsa Mohapatra. at el (2018).	<p>A Study on awareness and utilization of Mission Indradhanush in an urban slum of Bhubaneswar.</p> <p>Objectives of the study</p> <p>1. To assess the awareness of the respondents about Mission Indradhanush,</p> <p>2. To assess their attitude and practices regarding childhood immunization, and to determine the association between knowledge and practice with selected variables.</p>	<p>Research approach: Quantitative descriptive approach.</p> <p>Research design: A cross-sectional study</p> <p>Sample: mothers with children aged 12–23 months</p> <p>Sampling technique: Non probability purposive sampling technique.</p> <p>Sample size: 30</p> <p>Setting: urban slums under field practice area of Community Medicine Department, Kalinga Institute of Medical Sciences, Bhubaneswar.</p>	Structured knowledge questionnaire.	<p>Mean age of the children was 17.23 ± 3.43 months; 65% were males and 35% females. Mean age of the respondents was 24.48 ± 3.97 years; 68% were literate and 94% were Hindus. Majority (76%) belonged to upper-lower Kuppuswamy socio-economic status scale. Only 10% had heard about Mission Indradhanush; health worker (90%) being the most common source of information. A total of 91% believed that vaccination prevented disease. A total of 96% believed that immunization was important for their children. A total of 73% had the maternal and child protection card with them. A total of 72% of children were fully immunized. Of the 28% partially vaccinated children, only 12.5% had heard about Mission Indradhanush. Reasons stated for partial immunization were mother too busy, child illness, and lack of information.39</p>
26	Algotar PD, N.Lakshmi (2019).	<p>Process evaluation of mission Indradhanush immunization program in urban and rural communities of Ahmedabad district of Gujarat.</p> <p>Objectives of the study</p>	<p>Research approach. Qualitative approach.</p> <p>Research design: cross-sectional study</p> <p>Sampling technique probability sampling Cluster method</p> <p>Sample size: 30</p> <p>Setting: communities of Ahmedabad district, Gujarat.</p>	Structured survey questionnaire.	<p>All the planned session being held as per micro plan (100%). Due lists of beneficiaries were present at all sites but not updated at 6 (10%) session sites. Mobilizes were present at 58 (96.67%) session sites. ANMs were giving all 4 key messages at 86.67% of session sites. 115 (95.8%) caregivers told source of information was home visits ofASHA/AWW. 66(55.00%) mothers were aware about when</p>

		To evaluate the mission Indradhanush immunization program in urban and rural communities of Ahmedabad district of Gujarat.			to come for next visit and 70 (58.33%) aware about which vaccines were given on MI session day. accepted.40
27	Ruchi Thakur (2018).	The evaluation of immunization coverage under mission Indradhanush: a review. Objectives of the study 1. To evaluate universal immunization coverage, barriers encountered for not achieving the target and problem solving in removing the barriers.	Research approach: This paper is based on the literature review of as sorted articles on MI. Meta-analysis (Pub Med and Google scholar were used to Search the relevant articles). Setting: Manipur, Madhya Pradesh Bihar and south Kerala.	PRISMA tool.	Total 18 studies were reviewed. Most of the study participants belonged to the age group of 12-23 months. Out of 18 studies the minimum sample size was 100, considered in the studies conducted in Bhubaneswar (urban slum) and Uttarakhand, maximum sample size was 108057 considered in district level analytical based study conducted in 601 districts of India. Highest FI status was reported by south Kerala(96.4%) and lowest reported by study conducted in 601 districts of India (57%).41
28	Dr. Bhagyashree Jogdeo (2018)	A study to assess the knowledge regarding immunization among mother's residing in urban areas of Pune city. Objectives of the study 1) To assess the knowledge regarding immunization among mothers. 2) To associates the findings with selected demographic variables	Research approach: Quantitative approach Research design: Non-experimental research design. Sampling technique: non-probability convenient sampling technique Sample size: 200 Sample: Mothers of under five children. Setting: mother's residing in urban areas of Pune city.	Self-structured questionnaire used by the researcher.	Maximum sample 52% were in the age group of 19-25 years Majority of samples 65% were housewife. Maximum sample 50% graduated. Maximum samples 65% are Primigravida. Majority 56% of the sample had good knowledge. Followed by 34% was in excellent knowledge score, 10% of the people had poor knowledge about immunization. accepted.42
29	A. D, Raghupathy N, Sowmiya M, Amudharaj D, Jehangir HM. (2017)	Immunization knowledge, attitude and practice among mothers of children from 0 to 5 years Objectives of the study The purpose of this study was to	Five hundred and one mothers of children from 0 to 5 years of age were included in the study.	Structured Questionnaire	Out of 501 mothers included in the study, the mean age of the mother whose child undergoing vaccination is 25.88+4 years. The predominant mothers have completed higher education and mean annual income was 86,682.00. Birth order of the child showed no significance. Majority of children (62.6%) included in the study were born

		determine the Knowledge, Attitude and Practice (KAP) of mothers regarding their understanding of immunization in rural areas in and around Pondicherry			at Aarupadai Veedu Medical College and Hospital. The results were analyzed through chi square test and they were significant for role of education (p value = 0.000), effect on maternal age (p value = 0.000) and not significant with birth order. Finally, correlating the effect of Delivery Place on antenatal vaccine awareness, Children who were born at ACMCH, showed higher significance rate in the knowledge of Antenatal Vaccine (p value = 0.000), proper dosage to be given (p value = 0.034), primary vaccination (p value = 0.000). Also, they were not aware of special vaccination (p value = 0.025) and the risk of not immunizing their children (p value = 0.016).43
30	Mugada et al. (2017)	Knowledge towards childhood immunization among mothers & reasons for incomplete immunization	<p>Research approach Quantitative Approach</p> <p>Research design Descriptive Observational Study</p> <p>sample Mothers Bearing Children Of Age 3 Years.</p> <p>SettingOutpatient Department Of Paediatrics Government General Hospital, Kakinada.</p> <p>Sample size 377 mothers</p>	A Semi- Structured Questionnaire	<p>The mean age of the mothers in the sample was 24.37 ± 3.85 years. Most of the mothers were unemployed(90.18%). Most of them completed graduation (38.9%) followed by secondary education (27.5%). Around 220 (58.3%) are from urban set up. Around 115 (30.50%) children were partially immunized. Unavailability of vaccine was considered to be the major reason for incomplete immunization. Other reasons for incomplete immunization were unawareness of mother regarding</p>

CHAPTER THREE RESEARCH METHODOLOGY

The research methodology defines what the activity of research is, how it will proceed for the attainment of the goal. The methodological decision paves crucial implications for validity and credibility of the study findings.

The methodology of research indicates the general pattern for organizing the procedure for the empirical study together with the method of obtaining valid and reliable data for an investigation.⁴⁵

This chapter deals with the methodology adopted for assessing knowledge regarding mission indradhanush among mothers of under five children at Selected community area in Haridwar. It includes the description of the research approach, research design, setting of the study, sample and sampling technique, development of data collection tools & questionnaire, procedure for data collection and the plan for data analysis.

Research Approach: Polit and Hungler (1999) explain that research approach means the strength of true experiment over other methods lies in the fact that experimenter can achieve greater confidence in the geniuses and interpretability of relationship because they are observed under careful condition.⁴⁶

The research approach refers to the way in which the researcher plans and constructs in research process. In the present study the researcher also used a Descriptive approach to assess the knowledge regarding mission indradhanush and also evaluated the association of knowledge level with demographic variables.⁴⁷

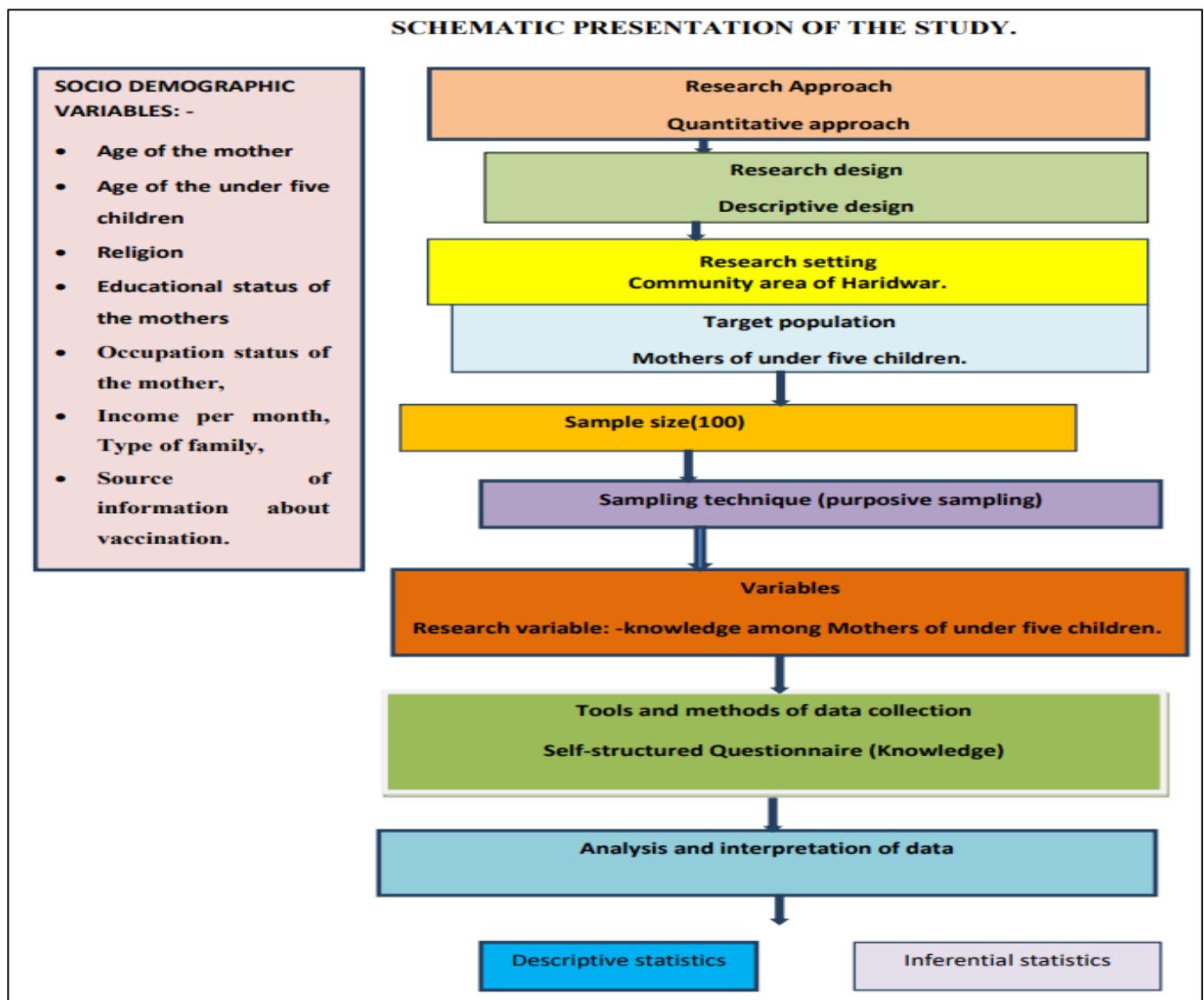


Fig 2 The Schematic Representation of Research Design

➤ *Research Approach*

Quantitative approach was used for the present study

➤ *Research Design:*

Descriptive design was used in the study. The research design helps the researcher in the selection of subjects, manipulation of experimental variables, testing the research hypothesis procedure of data collection and types of statistical analysis to be used to interpret the data.

➤ *Setting of the Study*

The study was conducted among the mothers of under five children of community area at Haridwar

➤ *Population:*

The population of the study includes the mothers of under five children of community area at, Haridwar.

• *Sample Size:* The sample size for the present study was 100.

• *Sample:* Mothers of under five children (100) were selected by convenient sampling technique.

• *Sampling techniques:* Purposive sampling technique were used for this study.

• *Inclusion Criteria:*

✓ Mothers of under five children staying in community at Haridwar.

✓ Those who were present at the time of data collection.

✓ Who were able to understand and respond in English /Hindi

• *Exclusion Criteria*

✓ Normal mothers of children of above 5 years of age.

✓ Those who were not willing to participate as a study participant.

✓ Those mothers who were absent during data collection procedure.

• *Variables:*

✓ Research variable: Knowledge of Mothers of under five children.

➤ *Development of Tool*

An extensive study and review of literature helped in preparation of the tool. A validated tool and a self-structured questionnaire is used as the tool for this study.

• Description of the tool Part I: - This part contains items such as demographic data which include Age of the mother, Age of the under five children, Religion, Educational status of the mother, Occupation status of the mother, Income per month, Type of family, Source of information about vaccination.

• Part II: -A self-structured questionnaire was used to assess the knowledge of mission indradhanush among mothers of under five children. Total 15 multiple choice questions. Each question carries '1' mark and, each wrong answer carries '0' mark.

The total score is '15'. Test-retest method was used to test reliability of structured knowledge questionnaire and the value was 'r = 0.8'.

➤ *Content validity:*

The tool was given to 5 experts in the field of child health nursing. All the comments and the suggestions given by the experts were duly considered and corrections were made after discussion with the research guide. Reliability Test-retest method was adopted to make sure the reliability of the tool. The value was 0.8 for knowledge. The tool is reliable for the selected population.

➤ *Pilot Study*

Pilot study was conducted among ten mothers of under five children in the community of Haridwar to identify the reliability of tool and feasibility of the study. The total sample size was 10 in community area of Haridwar. The sample for pilot study was selected on the basis of inclusion criteria after getting permission from the administrator of the college. Pre-test was conducted by using the knowledge questionnaire After that the booklet was distributed to the mothers of under five children regarding mission

indradhanush. The pilot study report showed that there was a majority of mothers (70%) was having average knowledge, 25 per cent having

poor knowledge and very few (5%) having good knowledge. increase in the knowledge towards mission indradhanush among mothers of under-five. It was found to be appropriate and feasible conduct the main study.

➤ *Data Collection Procedure*

After getting official permission from our principal. The researcher met the mothers of under five children residing in community area at Haridwar. Introduction given and their co-operation was obtained. The study was conducted after winning the confidence of the mothers, using the self-structured questionnaire schedule a pre-test was conducted for the selected mothers of under five children. After the pre-test information booklet regarding mission indradhanush was distributed.

➤ *Ethical Consideration:*

- Written permission was taken from the principal of Shri swami Bhumanand college of nursing Haridwar.
- Ethical clearance was obtained from the ethical committee of Shri swami Bhumanand College of nursing Haridwar.
- An informed written consent was taken from each study sample.

➤ *Plan of Data Analysis:*

The analysis of the data was done in accordance with objectives. The investigator adopted descriptive and inferential statistics to analyze the data. The demographic variables were analyzed by using frequency distribution and percentage. Pre-test scores were computed on the basics of paired' test.

➤ *Summary:*

This chapter deals with the research design, research setting, target population, sample and sampling technique, inclusion and exclusion criteria, description of tool, validity of tool, ethical consideration, Pilot study, reliability of tool, data collection procedure, and plan of data analysis as a methodology used in Descriptive study to assess the knowledge regarding mission indradhanush among under five children in community area at Haridwar.

CHAPTER FOUR DATA ANALYSIS & INTERPRETATION

➤ *Analysis and Interpretation of Data*

Analysis and interpretation were done in accordance with the objectives laid down for the study. The purpose of analysis is to reduce the data into an interpretable and meaningful form so that the result can be compared and significance can be identified. This chapter deals with the analysis and interpretation of data collected from mothers of under five children. The data was analyzed by calculating the score in terms of frequency, percentage, mean, standard deviation, yates correction, and paired t 'test.

➤ *Objectives of the Study Were*

- To assess the knowledge of mothers of under-five children regarding Mission Indradhanush in Selected Community Areas in Haridwar
- To find out the association between mothers' knowledge level and their selected demographic variables in Selected Community Areas in Haridwar
- To develop an information booklet based on the findings to enhance awareness about Mission Indradhanush among mothers of Under-Five Children in Selected Community Areas in Haridwar

➤ *Plan of Analysis:*

Analysis and interpretation of data was done according to the objectives using descriptive and inferential statistics. The level of significance chosen was at $p \leq 0.05$.

➤ *Organization of Analyzed Data:*

The analyzed data was organized according to the objectives and presented under the following sections.

➤ *Section-A*

Description of demographic profile of Mothers of under five children. This section describes the demographic characteristics of the sample of Mothers of under five children under study. The data obtained describes the characteristics pertaining the age of the mother, Age of the under five children Religion, educational status of the mother, Occupation status of the mother, Income per month, Type of family, Source of information about vaccination.

➤ *Distribution of Socio Demographic Variables Among Mothers of Under Five Children.*

Table 1 Frequency and Percentage Distribution of Demographic Variables Among Mothers of Under Five Children.

S.NO	DEMOGRAPHIC VARIABLES	FREQUENCY (F)	PERCENTAGE (%)
1	Age of mothers in year		
	A) 20-25	36	36%
	B) 26-30	41	41%
	C) Above 30	23	23%
2.	Age of under five children		
	A) 0-12 months	7	7%
	B) 1 year-2 years	26	26%
	C) 2 – 3 years	37	37%
	D) 4 - 5 years	30	30%
3.	Religion		
	A) Hindu	61	61%
	B) Muslim	31	31%
	C) Christian	5	5%
	D) Sikh	3	3%
4.	Educational status of the mother		
	A) Primary education	10	10%
	B) Secondary education	15	15%
	C) Under graduate	30	30%
	D) Post graduate and above.	45	45%
5.	Occupational status of the mother		
	A) Daily Wage earner	5	5%
	B) Private employee	32	32%

	C) Government employee	13	13%
	D) Business	50	5
6.	Income per month		
	A) Rs.<10,000/-	11	11%
	B) Rs. 10,001 – 20,000/-	17	17
	C) Rs.20, 001-30,000/-	26	26%
	D) Rs.30, 001- 40,000/-	38	38%
	E) Rs.40, 001- and above	8	8%
7	Type of family		
	A) Nuclear	52	52%
	B) Joint	44	44%
	C) Extended	4	4%
8.	Source of information about vaccination		
	A) Mass media	5	5%
	B) Health care personnel	88	88%
	C) Relatives	6	6%
	D) Friends	1	1%
	E) Family members	0	0%

The data presented in the above table 2 showed that majority (48 %) of participants were in the age of 26 to 30 years, 36 per cent were in the age group of 20-25 years. Age of under five children, majority (37%) were in the age group of 2-3 years, 30 per cent were in the age group of 4-5 years, 61 per cent of mothers adhering to Hinduism, 45 per cent studied up to Post graduate and above and occupation of mothers, majority (50%) doing Business, family income per month, majority (38%) belongs to income group of 30,001 – 40,000 per month. fifty-two per cent belongs to nuclear family and source of information, majority (88%) heard about Mission Indradhanush through health personnel.

➤ Section-A

Socio Demographic Variables Among Mothers of Under Five Children.

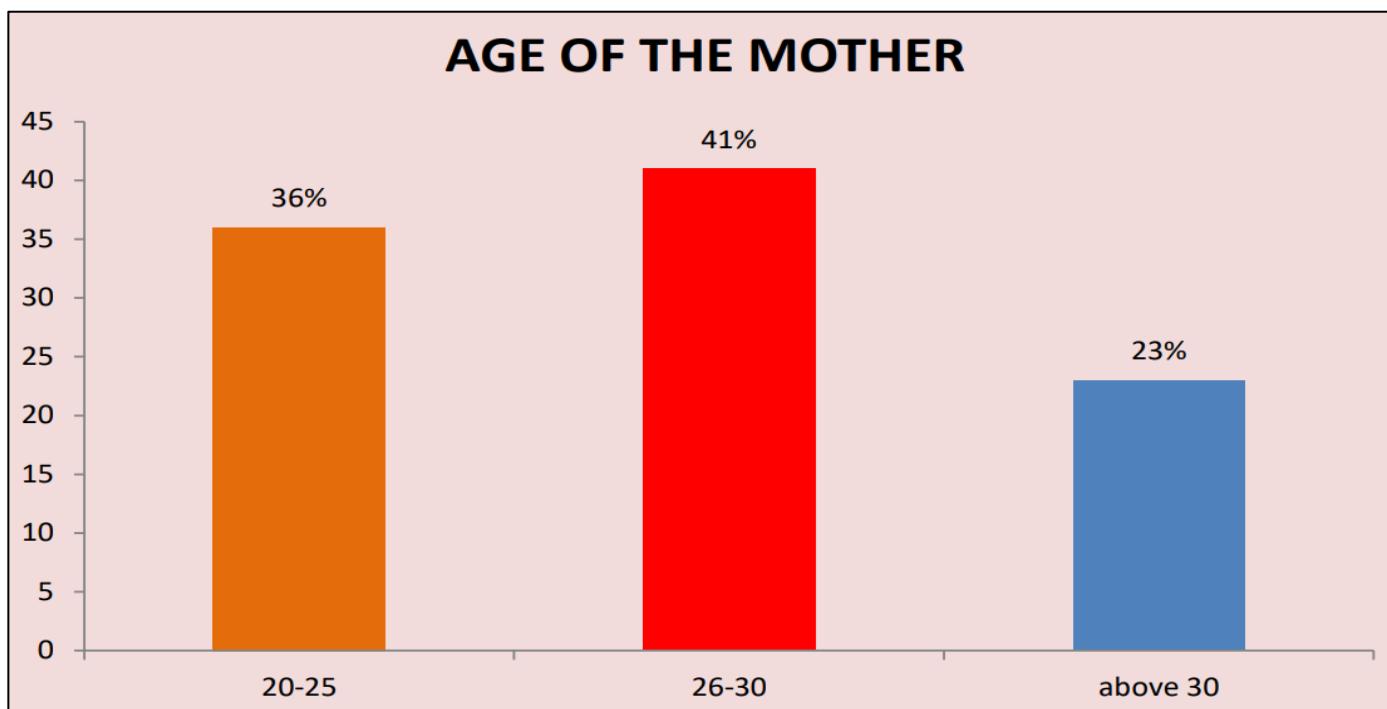


Fig 3 Bar Diagram Showing Percentage Distribution According to Age of Mother of Under Five Children

The bar diagram shows that the majority (41%) of mothers are in the age group of 26-30 years, followed by 36% in the age group of 20-25 years, and 23% above 30 years. The bar diagram effectively illustrates the age distribution of mothers of under-five children, with the majority falling within the 26-30 years age range. The data suggests that most mothers in this demographic are relatively young, with a significant proportion between 20 and 30 years old.

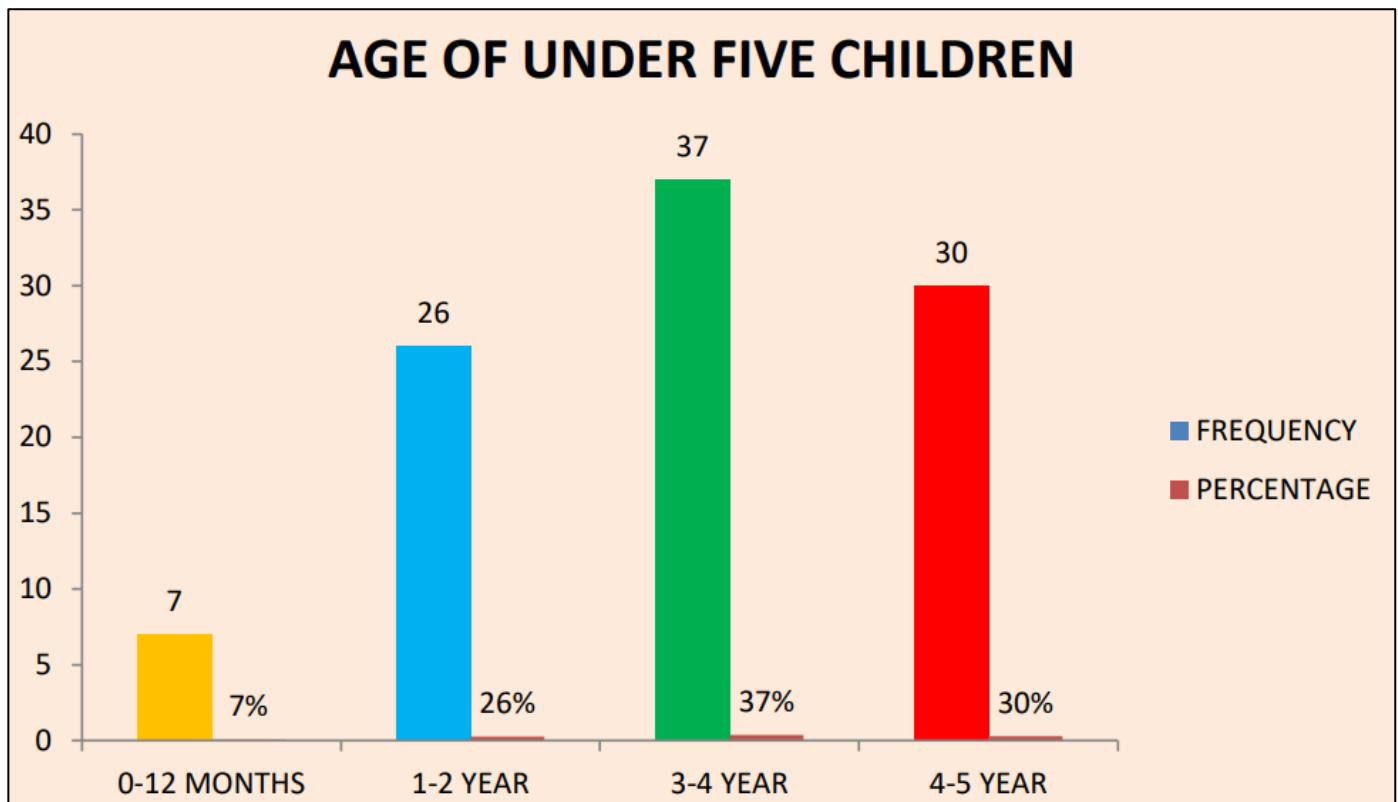


Fig 4 Bar Diagram Showing Percentage Distribution According to Age of Under Five Children

The bar diagram provides a clear representation of the age distribution of under-five children. The data shows that the majority of children (37%) fall within the 3–4-year age group, followed by 30% in the 4–5-year age group, 26% in the 1–2-year age group, and 7% in the 0–12-month age group. The total frequency is 100, indicating that the data is likely based on a sample size of 100 children.

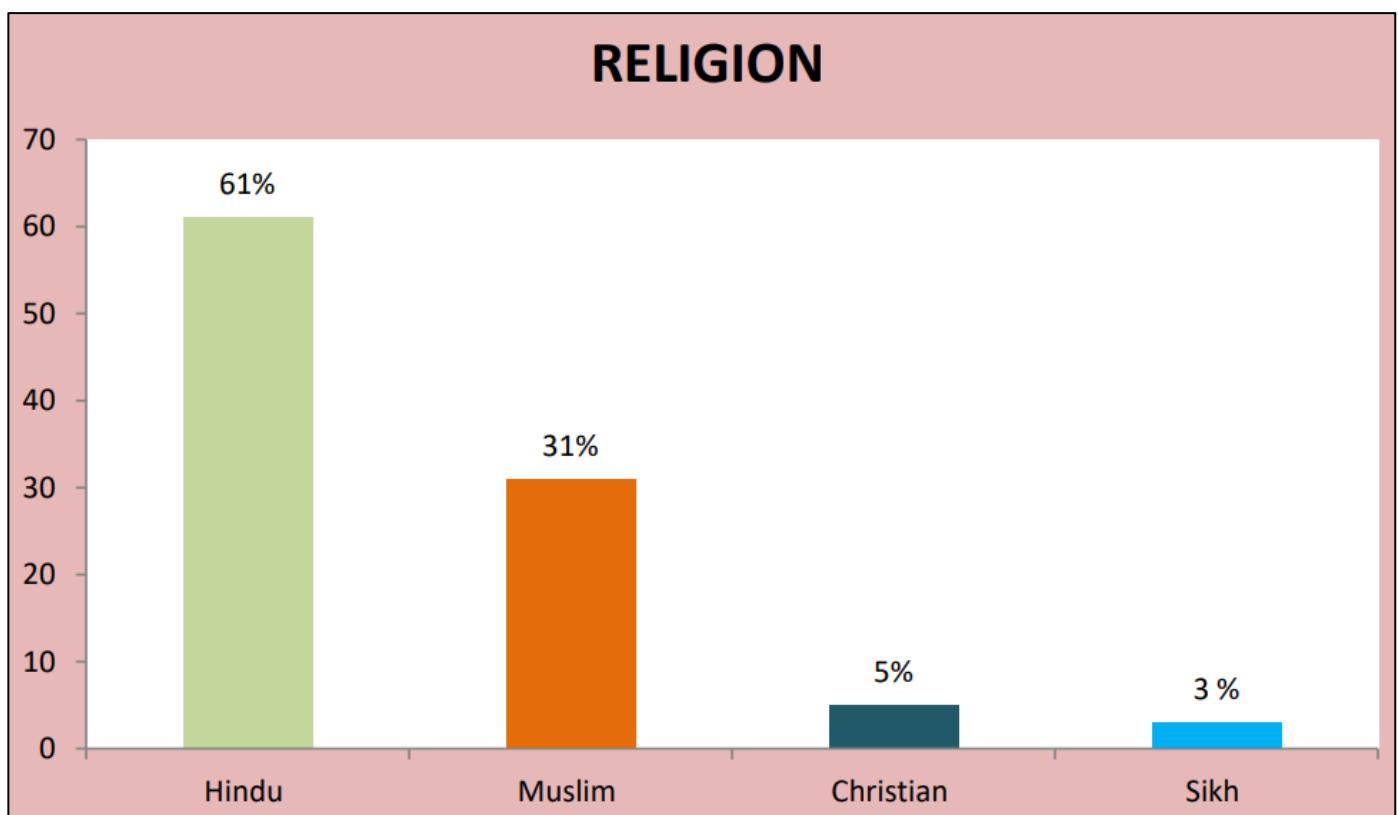


Fig 5 Bar Diagram Showing Percentage Distribution According to Religion of Mother of Under Five Children

The diagram shows that the majority of children under five (61%) have mothers who identify as Hindu. The second-largest group consists of children whose mothers are Muslim, accounting for 31%. Christian and Sikh mothers make up smaller percentages, with 5% and 3%, respectively. The bar diagram provides a clear visual representation of the religious distribution of mothers of children under five.

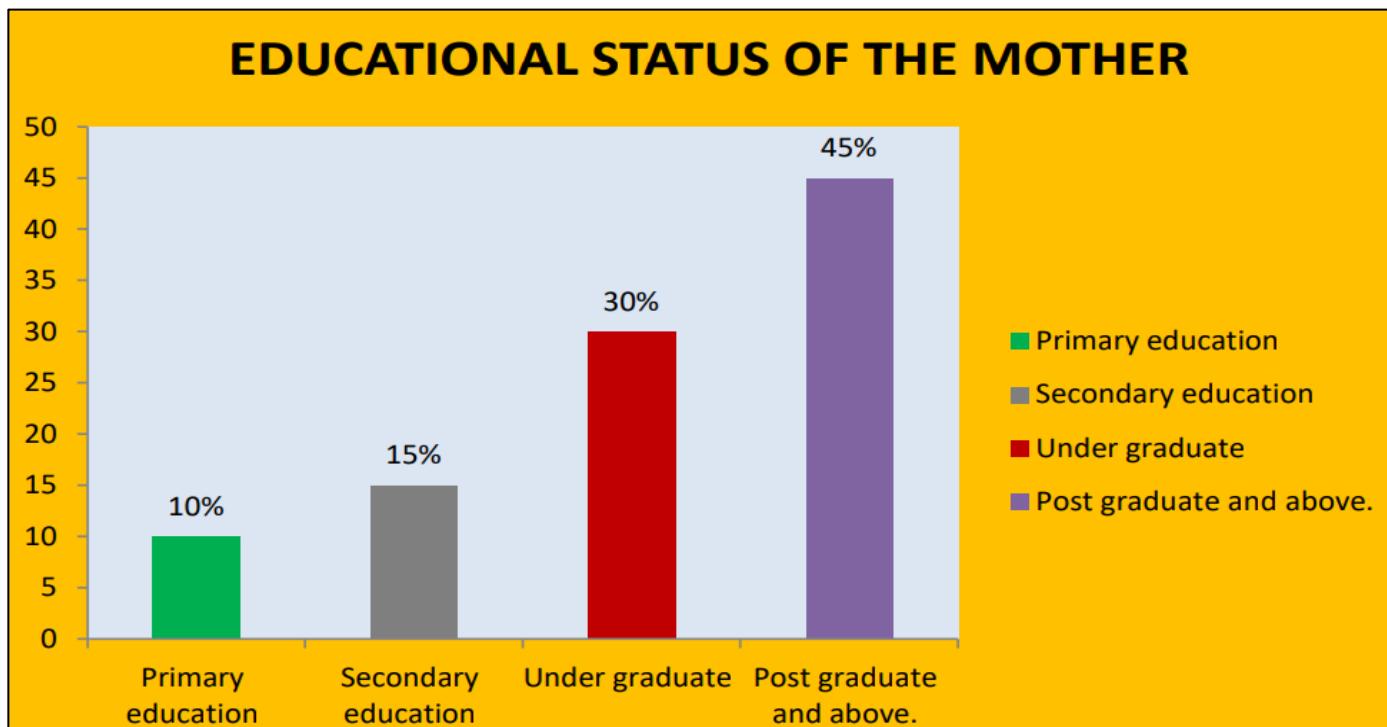


Fig 6 Bar Diagram Showing Percentage Distribution According to Educational Status of Mother of Under Five Children

The diagram provides a clear visual representation of the educational status of mothers with children under five. The data indicates that 10% of mothers have primary education. 15% have secondary education. 30% are undergraduates. 43% are postgraduates or have higher qualification.

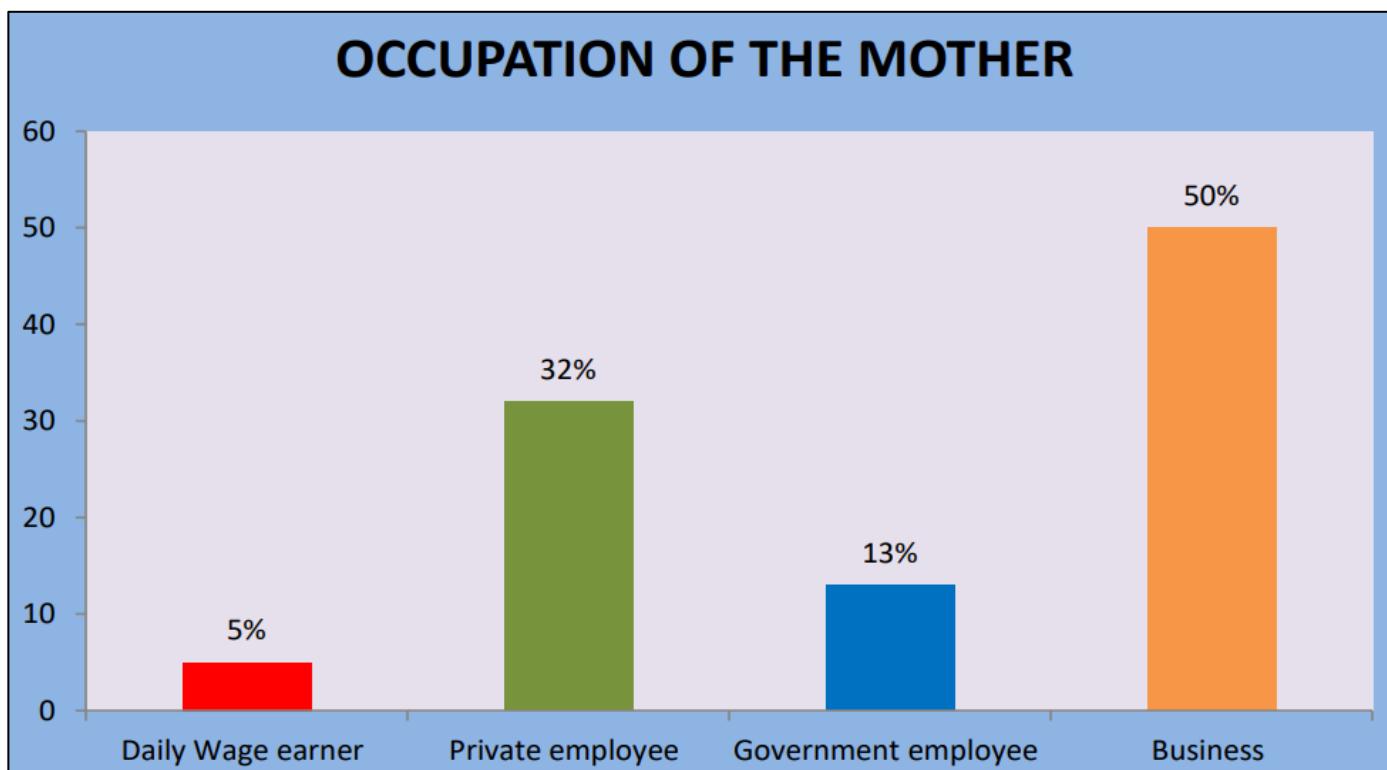


Fig 7 Bar Diagram Showing Percentage Distribution According to Occupation of Mother of Under Five Children

The majority of mothers (50%) are engaged in business. Private employees constitute the second-largest group, accounting for 32% of the total. Government employees make up 13% of the mothers. Daily wage earners represent the smallest proportion; at 5%. The bar diagram provides a clear visual representation of the occupational distribution among mothers of young children. The data suggests that a significant proportion of these mothers are involved in business activities, followed by those working as private employees. This information can be useful for understanding the demographic characteristics of this population and informing policies or interventions aimed at supporting them.

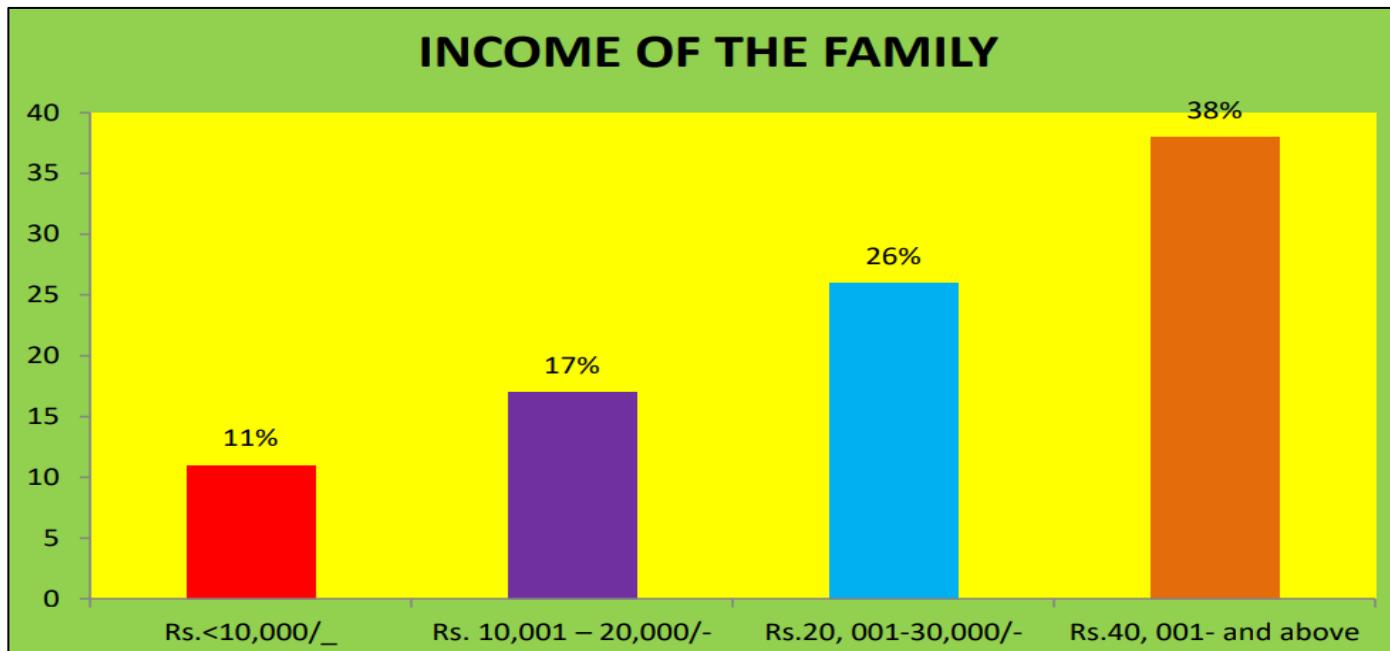


Fig 8 Bar Diagram Showing Percentage Distribution According to Income of the Family

The majority of families (46%) have an income of Rs. 40,001 and above. The second-largest group (26%) falls within the Rs. 20,001 to Rs. 40,000 income bracket. A smaller percentage (17%) of families earn between Rs. 10,001 and Rs. 20,000. The lowest percentage (11%) is observed among families with incomes less than Rs. 10,000.

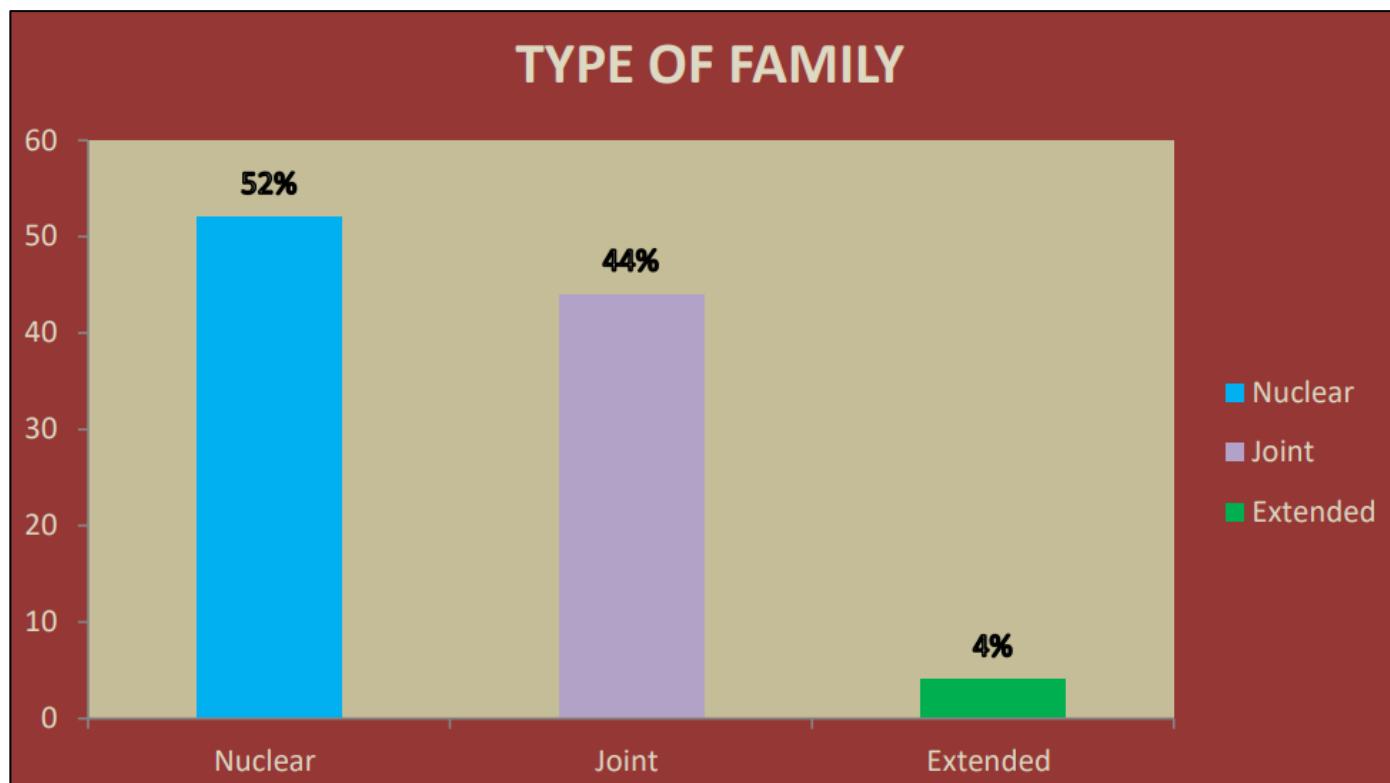


Fig 9 Bar Diagram Showing Percentage Distribution According to Type of Family

The bar diagram provides a clear visual representation of the distribution of different types of families. The data indicates that: The majority of families (52%) are nuclear. A significant proportion (44%) of families is joint. A small percentage (4%) of families is extended.

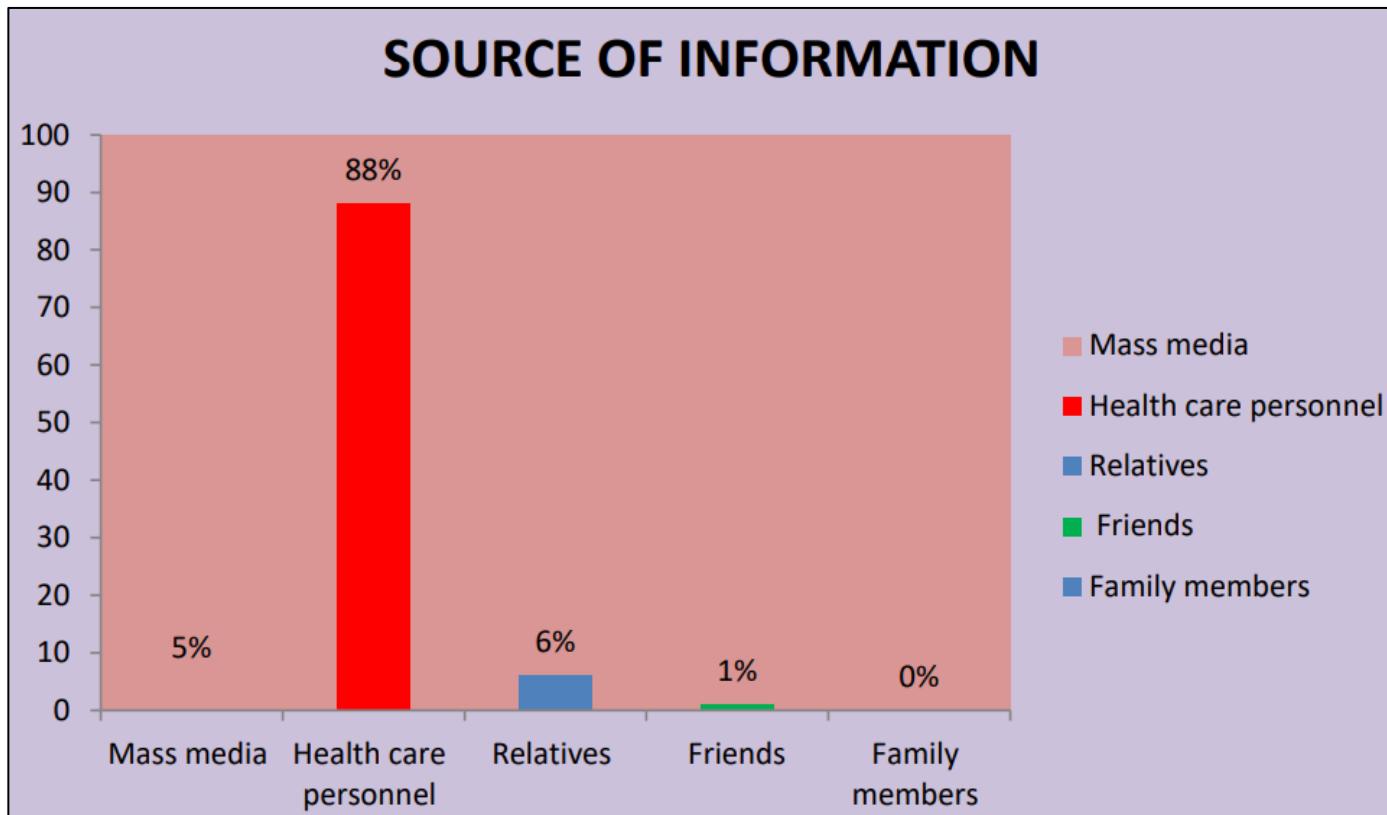


Fig 10 Bar Diagram Showing Percentage Distribution According to Source of Information of Mother of Under Five Children

The majority of mothers (90%) rely on health care personnel as their primary source of information. Relatives are the second most common source, accounting for 6% of the total. Friends contribute 1% to the overall distribution. Mass media and family members are not significant sources of information, with both registering at 0%.

➤ SECTION: B

DISTRIBUTION OF LEVEL OF KNOWLEDGE REGARDING THE MISSION INDRADHANUSH AMONG MOTHERS OF UNDER FIVE CHILDREN

Table 2 Frequency and Percentage Distribution, Mean and Standard Deviation of Level of Knowledge Regarding the Mission Indradhanush Among Mothers of Under Five Children

Knowledge regarding the Mission Indradhanush among mothers of under five children	Frequency (f)	Percentage (%)	Mean (X)	Standard Deviation (σ)
Inadequate (<50%) (<5)	21	21		
Moderately adequate (51-75%) (5-10)	49	49		
Adequate (>76%) (10-15)	30	30	2.09	0.7
Total	100	100		

The data presented in the above table 2 showed that 49 Per cent of mothers of under five children had moderately adequate knowledge, 30 per cent of mothers of under five children were had adequate knowledge and remaining (21%) had the inadequate knowledge regarding mission Indradhanush (MI). Mean(X) knowledge score was 2.09 and standard deviation (σ) was 0.7.

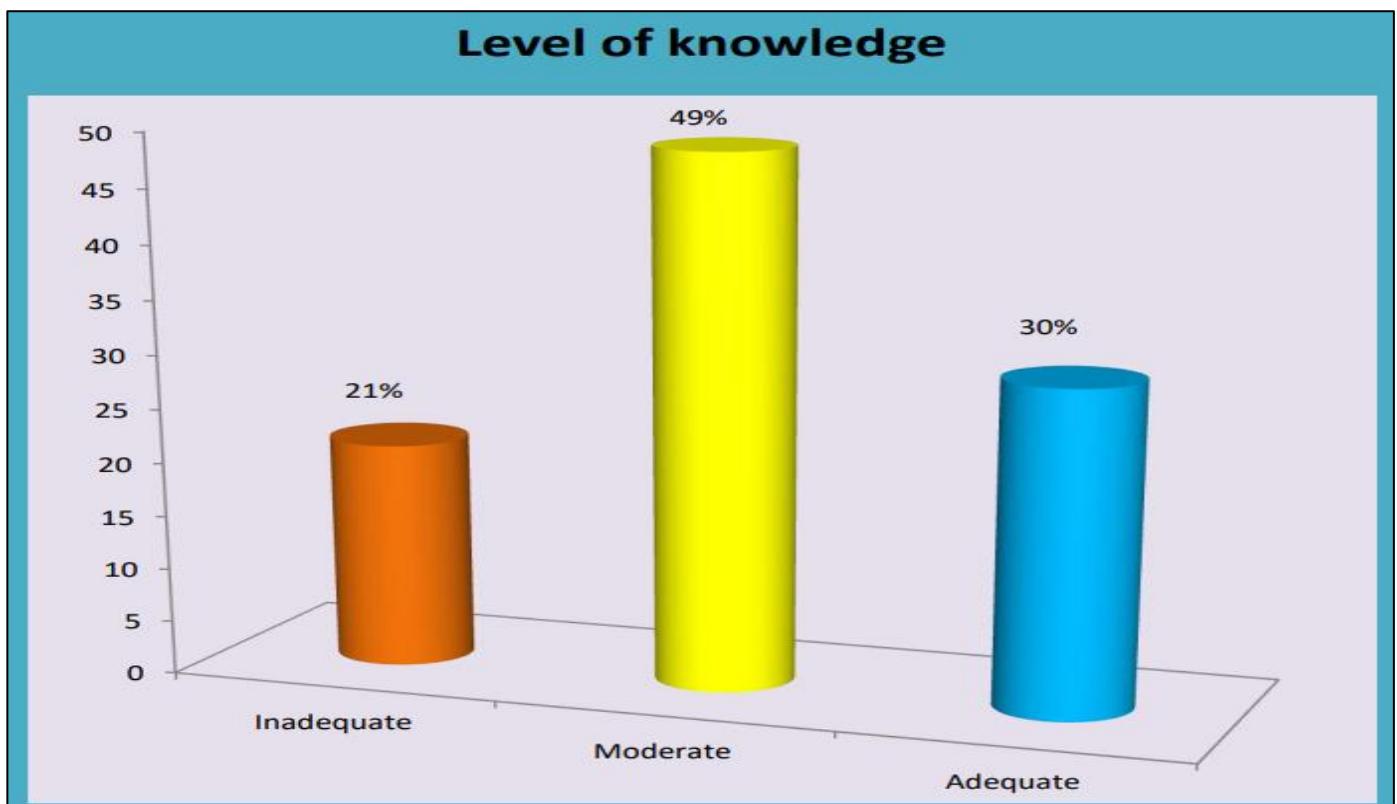


Fig 11 Distribution of Level of Knowledge Regarding the Mission Indradhanush Among Mothers Under Five Children.

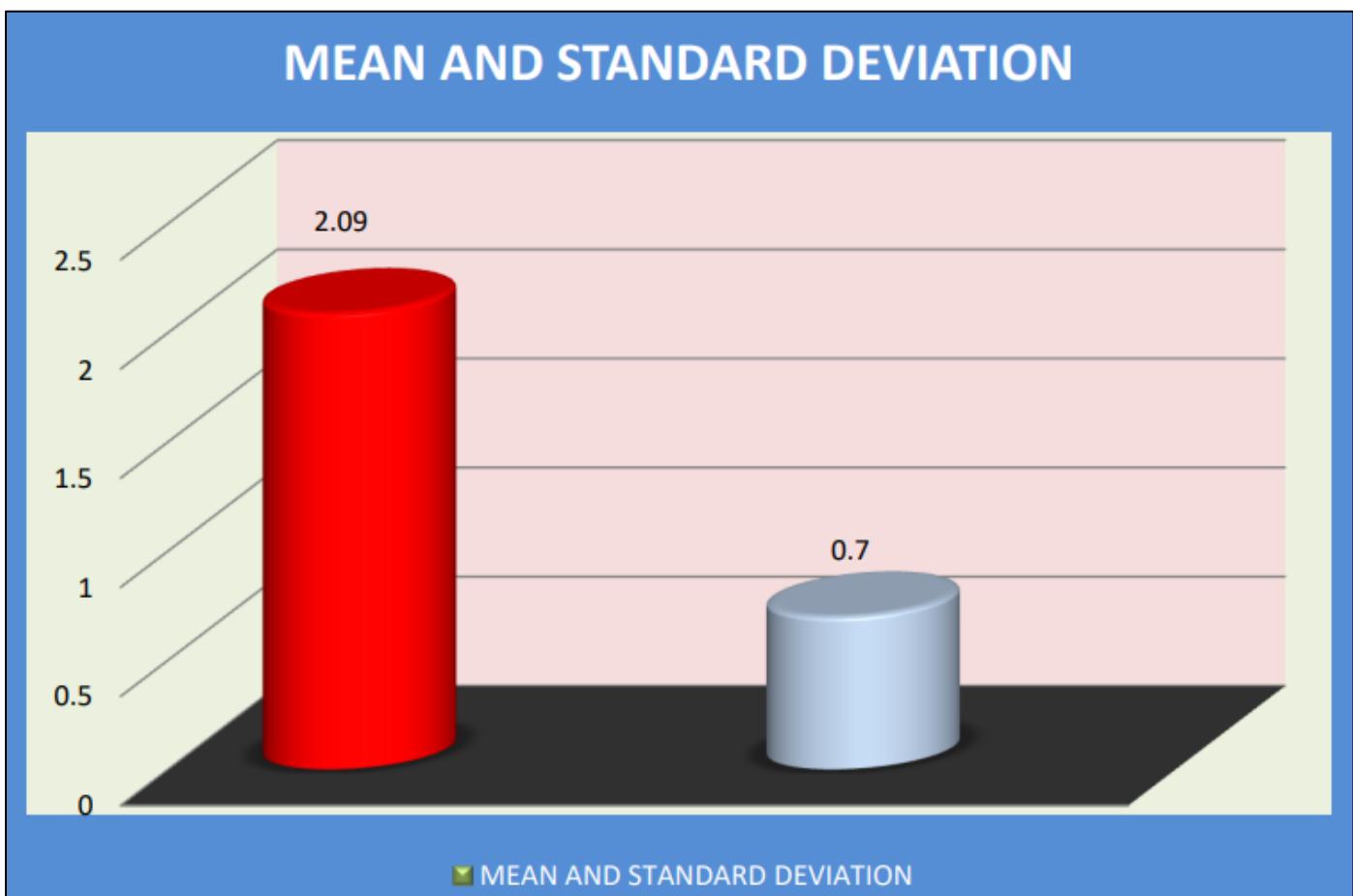


Fig 12 Distribution of Mean and Standard Deviation Regarding the Mission Indradhanush Among Mothers of Under Five Children.

➤ SECTION:C

ASSOCIATION BETWEEN SOCIO DEMOGRAPHIC VARIABLES WITH LEVEL OF KNOWLEDGE REGARDING THE MISSION INDRADHANUSH AMONG MOTHERS OF UNDER FIVE CHILDREN.

Table 3 Association of knowledge Regarding Mission Indradhanush Among Mothers of Under Five Children with Their Socio-Demographic Variable.

S.No	Demographic Variables	Knowledge regarding Mission Indradhanush						Yates χ^2) Level Of Association	
		Inadequate		Moderate		Adequate			
		<50%		adequate		>75%			
				51-75 %					
		F	%	F	%	F	%		
1	Age of mothers in year								
	20-25	4	19	20	41	12	40		
	26-30	11	52	19	39	11	37	$\chi = 3.01$	
	Above 30	6	29	10	20	7	23	P = 9.49	
	Total	21		49		30			
								df =4	
2	Age of under five children							$\chi = 3.83$	
	0-12 months	1	5	4	8	2	7	P = 12.59	
	1 year-2 years	8	38	10	20	8	27		
	2 – 3 years	5	24	22	45	10	33		
	4 - 5 years	7	33	13	27	10	33		
	Total	21		49		30			
3	Religion								
	Hindu	11	52	27	55	23	77	$\chi = 1.22$	
	Muslim	8	38	19	39	4	13	P = 12.59	
	Christian	0	0	2	4	3	10		
	Sikh	2	10	1	2	0	0		
	Total	21		49		30			
4	Educational status of the mother							$\chi = 5.57$	
	Primary education	2	10	4	8	4	13	P = 12.59	
	Secondary education	4	20	9	18	2	7		
	Under graduate	7	33	17	35	6	20		
	Post graduate and above.	8	38	19	39	18	60		
	Total	21		49		30			
5.	Occupational status of the mother							$\chi = 15.3$	
	Daily Wage earner	1	5	1	2	3	10	P = 15.51 Df=8	
	Private employee	2	10	22	45	8	27		
	Government employee	2	10	7	14	4	13		
	Business	16	75	19	39	15	50		
	Total	21		49		30			
6.	Income per month							$\chi = 8.46$	
	Rs.<10,000/-	4	20	6	12	1	3	P = 0.34	

	Rs. 10,001 – 20,000/-	6	29	7	14	4	13	df =8
	Rs.20, 001-30,000/-	5	24	11	22	10	33	
	Rs.30, 001- 40,000/-	4	20	22	45	12	40	
	Rs.40, 001- and above	2	10	3	6	3	10	
	Total	21	49	30				
7.	Type of family							$\chi^2 = 6.76$
	Nuclear	8	38	26	53	18	60	P = 9.49
	Joint	13	62	19	39	12	40	
								df =4
	Extended	0	0	4	8	0	0	
	Total	21		49		30		
8.	Source of information about vaccination							
	Mass media	2	10	3	6	0	0	$\chi^2 = 11.26$
	Health care personnel	16	75	45	92	27	90	P = 15.51
	Relatives	2	10	1	2	3	10	
								df =8
	Friends	1	5	0	0	0	0	
	Family members	0	0	0	0	0	0	
	Total	21		49		30		

*Significant at 0.05 level, **significant at 0.01 level

The data presented in the above table 4 showed that there is a statistically significant association (0.01 level) between knowledge regarding Mission Indradhanush with religion and occupational status of the mothers at <0.05 level. Other socio demographic variables like age of mother, age of under five children, mother education, income and Source of information about vaccination, were not shown any significant association with the knowledge on Mission Indradhanush.

CHAPTER FIVE DISCUSSION CONCLUSIONS, NURSING IMPLICATION, LIMITATIONS & RECOMMENDATION

➤ *Discussion*

The first objective was to assess the knowledge regarding Mission Indradhanush among mothers of under five children. The study finding revealed that 49 Per cent of mothers of under five children were having moderately adequate knowledge, 30 per cent of mothers of under five children were having adequate knowledge and remaining (21%) have the inadequate knowledge regarding MI. The findings of the present study was supported by Sujita et al (2017) conducted a non-experimental survey to assess the level of knowledge regarding immunization among 200 mothers of under five children and associate the findings with the selected demographic variables in selected area of Pune city.

The study results showed that majority of mothers (70%) was having average knowledge, 25 per cent having poor knowledge and very few (5%) having good knowledge. There is also association between educations of mother's knowledge regarding immunization. The study further concluded that mothers know the importance of immunization, but they have knowledge deficiency about mission indradhanush. The second objective was to find out the association between the knowledge regarding Mission Indradhanush among mothers of under five-year children with their selected socio-demographic variable.

The study revealed that there was a statistically significant association (<0.01 level) between knowledge regarding Mission Indradhanush with religion and occupational status of the mothers at <0.01 level. The findings of the present study were supported by Sujita et al (2017) conducted a non-experimental survey to assess the level of knowledge regarding immunization among 200 mothers of under five children and associate the findings with the selected demographic variables in selected area of Pune city.

The study results showed that majority of mothers (70%) was having average knowledge, 25 per cent having poor knowledge and very few (5%) having good knowledge. There is also association between education of mother's knowledge regarding immunization. The study further concluded that mothers knows the importance of immunization, but they have knowledge deficiency about some vaccine like BCG, DPT, doses of hepatitis B and vitamin A vaccination.

This highlights the need for targeted awareness strategies focusing on illiterate and socio-economically disadvantaged groups. The development and distribution of an information booklet serves as an effective tool to bridge knowledge gaps and promote full immunization coverage, thus aligning with national health goals

• *Nursing Implications*

Nursing professionals, especially community health nurses, play a vital role in promoting maternal and child health. The implications of this study can be viewed under four major domains:

• *Nursing Practice*

Community health nurses should actively participate in health education programs for mothers of under-five children regarding immunization and Mission Indradhanush. Nurses can utilize the information booklet as a practical tool for counselling during home visits, antenatal clinics, immunization sessions, and village health and nutrition days (VHNDs). Nurses should identify mothers with low literacy levels and use simple, pictorial, and culturally appropriate IEC materials.

• *Nursing Education*

Nursing curriculum should emphasize preventive and promotive aspects of immunization, including current government initiatives such as Mission Indradhanush. Nursing students should be trained in community mobilization and effective communication skills to address myths and misconceptions regarding vaccines. Health education strategies should be integrated into clinical postings, particularly in community and maternal-child health nursing.

• *Nursing Administration*

Nurse administrators should ensure regular training programs for staff nurses, ANMs, and ASHAs regarding Mission Indradhanush and other immunization initiatives. Adequate allocation of resources (educational materials, manpower, logistics) should be ensured for smooth implementation of immunization drives. Policies may be framed to monitor and evaluate the effectiveness of IEC activities during immunization campaigns.

• *Nursing Research*

The present study provides a baseline for further research on knowledge, attitudes, and practices of mothers regarding immunization. Nurse researchers can develop and test innovative IEC tools (mobile apps, videos, community plays) for improving awareness. Comparative studies may be conducted across different districts or states to evaluate regional differences in immunization knowledge and practices

➤ *Limitations of the Study*

- The study was limited to 100 mothers of under-five children from selected community areas in Haridwar, which restricts generalizability.
- The study assessed only knowledge of mothers and did not explore their practices or attitudes towards immunization.
- Data was collected using a structured questionnaire, which may be influenced by recall bias or socially desirable responses.
- The study focused only on Mission Indradhanush and not on other immunization programs or private sector contributions.

➤ *Recommendation*

This chapter presents a concise summary of the entire research project, encompassing the study's findings, the conclusions drawn from them, and the implications for nursing practice, education, administration, and future research. It also outlines the limitations encountered during the study.

- The study may be replicated using larger population.
- A similar kind of study can be undertaken in different settings (eg. Tribal and hilly areas, construction sites etc.)
- Educational programme may be designed for mothers, Anganwadi workers, health workers, school teachers, panchayat members and social workers to disseminate knowledge regarding Mission Indradhanush.

➤ *Summary*

The present study, entitled “A Descriptive Study to Assess the Knowledge Regarding Mission Indradhanush Among Mothers of Under-Five Children in Selected Community Areas in Haridwar, with a View to Develop an Information Booklet” was undertaken to evaluate the awareness and understanding of a key government health initiative among its primary beneficiaries.

➤ *Conclusion*

In this study most of the mothers of under five children had moderately adequate knowledge regarding Mission Indradhanush. There was statistically significant association between the socio demographic variables like religion and occupational status of the mothers with the level of knowledge at <0.01 level. These findings suggested that mothers of under five children need to improve their knowledge regarding Mission Indradhanush and prevent of VPD among under five children for overall wellness of child health.

ACKNOWLEDGEMENTS

I express my sincere gratitude to the authorities of Shri swami Bhumanand College of Nursing and all the subjects from community areas of Haridwar for their support and without whose substantial help and co-operation, this study would not have been accomplished.

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➤ *Other References:*

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ANNEXURES



SHRI SWAMI BHUMANAND COLLEGE OF NURSING

(Run by - Shri Swami Bhumanand Dharmarth Chikitsalaya & Research Institute)

N.H.-334, Ranipur Jhal, Jwälapur, Haridwar-279407

www.ssbcon.com, Email : admin@bhumanand.com

Contact No. : 8477996565, 6399000532, 6396248868

संस्थापक/अध्यक्ष : शंकरं शंकराचार्य अनन्तश्री विभूषित स्वामी अच्युतानन्द तीर्थ जी महाराज

Ref : S.S.B.C.O.N./2024/6427

Date : 12/07/2024

ETHICAL COMMITTEE

- Prof. S. Angayarkanni
(Chairperson)
- Mr. Niju Joy
(Secretary)

Members

- Mrs. K. Helen Rani
(Dean, Academics)
- Mrs. Amali Mery
(Professor)
- Ms. Sonam Kalra
(Associate Professor)
- Ms. Rajni Devi
(Associate Professor)
- Mrs. Aarti
(Associate Professor)
- Mr. Sant Lal Shah
(Administrative Officer)

The Ethical Committee has discussed in the meeting held in the month of July 2024, and approved all the M.Sc. Nursing students Dissertation protocols as per list attached.


(Prof. S. Angayarkanni)
Shri Swami Bhumanand College of Nursing
NH-334, Ranipur Jhal, Jwälapur, Haridwar (U.K.)

Recognized by- ★ Indian Nursing Council, New Delhi

Approved by - ★ Uttarakhand Nurses & Midwives Council, Dehradun

Affiliated to - ★ H.N.B. Uttarakhand Medical Education University, Dehradun



SHRI SWAMI BHUMANAND COLLEGE OF NURSING

(Run by - Shri Swami Bhumanand Dharmarth Chikitsalaya & Research Institute)

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Contact No. : 8477996565, 6399000532, 6396248868

संस्थापक/अध्यक्ष : शंकर शंकराचार्य अनन्तश्री विभूषित स्वामी अच्युतानन्द तीर्थ जी महाराज

Ref : S.S.B.C.O.N./2025/6926

Date : 23/05/2025

To,

Subject: - Permission letter regarding data collection

This is to state that Mr. Anirudh Nair student of M.Sc Nursing 2nd year are undertaking a research project on the topic "**A Descriptive study to assess the Knowledge Regarding Mission Indradhanush Among Mothers of Under- Five Children in Selected Community Area in Haridwar With a View to Develop an Information Booklet.**" The study is non-invasive in nature. Written Informed consent will be taken from study participants before data collection. I permit his to conduct the study on given topic in Shri Swami Bhumanand College of Nursing, Haridwar, Uttarakhand.


For
Principal
Principal

Shri Swami Bhumanand College of Nursing
NH-334, Ranipur Jhal, Jwalapur, Haridwar (U.K.)

Recognized by- ★ Indian Nursing Council, New Delhi
Approved by - ★ Uttarakhand Nurses & Midwives Council, Dehradun
Affiliated to - ★ H.N.B. Uttarakhand Medical Education University, Dehradun



SHRI SWAMI BHUMANAND COLLEGE OF NURSING

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Contact No. : 8477996565, 6399000532, 6396248868

संस्थापक/अध्यक्ष : शंकर शंकराचार्य अनन्तश्री विभूषित स्वामी अच्युतानन्द तीर्थ जी महाराज

Ref : S.S.B.C.O.N. / 2025/6927

Date : 23/05/2025

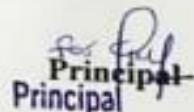
To,

Subject: - Permission regarding Pilot Study.

This is to state that Mr. Anirudh Nair student of M.Sc Nursing 2nd year is undertaking a research project on the topic "**A Descriptive study to assess the Knowledge Regarding Mission Indradhanush Among Mothers of Under- Five Children in Selected Community Area in Haridwar With a View to Develop an Information Booklet.**" under the supervision of Ms. Rajni Narwan, Associate Professor (Guide) & Mrs. Rajvinder Kaur, Associate Professor (Co-Guide).

I assure you to that no harm will be done to study participants. Please permit his to conduct the study.

I request your kind permission to carry out the above said study in selected setting.


Principal
Principal

Shri Swami Bhumanand College of Nursing
NH-334, Ranipur Jhal, Jwalapur, Haridwar (U.P.)

Recognized by- ★ Indian Nursing Council, New Delhi
Approved by - ★ Uttarakhand Nurses & Midwives Council, Dehradun
Affiliated to - ★ H.N.B. Uttarakhand Medical Education University, Dehradun

LIST OF EXPERTS FOR VALIDATION

1. Dr Ram Swaroop Sharma
Principal
Meera Medical Institute of Nursing
Abhohar Punjab

2. Dr Vandana Chauhan
Associate Professor
SRHU, Dehradun

3. Dr Manoj Kumar Shama
Principal
J P Sharma Memorial School And
College Of Nursing
Yamuna Nagar, Haryana

4.. Mr. Sandeep Kumar
Associate Professor
HOD, Child Health Nursing
Upchar College Of Nursing
Jaipur

5.. Mr. Manoj Chaudhary
Associate Professor
HOD, Child Health Nursing
Chitrini College of Nursing
Printij, Gujarat

6.. Mrs. Samita Muralidhar
Staff Nurse
SMMH Medical College
Saharanpur

For Hindi and English Translation

Mr.Earnest Massey
M.A Hindi
St.Mary's Academy
Saharanpur

Mr. P V Silvano
M.AEnglish
St. Mary's Academy
Saharanpur

CERTIFICATE OF VALIDATION BY THE EXPERT

This is to certify that tools proposed by Mr. Anirudh Nair Msc Nursing 2nd year student of Shri Swami Bhumanand College of Nursing Haridwar to be used in his research study entitled. **"A Descriptive Study to Assess the Knowledge Regarding Mission Indradhanush Among Mothers of Under-Five Children in Selected Community Area in Haridwar City, With a View to Develop an Information Booklet."** has been validated by me and found valid with suggested modification/corrections.



Signature-

Name - Dr Vandana Chauhan

Designation- Associate Professor

Date- 29/05/2025

Place- Dehradun

CERTIFICATE OF VALIDATION BY THE EXPERT

This is to certify that tools proposed by Mr. Anirudh Nair Msc Nursing 2nd year student of Shri Swami Bhumanand College of Nursing Haridwar to be used in his research study entitled.

"A Descriptive Study to Assess the Knowledge Regarding Mission Indradhanush Among Mothers of Under-Five Children in Selected Community Area in Haridwar City, With a View to Develop an Information Booklet." has been validated by me and found valid with suggested modification/corrections.


Dr. Ram Swaroop Sharma
Principal
Meera Medical Institute of
Nursing & Hospital
ABOHAR-152116

Signature-
Name - Dr. Ram Swaroop Sharma

Designation- Principal

Date- 10-05-25

Place- Abohar

CERTIFICATE OF VALIDATION BY THE EXPERT

This is to certify that tools proposed by Mr. Anirudh Nair Msc Nursing 2nd year student of Shri Swami Bhumanand College of Nursing Haridwar to be used in his research study entitled.

"A Descriptive Study to Assess the Knowledge Regarding Mission Indradhanush Among Mothers of Under-Five Children in Selected Community Area in Haridwar City, With a View to Develop an Information Booklet." has been validated by me and found valid with suggested modification/corrections.

Signature- 
Principal
Dr. J.P. Sharma Memorial
School & College of Nursing
VANIJNAN NAGAR
Name - Dr Manoj Kumar Sharma
Designation- Professor cum Principal
Date- 26/4/2025
Place- Yamunenagar

CERTIFICATE OF VALIDATION BY THE EXPERT

This is to certify that tools proposed by Mr. Anirudh Nair Msc Nursing 2nd year student of Shri Swami Bhumanand College of Nursing Haridwar to be used in his research study entitled. **"A Descriptive Study to Assess the Knowledge Regarding Mission Indradhanush Among Mothers of Under-Five Children in Selected Community Area in Haridwar City, With a View to Develop an Information Booklet."** has been validated by me and found valid with suggested modification/corrections.

Signature- 

Name - Sandeep Kumar

Designation- Associate professor

Date- 12-05-2025

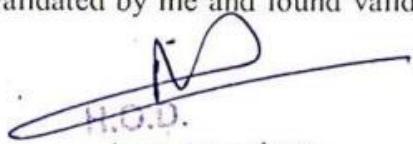
Place- Jaipur.



H.O.D.
Child Health Nursing
Upchar College Of NSG,
JAIPUR

CERTIFICATE OF VALIDATION BY THE EXPERT

This is to certify that tools proposed by Mr. Anirudh Nair Msc Nursing 2nd year student of Shri Swami Bhumanand College of Nursing Haridwar to be used in his research study entitled. "A Descriptive Study to Assess the Knowledge Regarding Mission Indradhanush Among Mothers of Under-Five Children in Selected Community Area in Haridwar City, With a View to Develop an Information Booklet." has been validated by me and found valid with suggested modification/corrections.



H.O.D.

Child Health Nursing
Chitrini Nursing College
Prantij (S.K.-Gujarat)

Signature-

Name - Mr. Manoj Choudhary

Designation- HOD Child Health Nursing

Date- 6/5/25

Place- Prantij

CERTIFICATE OF VALIDATION BY THE EXPERT

This is to certify that tools proposed by Mr. Anirudh Nair Msc Nursing 2nd year student of Shri Swami Bhumanand College of Nursing Haridwar to be used in his research study entitled.

"A Descriptive Study to Assess the Knowledge Regarding Mission Indradhanush Among Mothers of Under-Five Children in Selected Community Area in Haridwar City, With a View to Develop an Information Booklet." has been validated by me and found valid with suggested modification/corrections.

Signature- 

Name - Samita Muralidhar

Designation- Nursing Officer

Date- 29-05-2025.

Place- Saharanpur

LETTER FOR TOOL VALIDATION

From,

Mr Anirudh Nair
Msc (N) 2nd year
Shri Swami Bhumanand College of Nursing, Haridwar

To _____

Respected Sir/Madam

Subject: - Request for expert opinion and suggestion to establish validity of the research tool.

I (Anirudh Nair) student of M.sc (N) 2nd year have selected a topic for my research project which is to be submitted to Shri Swami Bhumanand College of Nursing, Haridwar in fulfillment of the requirement for the Master Science in Nursing. "A Descriptive Study to Assess the Knowledge Regarding Mission Indradhanush Among Mothers of Under-Five Children in Selected Community Area in Haridwar, With a View to Develop an Information Booklet."

OBJECTIVES OF THE STUDY

1. To assess the knowledge of mothers of under-five children regarding Mission Indradhanush
2. To identify gaps in knowledge regarding the benefits, schedule, and vaccines covered under Mission Indradhanush.
3. To find out the association between mothers' knowledge and their selected demographic variables.
4. To develop an information booklet based on the findings to enhance awareness about Mission Indradhanush.

In this content, I have prepared. I request you to kindly go through the tools and give your expert opinion for any modification and improvement needed in the content. I shall be grateful to you for giving valuable remarks and suggestion.

Thanking you,

Signature of the Expert
Designation

Yours sincerely:

Mr Anirudh Nair
Dept- Child Health Nursing
Msc Nursing 2nd year
Shri Swami Bhumanand College
Of Nursing, Haridwar

CRITERIA CHECKLIST FOR VALIDATION OF THE TOOL

SECTION- A

SOCIA-DEMOGRAPHIC PERFORMA

➤ *Instructions:*

The evaluator is requested to go through the criteria listed below for data collection tool. In the criteria checklist there are 3 main columns and a remark column. The validation is done of appropriateness, relevance and accuracy.

In each sub column: column I- agree, column II- disagree Kindly place () mark in the chosen response column and remarks in the remark.

Item no	Appropriate		Relevance		Accuracy		Remarks
	Agree	Disagree	Agree	Disagree	Agree	Disagree	
1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							

Any suggestion-----

Signature of the

validator:

Designation

CRITERIA CHECKLIST FOR VALIDATION OF THE TOOL

SECTION- B

STRUCTURED KNOWLEDGE QUESTIONNAIRE

➤ *Instructions:*

The evaluator is requested to go through the criteria listed below for data collection tool. In the criteria checklist there are 3 main columns and a remark column. The validation is done of appropriateness, relevance and accuracy.

In each sub column: column I- agree, column II- disagree Kindly place () mark in the chosen response column and remarks in the remark.

Item no	Appropriate		Relevance		Accuracy		Remarks
	Agree	Disagree	Agree	Disagree	Agree	Disagree	
1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
10.							
11.							
12.							
13.							
14.							
15							

Any suggestion-----

Signature of the
validator

Designation

SOCIO-DEMOGRAPHIC VARIABLES

RELATED QUESTIONNAIRE

1. Age of the other in years:
2. Age of under five children
3. Religion
 - A. Hindu
 - B. Muslim
 - C. Sikh
 - D. Christian
4. Educational Qualification of the Mother:
 - E. Primary education
 - F. Secondary education
 - G. Graduate
 - H. Post Graduate.
5. Occupation of the mother
 - I. Daily wage worker
 - J. Private sector employee
 - K. Government employee
 - L. Business
6. Onthly Family ncome in NR: ...
7. Type of Family:
 - A. Nuclear
 - B. Joint
 - C. Extended
8. From where did you receive immunization-related information? Mass media
 - A. health care personnel
 - B. Relatives
 - C. Friends
 - D. Family Members

**QUESTIONNAIRE TO ASSESS KNOWLEDGE
REGARDING MISSION INDRADHANUSH**

9. Have you heard about Mission Indradhanush?

A. Yes

B. No

10. What is Mission Indradhanush?

A. A vaccination program

B. A maternal health program

C. A nutritional program

D. School health program

11. What is the main goal of Mission Indradhanush?

A. To provide free medicines

B. To fully immunize children and pregnant women

C. To distribute food supplements

D. To conduct maternal health checkup

12. Mission Indradhanush targets children of which age group?

A. 0–2 years

B. 0–5 years

C. 1–3 years

D. 2–5 years

13. How many vaccine-preventable diseases are covered under Mission Indradhanush?

A. 5

B. 7

C. 8

D. 12

14. Mission Indradhanush aims to fully immunize children by what age?

A. 6 months

B. 1 year

C. 2 years

D. 5 years

15. How many doses of polio vaccine should a child receive by the age of 1 year?

- A. 1 dose
- B. 2 doses
- C. 3 doses
- D. Only booster

16. At what age is the first dose of the BCG vaccine given?

- A. At birth
- B. At 6 months
- C. At 1 year
- D. At 2 years

17. What is age is the first dose of the DPT vaccine is given to child?

- A. At birth
- B. At 6 weeks
- C. At 1 year
- D. At 2 years

18. How many doses of tetanus toxoid are given to a pregnant mother?

- A. 1
- B. 2
- C. 3
- D. 4

19. What is age at which the first dose of the Hepatitis-B vaccine is given to child?

- A. At birth
- B. At 6 weeks
- C. At 1 year
- D. At 2 years

20. What is the main benefit of immunization?

- A. Prevents diseases
- B. Increases child's weight
- C. Provides vitamins
- D. None of the above

21. What can happen if a child is not fully vaccinated?

- A. Higher risk of infections
- B. No impact on health
- C. Child will grow normally
- D. Only minor health issues

22. Where can parents take their children for vaccination under this program?

- A. Government hospitals
- B. Community health centers
- C. Vaccinations Camps
- D. All of the above

23. How frequently are vaccination sessions conducted under Mission Indradhanush

- A. Weekly
- B. Monthly
- C. Quarterly
- D. Annually

SCORING TABLE

S.NO	QUESTION	ANSWER KEY	SCORE	PATIENT SCORE
9		A	1	
10		A	1	
11		B	1	
12		B	1	
13		B	1	
14		D	1	
15		C	1	
16		A	1	
17		B	1	
18		B	1	
19		B	1	
20		A	1	
21		A	1	
22		D	1	
23		B	1	

Each question carries 1 Marks.

Wrong answer 0 Marks.

15X1=15

Key score

<5 =Inadequate

5-10=moderately adequate

10-15 =Adequate knowledge

सामाजिक निसांजियिकीि

चर प्रश्नावली

भाग A: सामाजिक निसांजियिकीिचर

1. माता की आय उ(वर्षमें):_____

2. पाँचवर्षसेकम आय उकेबच्चों की आय: उ_____

3. धर्मः

(1) हिन्दू

(2) मस्लिम

(3) ससख

(4) इसाई

4. माता की शैक्षिकयोग्यताः

(1) प्राथसमक सशिः

(3) माध्यसमक सशिः

(4) लनातक

(4) परालनातक

5. माता का व्यवसायः

(1) दैननकवेतनभोगीकमषचारी

(2) लवरोज़गार

(3) ननजी पिंत्रकेकमषचारी

(4) सरकारी कमषचारी

6. माससक पाररवारक आय (भारतीय रूपयेमें):_____

7. पररवार का प्रकारः

(1) एक पररवार

(2) संयक्तु पररवार

(3) ववलततु पररवार

8. आपको टीकाकरण संबंधीजानकारी किाँसेप्राप्त िउई?

(1) मास मीडिया

(2) चचककत्सा कमषचारी

(3) ररश्लेदार

(4) दोलत

भाग B: समशन इन्हेनरिंग संबंधीज्ञान प्रश्नावी

9. क्या आपने समशन इन्हेनरिंग के बारे में सनातनी हैं?

(1) हाँ

(2) नहीं

10. समशन इन्हेनरिंग क्या है?

(1) टीकाकरण कायषक्रम

(2) मातृ ललवाल्य कायषक्रम

(3) पोर्ण कायषक्रम

(4) लकूलि ललवाल्य कायषक्रम

11. समशन इन्हेनरिंग का मख्य विषय क्या है?

(1) ननिःशल्कु दवाइयाँ उपिष्ठ करना

(2) बच्चों और गम्भवती महिलाओं का पण्षूटी कायषक्रम

(3) आंतरिक अनपुरकू ववतररत करना

(4) मातृ ललवाल्य जांचकरण

12. समशन इन्हेनरिंग कक्ष से आयु वर्ग के बच्चों को विक्षित करता है?

(1) 0–2 वर्ष

(2) 0–5 वर्ष

(3) 1–3 वर्ष

(4) 2–5 वर्ष

13. समशन इन्हेनरिंग के अंतर्गत कक्ष नी वैक्सीन व रोग शासमि हैं?

(1) 5

(2) 7

(3) 8

(4) 12

14. समशन इन्हेनरिंग का विषय कक्ष से आयु उत्तर के बच्चों का पण्षूटी कायषक्रम करना है?

(1) 6 मीने

(2) 1 वर्ष

(4) 2 वर्ष

(4) 5 वर्ष

15. एक वर्षकी आय तक एक बच्चेको पोसियो वैक्सीनकी कक्तनी खराकु समिनी चाहिए?

- (1) 1 खराकु
- (2) 2 खराकु
- (3) 3 खराकु
- (4) के विलटर्स

16. बीसीजी टीकेकी पिंडी खराकु कक्स उम्र मेंदी जाती है?

- (1) जन्म केसमय
- (2) 6 मीनेमें
- (3) 1 वर्षमें
- (4) 2 वर्षकी आयुमें

17. पिंडीपीटी टीकेकी पिंडी खराकु कक्स उम्र मेंदी जाती है?

- (1) जन्म केसमय
- (2) 6 सप्ताह पर
- (3) 1 वर्षमें
- (4) 2 वर्षकी आयुमें

18. गभषवतीमाँको टेटनसटॉक्साइ दी कक्तनी खराकु दी जाती है?

- (1) 1
- (3) 2
- (4) 3
- (5) 4

19. पेटाइहटस-बी टीकेकी पिंडी खराकु कक्स आय तुमेंदी जाती है?

- (1) जन्म केसमय
- (3) 6 सप्ताह पर
- (3) 1 वर्षमें
- (4) 2 वर्षकी आयुमें

20. टीकाकरण का मख्य फ़ायदा क्या है?

- (1) बीमाररयों सेबचाता है
- (2) बच्चेका वजन बढाता है
- (3) वृद्धासमन प्रदान करता है

(4) शारीरक वक्तास मेंमदद करता है

21. यह द कक्षी बच्चेका पण्षटीकाकरण नींहुआ तो क्या हो सकता है?

- (1) संक्रमणका अचानक जोखखम
- (2) लवाल्य पर कोई प्रभाव नहीं
- (3) बच्चा सामान्य रूप सेबढेगा
- (4) के विमानी लवाल्य समलयाएँ

22. इस कायषक्रमके अंतगष्टमाता-वपता अपनेबच्चों को टीकाकरण केसिए किए हों जा सकते हैं?

- (1) सरकारी अलपताहि
- (2) सामदानयकु लवाल्य केंर
- (3) टीकाकरण सशववर
- (4) उपरोक्त सभी

23. समशन इन्नधनरु केतित टीकाकरण सत्र ककतनी बार आयोस्जत ककयेजाते हैं?

- (1) साप्ताहिक
- (2) माससक
- (3) त्रैमाससक
- (4) प्रनतवर्ष

FORMULAS USED FOR THE STUDY:

Mean

$$\text{Mean } (\bar{x}) = \frac{\sum x}{n}$$

SD

<u>Sample</u>	<u>Population</u>
$s = \sqrt{\frac{\sum (x_i - \bar{x})^2}{n - 1}}$	$\sigma = \sqrt{\frac{\sum (x_i - \mu)^2}{N}}$

Yates Formula =

$$\chi^2_{Yates} = \sum^k \frac{(|f_0 - f_e| - 0.5)^2}{f_e}$$