

**EFFECTIVENESS OF STRUCTURED TEACHING  
PROGRAMME ON KNOWLEDGE REGARDING  
WARNING SIGNS OF PREGNANCY AMONG  
PRIMI GRAVID MOTHERS.**



*Dissertation Submitted To*

**THE TAMILNADU DR. M.G.R. MEDICAL UNIVERSITY  
CHENNAI**

IN PARTIAL FULFILLMENT OF REQUIREMENT FOR THE AWARD OF  
DEGREE OF

**MASTER OF SCIENCE IN NURSING  
APRIL 2012.**

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TEACHING PROGRAMME ON KNOWLEDGE REGARDING  
WARNING SIGNS OF PREGNANCY AMONG  
PRIMI GRAVID MOTHERS IN  
SAIDAPET HEALTH POST  
AT CHENNAI, 2011 – 2012.**

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and I am helped. My heart leaps for joy and  
I will give thanks to Him in song.**

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# *Abstract*

## **ABSTRACT**

Pregnancy is a happy time for most women. While most expectant mothers experience an average pregnancy, there are certain dangers associated with this condition which can result in health complications for both mother and baby. Knowledge of obstetric danger signs and birth preparedness are strategies aimed at enhancing the utilization of skilled care during low risk births and emergency obstetric care in complicated cases in low income countries

A study was conducted to assess the effectiveness of structured teaching programme on knowledge regarding warning signs of pregnancy among primi gravid mothers in Saidapet Health Post at Chennai. The hypothesis of this study was there is no significant relationship between the structured teaching programme on the level of knowledge regarding warning signs of pregnancy among primi gravid mothers. Extensive review of literature facilitates the investigator to collect the relevant information of facts to support the study. The conceptual framework of this study was based on King's Theory of Goal Attainment.

The study was conducted by adopting a pre experimental one group pre test post test design. Sixty primi gravid mothers who fulfilled the inclusion criteria were selected by purposive sampling technique. Each day the investigator collected data from 2-3 primi gravid mothers to assess the level of knowledge on warning signs of pregnancy. A structured questionnaire was distributed to the mothers to assess the pre test level of knowledge on warning signs of pregnancy among primi gravid mothers. Then followed by a structured teaching programme on warning signs of pregnancy and its management were educated to the primi gravid mothers. A post test was conducted to assess the level of knowledge with the same questionnaire provided in the pre test.

Analysis revealed that the paired 't' test value of 28.14 was highly significant at the level of  $p < 0.001$ . Thus it indicates the effectiveness of structured teaching programme and level of knowledge regarding warning signs of pregnancy among primi gravid mothers.

# ***Introduction***

*Review*  
*of*  
*Literature*

# *Methodology*

*Data Analysis  
and  
Interpretation*



# *Discussion*

*Summary,  
Conclusion,  
Nursing  
Implications,  
Recommendations  
& Limitations*

# *References*

# *Appendices*

# CHAPTER-I

## INTRODUCTION

"...thousands of women could be saved each year if they had access to skilled care during pregnancy and childbirth, and access to emergency obstetric care. Most of the interventions they need are simple, affordable and highly effective."

- Dr.Lee Jong Wook

Few life events are as wonderful, ambivalent, memorable and defining as pregnancy. While the process of gestation has many common threads and themes for all women, each mother's experience is unique. Furthermore, the same woman may experience pregnancy differently each time that she goes through it. The changes that the expectant woman undergoes involve not only her physical but also psychological, spiritual, emotional, interpersonal and social dimensions.

When a woman becomes pregnant, she is very aware that a new life is growing within her for the next nine months. Millions of women give birth to healthy babies every day. But on the other hand there are women who have miscarriages, still birth or children with birth defects. This acts as a constant reminder of fragility and delicacy of the process from conception to childbirth. It is a long road with pitfalls at every turn. While most women negotiate the path to motherhood successfully, always at the back of their minds runs the thought that things can go wrong if they are not careful.

Raghuvanshi.R, (2010) stated that Pregnancy is a very delicate phase of fetus development. During this phase, a woman's body undergoes various changes. So, in order to avoid any complications it is important to keep a check on the warning signs of pregnancy. Maternal health refers to the health of women during pregnancy, childbirth and the postpartum period. While motherhood is often a positive and fulfilling experience, for too many women it is associated with suffering, ill health and even death.

Gupta.N, (2004) mentioned that nature has bestowed a woman with the capability of producing children, the process that makes her mother. But sad part is that, this normal life furthering process of procreation can lead to as grim a situation as death. At least 40% of all pregnant women will experience some type of complications during their pregnancies. For about 15%, these complications will be potentially life threatening and will require immediate obstetric care. Maternal death also compromises the health and survival of infants and children they have behind. The death of a woman during pregnancy and childbirth is not only a health issue but also a matter of social injustice

Over half a million women die each year due to complications during pregnancy and birth. The vast majority of these deaths are preventable. In recent years, there has been increased recognition that reducing maternal mortality is not just an issue of development, but also an issue of human rights. Preventable maternal mortality occurs where there is a failure to give effect to the rights of women to health, equality and nondiscrimination. Preventable maternal mortality also often represents a violation of a woman's right to life.

Maternal health has particularly close relationship with the right to the highest attainable standard of health. This fundamental human right is now recognized. The right to health includes entitlements to goods and services, including sexual and reproductive health care and information. It requires action to break down political, economic, social and cultural barriers that women face in accessing the interventions that can prevent maternal mortality. It requires participation by stakeholders in policy and service development. And it requires accountability for maternal mortality. In short, the promotion and protection of the right to health demand actions that lead to a significant and sustained reduction in maternal mortality.

Almost all cases of maternal mortality are preventable. An estimated 74 per cent of maternal deaths could be averted if all women had access to the interventions for preventing or treating pregnancy and birth complications, in particular emergency obstetric care. In many countries with high maternal mortality rates, there is a need to increase provision of appropriate quality services. Poverty, gender and other inequalities, a lack of information, weak health systems, a lack of political

commitment and cultural barriers are other obstacles that need to be overcome if women are to access technical services and information that can often prevent maternal mortality and morbidity.

There are some signs and symptoms such as severe vomiting, severe bleeding per vagina, unusual swelling of face, arms and legs, high fever, pallor, severe headache, leaking of watery fluid through vagina, decreased fetal movements and no indication of labor after two weeks of expected date of delivery which needs to be identified. These conditions required other, complementary actions such as health education.

Kolesar.N, (2008) stated that if we observe, how Mother Nature proceeds, we see that before planting and cultivating anything, Nature forms an ecological environment by preparing the soil, likewise the main actor in the creation of a good family is a mother. There are many examples of mothers who have worked successfully in this way, bringing into the world healthy and well balanced children. The promise of brighter future or humanity is closely linked with prenatal education. Through appropriate prenatal education our current violence oriented society can gradually be transformed into a saner, better balanced and more creative generation of human beings.

The teaching programme's strategies include diminishing maternal mortality and morbidity, strengthening the ability to detect warning signs of maternal mortality in public and private medical units and providing refresher training courses to improve the quality of attention to women in labor and other complications that arise. Bringing down the maternal mortality rate is one of the primary goals in accordance with efforts to improve maternal and prenatal health care in the state.

Providing appropriate supports for the pregnant mother as well as her partner and significant others are one of the most important crucial aspects of quality collaborative health care. The purpose of this research was to explore existing knowledge about warning signs during pregnancy in a population using third level medical facilities as the first step in designing an educational program.

## **NEED FOR THE STUDY**

Most women will have normal pregnancies with no complications. Pregnancy is a happy time for most women. While most expectant mothers experience an average pregnancy, there are certain dangers associated with this condition which can result in health complications for both mother and baby. It is important to note that group prenatal education programs are only one component of the care and support necessary through pregnancy, birth and the postpartum period. Comprehensive health promotion practices encourage a blend of strategies with intersectoral collaboration.

Each day in U.S., two women die of problems related to pregnancy or childbirth. The numbers have been rising, for reasons that are not entirely clear. After plunging in the 1900s, maternal mortality rates in California tripled between 1996 and 2006, from 5.6 deaths per 100,000 births to 16.9. Nationally, the rate defined as deaths from obstetrical causes within one year of giving birth, rose from 7.6 per 100,000 to 13.3 per 100,000. For each death, experts estimate, there are about 50 instances of complications related to pregnancy or childbirth that are life threatening or cause permanent damage.

Factors that contribute to a higher risk of maternal mortality can include biomedical factors such as direct obstetric complications of hemorrhage, infection, obstructed labor, hypertensive disorders of pregnancy and septic abortion. The reminders are due to other direct obstetric causes such as pulmonary embolism, ectopic pregnancy or indirect causes that are aggravated by pregnancy such as malaria, hepatitis, diabetes mellitus and heart disease. Worldwide the most common cause of maternal mortality is hemorrhage, but the proportion due to each cause varies between regions. It has been estimated that approximately 40% of women may suffer an acute problem in pregnancy and 9-15% may experience a problem needing higher level care.

Reproductive factors depend on the number of pregnancies the mother has in her lifetime. The health service factors are often inadequate such as lack of trained staff, equipments and supplies. Additionally, where services do exist, their costs may be prohibitively expensive for the majority of the population, socioeconomic and cultural factors where women are afforded a low status in society their health needs



are often neglected, and existing health facilities may not be accessed by women in need. Additionally, lack of education and understanding around health related issues can contribute to delays in seeking care when it is needed or to the inappropriate management of life threatening pregnancy complications.

In the last decades, the life expectancy of the population in India has shown remarkable improvement from 41 years in 1961 to the present day of 65 years. Yet, over a 100,000 women in India continue to die of pregnancy related causes every year. The Maternal Mortality Ratio in India is 212 per 1, 00,000 live births (SRS, RGI 2011). The major causes of these deaths have been identified as ante partum and post partum hemorrhage, toxemia which is due to pregnancy induced hypertension, anemia, obstructed labor, puerperal sepsis and unsafe abortion. This Maternal Mortality ratio has to be decreased to 109 per 1, 00,000 live births by the year 2015 according to Millennium Development Goals.

The maternal mortality rate in India is a subject of grave concern. The maternal mortality rate in Tamil Nadu is 97 per 1, 00, 000 live births (2007 – 2009). Important contributing causes are anemia, poverty, ignorance, malnutrition, inter current infections, hemoglobinopathies. Though health departments create awareness both center and state level through mass media for planned maternal and child health programme, still most of the mothers living in remote areas are not aware of this due to lack of literacy, ignorance and social cultural factors.

Most maternal and neonatal deaths take place at home, beyond the reach of health facilities. Current international policy emphasizes the provision of skilled birth attendants. In India, most of the mothers have poor knowledge regarding antenatal, intranatal and post natal care. Illiteracy, poverty and lack of communication and transport facility make them vulnerable to serious consequences. Though they are the prominent care providers within the family and key to human development and well being, the fundamental right help is denied to them in most parts of the world. The death of mother increases risk to the survival of her young children as the family cannot substitute a maternal role. The chances of maternal mortality rise simply because important warning signs are missed.

Promotion of maternal and child health has been one of the most important objectives of the Family Welfare Programme in India. The current Reproductive and Child Health Programme phase II was launched in October 1997. The Reproductive and Child Health Programme incorporates the components covered under the Child Survival and Safe Motherhood Programme. In order to improve maternal health at the community level, a cadre of community level skilled birth attendant who will attend the pregnant mother in the community is being considered.

Antenatal care provides an opportunity to educate the pregnant mother about pregnancy and child birth. Under usage of antenatal care has been repeatedly associated with adverse maternal outcomes. However there is controversy about the impact of antenatal education on pregnancy outcome. Antenatal education programmes are a very important component of antenatal care worldwide since it makes women contribute to the maximum for a better pregnancy outcome and care of the neonate. Antenatal care provides advice, reassurance and education on nutrition during pregnancy, danger signs of pregnancy, screening programs for HIV and other sexuality.

Nurses working in prenatal setting can help to ensure that women are well informed about the normal course of pregnancy so they can recognize and alert health care providers when a complication is occurring. They can actively participate in risk assessment at prenatal visits. Nursing research is needed in areas such as what is the best way to determine each woman's individual needs. So prenatal instructions can be specifically planned and increasing the number of prenatal visits for high risk women could reduce complications during pregnancy.

During the clinical placement in the maternity centre, the researcher had found that most of the pregnant women were unaware of warning signs and its effects during pregnancy. Considering the above factors, the researcher felt that, there is a need for conducting a planned teaching programme and to assess the level of knowledge regarding warning signs of pregnancy among primi gravid mothers. So the researcher decided to conduct the study to assess the effectiveness of structured teaching programme on knowledge regarding warning signs of pregnancy among primi gravid mothers.

## STATEMENT OF THE PROBLEM

A study to assess the effectiveness of structured teaching programme on knowledge regarding warning signs of pregnancy among primi gravid mothers in Saidapet Health Post at Chennai.

## OBJECTIVES

1. To assess the pre test level of knowledge regarding warning signs of pregnancy among primi gravid mothers.
2. To assess the post test level of knowledge regarding warning signs of pregnancy among primi gravid mothers.
3. To evaluate the effectiveness of the structured teaching programme on level of knowledge regarding warning signs of pregnancy among primi gravid mothers.
4. To associate the pre test and post test level of knowledge regarding warning signs of pregnancy among primi gravid mothers with their demographic variables.

## OPERATIONAL DEFINITIONS

**Effectiveness:** Refers to difference in the level of knowledge after administering the structured teaching programme on warning signs of pregnancy among primi gravid mothers.

**Structured Teaching Programme:** Refers to an organized group teaching for 30 minutes by lecture cum discussion method to impart knowledge regarding warning signs of pregnancy.

**Knowledge:** Refers to facts or information obtained from the primi gravid mothers regarding the warning signs of pregnancy.

**Warning signs of pregnancy:** Refers to an intimation, threat or a sign of impending danger during pregnancy that may be hazardous to the fetus and the mother such as severe vomiting, severe bleeding per vagina, unusual swelling of face, arms and legs, high fever, pallor, severe headache, leaking of watery fluid through vagina, decreased

fetal movements and no indication of labor after two weeks of expected date of delivery.

**Primi gravid mothers:** Refers to a woman who is conceived for the first time between 8 - 24 weeks of gestation calculated from last menstrual period or ultrasonography.

### **HYPOTHESIS**

There is no significant relationship between the structured teaching programme and level of knowledge regarding warning signs of pregnancy among primi gravid mothers.

### **DELIMITATIONS**

- The sample size was delimited to 60 primi gravid mothers
- The period of study was delimited to 4 weeks only.

## **CHAPTER - II**

### **REVIEW OF LITERATURE**

The review of relevant literature is nearly always a standard chapter of the thesis or dissertation. The review forms an important chapter in a thesis where its purpose is to provide the background to and justification for the research undertaken (Bruce, 1994). A literature review is a “critical analysis of a segment of a published body of knowledge through summary, classification and comparison of prior research studies, reviews of literature, and theoretical articles”

#### **PART I: REVIEW OF RELATED LITERATURE**

Pregnancy is a time of joy and great anticipation for most expectant families. However, that happiness and tremendous hope for the future can suddenly be halted by the diagnosis of a complicated pregnancy. Every expectant mother should delight in the changes that accompany the progression of her pregnancy, but at the same time be aware that certain occurrences are not considered normal.

Safe Motherhood programmes like structured teaching, information education and communication packages are designed to reduce the high numbers of deaths and illness resulting from complications of pregnancy and childbirth. In too many countries, maternal mortality is a leading cause of death for women of reproductive age. Most maternal deaths result from haemorrhage, complications of unsafe abortions, pregnancy induced hypertension, sepsis and obstructed labour. Safe Motherhood programmes seek to address these direct medical causes and undertake related activities to ensure women have access to comprehensive reproductive health services.

- Literature related to warning signs of pregnancy.

#### **PART II: CONCEPTUAL FRAMEWORK**

## **PART I**

### **REVIEW OF RELATED LITERATURE**

#### **Literature related to warning signs of pregnancy**

In India, most of the mothers have poor knowledge regarding antenatal, intranatal care and postnatal care. Illiteracy, poverty and lack of communication and transport facility make them vulnerable to serious consequences. Though the mothers are the prominent care providers within the family and key to human development and wellbeing, the fundamental right health is denied to them in most parts of the world. The death of mother increases the risk to the survival of her young children, as the family cannot substitute a maternal role.

Knowledge of warning signs of pregnancy, labour and postnatal period is the first essential step for appropriate and timely referral. Nurses have all the potential, that of compassion, care and attitude and can contribute significantly in educating and creating awareness in the clinical and community area on warning signs of pregnancy and its management especially among the vulnerable groups. This can be done by conducting campaigns, regular antenatal visits, early detection and referral services, so the maternal mortality and morbidity rates can still be reduced.

**Turan. J. M, et al., (2011)** had conducted a quasi experimental study to evaluate the effectiveness of a community based intervention for the promotion of safe motherhood among 466 women in Eritrea. Volunteers from a remote rural community in north Eritrea were trained to lead educational sessions to increase the women's knowledge on birth danger signs and use of antenatal care services. The findings showed that the women's knowledge increased significantly following the educational session. Thus the study concluded that participatory educational sessions led by community volunteers increase the women's knowledge in preventing and managing birth danger signs and encourage the use of essential maternity services.

**Kabakyenga. J. K, et al., (2011)** had assessed the knowledge of obstetrical danger signs and birth preparedness, practices among 764 recently delivered women in rural Uganda. The results showed that, the association between the knowledge of at least one key danger sign such as prolonged labour and birth preparedness were not

statistically significant. Thus the study has concluded that the knowledge of obstetrical danger sign among all recently delivered women was very low and it was suggested that primary and secondary education program should be promoted to enhance the impact of key danger signs on birth preparedness practices.

**Naariyong. S, et al., (2011)** had conducted a comparative study to assess the knowledge of pregnancy danger signs among 600 women between the areas of community based health planning services and areas of non community based health planning services in the north district of Ghana. The researcher used a structured questionnaire to collect the data. The findings of the study showed that community based health planning services play a vital role in improving the quality of antenatal care. Therefore it serves as a basis in educating the women about pregnancy danger signs.

**Anya. S. E, et al., (2011)** had conducted a study to assess the effectiveness of information, education and communication on antenatal care among 457 pregnant women attending six urban and six rural antenatal clinics in the larger health division in Gambia. The results showed that above 35% were informed about diet and nutrition, 30% on care of the baby, 24% on family planning, 23% on place of birth and only 19% of pregnant women were informed about the danger signs of pregnancy. The study has concluded that the information, education and communication on the above aspects of antenatal care were poor.

**John. M. S, (2011)** had conducted a study to assess the knowledge regarding warning signs in pregnancy among 60 antenatal mothers attending outpatient department in selected hospitals of Mangalore Taluk. Analysis revealed that majority of the women (87%) had inadequate knowledge on warning signs of pregnancy. The study concluded that most of the women had inadequate knowledge and they should be educated through video assisted teaching or through structured teaching programme in developing knowledge on warning signs of pregnancy.

**Azeim. A. A, et al., (2010)** had conducted a descriptive study to determine awareness regarding danger signs of pregnancy and nutritional education among 388 pregnant women who attended antenatal care clinics in six health centers in Kassala.

The collected data includes the socio demographic data, first booking, number of visit, timing of every visit, provided care such as history, examination, investigation, health and nutrition education, counseling about screening of sexually transmitted diseases, plan of delivery and family planning. The results showed that 84% had only one visit and 16% had four antenatal visits. The study concluded that only a small portion of women who had four antenatal visits were aware of the danger signs of pregnancy.

**Pembe. B. A, et al., (2010)** had conducted a study to assess the quality of antenatal care counseling on pregnancy danger signs by 32 healthcare providers in 18 primary health centers at Rufiji district in Tanzania. The observer collected information about counseling on the danger signs and conducted interviews to 435 pregnant women following antenatal care. The results showed that 2 out of 5 antenatal mothers were not counseled on pregnancy danger signs. The study was concluded that higher trained cadre nurses were not informing about danger signs of pregnancy when compared to the lower cadre nurses.

**Wiegers. T. A, et al., (2010)** had conducted a study to assess the knowledge on danger signs of pregnancy, labour and child birth among 320 pregnant women and health care providers in rural areas of Krygyzstan and Tajikistan, Central Asia. The results showed that most of the pregnant women had limited knowledge and the health care providers in both the places did not have an adequate professional level of knowledge in perinatal health issues and lack basic skills to monitor their work.

**Wafaa. A, et al., (2010)** had conducted an exploratory descriptive study to assess women's awareness of obstetrical danger signs among 200 pregnant women in Albeheira Governorate. The schedule comprised of socio demographic data, obstetrical score and questions related to knowledge regarding obstetrical danger signs. The study revealed that 74% of pregnant women were unaware of obstetrical danger signs, whereas, only 26% had good awareness about such signs. Thus the current study reflects the need for strategic plan to increase the awareness of the obstetrical danger signs.



**Nwachi. U. E, et al., (2010)** had conducted a study to assess the factors influencing the prevalence of anemia in pregnancy among 2287 pregnant women attending 40 public health care centers in Trinidad and Tobago. The findings showed that the prevalence of anemia was 15.3% and there was no significant difference found among the selected clinics or countries. The study concluded that the factors like teenage pregnancy, high parity and previous spontaneous abortions were directly related to the prevalence of anemia.

**Karaoglu. L, et al., (2010)** had conducted a study to assess the prevalence of nutritional anemia in pregnancy among 823 pregnant women in east Anatolian province, Turkey. Blood samples were drawn and routine blood studies including the total blood count, serum iron, folate and vitamin B<sub>12</sub> were done. The findings revealed that pregnant mothers having a low family income, grand multi parity and mothers having habit of soil eating were observed to have nutritional anemia.

**Sarode. V.M, (2009)** had conducted a study to assess the influence of literacy on pregnancy complications among 433 mothers in the slums of Mumbai. A total of 433 households who have given at least one live birth during the last three years prior to the survey were considered. The results showed that about 45% of the women in the study area reported that they had at least one problem during pregnancy. Among the mothers 45% had excessive fatigue, 22% had excessive vomiting, 25% had swelling of the legs, 39% had pain in abdomen, 41% had white discharge, 19% had blurred vision, 14% had vaginal bleeding, 13% had convulsions, 25% had night blindness and 3% had anemia. The study findings recommended the need for effective awareness campaign, committed health workers, easy access to the services, better healthcare delivery system and quality health care.

**Nikiema. B, et al., (2009)** had conducted a study to assess the information on warning signs of complication during pregnancy among women in 19 countries of sub Saharan Africa. A cross sectional cross country analysis was performed on data from the most recent demographic and health service. The findings showed that the percentage of women recalling the information about warning signs of complications during pregnancy varied widely ranging from 6% in Rwanda to 72% in Malawi

respectively. The study concluded that the recalling of information increased with the number of antenatal visits.

**Banerjee. B, (2009)** had conducted a descriptive study to assess the level of information, education and communication services on pregnancy and child care among 400 antenatal and post natal women in an urban health center, New Delhi. During observation, warning signs of pregnancy was explained to only 10% of antenatal and postnatal women and only 8% of the mothers had been told about all issues regarding pregnancy and child care. The study concluded that, information, education and communication regarding maternal and child care was a neglected service in the health facility.

**Hoque. M, (2008)** had conducted a study to assess the level of knowledge on danger signs of pregnancy among 340 black pregnant women in Kwazulu Natal at South Africa. The findings showed that only half of them knew about some of the danger signs of pregnancy and also it was significantly associated with the age of expectant mother. The study concluded that, since the pregnant women had low level of knowledge on danger signs of pregnancy, an urgent attempt should be taken in introducing health education strategies to the rural population of South Africa.

**Guilford. W. H, et al (2008)** had conducted a study to assess the knowledge of prenatal care among 320 women in Costa Rican and Panamanian health care clinics. The four specific domains of prenatal care were danger signs of pregnancy, nutrition, threats from illness and acceptable activities were assessed. The results showed that Costa Rican women scored higher than Panamanian women in most domains of knowledge in pre natal health care. The study concluded that direct education and awareness relates with the promotion of prenatal care.

**Matsuyama. A, (2008)** had conducted a study to assess the perception of bleeding as a danger sign during pregnancy among 342 pregnant women in Rural Nepal. Different qualitative methods were used to collect the data. The results showed that the rural pregnant women's perception on bleeding is different from that of the health professionals. The study concluded that the health professionals should focus

on health education in creating awareness on bleeding as a danger sign during pregnancy.

**Hailu. M, et al., (2007)** had conducted a study to assess pregnant women's knowledge about obstetrical danger signs among 735 pregnant women in AletaWondo district, Sidama zone, Southern Ethiopia. A structured questionnaire was used to collect data on socio demographic characteristics, obstetric history and knowledge about danger signs of pregnancy. The result showed that the knowledge levels of pregnant women about obstetrical danger signs were low and affected by the residential area. Therefore the identified deficiencies in awareness should be addressed through maternal and child health services by designing appropriate strategies including provision of targeted information, education and communication.

**Kumbani. L. C, et al., (2006)** had conducted a descriptive study to explore the level of knowledge on obstetrical complications during pregnancy among 45 primi gravid mothers with gestation period between 28 to 42 weeks attending an urban health center in Blantyre, Malawi. The findings showed that 60% of the primi gravid mothers were knowledgeable about obstetric complications. However only 58% of the primi gravid mothers had some knowledge and could make an informed decision to go to a health facility with pregnancy complications. The study concluded that there was a critical need for provision of information on obstetrical complications in pregnancy that required immediate treatment.

**Alam. A. Y, et al., (2005)** had conducted a comparative study to assess the knowledge, attitude and practices on utilizing and non utilizing antenatal care facilities during pregnancy among married women between the age of 15 to 49 years in Islamabad. Totally 200 married women were enrolled as samples. Among them, 100 married women in group I were assessed on utilizing the antenatal care facilities. Whereas, 100 women in group II were assessed on non utilizing the antenatal care facilities. The results showed that knowledge about danger signals in pregnancy was significantly higher among women utilizing antenatal care facilities.

**Hussein. A. K, et al., (2005)** had conducted a study to compare the ability of trained and untrained traditional birth attendants in identifying women with danger

signs of pregnancy and child birth in Mkuranga district, Coast region, Tanzania. The results showed that trained traditional birth attendants were more knowledgeable on danger signs during pregnancy and childbirth compared to untrained traditional birth attendants. The study concluded that the traditional birth attendants especially in remote rural areas like Tanzania should be trained on early identification of mothers with obstetrical complications and on their prompt referral to health facilities that can provide emergency obstetric care.

**Perreira. K. M, et al., (2002)** had conducted a descriptive study on increasing awareness of danger signs in pregnancy in Guatemala among 637 pregnant women between April 1997 and May 1998. Three Information, Education and Communication programmes were implemented such as a clinical based programme involving training of health providers and the provision of educational media to the pregnant women, a community based strategy consisting of radio messages regarding obstetric complications and educational sessions. The results showed that the women those who have heard radio messages were 3 to 5 times more likely aware of danger signs in pregnancy than others. The study concluded that safe motherhood programmes can effectively increase the knowledge of danger signs through clinic and community based educational strategies.

**Corona. O. E, et al., (1996)** conducted a descriptive study to assess the factors related to the recognition of alarm signals during pregnancy among 100 pregnant women in Spain. The samples were further divided into 6 sub groups. The results showed that adolescent groups were not able to recognize the alarm signs during pregnancy and the pregnant women who had experienced least alarm signs failed to answer most of the questions. The study concluded that, enhancing the relationship between the physician and the pregnant mother would help the pregnant women to recognize the alarm signals during pregnancy at the earliest.

**Chiwuzie. J, et al., (1995)** had conducted a study to assess the causes of maternal mortality among 15 focus groups in a semi urban community of Ekpoma, Nigeria. The findings revealed that the knowledge level was lacking about the warning signs for hemorrhage and the potential danger for bleeding. Women were unaware when to seek help from modern obstetrical services. The study concluded

that the women need to be educated in creating awareness about approaching the modern obstetrical institutions to reduce the mortality rate.

All the above literatures showed that most of the primi gravid mothers were unaware of warning signs of pregnancy and its management. Regular antenatal visits and education on various aspects of antenatal care including warning signs of pregnancy improves the level of knowledge towards early identification and prevention of obstetrical complications.

## **PART II**

### **CONCEPTUAL FRAME WORK**

The conceptual framework represents a less formal attempt at organizing a Phenomenon. Conceptual models deal with concepts that are used as building blocks and provide a conceptual perspective regarding interrelated phenomena which are closely structured.

The central focus of King's framework is man as a dynamic human being whose perceptions of objects, persons and events influence his behavior, social interaction, and health (King, 1971). King's conceptual framework includes three interacting systems with each system having its own distinct group of concepts and characteristics. These systems include personal systems, interpersonal systems, and social systems. King's basic assumption maintained that nursing is a process that involves caring for human beings with health being the ultimate goal (Torres, 1986). The three systems that constitute King's conceptual framework provided the basis for the development of her Theory of Goal Attainment.

The personal system refers to the individual. The concepts within the personal system and fundamental in understanding human beings are perception, self, body image, growth and development, time, and space. King, (1981) viewed perception as the most important variable because perception influences behavior. King summarized the connections among the concepts in the following statement. An individual's perceptions of self, of body image, of time and space influence the way he or she responds to persons, objects, and events in his or her life. As individuals grow and develop through the life span, experiences with changes in structure and function of their bodies over time influence their perceptions of self. Interpersonal systems involve individuals interacting with one another. King refers to two individuals interacting as dyads, three individuals as triads, and four or more individuals as small or large groups.

King, (1981) stated, Although personal systems and social systems influence quality of care, the major elements in a theory of goal attainment are discovered in the interpersonal systems in which two people, who are usually strangers, come together

in a health care organization to help and to be helped to maintain a state of health that permits functioning in roles. King believed that interactions between the nurse and the client lead to transactions that result in goal attainment. Furthermore, King proposed that through mutual goal setting and goal attainment, transactions result in enhanced growth and development for the client (Woods, 1994).

The theory is based on the concepts of the personal and interpersonal systems including interaction, perception, transaction and action. A basic theory for conceptual framework, which is aimed to assess the effectiveness of structured teaching programme on warning signs of pregnancy among primi gravid mothers. This involves interaction between the researcher and the primi gravid mother. The seven major concepts are described as follows:

### **Perception**

Perception is the person's representation of the reality. It influences all other behavior of a person and it is more subjective and unique to each person. The researcher perceives that primi gravid mothers who are conceived for the first time will have lack of knowledge regarding warning signs of pregnancy as it is unique and depends on various factors like age, educational status, occupation, source of health information and their gestational age. The researcher considers that the primi gravid mothers are anxious due to lack of knowledge about warning signs pregnancy.

### **Judgement**

The judgement is a decision made by the researcher and the primi gravid mothers. Here the researcher judges that the primi gravid mothers have lack of knowledge regarding warning signs of pregnancy and also the primi gravid mothers seek help from internal resources like, family members, neighbours and external resources like, health personnel and media to attain maximum knowledge on warning signs of pregnancy.

### **Action**

This refers to the changes that have to be achieved. The researcher's action is to provide a structured teaching programme on knowledge regarding warning signs of

pregnancy with the help of audiovisual aids like flip charts, booklets and the primi gravid mothers are eager to listen and understand the various warning signs of pregnancy and its management.

### **Mutual goal setting**

Here the researcher plans to educate about the warning signs of pregnancy and its management and the primi gravid mothers are actively involving in this structured teaching programme on warning signs of pregnancy.

### **Reaction**

Reaction means decision to act. In this study the researcher developed a tool to assess the existing level of knowledge on warning signs of pregnancy among primi gravid mothers attending antenatal clinic.

### **Interaction**

Interaction is a process of perception and communication between person and environment and between person and person, represented by verbal and non verbal behaviors that are goal directed. Here the researcher gave a structured teaching programme among primi gravid mothers attending antenatal clinic under ten components such as general information about warning signs of pregnancy, severe vomiting, severe bleeding per vagina, unusual swelling of face, arms and legs, high fever, pallor, severe headache, leaking of watery fluid through vagina, decreased fetal movements and no indication of labor after two weeks of expected date of delivery.

### **Transaction**

The transaction is purposeful interaction that leads to goal attainment, between the researcher and the primi gravid mothers. Here, the researcher assesses the effectiveness of structured teaching programme on knowledge regarding warning signs of pregnancy by post test using the same tool. Positive outcome is adequate knowledge regarding warning signs of pregnancy which has to be enhanced further. Negative outcome is moderate and inadequate knowledge on warning signs of pregnancy which needs to be reassessed for further learning.



King's conceptual framework and theory of goal attainment provides a useful structure for the current research by using a structured teaching programme in educating primi gravid mothers regarding warning signs of pregnancy. King's theory provides direction for nursing practice by emphasizing the processes of multidisciplinary collaboration, communication, interaction, transaction and use of critical thinking. Nurses who interact with other systems will influence the health outcomes of the patients and families during their hospital stay and beyond discharge, with the result that the patient becomes their own health manager.

Thus, the researcher adopted this model and perceived appropriate to assess the effectiveness of structured teaching programme on knowledge regarding warning signs of pregnancy among primi gravid mothers.

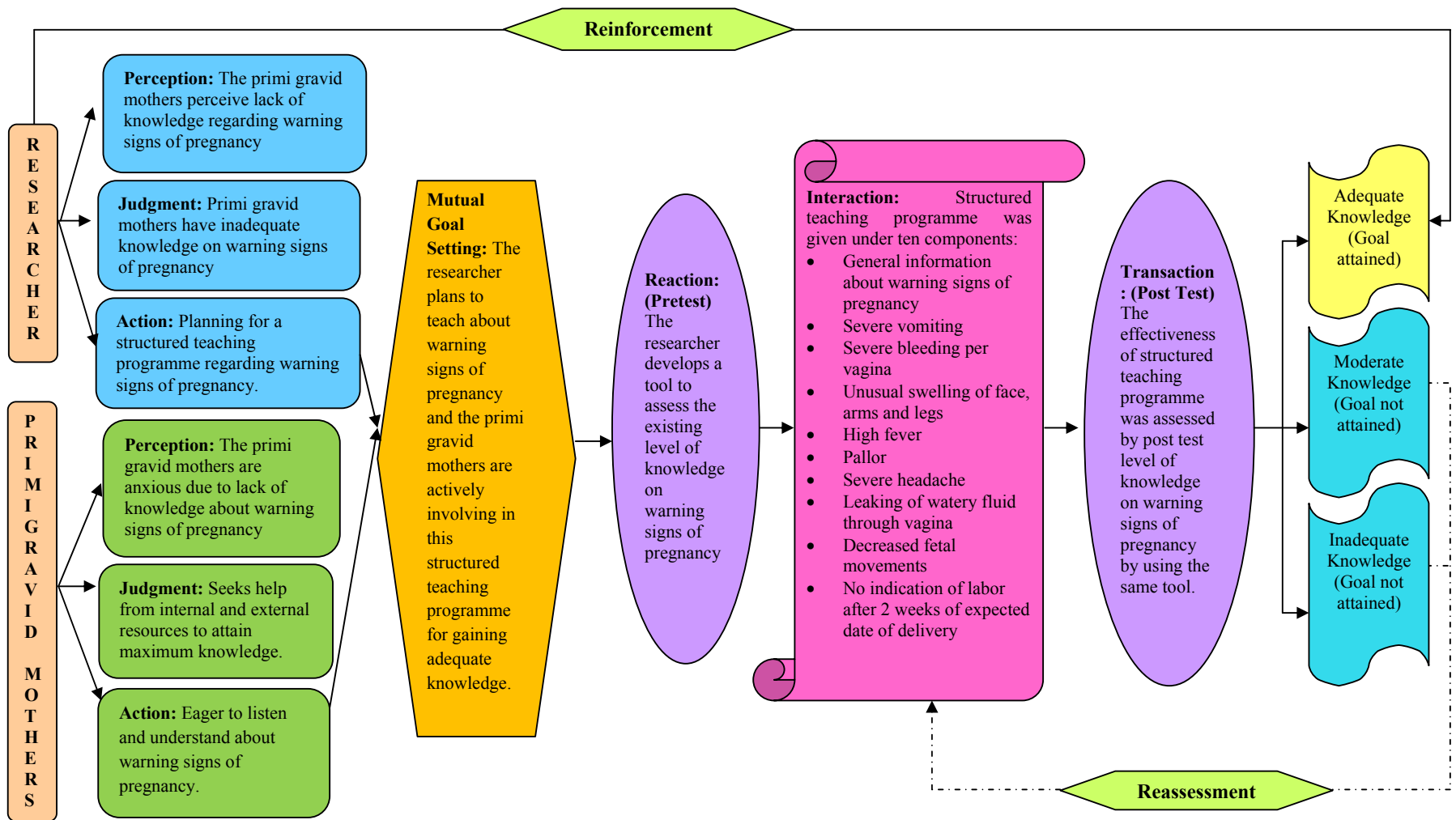


Fig 1. MODIFIED KING'S GOAL ATTAINMENT THEORY (1981)

## **CHAPTER-III**

### **METHODOLOGY**

The methodology of the research study is defined as the way the information is gathered in order to answer the question or analyze the research problem. It includes aspects like research design, setting of the study, population, sample, sample size, sampling technique, criteria for sample selection, description of the tool, pilot study, data collection procedure and data analysis.

#### **RESEARCH DESIGN**

The research design adopted for this study was pre experimental one group pre test post test design, to assess the effectiveness of structured teaching programme on knowledge regarding warning signs of pregnancy among primi gravid mothers.

#### **SETTING OF THE STUDY**

The study was conducted in Saidapet Health Post at Chennai, which has a provision of 100 beds. The center is well equipped with modern modalities and it has adequate facilities like, separate antenatal clinics for the mothers under 6 months and for third trimester respectively. The ante natal clinic was conducted every Tuesdays and Thursdays, registration for both old and new cases was done on the same day. The antenatal clinic was organized by two gynecologists, two sector health nurses and 8 multipurpose health workers.

The antenatal clinic is also supported by other facilities like laboratory facilities including HIV/VCTC counseling centers, pharmacy, immunization and ultrasound facilities. This health post is established exclusively for maternal and child health services round the clock. The average number of antenatal registration per day is about 40 to 50. This centre also have adequate facilities like labor room, operation theatres, postnatal ward, post operative ward separate neonatal unit etc. This centre also provides various funds as provided by the Government of Tamil Nadu for the welfare of both mother and newborn.

## **POPULATION**

The population consists of all primi gravid mothers who attend the antenatal outpatient department in Saidapet Health Post at Chennai.

## **SAMPLE**

The sample consists of primi gravid mothers between 8 –24 weeks of gestation who attend the antenatal outpatient department and those who fulfilled the inclusion criteria.

## **SAMPLE SIZE**

The sample size consists of 60 primi gravid mothers who were between 8 – 24 weeks of gestation.

## **SAMPLING TECHNIQUE**

Purposive sampling technique was used to select the primi gravid mothers who were between 8 – 24 weeks of gestation to assess the effectiveness of structured teaching programme on warning signs of pregnancy

## **CRITERIA FOR SAMPLE SELECTION**

### **Inclusion criteria**

- Primi gravid mothers who were between 8 – 24 weeks of gestation regardless of high risk conditions.
- Primi gravid mothers who had attended antenatal outpatient department.
- Primi gravid mothers who were available at the time of data collection.
- Primi gravid mothers who were willing to participate in the study.

### **Exclusion criteria**

- Primi gravid mothers who were in labor.
- Primi gravid mothers who cannot read and write Tamil.

## **DESCRIPTION OF THE INSTRUMENT**

The instrument was developed after the literature review and guidance from the experts. It consists of three parts

### **Part I**

It consists of demographic variables of the primi gravid mothers which include age, education, occupation, family income, type of family, source of information and gestational age.

### **Part II**

Assessment of level of knowledge regarding warning signs of pregnancy among primi gravid mothers. It consists of 40 multiple choice questions regarding the causes, manifestations and management of warning signs of pregnancy. The correct response carries 1 mark and wrong answer carries 0 marks

The scores was interpreted as follows

- 76 - 100% - Adequate knowledge
- 51 - 75% - Moderately adequate knowledge
- $\leq 50\%$  - Inadequate knowledge

### **Part III**

Instructional module for structured teaching programme regarding warning signs of pregnancy.

The module consists of information about warning signs of pregnancy such as severe vomiting, severe bleeding per vagina, unusual swelling of face, arms and legs, high fever, pallor, severe headache, leaking of watery fluid through vagina, decreased fetal movements and no indication of labor after two weeks of expected date of delivery. Audiovisual aids like flip charts and booklets were used for this structured teaching programme.

## **VALIDITY**

The content validity of the instrument was obtained from the experts in the field of Obstetrics and Gynecology. The expert suggested simplification of language, reduction and reorganization of certain items were made. Appropriate modification was made accordingly and the tool was finalized.

## **RELIABILITY**

The study was conducted on the effectiveness of structured teaching programme on knowledge regarding warning signs of pregnancy among primi gravid mothers in Saidapet Health Post at Chennai. Reliability was measured by test re test method. The correlation coefficient value was found to be 0.9. So the tool was considered highly reliable to conduct this study.

## **ETHICAL CONSIDERATION**

The study was conducted after the approval of dissertation committee. Formal written permission was obtained from the Deputy Project Coordinator, Chennai Corporation. The primi gravid mothers were explained about the study purposes. The formal written consent was taken from the samples. The usual assurance of anonymity and confidentiality was obtained.

## **PILOT STUDY**

The refined tool was used for pilot study to test the feasibility, appropriateness and practicability. The pilot study was conducted in Saidapet Health Post at Chennai from the duration of 18.04.2011 to 24.04.2011. A formal written permission from the concerned authorities and a written consent from the primi gravid mothers was obtained. It was carried out with 6 primi gravid mothers who fulfilled the inclusion criteria by purposive sampling method.

Pre test was given for 15 to 20 minutes by using a structured questionnaire. Followed by structured teaching programme on warning signs of pregnancy and its management was conducted for 25 to 30 minutes. Mother's doubts and questions were clarified by the researcher. The post test was conducted then with the same set of questionnaire.

## **DATA COLLECTION PROCEDURE**

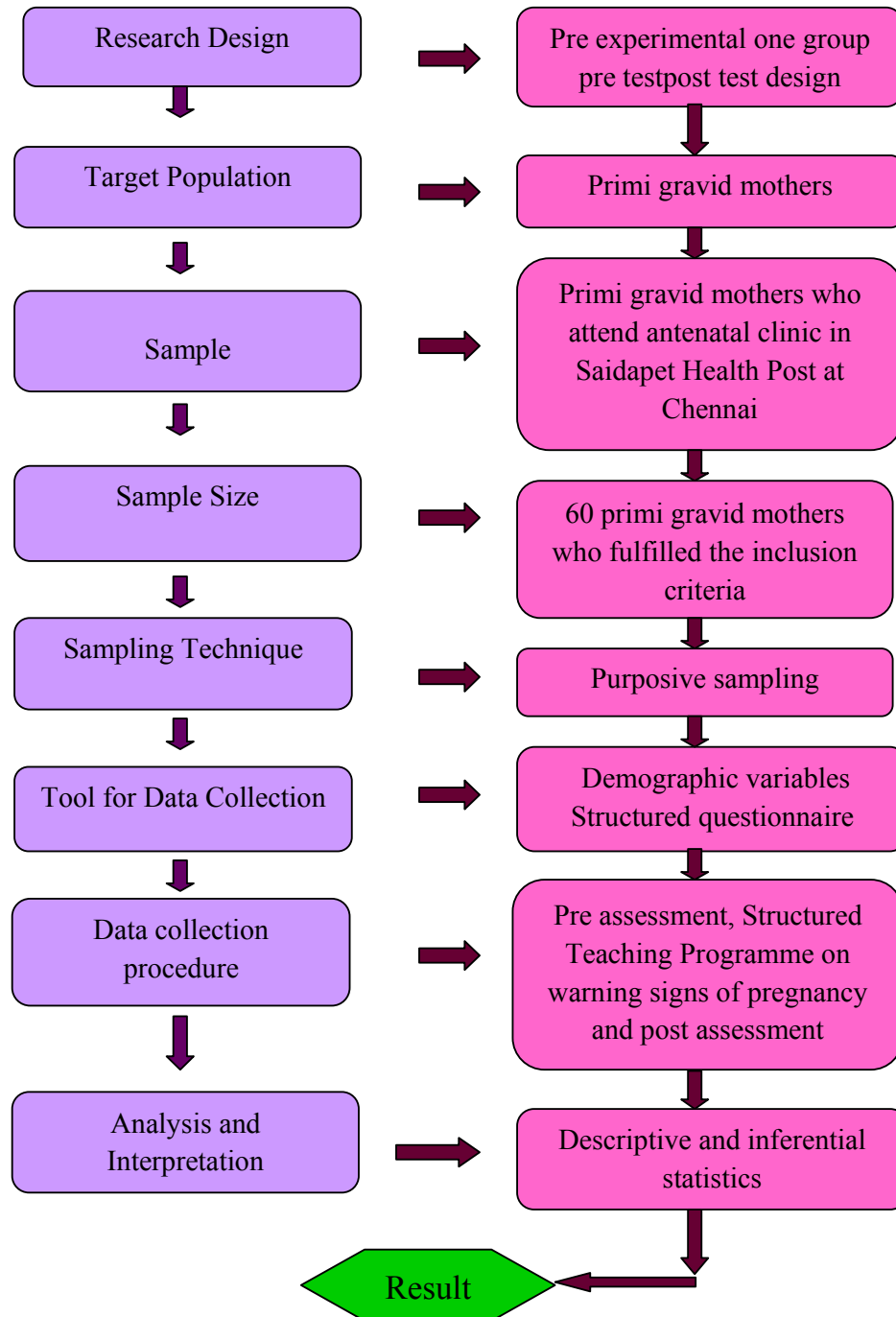
A formal written permission was obtained from the Deputy Project Coordinator, Corporation of Chennai and the Zonal officer in Saidapet Health Post. The data were collected over a period of 4 weeks in the month of June from 01.06.2011 to 30.06.2011. The study was carried out with 60 primi gravid mothers who fulfilled the inclusion criteria. Purposive sampling technique was used for selecting the primi gravid mothers. A written consent was obtained from the primi gravid mothers. Self introduction was given followed by adequate explanation about the purpose of the study to ensure better cooperation.

Each day about 4 to 5 primi gravid mothers was assessed on the level of knowledge regarding warning signs of pregnancy. A pre test was conducted to assess the existing knowledge regarding warning signs of pregnancy followed by that a structured teaching programme on warning signs of pregnancy and its measures was educated to the primi gravid mothers. A post test was conducted to assess the level of knowledge with the same questionnaire provided in the pre test.

## **DATA ANALYSIS**

The data was analyzed in terms of the objectives of the study using descriptive and inferential statistics. Demographic variables of primi gravid mothers was analysed in terms of frequency and percentage. Mean and Standard Deviation was used to compute pre test and post test level of knowledge among primi gravid mothers. Paired 't' test was used to evaluate the effectiveness of structured teaching programme on knowledge regarding warning signs of pregnancy among primi gravid mothers. Chi Square test was used to associate the pre test and post test level of knowledge among the primi gravid mothers with their demographic variables.

**A study to assess the effectiveness of structured teaching programme on knowledge regarding warning signs of pregnancy among primi gravid mothers in Saidapet Health Post at Chennai.**



**Fig. 2: Schematic representation of research methodology adapted in this study.**



## CHAPTER IV

### DATA ANALYSIS AND INTERPRETATION

Abdellah and Levine mentioned that interpretation of tabulated data could bring light to the real meaning of the findings of a study. According to Kerlinger, “Analysis is the categorizing, ordering, manipulating and summarizing of data to obtain answer to the research questions”. The analysis of the data was done using descriptive and inferential statistical methods, organized and presented in the form of tables and graphs. The data analysis was done based on the objectives of the study.

- Section A:** Frequency and percentage distribution of demographic and obstetric variables on warning signs of pregnancy among primi gravid mothers.
- Section B:** Frequency and percentage distribution of pre test level of knowledge regarding warning signs of pregnancy among primi gravid mothers.
- Section C:** Frequency and percentage distribution of post test level of knowledge regarding warning signs of pregnancy among primi gravid mothers.
- Section D:** Comparison between pre test and post test level of knowledge regarding warning signs of pregnancy among primi gravid mothers.
- Section E:** Comparison of mean and standard deviation of pre test and post test level of knowledge regarding warning signs of pregnancy among primi gravid mothers.
- Section F:** Association of pre test level of knowledge regarding warning signs of pregnancy among primi gravid mothers with their demographic variables.
- Section G:** Association of post test level of knowledge regarding warning signs of pregnancy among primi gravid mothers with their demographic variables.

## SECTION - A

**Table 1: Frequency and percentage distribution of demographic and obstetric variables on warning signs of pregnancy among primi gravid mothers.**

N=60

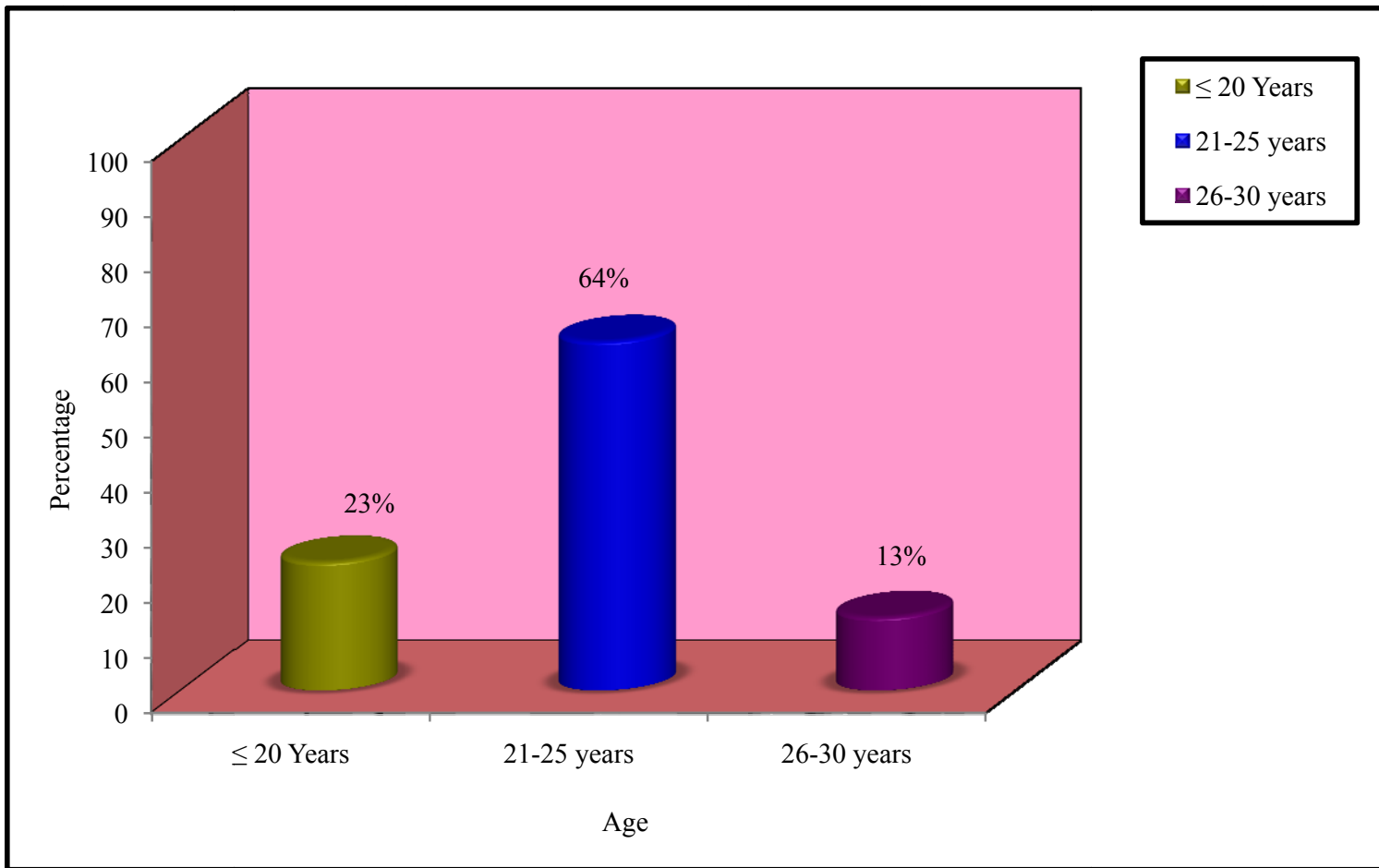
S.No	Demographic variables	Frequency	Percentage
<b>1</b>	<b>Age</b>		
	≤ 20 years	14	23
	21-25 years	38	64
	26-30 years	08	13
<b>2</b>	<b>Educational Status</b>		
	Primary education	6	10
	Secondary education	40	67
	Graduation	14	23
<b>3</b>	<b>Occupation</b>		
	Home maker	49	82
	Coolie	6	10
	Private employee	5	8
<b>4</b>	<b>Family Income Per Month</b>		
	Rs.1001 - Rs. 2000	14	24
	Rs. 2001 - Rs. 3000	29	48
	Above Rs. 3001	17	28
<b>5</b>	<b>Type of Family</b>		
	Nuclear family	33	55
	Joint family	27	45
<b>6</b>	<b>Source of Health Information</b>		
	Health personnel	22	37
	Family members	38	63
<b>7</b>	<b>Gestational Age</b>		
	8 - 12 weeks	22	37
	13 - 24 weeks	38	63

Table 1 represents the frequency and percentage distribution of demographic and obstetric variables on warning signs of pregnancy among primi gravid mothers.

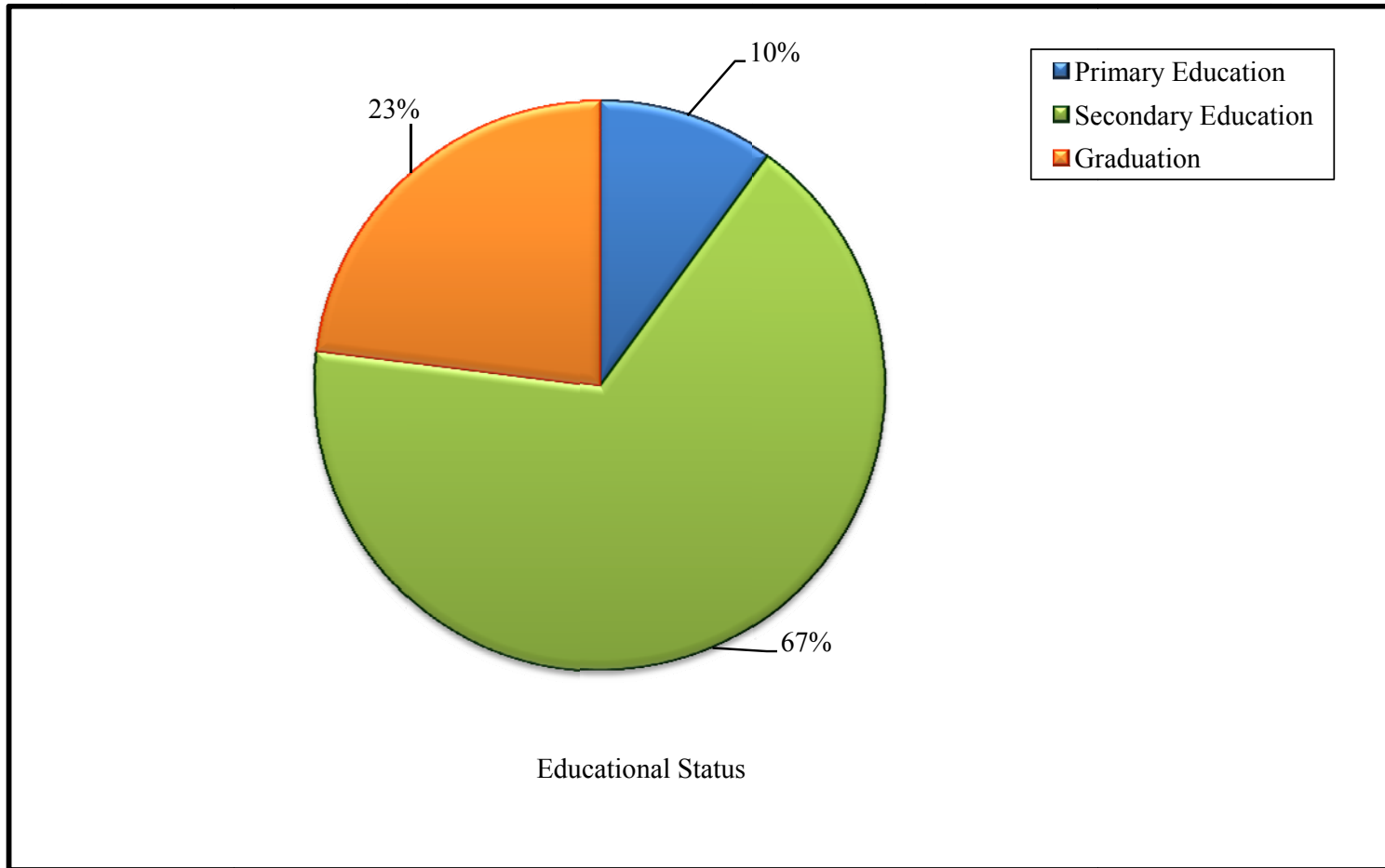
With respect to the age of primi gravid mothers, 38 (64%) were in the age group of 21-25 years, 14 (23%) were in the age group of  $\leq 20$  years and 8 (13%) were in the age group of 26-30 years. Considering the educational status of primi gravid mothers, 40 (67%) have completed higher secondary education, 14 (23%) have completed graduation and 6 (10%) have completed primary education.

Regarding occupation of primigravid mothers 49 (82%) were homemakers, 6 (10%) were coolies and 5 (8%) were private employees. In accordance with the monthly income, 29 (48%) belong to the income group of Rs. 2001-3000, 17 (28%) belong to the income group of above Rs.3001 and 14 (24%) belong to the income group of 1001-2000.

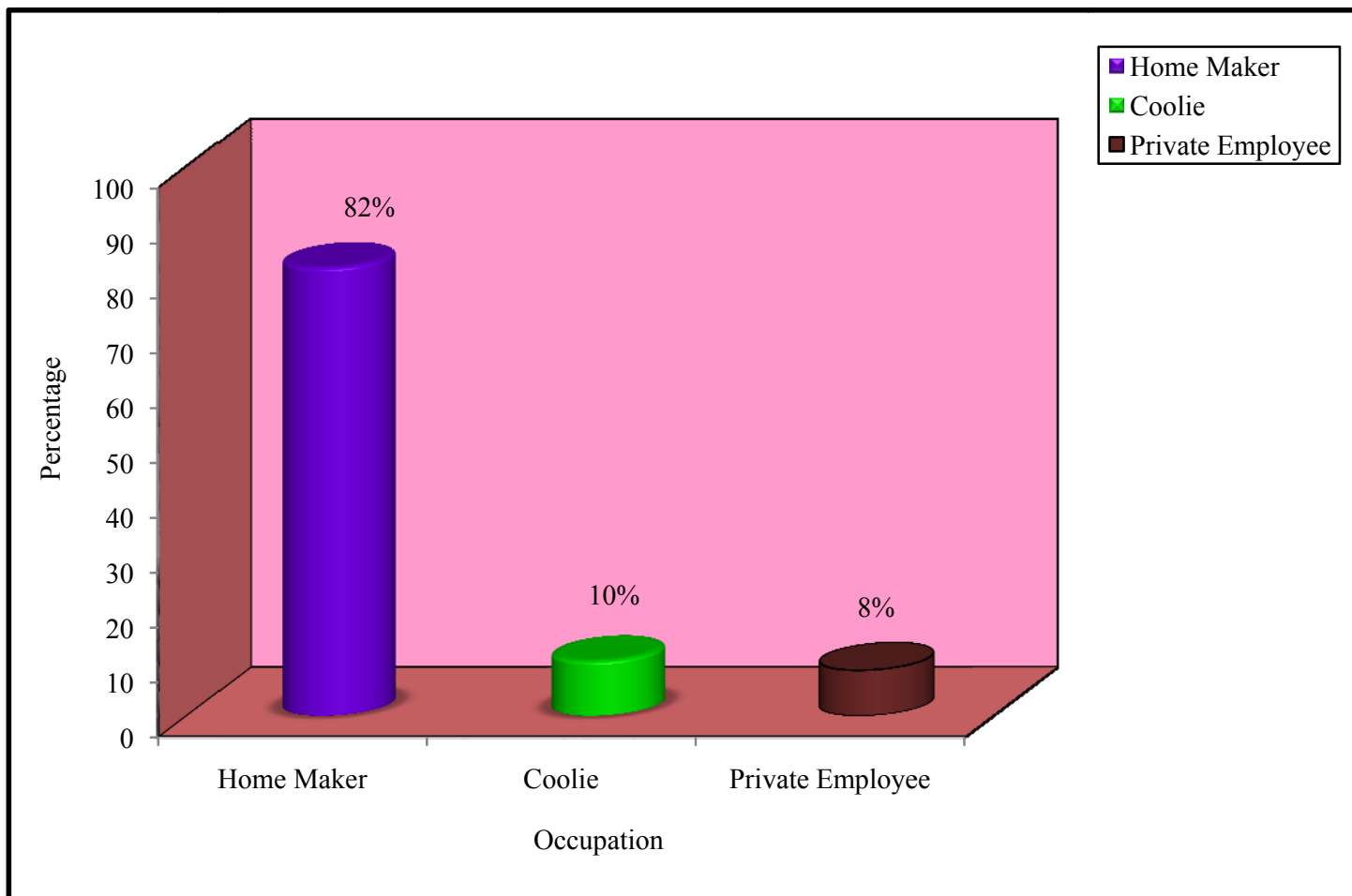
Related to the type of family, 33 (55%) were from Nuclear family and 27 (45%) were from Joint family. In concern with the source of information, 38 (63%) acquired through family members and 22 (37%) acquired through health personnel other sources. Considering the gestational age of the primi gravid mothers 38 (63%) were in between 13-24 weeks of gestation and 22 (37%) were in between 8-12 weeks of gestation.



**Fig 3:**Percentage distribution of age among primi gravid mothers



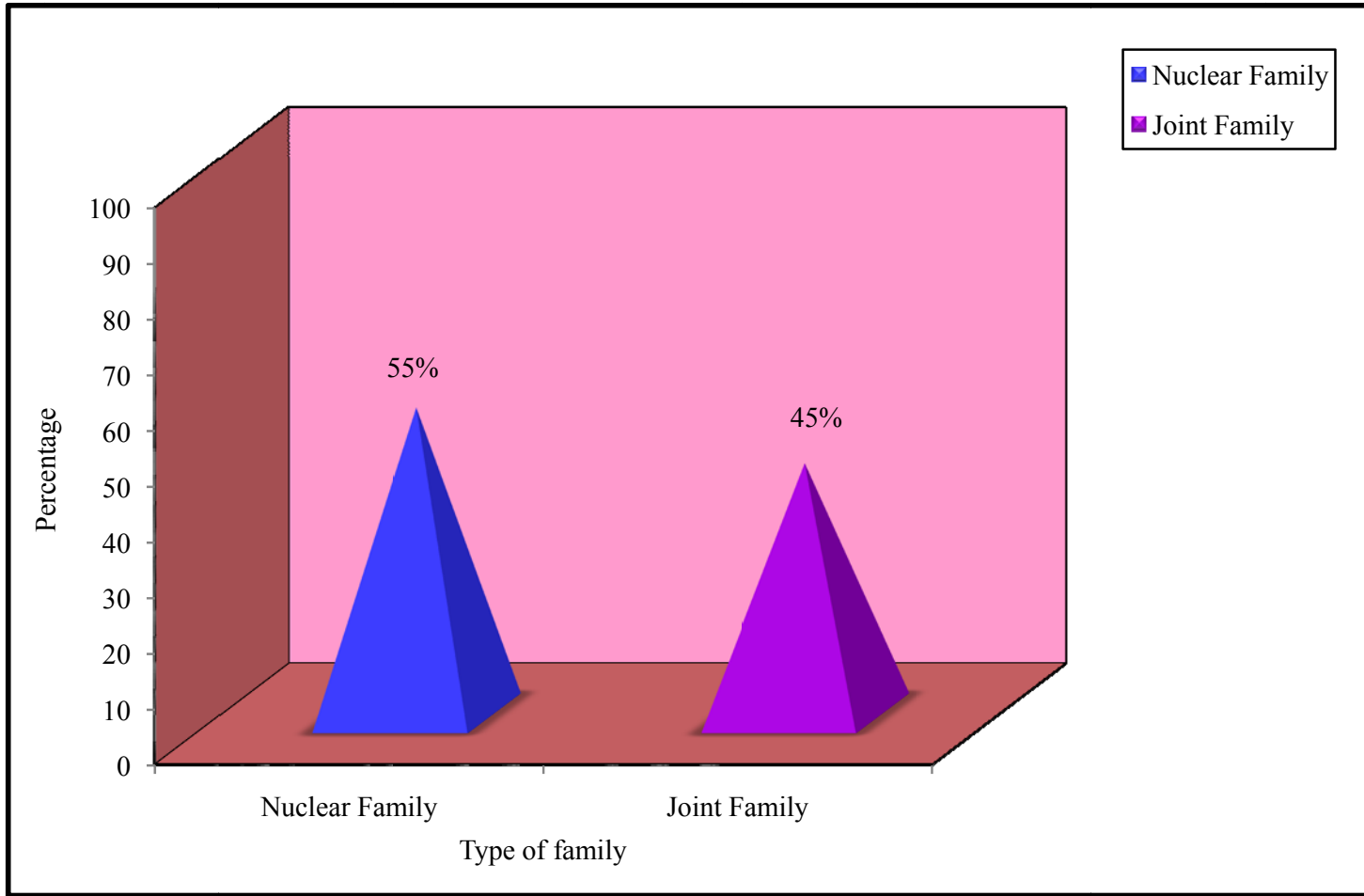
**Fig 4:** Percentage distribution of educational status among primi gravid mothers



**Fig 5:**Percentage distribution of occupation among primi gravid mothers

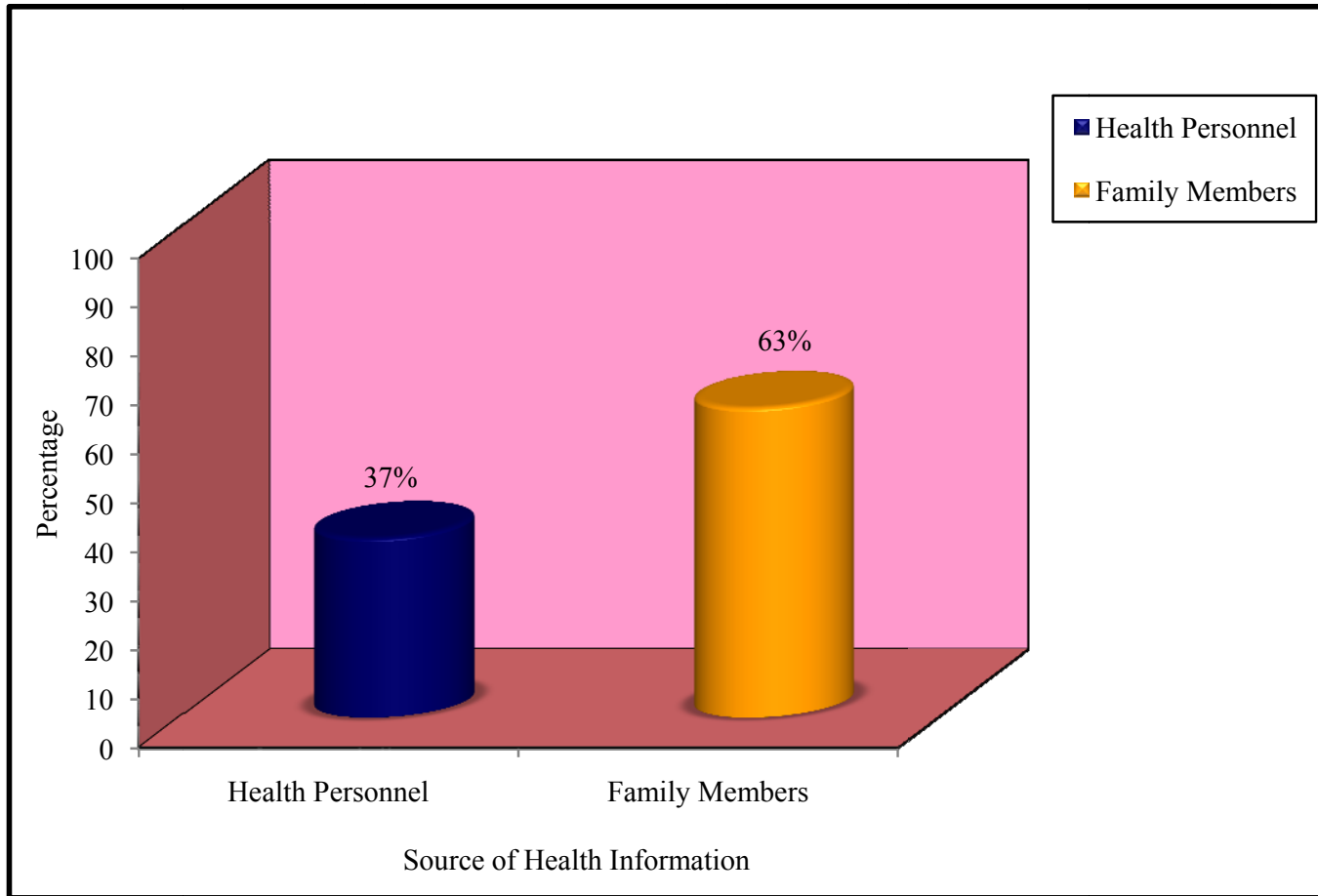


**Fig 6:**Percentage distribution of family income per month among primi gravid mothers

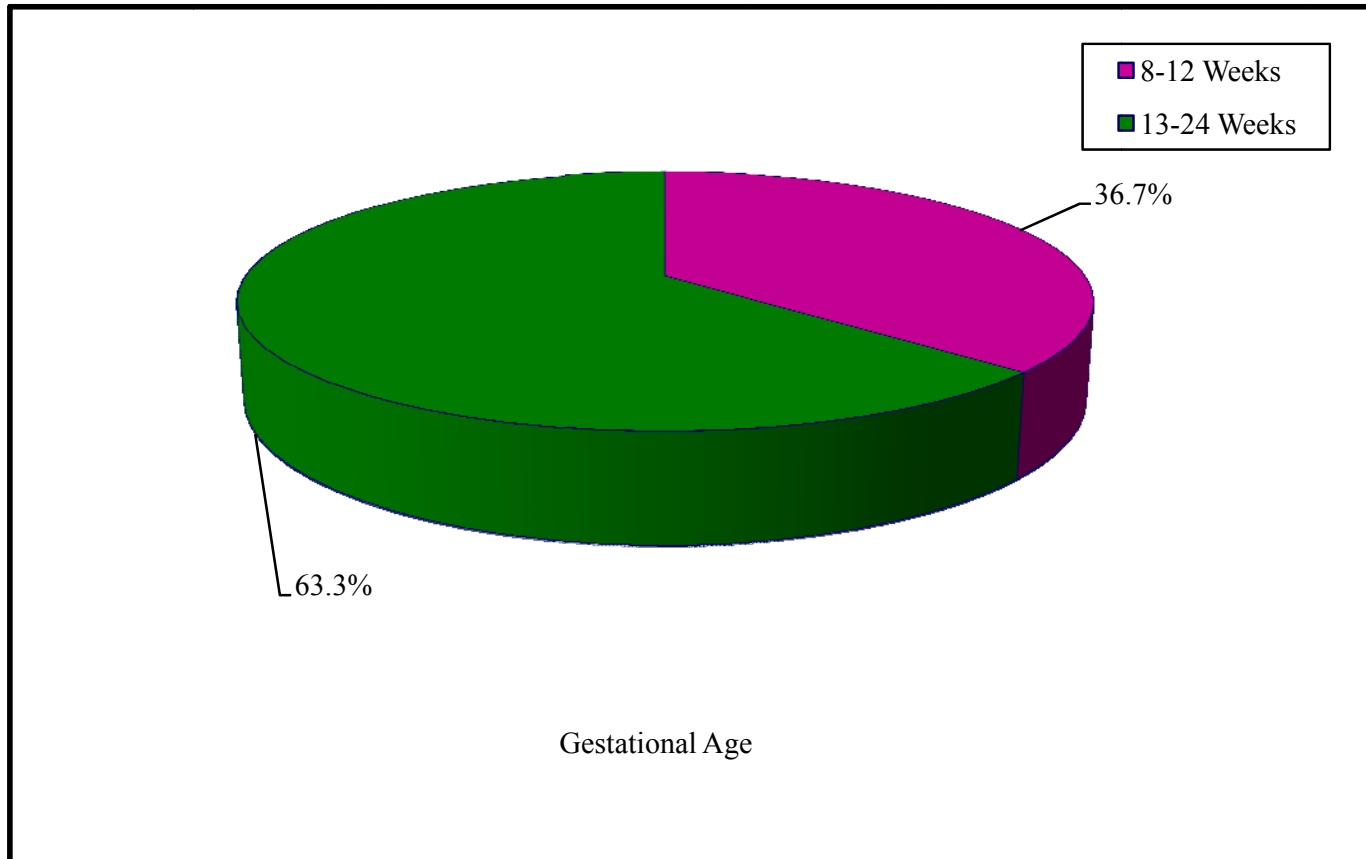


**Fig 7:**Percentage distribution of type of family among primi gravid mother





**Fig 8:**Percentage distribution of source of health information among primi gravid mothers



**Fig 9:**Percentage distribution of gestational age among primi gravid mothers

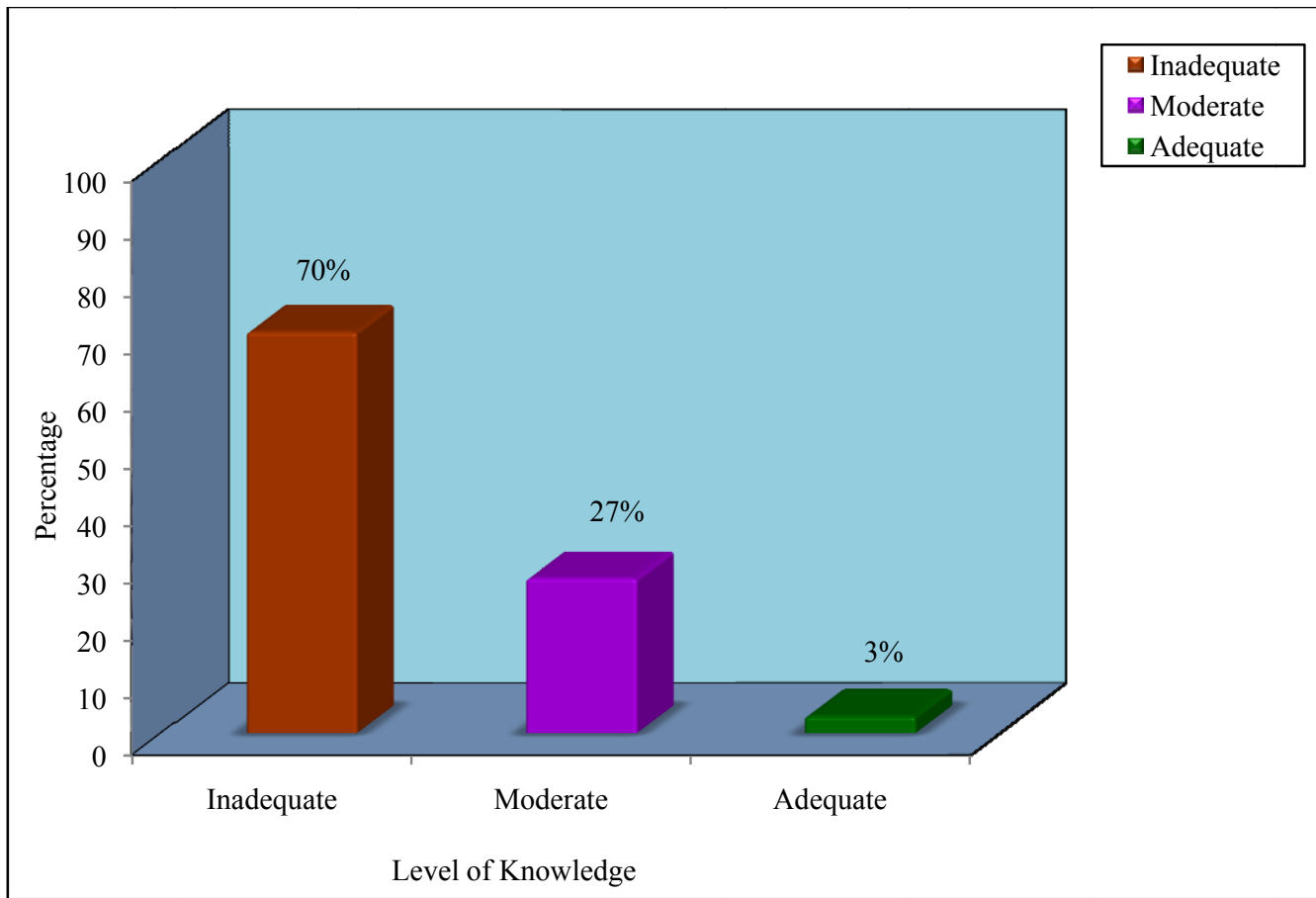
## SECTION – B

**Table 2: Frequency and percentage distribution of pre test level of knowledge regarding warning signs of pregnancy among primi gravid mothers.**

**N=60**

Level of knowledge	Frequency	Percentage
Inadequate	42	70
Moderate	16	27
Adequate	2	3

Table 2 represents the frequency and percentage distribution of pre test level of knowledge on warning signs of pregnancy among primi gravid mothers. In pre test 42 (70%) of primi gravid mothers had inadequate knowledge and 16 (27%) of them had moderate knowledge and only 2 (3%) of them had adequate knowledge.



**Fig 10:** Percentage distribution of pre test level of knowledge among primi gravid mothers

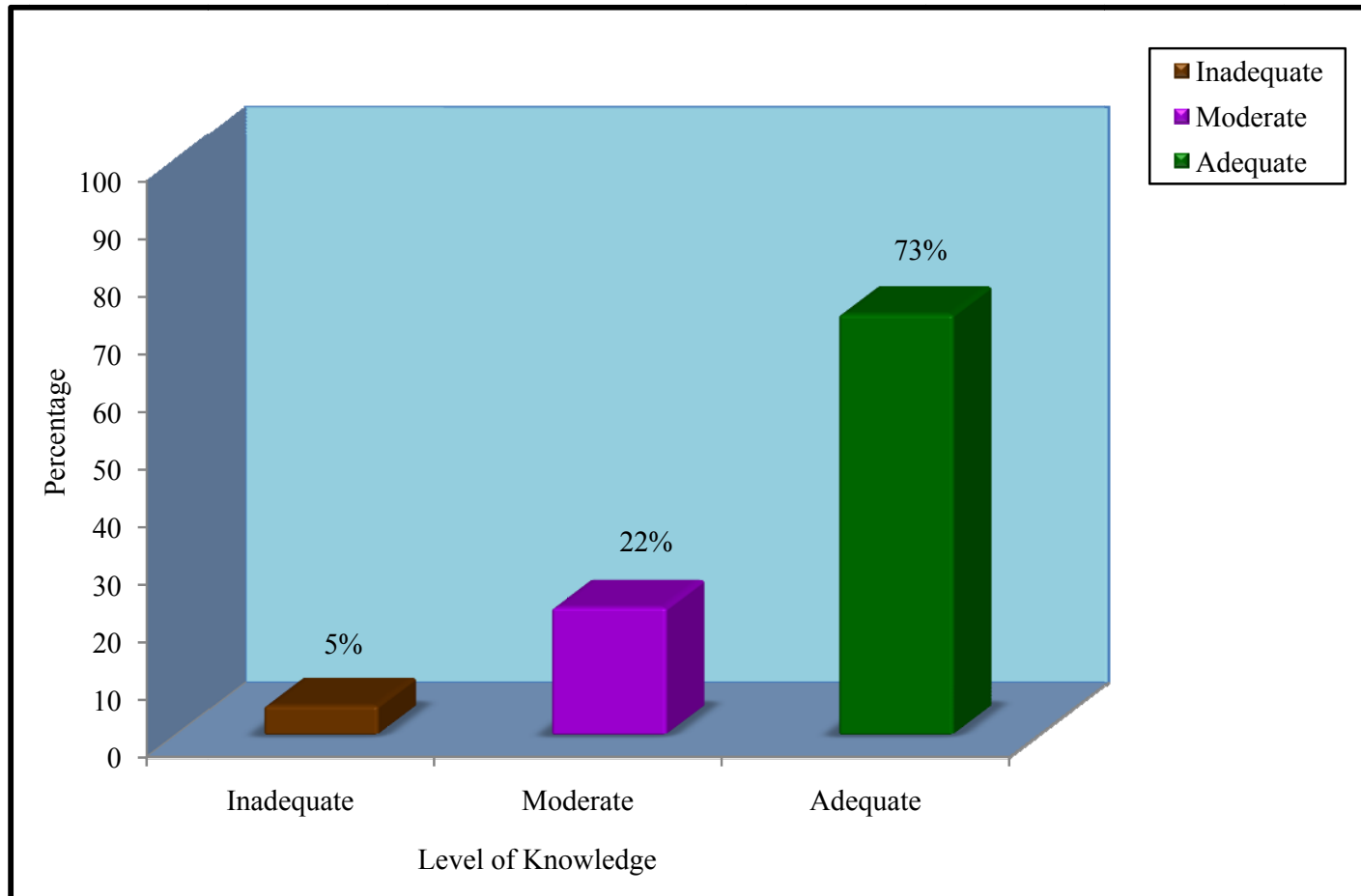
## SECTION – C

**Table 3: Frequency and percentage distribution of post test level of knowledge regarding warning signs of pregnancy among primi gravid mothers.**

**N=60**

Level of knowledge	Frequency	Percentage
Inadequate	3	5
Moderate	13	22
Adequate	44	73

Table 3 represents the frequency and percentage distribution of post test level of knowledge on warning signs of pregnancy among primi gravid mothers. In post test only 3 (5%) of primi gravid mothers had inadequate knowledge and 13 (22%) of them had moderate knowledge and almost 44 (73%) of them had adequate knowledge.



**Fig 11:** Percentage distribution of post test level of knowledge among primi gravid mothers

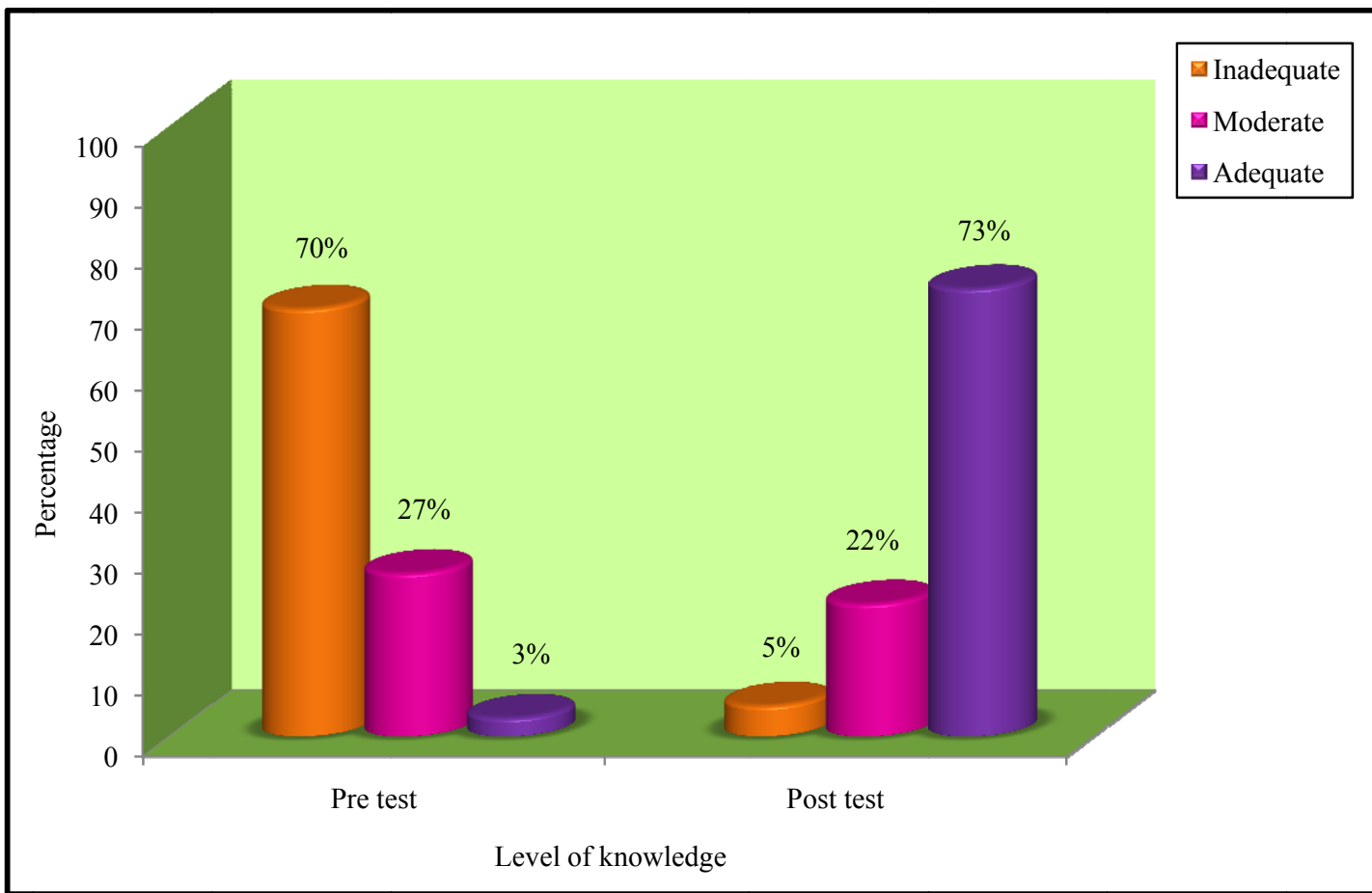
## SECTION – D

**Table 4: Comparison between pre test and post test level of knowledge regarding warning signs of pregnancy among primi gravid mothers.**

**N=60**

Level of knowledge	Pre test		Post test	
	Frequency	Percentage	Frequency	Percentage
Inadequate	42	70	3	5
Moderate	16	27	13	22
Adequate	2	3	44	73

Table 4 represents the frequency and percentage distribution of pre test and post test level of knowledge on warning signs of pregnancy among primi gravid mothers. With respect to the pre test level of knowledge 42 (70%) of primi gravid mothers had inadequate knowledge and 16 (27%) of them had moderate knowledge and only 2 (3%) of them had adequate knowledge, whereas in post test only 3 (5%) of primi gravid mothers had inadequate knowledge and 13 (22%) of them had moderate knowledge and almost 44 (73%) of them had adequate knowledge.



**Fig 12:** Comparison between pre test and post level of knowledge among primi gravid mothers



## SECTION – E

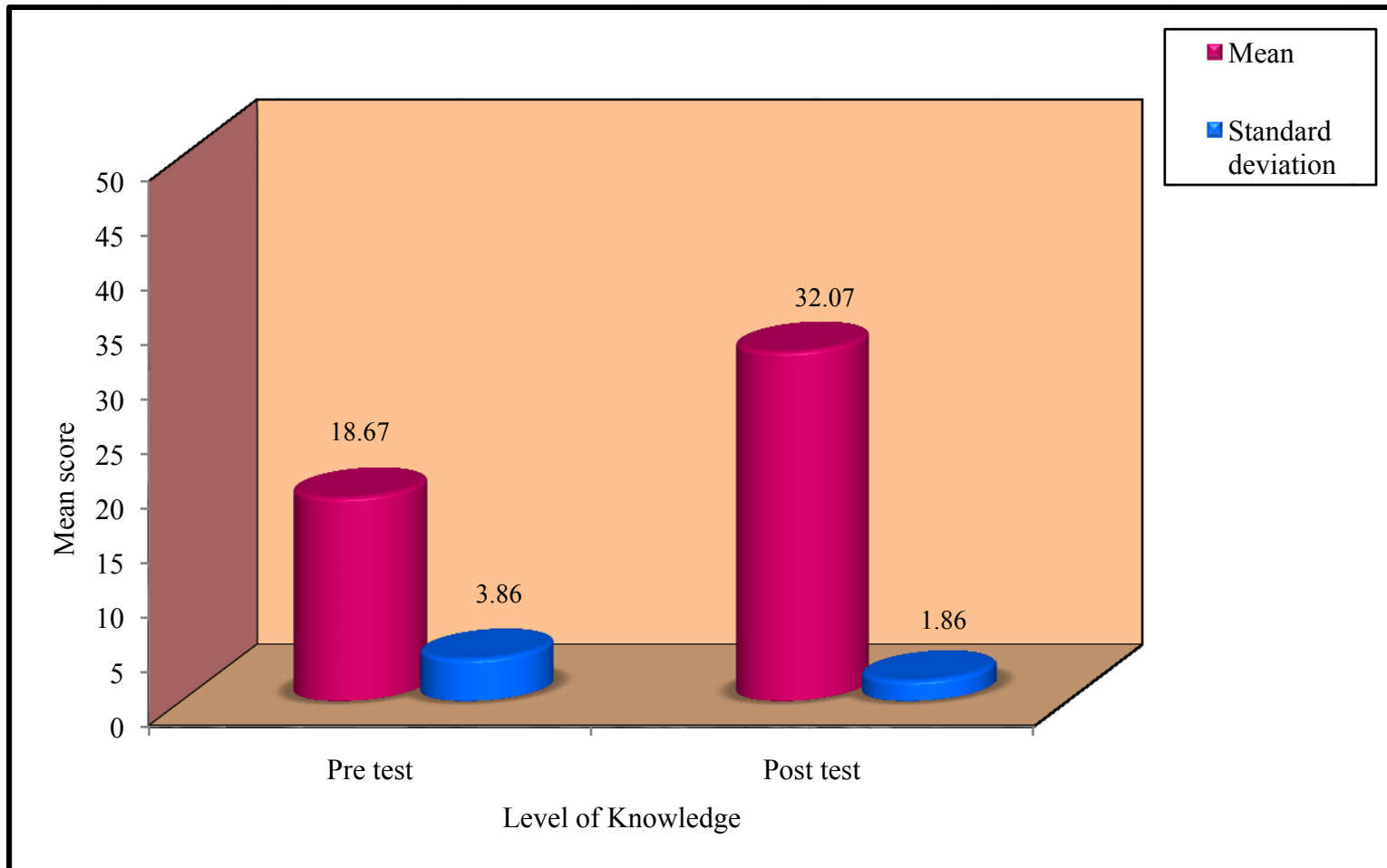
**Table 5: Comparison of mean and standard deviation between pre test and post test level of knowledge regarding warning signs of pregnancy among primi gravid mothers.**

N=60

Assessment	Mean	Standard deviation	Paired 't' value
Pre test	18.67	3.86	28.14***
Post test	32.07	1.86	

\*\*\* p&lt;0.001

Table 5 depicts the comparison of mean and standard deviation between pre test and post test level knowledge on warning signs of pregnancy among primi gravid mothers. The mean score was increased from 18.67 to 32.07 which showed a marked difference of 13.4 respectively and the standard deviation was decreased from 3.86 to 1.86 after the administration of structured teaching programme. The paired't' test value at 28.14, was very highly significant at p<0.001 level. It indicates the effectiveness of structured teaching programme on increasing the level of knowledge on warning signs of pregnancy among primi gravid mothers.



**Fig 13:** Comparison of mean and standard deviation between the pre test and post test level of knowledge among primigravida mothers

## SECTION – F

**Table 6: Association of pre test level of knowledge regarding warning signs of pregnancy among primi gravid mothers with their demographic variables.**

N=60

S.No	Demographic Variables	Pretest level of knowledge						Chi square $\chi^2$
		Inadequate		Moderate		Adequate		
		n	%	n	%	n	%	
1.	<b>Age</b>							$\chi^2=3.79$ df= 4 NS
	≤ 20 yrs	10	71.4	4	28.6	0	0	
	21 -25 yrs	28	73.7	8	21.1	2	5.3	
	26 -30 yrs	4	50.0	4	50.0	0	0	
2	<b>Educational Status</b>							$\chi^2=1.16$ df= 4 NS
	Primary education	4	66.7	2	33.3	0	0	
	Secondary education	29	72.5	10	25.0	1	2.5	
	Graduation	9	64.3	4	28.6	1	7.1	
3	<b>Occupation</b>							$\chi^2=9.03$ df= 4 NS
	Home maker	36	73.5	12	24.5	1	2.0	
	Coolie	5	83.3	1	16.7	0	0	
	Private employee	1	20.0	3	60.0	1	20.0	
4	<b>Family Income Per Month</b>							$\chi^2=0.90$ df= 4 NS
	Rs.1001 - Rs. 2000	10	71.4	4	28.6	0	0	
	Rs. 2001 - Rs. 3000	20	69.0	8	27.6	1	3.4	
	Above Rs. 3001	12	70.6	4	23.5	1	5.9	
5	<b>Type of Family</b>							$\chi^2=2.80$ df= 2 NS
	Nuclear family	26	78.8	6	18.2	1	3.0	
	Joint family	16	59.3	10	37.0	1	3.7	
6	<b>Source of Health Information</b>							$\chi^2=0.39$ df= 2 NS
	Health personnel	16	72.7	5	22.7	1	4.5	
	Family members	26	68.4	11	28.9	1	2.6	
7	<b>Gestational Age</b>							$\chi^2=0.39$ df= 2 NS
	8 - 12 weeks	16	72.7	5	22.7	1	4.5	
	13 - 24 weeks	26	68.4	11	28.9	1	2.6	

NS- Non Significant

Table 6 showed the association of pre test level of knowledge among primi gravid mothers and their demographic variables. None of the demographic variables are significantly associated with their pre test level of knowledge score.

## SECTION – G

**Table 7: Association of post test level of knowledge regarding warning signs of pregnancy among primi gravid mothers with their demographic variables.**

N=60

S.No	Demographic Variables	Post test level of knowledge						Chi square $\chi^2$
		Inadequate		Moderate		Adequate		
		n	%	n	%	n	%	
1.	<b>Age</b>							$\chi^2=10.77$ df= 4 S**
	≤ 20 yrs	2	14.4	6	42.8	6	42.8	
	21 -25 yrs	1	2.6	7	18.4	30	79.0	
	26 -30 yrs	0	0	0	0	8	100	
2	<b>Educational Status</b>							$\chi^2=14.81$ df= 4 S**
	Primary education	2	33.3	2	33.3	2	33.3	
	Secondary education	1	2.5	10	25.0	29	72.5	
	Graduation	0	0	1	7.1	13	92.9	
3	<b>Occupation</b>							$\chi^2=2.87$ df= 2 NS
	Home maker	3	6.1	12	24.5	34	69.4	
	Coolie	0	0	0	0	6	100	
	Private employee	0	0	1	20.0	4	80	
4	<b>Family Income Per Month</b>							$\chi^2=1.41$ df= 2 NS
	Rs.1001 - Rs. 2000	0	0	4	28.6	10	71.4	
	Rs. 2001 - Rs. 3000	2	6.9	6	20.7	21	72.4	
	Above Rs. 3001	1	5.9	3	17.6	13	76.5	
5	<b>Type of Family</b>							$\chi^2=3.34$ df= 2 NS
	Nuclear family	1	3.0	10	30.3	22	66.7	
	Joint family	2	7.4	3	11.1	22	81.4	
6	<b>Source of Health Information</b>							$\chi^2=1.35$ df= 2 NS
	Health personnel	2	9.1	4	18.2	16	72.7	
	Family members	1	2.6	9	23.7	28	73.7	
7	<b>Gestational Age</b>							$\chi^2=11.22$ df= 2 S**
	8 - 12 weeks	3	13.6	8	36.4	11	50.0	
	13 - 24 weeks	0	0	5	13.2	33	86.8	

\*\* p<0.01, S-Statistically Significant, NS – Non Significant

Table 7 showed the association of post test level of knowledge among primi gravid mothers and their demographic variables. The chi square value of 10.77 showed that there was a significant association of age and post test level of knowledge after structured teaching programme at the level of p<0.01.

With regard to the educational status chi square value of 14.81 was significant at the interval of  $p < 0.01$ . In concern with the gestational age chi square value of 11.22 was significant at the interval of  $p < 0.01$ .

There was no significant association was found with other demographic variables such as occupation, family income per month, type of family and source of health information.

## CHAPTER – V

### DISCUSSION

This chapter describes the result with respect to the objectives of the study and also compares the similar study with the present study findings. Knowledge of warning signs of pregnancy, labour and postnatal period is the first essential step for appropriate and timely referral. The findings of this study has provided an insight information on pregnant women's knowledge about warning signs of pregnancy in the study area, which could help in designing appropriate interventions and as a base for further wide scale studies in other part of the country.

The study aimed to assess the effectiveness of structured teaching programme on knowledge regarding warning signs of pregnancy among primi gravid mothers in Saidapet Health Post at Chennai. The hypothesis formulated was there was no significant relationship between the structured teaching programme on knowledge regarding warning signs of pregnancy. The review of literature included related researches which provide a strong foundation for the study including the basis for conceptual framework and formation of tool.

The conceptual framework of this study was developed based on King's Theory of Goal Attainment. This framework includes three interactive systems such as personal systems, interpersonal systems and social systems. The theory is based on the concepts of the personal and interpersonal systems including perception, judgment, action, mutual goal setting, reaction, interaction, transaction. This involves interaction between the researcher and the primi gravid mother.

The study was conducted by adopting a pre experimental one group pre test post test design. The study was carried out with 60 primi gravid mothers who fulfilled the inclusion criteria. Purposive sampling technique was used to select the sample. The investigator introduced her to the primi gravid mothers and explained the purpose of the study to ensure better cooperation. Written consent was obtained from the primi gravid mothers.

Each day the investigator collected data from 4 to 5 primi gravid mothers to assess the level of knowledge on warning signs of pregnancy. A structured questionnaire was distributed to the mothers to assess the pre test level of knowledge on warning signs of pregnancy among primi gravid mothers. Then followed by a structured teaching programme on warning signs of pregnancy and its management were educated to the primi gravid mothers. A post test was conducted to assess the level of knowledge with the same questionnaire provided in the pre test.

The frequency and percentage distribution of demographic variables, revealed that majority 38 (64%) were in the age group of 21 - 25 years, Regarding educational status 40 (67%) of the of the primi gravid mothers have completed higher secondary education. Related to occupation, majority 49 (82%) were home makers, regarding family income per month, 29 (48%) belong to the income group of Rs.2001- 3000, in accordance with the type of family, 33 (55%) were from nuclear family, In concern with the source of information, 38 (63%) acquired through family members and considering the gestational age of the primi gravid mothers 38 (63%) were in between 13-24 weeks of gestation. The result of the study was discussed based on the objectives stated for the study.

The analysis revealed that the mean score was increased from 18.67 to 32.07 which showed a marked difference of 13.4 respectively and the standard deviation was decreased from 3.86 to 1.86 after the administration of structured teaching programme. The paired 't' test value at 28.14, was very highly significant at  $p < 0.001$  level. It indicates the effectiveness of structured teaching programme on increasing the level of knowledge on warning signs of pregnancy among primi gravid mothers.

***The first objective was to assess the pre test level of knowledge regarding warning signs of pregnancy among primi gravid mothers.***

In pretest 42 (70%) of primi gravid mothers had inadequate knowledge and 16 (27%) of them had moderate knowledge and only 2 (3%) of them had adequate knowledge.

The study findings are consistent with the results of Azeim.A.A, et al (2010) who had conducted cross sectional survey to determine awareness of pregnancy

danger signs among 388 pregnant women attending antenatal care clinics in six health centres in Kassala, eastern Sudan. The findings of the study showed that most of the women 342 (88.1%) were not aware of the danger signs of pregnancy. Thus the current study showed a low level of awareness of danger signs among the pregnant women attending antenatal care in Kassala.

Similarly other study findings were consistent with the results of John. M. S, (2011) had conducted a study to assess the knowledge regarding warning signs in pregnancy among 60 antenatal mothers attending outpatient department in selected hospitals of Mangalore Taluk. Analysis revealed that majority of the women (87%) had inadequate knowledge on warning signs of pregnancy. The study concluded that most of the women had inadequate knowledge and they should be educated through video assisted teaching or through structured teaching programme in developing knowledge on warning signs of pregnancy.

The above literature concludes that the antenatal mothers are unaware of warning signs of pregnancy and related complications. So the responsibility relies with the nurse to create awareness among antenatal mothers on warning signs of pregnancy.

***The second objective was to assess the post test level of knowledge regarding warning signs of pregnancy among primi gravid mothers.***

In the post test only 3 (5%) primi gravid mothers had inadequate knowledge and 13 (22%) of them had moderate knowledge and almost 44 (73%) of them had adequate knowledge.

The study findings are consistent with the results of Nazeera. M, (1998) a quasi experimental study which was conducted to assess the effectiveness of structured teaching programme on knowledge regarding danger signs of pregnancy among primi gravid women at selected hospitals in Attur, Chennai, Tamil Nadu. Simple random sampling was used to select 60 primigravid women. Majority of the women (90%) had inadequate knowledge. Paired 't' test was used to find out the effectiveness of structured teaching programme and it revealed that structured teaching programme had been highly effective in improving the knowledge of



primigravid women regarding danger signs of pregnancy and over all knowledge was highly significant at  $p < 0.001$  level.

***The third objective was to evaluate the effectiveness of the structured teaching programme on level of knowledge regarding warning signs of pregnancy among primi gravid mothers.***

The comparison of pre test and posttest level of knowledge regarding warning signs of pregnancy among primi gravid mothers was done by using paired 't' test. The mean score was increased from 18.67 to 32.07 which showed a marked difference of 13.4 respectively and the standard deviation was decreased from 3.86 to 1.86 after the administration of structured teaching programme. The paired 't' test value at 28.14, was very highly significant at  $p < 0.001$  level. It indicates the effectiveness of structured teaching programme on increasing the level of knowledge on warning signs of pregnancy among primi gravid mothers.

The study findings are consistent with the results of Perreira. K. M. et al., (2002) who had conducted a descriptive study on increasing awareness of danger signs in pregnancy in Guatemala among 637 pregnant women between April 1997 and May 1998. The result states that the women those who have heard radio messages were 3 to 5 times more likely aware of danger signs in pregnancy than others. Thus safe motherhood programmes can effectively increase knowledge of danger signs through clinic and community based educational strategies.

***The fourth objective was to associate the pre test and post test level of knowledge regarding warning signs of pregnancy among primi gravid mothers with their demographic variables.***

In the pre test level of knowledge there was no significant association of the level of knowledge regarding warning signs of pregnancy among primi gravid mothers with any of their demographic variables such as age, educational status, occupation, family income per month, type of family, source of health information and gestational age.

In the post test level of knowledge there was a significant association of the level of knowledge regarding warning signs of pregnancy among primi gravid mothers with their demographic variables such as age, educational status and gestational age. The chi square value of 10.77 showed that there was a significant association of age and post test level of knowledge after structured teaching programme at the level of  $p < 0.01$ . With regard to the educational status chi square value of 14.81 was significant at the interval of  $p < 0.01$ . In concern with the gestational age chi square value of 11.22 was significant at the interval of  $p < 0.01$ .

There was no significant association was found with other demographic variables such as occupation, family income per month, type of family and source of health information. Thus, the null hypothesis was rejected.

## **CHAPTER – VI**

### **SUMMARY, CONCLUSION, NURSING IMPLICATIONS, RECOMMENDATION AND LIMITATIONS**

The heart of the research project lies in reporting the findings of the study. This is the most creative part of the study. This chapter gives a brief account of the present study including the conclusion drawn from the findings, recommendations, limitations of the study, suggestions for the study and nursing implications.

#### **SUMMARY**

World Health Organization states that the pregnancy and childbirth are social events in women's lives and indeed in the lives of their families. This can be a time of great hope and joyful anticipation. It can also be a time of fear, suffering and even death. Although pregnancy is not a disease but a normal physiological process, it is associated with certain risks to health and survival both for the woman and for the infant she bears. These risks are present in every society and in every setting.

In developed countries they have been largely overcome because every pregnant woman has to take special care during pregnancy and childbirth. In developing countries where each pregnancy represents a journey into the unknown from which all too many women never return, due to lack of care provision. Though health departments create awareness both central and state level through mass media for planned Maternal and child health programmes, most of the mothers living in remote areas are not aware of these warning signs of pregnancy due to lack of literacy, ignorance and social cultural factors. Antenatal care provides an opportunity to educate the pregnant mother about the pregnancy and child birth.

Nurses working in prenatal setting can help to ensure that women are well informed about the normal course of pregnancy. So they can recognize and alert health care providers when a complication is occurring. The present study was intended to assess the effectiveness of structured teaching programme on knowledge regarding warning signs of pregnancy among primi gravid mothers.

Warning signs of pregnancy are increasing and need immediate management. Antenatal mothers become so anxious due to these conditions. Today one of the important factors that contribute to maternal morbidity and mortality is lack of recognition of warning signals by antenatal mothers. So to assess the level of knowledge on warning signs of pregnancy among antenatal mothers is very important.

This study included assessment of level of knowledge regarding warning signs of pregnancy such as severe vomiting, severe bleeding per vagina, unusual swelling of face, arms and legs, high fever, pallor, severe headache, leaking of watery fluid through vagina, decreased fetal movements and no indication of labor after two weeks of expected date of delivery.

**The objectives of the study were**

1. To assess the pretest level of knowledge regarding warning signs of pregnancy among primi gravid mothers.
2. To assess the post test level of knowledge regarding warning signs of pregnancy among primi gravid mothers.
3. To evaluate the effectiveness of the structured teaching programme on level of knowledge regarding warning signs of pregnancy among primi gravid mothers.
4. To associate the pre test and post test level of knowledge regarding warning signs of pregnancy among primi gravid mothers with their demographic variables.

The focus of the study was to assess the effectiveness of structured teaching programme on knowledge regarding warning signs of pregnancy among primi gravid mothers. The formulated hypothesis of this study was that there is no significant relationship between the structured teaching programme and the level of knowledge regarding warning signs of pregnancy among primi gravid mothers. The conceptual framework developed for the study was based on the King's Theory of Goal Attainment. An extensive review of literature, professional experience and expert's guidance helped the investigator to design the methodology.

The study was conducted by adopting a pre experimental one group pre test post test design. The study was carried out with 60 samples who fulfilled the inclusion criteria. Purposive sampling technique was used to select the sample. The researcher introduced herself to the primi gravid and explained the purpose of the study to ensure better cooperation. Written consent was obtained from the primi gravid mothers.

Each day the researcher collected data from 4 to 5 primi gravid mothers to assess the level of knowledge on warning signs of pregnancy. A structured questionnaire which consists of 40 multiple choice questions was distributed to the mothers to assess the pre test level of knowledge on warning signs of pregnancy among primi gravid mothers. Then followed by the pre test a structured teaching programme on warning signs of pregnancy and its management were educated to the primi gravid mothers. A post test was conducted to assess the level of knowledge with the same questionnaire provided in the pre test.

The frequency and percentage distribution of demographic variables, revealed that majority 38 (64%) were in the age group of 21 - 25 years, regarding educational status 40 (67%) of the of the primi gravid mothers have completed higher secondary education. Related to occupation, majority 49 (82%) were home makers, regarding family income per month, 29 (48%) belong to the income group of Rs.2001-3000, in accordance with the type of family, 33 (55%) were from nuclear family, In concern with the source of information, 38 (63%) acquired through family members and Considering the gestational age of the primi gravid mothers 38 (63%) were in between 13-24 weeks of gestation.

The findings of the study showed that in pre test, 42 (70%) of primi gravid mothers had inadequate knowledge and 16 (27%) of them had moderate knowledge and only 2 (3%) of them had adequate knowledge where as in post test only 3 (5%) of primi gravid mothers had inadequate knowledge and 13 (22%) of them had moderate knowledge and almost 44 (73%) of them had adequate knowledge.

The analysis revealed that the mean score was increased from 18.67 to 32.07 which showed a marked difference of 13.4 respectively and the standard deviation was decreased from 3.86 to 1.86 after the administration of structured teaching

programme. The paired 't' test value at 28.14, was very highly significant at  $p < 0.001$  level. It indicates the effectiveness of structured teaching programme on increasing the level of knowledge on warning signs of pregnancy among primi gravid mothers.

## **CONCLUSION**

From this study the researcher found that the primi gravid mothers have gained knowledge regarding warning signs of pregnancy and this study was done to assess the effectiveness of the structured teaching programme on knowledge regarding warning signs of pregnancy among primi gravid mothers.

Thus, it is the responsibility of a health care provider to create awareness about warning signs of pregnancy among the primi gravid mothers in clinical as well as in community settings. The result of this study shows there is an improvement of knowledge on warning signs of pregnancy after the structured teaching programme. Hence the null hypothesis was rejected.

## **NURSING IMPLICATIONS**

The present study emphasized on knowledge on warning signs of pregnancy among primi gravid mothers.

### **Nursing practice**

Health education is an important aspect of nursing practice. For effective health education the nurses should gain an understanding of primi gravid mothers' knowledge about warning signs and care during pregnancy. Thus the educative role of the nurses could be implemented in the nursing practice.

The commonly occurring warning signs and safe measures to reduce warning signs will enlighten the community nursing practice to design and formulate mass health education programme. The nurse should be equipped with up to date knowledge of self care practices, various treatment options available on prevention of warning signs during pregnancy.

### **Nursing Education**

The curriculum is responsible for preparing the future nurses with more emphasis on preventive and promotive health practices. The result of the study emphasizes the need for correlating the concepts in order to understand and advice on warning signs of pregnancy. Thus the nurses who follow these measures in a holistic manner will be able to provide comprehensive care to the primi gravid mothers. The Midwifery students should be given an opportunity to find out the warning signs and give proper advice. Students should take a positive step to impart health education in the community during their study period. In service education programmes, workshops and seminars have to be conducted to meet the health challenges.

### **Nursing administration**

The nursing administrator who is the member in the planning committee must provide suggestions to have interdepartmental, intradepartmental and extra departmental communication for the development of design and layout a maternity unit. The nurse administrator should take interest in disseminating the information through instructional materials such as pamphlets, posters, modules that impart health information to the primi gravid mothers. The health education cell in the nursing service department can be facilitated by the data obtained from the study.

### **Nursing research**

The survey provides base line data for conducting other research studies. Research should be done on all warning signs, identify the practices and interventions related to warning signs of pregnancy. The researcher may have to take up a role in preparing the pregnant women regarding antenatal care which includes designing management steps through scientific rational and facts from critical reasoning. The nurse researcher can narrow down the present research topic into more precise and clear as warning signs of pregnancy in a specific body system affects both the mother and fetus can be studied.

## **RECOMMENDATIONS**

- A similar study can be replicated on a larger sample.
- An evaluative study may be conducted to investigate the effect of warning signs on wellbeing of the mother and fetus.
- A study needs to be carried out in the urban and rural areas to find out the difference in knowledge.
- A comparative study can be carried out between primi gravid and multi gravid mothers.

## **LIMITATIONS**

The researcher was unable to take larger samples for the study due to time constraints.



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From

The Deputy Project Coordinator,  
District Family Welfare Bureau,  
Corporation of Chennai,  
Chennai -600 003.

To

The Principal,  
Madha College of Nursing,  
Madha Nagar , Kundrathur,  
Chennai – 600 069.

F.W &MCH/Trg/ F20/0955/2011.

Date: 12.4.2011.

Sir,

Sub: F.W & MCH Programme – Training – Permission Accorded –  
To undertake a Project work at Saidapet Health Post – By Mrs.  
Suganthi , M.Sc; (N) I year student - Madha College of Nursing-  
From 1.6.2011 to 30.6.2011. – Orders Issued – Regarding.

Ref: Your letter dated: 6.4.2011.

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With the above reference cited, permission is accorded to Mrs.C.Suganthi,M.Sc;(N) I year student of Madha College of Nursing to do “ A study to assess the effectiveness of structured teaching programme on Knowledge regarding warning signs of Pregnancy among 60 Primi Gravid Mothers in Saidapet Health Post from 1.6.2011 to 30.6.2011.

The concerned Zonal Officers and Medical Officers are instructed to supervise the question and answer sessions and a copy of the consolidated report to be sent to District Family Welfare Medical Officer , District Family welfare Bureau, by the Zonal Officer.

*ke*  
*21.4.11*  
Deputy Project Coordinator,  
Deputy Project Co-ordinator  
District Family Welfare Bureau,  
Corporation of Chennai.

To,

The Individual .

Copy to:

The Zonal Officer,  
Saidapet Zone.

..

From  
The Zonal Officer,  
Saidapet Zone,  
Chennai.

To  
The Principal,  
Madha College of nursing,  
Kundrathur,  
Chennai- 600069


Sub: Completed project work- in Saidapet Health post- reg.  
Ref: Saidapet / dated 30-06-2011

\*\*\*\*\*

Madam,

Here by I am gladly informing that Mrs. SUGANTHY.C, II Year M.Sc., Nursing Student of Madha College of Nursing, Kundrathur, have successfully completed her project work at our Health post, Saidapet for the period of 30 days from 01.06.2011 to 30.06.2011. The consolidated report will be submitted within 4 months to Deputy Project Coordinator, District Family welfare Bureau, through Zonal Officer, Saidapet.

Date: 30.06.2011  
Place: Saidapet.

  
The Zonal Officer,  
Saidapet Zone, 30/6/11  
Chennai.

**ZONAL OFFICER  
SAIDAPET ZONE  
CORPORATION OF CHENNAI**

## CERTIFICATION FOR CONTENT VALIDITY

This is to certify that the content and the tool to the statement of the problem "A study to assess the effectiveness of structured teaching programme on Knowledge regarding warning signs of pregnancy among Primi Gravida Mothers in Upgraded PHC, Kunrathur at Chennai " prepared by Ms. Suganthi. C M.Sc(N) I year student currently pursuing her M.Sc (N) degree programme for the partial fulfillment of her dissertation at Madha College of Nursing, Kunrathur, Chennai - 69 is found to be valid to the best of my knowledge.

July - 2013

Prof. Mrs. Kalyani Mohanraj

HOD, Gynaec & Obst Nursing Department.

Chettinad, College of Nursing.

Kancheepuram.



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*[Handwritten Signature]*  
29/3/11

Dr G. SHALINI - MD, DGO

