Assess and develop information booklet on immunization practices among parents and health personnel from selected urban versus rural areas.

CHAPTER V
CHAPTER V

FINDINGS, DISCUSSION, SUMMARY, CONCLUSION, LIMITATION, IMPLICATION AND RECOMMENDATIONS

This chapter presents a summary of the study undertaken including the conclusion from the findings, implications, discussion and conclusion of the study. This chapter ends with suggestions and recommendations for future research in this field.

5.1 MAJOR FINDINGS OF STUDY

Section I- Description of sample demographic characteristics in frequency and percentage.

- Parents

   Majority 35% of the urban mothers had age 23-27 years. Majority of the rural mothers were 36.8% in age group 28-32 years. In the urban mothers majority 45.3% of them had higher secondary education. In rural mothers 39.3% of them had higher secondary education. Majority of 74.3% of the urban mothers were housewives and in also majority of 76.3% of the rural mothers were housewives.

   Majority of 74.3% of the urban fathers had service and also majority 42% of the rural fathers had service. In urban family majority 54.8% of them had income Rs. 10001-15000. In rural area 32.8% of them had income Rs. 10001-15000. Majority of 67.3% of them from urban area had nuclear family. Majority of 62.5% of them from urban area also had nuclear family.

   In urban area majority 62.5% of them had two children. In rural area 52.5% of them had two children. Majority of 61.8% of the urban samples were females. Majority of 58.8% of the rural samples were females. Majority of 97.3% of the urban samples had institutional delivery of the index child. Majority of 89.5% of the rural samples had institutional delivery of the index child and 10.5% of them had home deliveries. 48% of the index child’s birth-order in urban samples was the first child. In rural samples 49% of
them were second child birth order. 44.8% of the index children in urban samples had age two to three year. Majority in rural area 44.5% of index child had age two to three years.

- **Health Personnel**

  Majority 43% of the urban personnel had age 23-27 years. 37% of the rural personnel had age 23-27 years. Majority of 88% of the urban and rural personnel were females. Majority of 64% of the urban personnel were ANM. Half (50%) of the rural personnel were ANM. Majority 38% of the urban and rural personnel had experience six months to one year.

**Section II- Analysis of data related to knowledge and practices of immunization among parents of urban & rural population.**

  More than half of the rural parents had average knowledge regarding immunization, 27.8% of them had good knowledge and 17.3% of them had poor knowledge regarding immunization. 43% of the urban parents had average knowledge regarding immunization, 44.8% of them had good knowledge and 12.3% of them had poor knowledge regarding immunization.

  In urban and rural population, coverage levels were 97.3% - 92% for BCG/OPV, 96.3% - 89.5% for DPT 1/ OPV 1/ HepB1, 95.5% - 88.3% for DPT 2/ OPV 2/ HepB2, 92% - 81.3% for DPT 3/ OPV 3/ HepB3, 55.8% - 48.3% for DPT 4/ OPV 4 and 77.8% - 64.5% for measles.

  More than half parents in urban as well as rural population gave vitamin-A first vaccine to their children. However, these numbers drastically come down for the second, third, fourth and fifth Vitamin-A vaccines.

  More than half (51%) of the rural parents had fully immunized their child, 40.8% of them had partially immunized their child and 8.3% of them had not immunized their child at all. Majority of 61.5% of the urban parents had fully immunized their child, 35.8% of them had partially immunized their child and 2.8% of them had not immunized their child at all.
Section III - Analysis of data related to related to knowledge and practices of immunization among health personnel of urban & rural population.

11% of the rural health personnel had excellent knowledge regarding immunization, 41% of them had very good knowledge, 39% of them had good knowledge and 9% of them had satisfactory knowledge regarding immunization. 16% of the urban health personnel had excellent knowledge regarding immunization, 45% of them had very good knowledge and 39% of them had good knowledge regarding immunization.

30% of the rural health workers had very good practices regarding immunization, 32% of them had good practices, 35% of them had satisfactory practices and only 3% of them had excellent practices regarding immunization. 32% of the urban health workers had very good practices regarding immunization, 41% of them had good practices, 23% of them had satisfactory practices and only 4% of them had excellent practices regarding immunization.

Section IV - Analysis of data related to comparison of knowledge and practices of immunization among parents from urban and rural areas.

Average knowledge score of rural parents was 5.4 which was 6.1 for the urban parents. The z-statistic value for this comparison was found to be 4.9. Corresponding p-value was found to be very less (p-value=0.000, less than 0.05). The null hypothesis was rejected. The average knowledge score of urban parents was significantly higher than that for rural population.

Section V - Analysis of data related to comparison of knowledge and practices of immunization among health personnel from urban and rural areas.

Average knowledge score of rural health personnel was 28.8 which was 30.5 for the urban health personnel. The z-statistic value for this comparison was found to be 1.9. Corresponding p-value was found to be large (p-value=0.059, greater than 0.05), we fail to reject the null hypothesis. The average knowledge score of urban health personnel though higher than that for rural health personnel population, the difference was not statistically significant.
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Average practice score of rural health personnel was 18.4 which was 19 for the urban health personnel. The z-statistic value for this comparison was found to be 1.3. Corresponding p-value was found to be large (p-value=0.195, greater than 0.05), we fail to reject the null hypothesis. The average practices score of urban health personnel though higher than that for rural health personnel population, the difference was not statistically significant.

Section VI- Analysis of data related to reason non-compliance of immunization.

In urban population, the top three reasons for non-compliance of immunization were Unaware of need to return for subsequent doses, Fear of side reaction and Financial problem. In rural population, the top three reasons for non-compliance of immunization were Unaware of need to return for subsequent doses, Unawareness of need for immunization and Mother too busy.

Section VII- Association of knowledge with practices of immunization among parents and health personnel.

The association between knowledge and practices was done using Fisher’s exact test. Since the p-value is small, the null hypothesis is rejected. The association between knowledge and practices of urban parents is significant. The parents having good knowledge had fully immunized their children, average knowledge parents had partially immunized their children. This indicates that more the knowledge of the parents more is the compliance of immunization.

The parents having good knowledge had fully immunized their children. This indicates that more the knowledge of the parents more is the compliance of immunization. Since the p-value is less than 0.05, the null hypothesis is rejected. The association between knowledge and practices of rural parents is significant.

The health personnel having excellent practices, had excellent knowledge, those having satisfactory practices had good knowledge. More the knowledge of the health personnel, better are their practices regarding immunization. Since the p-value is small, the null hypothesis is rejected. The association between knowledge and practices of urban health personnel is significant.
The association between knowledge and practices of rural health personnel is significant. The health personnel having excellent practices had excellent knowledge, those having satisfactory knowledge had good practices. More the knowledge of the health personnel, better are their practices regarding immunization.

Section VIII - Association between knowledge and practices of immunization with the selected demographic variables among parents.

All the demographic variables such as education of mother, parents occupation, monthly income, type of family, no. of children, gender, place of delivery, birth order except for age of the index child were found to have significant association with knowledge of the rural parents regarding immunization. All the demographic variables except for age of the index child were found to have significant association with knowledge of the rural parents regarding immunization. All the demographic variables except for mother’s age were found to have significant association with practices of the rural parents regarding immunization. All the demographic variables except for father’s occupation and age of index child were found to have significant association with practices of the urban parents regarding immunization.

Section XI - Association between knowledge and practices of immunization with the selected demographic variables among health personnel.

The demographic variables category of job and experience were found to have significant association with knowledge of the rural health personnel regarding immunization. The demographic variables category of job and experience were found to have significant association with knowledge of the urban health personnel regarding immunization. The demographic variables age, category of job and experience were found to have significant association with practices of the urban health personnel regarding immunization. The demographic variables age and experience were found to have significant association with practices of the rural health personnel regarding immunization.
5.2 DISCUSSION

The findings of the study have been discussed with reference to the objectives and findings of the other studies.

- In this study more than half of the rural parents had average knowledge regarding immunization, 27.8% of them had good knowledge and 17.3% of them had poor knowledge regarding immunization. Whereas 43% of the urban parents had average knowledge regarding immunization, 44.8% of them had good knowledge and 12.3% of them had poor knowledge regarding immunization. Comparatively parents staying in urban area have better knowledge as most of urban mothers’ had education up to higher secondary and graduation whereas rural mothers’ majority had education up to primary and higher secondary. A highly significant association is noted between education and knowledge regarding immunization (p-Value < 0.001). This is accordance to a study conducted by Dalal A.(2005) at Goa. Where none of graduate mother had any unimmunized child.  

Similarly there are other four studies Singh M.C, Murthy, G.V., Tagbo, B.N. and BholaNath shows that they have similar findings.

A study was conducted by Singh. M.C. (1994) in Wardha district. Out of this 100 mothers and 122 children could be contacted for evaluation of immunization coverage and assessing maternal knowledge and practice regarding immunization. Mothers had a fair knowledge regarding need for immunization but a poor knowledge regarding the prevention of diseases and doses of the vaccines.  

A study was conducted by Murthy. G.V., Kumar S. (1989) in Delhi. One hundred mothers of 'fully' immunized 12-24 month old children were administered a schedule to elicit knowledge regarding immunization. Knowledge regarding vaccine availability was good, except in case of measles. A much lower proportion was aware of correct doses and intervals.  

The study conducted by Tagbo, B.N., Uleanya, N.D.(2013) to determine mothers’ knowledge and perception of adverse events following immunization (AEFI). Five did not know why children were immunized, 188 knew it was to prevent major killer
diseases, 33 believed it was to prevent all diseases while 9 believed it was to treat diseases. The knowledge of reason for immunization was significantly associated with maternal educational (p=0.000). Most (89.8%) also knew that the major content of vaccines were chemicals/substances that could help prevent killer diseases. While 1.3% believed vaccines contained harmful materials, 8.9% had no knowledge about the content of vaccines. There is poor maternal knowledge about immunization and the adverse events that could follow immunization. Community participation and sustained public awareness are needed to erode fears of AEFI.  

The study was conducted by BholaNath, Singh J.(2008) to determine the knowledge, attitude and practices about immunization. Knowledge regarding the disease prevented number of doses and correct age of administration of BCG was highest among all the categories of respondents. Considering the incomplete knowledge, and inappropriate practices of the people, the policy makers and medical professionals require Herculean efforts to raise the knowledge and to break the old beliefs of the people.  

- In urban population, more than 90% of the parents give DTP vaccines 1, 2 and 3 to their children. However, around half 55.8% of them give the 4th DTP vaccine to their children. In rural population, more than 80% of the parents give DTP vaccines 1, 2 and 3 to their children. However, around half 48.3% of them give the 4th DTP vaccine to their children. This data shows that majority parents gave first three doses of DPT and gradually there is fail down for 4th dose as they were unaware of need to return for subsequent doses. This could be attributed to the triple dose schedule of DPT, which makes it difficult for parents to remember the schedule.  

- More than half 51% of the rural parents had fully immunized their child, 40.8% of them had partially immunized their child and 8.3% of them had not immunized their child at all. Majority of 61.5% of the urban parents had fully immunized their child, 35.8% of them had partially immunized their child and 2.8% of them had not immunized their child at all. Children of urban parents are immunized well than rural as parents reported that mother was busy, place for immunization far, sickness.
Similarly the data presented in the other studies shows in Maharashtra, NFHS-2 field staff collected information on 1,810 children born to eligible women in the three years preceding the survey. In Maharashtra, 78 percent of children ages 12.23 months are fully vaccinated and only 2 percent have not been vaccinated at all. Ninety-four percent of children ages 12-23 months have been vaccinated against tuberculosis, 89 percent have received three doses of DPT vaccine, 91 percent have received three doses of polio vaccine, and 84 percent have received the measles vaccine. Despite the overall high rates of vaccinations in Maharashtra, children from disadvantaged groups are much less likely to be fully vaccinated. In slum areas of Mumbai, 81 percent children are fully immunized, a slightly higher coverage rate than in either urban or rural areas overall.61

The NFHS-3 (2005-2006) data of Maharashtra has reviewed the full immunization coverage in rural areas of Maharashtra, which is 49.8% and is lower than that in present study, and the coverage is 38.6% in rural India.61

A study was conducted by Gupta R.S. (2006) to assess the child immunization coverage. Fully immunized children were more in urban areas (82.1%) as compared to rural (45.1%) areas. The immunization coverage was more or less similar in both sexes. BCG and Measles coverage was also higher i.e. 89.3% and 85.7% in urban areas than 69.61%, and 52.2% in rural respectively.38

As per data of Kumar A. and S. K. Mohanty (2011) study, India there is large regional variation in full immunization and a clear north–south differential was observed. The coverage of polio vaccine is higher than that of BCG and measles vaccine in India and the states and there is slow improvement over time of period.75

Urban poor, many residing in slums, comprise about one fourth of India's 285 million urban populations. 60% of the children aged 12-23 months in urban India are fully immunized; coverage among urban poor children is a dismal 43%. 21

A cross sectional survey study conducted by Jain S.K.(2006) data shows that less than one third (28.9%) of children, aged 12-23 months, were fully immunized with BCG, 3 DPT, 3 OPV and Measles vaccines; around a quarter (26.5%) had not received even a single vaccine, and little less than half (44.5%) were found partially immunized. Though
nearly all more than 96% of the children were immunized through Government established centers, but immunization cards/documents were made available only to 27.6% of the children.\textsuperscript{26}

Similarly a study was done by Wagh S.(2013) on evaluation of primary immunization coverage. 84.90% children were fully immunized to primary vaccine. The immunization coverage for BCG (96.7%) Vaccine was highest and lower for Measles (84.9%).\textsuperscript{114}

A survey study was conducted by Bhatia V.(2004) on 796 children. The evaluation recorded fully immunized children as 72.23%, partially immunized as 22.99% and not immunized as 4.64%. Only 58.66% children in urban slums were fully immunized. The overall coverage for various vaccines was BCG: 93.09%, DPT1/OPV1: 93.97%, DPT2/OPV2: 90.57%, DPT3/OPV3: 85.92% and measles: 76%. No sex-wise difference was noticed in the study. However recent coverage evaluation surveys & studies conducted in India have reported that the percentage of fully immunized infants is only 38%.\textsuperscript{39}

- 11% of the rural health personnel had excellent knowledge regarding immunization, 41% of them had very good knowledge, 39% of them had good knowledge and 9% of them had satisfactory knowledge regarding immunization. 16% of the urban health personnel had excellent knowledge regarding immunization, 45% of them had very good knowledge and 39% of them had good knowledge regarding immunization. Urban health personnel had good knowledge than health personnel from rural area as most of health personnel from urban were ANM and GNM whereas majority of rural health personnel were ANM and ASHA.

As per the discussion in relation to this a study by Soeung S.C.(2008) on evaluation of immunization knowledge, practices shows similar findings. The private sector demonstrated a lack of quality of care and management in terms of health workers' knowledge of immunization schedules, waste and vaccine management practices, and exchange of health information with the public sector.\textsuperscript{118}
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- 30% of the rural health workers had very good practices regarding immunization, 32% of them had good practices, 35% of them had satisfactory practices and only 3% of them had excellent practices regarding immunization. 32% of the urban health workers had very good practices regarding immunization, 41% of them had good practices, 23% of them had satisfactory practices and only 4% of them had excellent practices regarding immunization. This data shows that better knowledge of immunization there is good immunization practice.

Similarly the study was done by Yogindra S.(2007) on Evaluation of the Cold-Chain for Oral Polio Vaccine in a Rural District of India. The results of studies were seventy-three percent of the deep freezers, ice-lined refrigerators, and refrigerators were present and maintained the required temperature. Sixty-five percent of the facilities adequately maintained the temperature-monitoring chart. Ninety-five percent of the vaccine carriers had adequately maintained temperatures. Seventy-five percent of these facilities at this level complied with the cold box requirements. Eighty percent of the icepacks sampled at this level were in proper condition. Only 45% of the health centers had an electrical power generator, and 90% (n=18) of these health centers reported frequent power failures. These primary health centers (n=20) procured an average cold chain compliance score of 74%. 37

- In urban population, the top three reasons for non-compliance of immunization were unaware of need to return for subsequent doses, fear of side reaction and financial problem. This data indicates that parents having poor knowledge to return for subsequent doses and fear of side reaction as education of mother is less. Parents also have financial problem as majority mothers 74.3% are housewives and cost life is more in urban compare to rural.

- In rural population, the top three reasons for non-compliance of immunization were unaware of need to return for subsequent doses, unawareness of need for immunization and Mother too busy. It was also found that there is vaccinator’s absence 5.1%. In Maharashtra most of the mothers travel frequently husbands home to fathers home during post natal period this finding suggest social behavior as the major obstacle
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for partial complete or non-immunization. This data also shows that parents have poor knowledge to return for subsequent doses as education of mother is comparatively less and majorities are housewives 76.3%. Sickness of child (9.1%) was also found as reason for non-compliance of immunization. The parents must be educated to have immunize child when it is due, even if the child having minor illness.

There are few other studies which show similar findings. A study was conducted by Gupta R.S.(2006) to assess the child immunization coverage. The findings showed failure of immunization in rural areas was mainly due to unawareness of need for immunization (35.4%), mother too busy in 16.8%, place and time not known in 9.7%, place for immunization too far 8.8% and 7.1% each for unaware of need to return for subsequent doses, fear of side reactions and vaccinator’s absence. 38

Similar study was done by Wagh S.(2013) on evaluation of primary immunization coverage and reasons for partial and non-immunization. Most common reason for partial immunization was unaware about the schedule of vaccine (36.5%), out of station (17.7%) & child was ill (14.9%). Parent’s education plays significant role in immunization status of children. IEC activities should be in community to avoid non-immunization in children.114

Similarly a study was conducted by Jain S.K.(2006) which shows the main reason for drop-out or non-immunization was lack of information about the immunization programme (41.3%).26

The study was done by Alister C.(2013) to assess Knowledge, Attitudes and Perceptions Study on Immunization. Most people fail to vaccinate their children as scheduled because of other logistical reasons such as mothers being away, mothers being sick, hilly terrains, mocking of mothers who deliver every years, vaccines not being available, experiencing side effects, non-availability of transport to vaccinators and the cancellation of immunisation sessions among other factors. 122

A study was conducted by Desai V. K.(2003) on 3035 under five children in Surat city. The commonest reason for non-vaccination was ignorance of parents about the seriousness of the disease and the need of vaccination.23
A study was conducted by Mathew JL (2002) on children belonging to a low income group. The major reasons for non-immunization of the children were: migration to a native village (26.4%); domestic problems (9.6%); the immunization centre was located too far from their home (9.6%); and the child was unwell when the vaccination was due (9%). Twelve per cent of mothers could not give any reason for non-immunization. The lack of awareness and fear of side effects constituted a small minority of reasons for non-immunization.²⁴

- All the demographic variables such as education of mother, parents’ occupation, monthly income, type of family, no. of children, gender, place of delivery, birth order were found to have significant association with knowledge of the rural parents regarding immunization. Significant association was found as investigator could take adequate number of samples.

A study reported by Yadav, S.(2006) that the proportion of fully immunized children and fully vaccinated mothers was lower among illiterate mothers and those living in small, inaccessible and tribal villages. The above findings indicate that literacy among women is the key for better compliance of immunization.⁴⁹

Similarly a study was conducted by Chhabra P.(2007) in two urbanized villages in east Delhi. Higher education of mother and father, father's occupation, residential status, place of birth and presence of immunization card were significant determinants for complete immunization on univariate analysis. On regression analysis mother's education (R=1.43), presence of immunization card R=2.05 and place of birth (R=3.80) remained significant.⁹

5.3 SUMMARY

The main aim of the study was to assess and develop information booklet on immunization practices among parents and health personnel from selected urban versus rural areas of Pune district. The objectives of the study as follows

1. To assess knowledge and practices of immunization among parents of urban and rural population.
2. To assess knowledge and practices of immunization among health personnel of urban and rural population.
3. To compare knowledge and practices of immunization among parents and health personnel from urban and rural areas.
4. To assess reasons for non-compliance of immunization.
5. To find association of selected demographic variables with knowledge and practices of immunization among parents and health personnel of urban and rural areas.
6. To develop and provide information booklet on immunization practices to parents and health personnel.

The research design was cross-sectional & comparative survey design. The samples were parents of under five age children and health personnel involved immunization. The sample size selected for this study was 800 of parent and 200 health personnel. Probability, multistage random sampling technique is used for selecting samples. Content validity was done. Inter-rator and Test retest reliability method was used. Pilot study was done on 80 parents and 20 health personnel.

The findings of the study are fifty percentages of the urban parents had average knowledge regarding immunization, 27.8% of them had good knowledge and 17.3% of them had poor knowledge regarding immunization. 43% of the rural parents had average knowledge regarding immunization, 44.8% of them had good knowledge and 12.3% of them had poor knowledge regarding immunization.

More than half (51%) of the rural parents had fully immunized their child, 40.8% of them had partially immunized their child and 8.3% of them had not immunized their child at all. Majority of 61.5% of the urban parents had fully immunized their child, 35.8% of them had partially immunized their child and 2.8% of them had not immunized their child at all.

11% of the rural health personnel had excellent knowledge regarding immunization, 41% of them had very good knowledge, 39% of them had good knowledge and 9% of them had satisfactory knowledge regarding immunization. 16% of
the urban health personnel had excellent knowledge regarding immunization, 45% of them had very good knowledge and 39% of them had good knowledge regarding immunization.

30% of the rural health workers had very good practices regarding immunization, 32% of them had good practices, 35% of them had satisfactory practices and only 3% of them had excellent practices regarding immunization. 32% of the urban health workers had very good practices regarding immunization, 41% of them had good practices, 23% of them had satisfactory practices and only 4% of them had excellent practices regarding immunization.

Average knowledge score of rural parents was 5.4 which was 6.1 for the urban parents. Corresponding p-value was found to be very less (p-value=0.000, less than 0.05). The null hypothesis was rejected. The average knowledge score of urban parents was significantly higher than that for rural population.

Average knowledge score of rural health personnel was 28.8 which was 30.5 for the urban health personnel. The z-statistic value for this comparison was found to be 1.9. Corresponding p-value was found to be large (p-value=0.059, greater than 0.05), we fail to reject the null hypothesis. The average knowledge score of urban health personnel though higher than that for rural health personnel population, the difference was not statistically significant.

Average practice score of rural health personnel was 18.4 which was 19 for the urban health personnel. The z-statistic value for this comparison was found to be 1.3. Corresponding p-value was found to be large (p-value=0.195, greater than 0.05), we fail to reject the null hypothesis. The average practices score of urban health personnel though higher than that for rural health personnel population, the difference was not statistically significant.

In urban population, the top three reasons for non-compliance of immunization were Unaware of need to return for subsequent doses, Fear of side reaction and financial problem. In rural population, the top three reasons for non-compliance of immunization
were Unaware of need to return for subsequent doses, Unawareness of need for immunization and Mother too busy.

All the demographic variables such as education of mother, parent’s occupation, monthly income, type of family, no. of children, gender, place of delivery, birth order except for age of the index child were found to have significant association with knowledge of the rural parents regarding immunization. All the demographic variables except for age of the index child were found to have significant association with knowledge of the rural parents regarding immunization. All the demographic variables except for mother’s age were found to have significant association with practices of the rural parents regarding immunization. All the demographic variables except for father’s occupation and age of index child were found to have significant association with practices of the urban parents regarding immunization.

The demographic variables category of job and experience were found to have significant association with knowledge of the rural health personnel regarding immunization. The demographic variables category of job and experience were found to have significant association with knowledge of the urban health personnel regarding immunization. The demographic variables age, category of job and experience were found to have significant association with practices of the urban health personnel regarding immunization. The demographic variables age and experience were found to have significant association with practices of the rural health personnel regarding immunization.

5.4 CONCLUSION

The main aim of the study was to assess on immunization practices among parents and health personnel from selected urban and rural areas of Pune district and develop information booklet.

The conclusion drawn from the findings of the study are as follows:

Immunization coverage has been increase substantially in general in recent year, a sizable proportion of children are not being immunized the study identified, the average
knowledge and practice of urban parents was significantly higher than that for rural population. The average knowledge and practice of urban health personnel though higher than that for rural health personnel population, the difference was not statistically significant.

All the demographic variables except for age of the index child were found to have significant association with knowledge of the parents regarding immunization. All the demographic variables except for mother’s age were found to have significant association with practices of the parents regarding immunization. The demographic variables category of job and experience were found to have significant association with knowledge of the health personnel regarding immunization.

Community as well as health personnel need to be educated and made aware about the fact. This study provides us important insight in existing level of awareness among the parent & health personnel.

5.5 IMPLICATIONS OF THE STUDY

The findings of the study have implications for community health nursing practice, nursing education, nursing administration and nursing research.

Nursing Practice: -

Nursing practice is an established activity based on recognized needs and functioning within the total health care programme, co-coordinating its plans and activities for the welfare of society. Till a decade before, such as measles, tuberculosis, polio, diphtheria, pertussis, tetanus & hepatitis infectious diseases ceased to be a major problem in developed countries.

With an increase in awareness regarding immunization, a nurse can play role, it has been widely accepted that she is strategically placed for performing the functions of a pediatric & community nurse. To equip her for this commendable task, nurses working in
the community set up can benefit from similar researches, as it will provide more insight regarding the preventive and rehabilitative aspects of health education. They should know the importance of the immunization in a community in order to conduct effective health education programmes.

If such as measles, tuberculosis, polio, diphtheria, pertussis & hepatitis B problems can be prevented or nipped in the bud by creating awareness regarding immunization; we can prevent further damage to the whole society on a larger scale. Nurses, who work in organizations as well as in the community, can carry on the process of alternative prevention stratagem effectively.

When such informative educational sessions should be conducted which cost less and more effective, it will provide sound and comprehensive knowledge to mothers. Nurses can provide health education and counseling to promote awareness about immunization.

Health personnel can utilize pulse polio days as a good opportunity for advocacy of routine immunization to target audience. Nurses and other health care workers have to begin to provide intensive and long-term services or conduct awareness programs at the earliest to combat the problems.

Nursing Education:-

Nursing education is developing rapidly in India and nurse from our country can be found all over the world providing care and education.

The education curriculum must include imparting knowledge about the use of various teaching strategies. Now a day much importance is given to awareness and promotion of health than the curative aspects. As the needs of society are continuously changing newer components must be incorporated in the nursing curriculum. Nursing education must emphasize on preventive and rehabilitative aspects.

The nursing teachers can use the result of the study as an informative illustration for the students. Nursing education should help in inculcating values and a sense of responsibility in the students to educate the parents of children about immunization.
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**Nursing Administration:** -

As a part of administration, the nurse administrator plays a vital role in educating mothers, community health workers and student nurses.

The Nurse administrator can utilize the type of planned health teachings used for the knowledge of students and staff nurses and community. Nursing administration can depute nurses for various workshops, conferences, and special courses; and also in-service education programs can be arranged for the nursing staff.

The findings of the study should be used as a basis of in-service education programs for nurses so as to make them aware of the present problems in the community.

**Nursing Research:** - Nursing research is an essential aspect of nursing as it uplifts the profession and develops new nursing norms and a body of knowledge. Another research has been added to the Nursing literature. Very few studies have been done on a similar basis. The research design, findings and the tool can be used as avenues for further research.

There is a need for extended and intensive nursing research in the area of control the diseases such as measles, tuberculosis, polio, diphtheria, pertussis, tetanus & hepatitis B as wherein the community health nurses can gain output regarding the pattern of disease and the care community demands, as well the community and society can benefit by improving their knowledge for better compliance with the preventive aspects and treatment plans designed to prevent further risks due to lack of knowledge and negligence.

**5.6 LIMITATIONS**

The limitations for the study were

- Limited Immunization practices of health personnel were observed due to time constrain.
• Findings may be generalized only to one district.

5.7 RECOMMENDATION

The following are the recommendation for the study

• The study can be done to assess cold chain maintenance in urban and rural areas.
• The study can be done to assess knowledge, practice and attitude regarding immunization among parents from different socioeconomic group
• The study can be done to assess problems faced by health personnel immunizing in rural area.
• A study can be replicated in another setting
• A study can be done to assess utilization of advance vaccine or other recommended vaccines among parents from urban and rural area.
• A study can be done to assess effect information booklet on KPA regarding immunization among parents.
• A study can be done to assess effect information booklet on KPA regarding immunization among health personnel.

5.8 Summary

This chapter concludes major findings, discussion, conclusion, summary, implication of the study, limitation and recommendations.