CHAPTER V

DISCUSSION

This chapter discusses the study findings based on statistical analysis and its correlation with the objectives of the study. This study was done to “assess the effectiveness of self-care strategies on occurrence of PIH, maternal and perinatal outcome”. The purpose of this study was to reduce the maternal and perinatal morbidity and mortality.

The study includes only primigravidae, because, Al.Muhim AA et al (2003) had done a study on maternal risk factors for pre-eclampsia and identified that, a rate of 2.4% in hospital incidence, the high proportion of PIH cases occurring among nulliparous women and at the extreme ends of reproductive age (<20 and >40).

Onuh So, Aisien AO. (2004), conducted a retrospective study and found that PIH and eclampsia significantly (P<0.001) occurred in nulliparous and unbooked mothers.

The study had a group to compare the outcome variables. So, the samples were selected at random based on inclusion and exclusion criteria. The background variables were compared between the groups using $\chi^2$ tests to identify whether the two were equal or not.

**Background variables:**

In distribution of variables, (table 10 & fig 3-7), the majority of background variables did not have any significant difference between groups, except in education and
habitance, it may be due to the randomization done to allot the samples. However, it showed homogeneity in samples, and it helped to compare the outcome measures.

The investigations (table 11 & fig 8,9,10) during antenatal period between both groups were also assessed to find out their association with outcome variables of pregnancy-induced hypertension, maternal and perinatal outcome. The findings again showed that, there were many similarities in the findings between the two groups.

The significant difference was there in hemoglobin level between study and control, only in I trimester at the level of p<0.05. But, none of them were below 8 grams in both groups. Because anemia is the major complication in pregnancy and it may influence the outcome variables. Therefore, the investigator selected all the women with hemoglobin level of > 9 grams in I trimester. It was assessed in each trimester to know whether they end up in anemia during II and III trimesters.

The significant difference in the level of albuminuria existed only during II trimester at the level of p<0.001 with a $\chi^2$ value of 17.646. It is because of the influence of self care strategies in the study group. This finding indirectly supports the outcome of this study as a effect of SCS.

This is because there are studies done by, Chip Chase J, Peebles D, Rodock C. (2003), indicated that the left lateral position would increase the perfusion to uterus and decrease the incidence of hypertension. Normotensive mothers tend to have lower level of protein in the urine due to the less damage of the glomeruli. The mothers in study group had followed the practice of left lateral position, appropriate sitting posture, and
other measures to promote the uterine perfusion. This may be the reason why proteinuria was less in the group with SCS. Proteinuria was also assessed once in each trimester to find out the effect of SCS on outcome variables, Coelho TM et al, supports it in 2004, and stated that the proteinuria would increase the perinatal mortality and morbidity with complications.

To re-enforce the SCS among women, it is essential to assess the cognitive abilities of them. Because cognitive changes are typically initiated by change in the individual need for information and exposure to knowledge will melt away the barriers of ignorance, prejudices and misconceptions.

As knowledge is a base for practice, the investigator assessed the level of knowledge on self care strategies on antenatal care among both groups. It is also considered as one of the background variable, which can influence the outcome. On the first day of identification of demographic variables, the knowledge assessment was done in both groups.

In study group, the overall knowledge (table 12 & fig 11) was inadequate in 119(91.5%) of the women.11 (8.5%) had moderately adequate knowledge, and none of them had adequate level of knowledge. In the same way the control group (table 13 &fig) showed, the overall knowledge among 111(85.4%) of the women was inadequate knowledge, 19(16.4%) had moderately adequate knowledge, and none of them had adequate level of knowledge. These findings strengthen the concept of homogeneity in sample selection, as well as the need of information towards promotion of maternal and perinatal outcome. If a woman does not have knowledge, they will not be able to
participate in the care. This is supported by the studies like, Kumbani LC, Melnerney P. (2006) and Sibley LM, Sipe TA. (2006), found out that, only 24% (95% CI: 11; 38) of the primigravidae had some knowledge and could make an informed decision to go to a health facility with complications after delivery. These findings suggested a critical need for provision of information on obstetric complications.

Gould JB. (2006), and Strahle A, Stainton MC. (2006) & Abushaikha LA. (2007) reported that the knowledge was essential to the development of the clinical/organizational and training strategies that would enable perinatal medicine to fully realize the promise of basic and translational research.


Tita AT, Selwyn BJ, Waller DK, Kapadia AS, Dongmo S. (2006), done a prospective study and concluded that evidence-based awareness was strongly associated with practice (PR = 15.4; 96% CI: 4.3-55) at the level of p<0.05. The study also revealed that, application of information might enhance the effectiveness of programmes to improve maternal and perinatal outcomes. So, the investigator assessed the knowledge before giving SCS in both groups, after that, the study group was guided to practice the SCS and they were helped to come out of their problems.
Though knowledge was a background variable, the investigator of this study correlated the knowledge score with outcome variables (PIH, Maternal and perinatal outcome.) but, statistically there was no significant correlation was there.(ANNEX-N).

**Based on the objectives the study findings are discussed as follows:**

**The first objective of the study was** “To evaluate the effect of SCS on the occurrence of Pregnancy Induced Hypertension, maternal and perinatal outcome between the groups”.

The data, on the occurrence of pregnancy-induced Hypertension (table 20,21 & fig 14) was compared between the two groups. In the study group only 11(8.7%) mothers had PIH, but in the control group, 19(15.3%) women had it. The other complications with PIH also were high in control group (11.3%) than study group (3.2%). In the same way complications without PIH were more 29(23.4%) in the control group than the study group 17(13 5%).

In the study group, among 11 women who had PIH 8(72.7%) of them had only mild PIH and other 3(27.3%) suffered with severe PIH. In control group, 19 women had PIH, in which, 13(68.4%) of them were with severe PIH and 6(31.6%) were with mild PIH.

With regard to time of occurrence of PIH in weeks, 15(78.9%) women in control group, had PIH between 25-30 weeks, but in study group 6(5 4.5%) had PIH above 30 weeks.
The mean of overall occurrence of PIH in the study group was 3.12 with standard deviation of 0.87, but in control group, the mean was 2.86 with standard deviation of 0.82.

The comparison in the occurrence of PIH between the groups showed the significant difference at the level of p<0.05 with a ‘t’ value of 2.391. The effect of SCS in PIH was supported by the previous studies like, Fretts and Colleagues (1993) who found that, fetal death rate decreased to 70% by increased prenatal visits and incidence of preeclampsia also decreased from 13.1 to 1.2/1000 live births. This insists on prenatal visits. The women in the study group were asked to come for regular visits and the investigator was able to do it. All women were very regular in their visits. This might have influenced the PIH in the study group.

Julnes G. (1994 Feb), suggested using resource mothers programme to reach high-risk adolescents to promote a higher level of perinatal care and favourable perinatal outcome, and Grohar. J. (1994), suggested teaching on dietary habits, exercise, rest, and follow ups, which are the primary preventions and can bring down maternal complications.

Saroj Sharma, Sukshan Chopra (1997), mentioned that, providing information on medicare, cost of treatment, complications of diseases and how to prevent it can fill this bridgeable gap of the information received and outcome of disease. The relationship between the information and the outcome of disease was significant at the level of p<0.05.


These types of SCS will reduce the complications, but this particular study focussed on all 12 strategies at a time from 12-16 weeks of gestation to till delivery.

The data on maternal outcome showed that, (table 22) maternal complications were higher in the control group than the study group. But, statistically there was no significant difference in many aspects, except in operative interventions, obstructed labor and prolonged labor. It was significant at the level of $p<0.001$ with a “chi-square” value of 15.573, 13.033 and 7.57. The other complications were similar in both the groups. But, the Comparison of overall Maternal Outcome (table 24 & fig 15) between the study and control Group showed a significant difference at the level of $p<0.001$ with a $t$’ value of 3.516.

The status of perinatal outcome (table 23 & fig 16) indicated that, the significant difference was there only in the aspect of neonatal seizures and the birth injury at the level of $p<0.01$. 
IUGR incidence was high in control group (8.1% & 34%) than SCS group (1.6% & 14.3%). It was significant at the level of p<0.05. All other aspects were similar in both the groups and there were no significant difference. The Comparison of Overall Perinatal Outcome (table 25 & fig 16) between the Groups was not having any significant difference statistically with ‘t’ value of 0.976.

The findings of the study in many aspects of dependent variables were significant and supports the hypothesis (H₁),” There is a significant decrease in occurrence of pregnancy induced hypertension, better maternal and perinatal outcome among women who practice self-care strategies than those women who did not”. So, the researcher accepted the hypothesis.

This is supported by many studies on follow up of strategies, Hoja et al. (1995), taking one-gram of calcium and 60 mgm of elemental iron and minimum of 500 gram of vitamin C will reduce the complications.

CSSM (1996) insists that, the mother needs to rest on her side for 2 hours in the day and 8 hours sleep in the night with short periods of rest in between physical work can improve the fetal growth. Maria D. (2002). Said about antenatal evaluation of the fetus by fetal movement monitoring to improve prenatal outcome.

Petroci S et al (2003), reported on the number of antenatal visits and adverse perinatal outcome. The study revealed a significant association between the number of visits and low birth weight at the level of p< 0.001, and also had association with delivery
by caesarean section. The more the mothers visited had fewer incidences of operative deliveries and low birth weight babies.

**Xiao R et al. (2003).** examined the effect of preeclampsia on fetal growth among 155 women with preeclampsia and found that, preeclampsia associated with a 3.8 fold increased the risk of low birth babies (p<0.01) and 3.6 times increased the risk of small for gestational age. So, prevention of PIH is mandatory.

**Veena Agarwal and Ravneet Gulshan. (2003).** suggested that calcium supplementation; vitamins and minerals had important influences on pregnant women and growing fetus. Deficiency of minerals has been associated with complications of pregnancy childbirth and fetal development.

The second objective of the study was “to correlate the level of adherence of self care strategies with occurrence of PIH, maternal and perinatal outcome in both groups”.

To achieve this objective, the investigator, assessed the level of adherence 2 times with 4 weeks interval from the day of identification and administration of SCS.

In overall level of adherence of SCS (table 15,16,17,18), high level of adherence was there among 66.9% and 50% of women in the study group, but none of them were in the control group. More than 80% of women in control group were with poor level of adherence at both times. But, in the study group only 13.8% and 1.5% of women during first and second time were with poor level of adherence respectively. When compared
using chi-square test, there was a significant difference in the level of adherence at the level of p<0.001 in all the aspects.

**Comparison of mean and SD on level of adherence** (table 19 & fig 12) through independent ‘t’ test between study and control group showed a significance at the level of p<0.001 with a ‘t’ value of 19.232 during first and second time.

It clearly indicates that, reinforcement is necessary in facilitating the behavior to practice SCS.

The Correlation of overall **self-care strategies adherence with Occurrence of Pregnancy Induced Hypertension** in the study group, (table 26 & fig 17) showed an’ r’ value of –0.276 during the first time and’ r’ value of -0.247 during the second time. Both the ‘r’ values showed a negative correlation. It revealed that, when a practice increased the occurrence of PIH came down. The’ r’ values are showing significant relationship between the level of adherence and the occurrence of PIH at the level of p<0.01. But, in the control group, there was no significant correlation.

The Correlation of overall **self-care strategies adherence with maternal outcome** in the study group, (table 27 & fig 18) showed a ’ r’ value of 0.756 during the first time and ’ r’ value of 0.631 in second time. It showed significant relationship between the level of adherence and maternal outcome at the level of p<0.001. It suggested that, when a practice increased the maternal outcome also improved. In control group there was no significant relationship found.
Data on **perinatal outcome** (table 28 & fig 19) was correlated with the level of adherence to SCS in the study group. It showed a ‘r’ value of 0.682 in first time and’ r’ value of 0.638 in second time. The ‘r’ values showed significant relationship between the level of adherence and Perinatal Outcome at the level of p<0.001. In the control group, there was no correlation found between the level of adherence and Perinatal Outcome.

It supports the findings that, when a practice increased the Perinatal Outcome would be promoted. These findings insist that, the mothers who practice SCS will have lesser complications. It has a support from previous studies like,

**Kennedy HP, Gardiner A, Gay C, Lee KA. (2007),** supported the Strategies for sleep like included enlistment of partners to facilitate naps, development of a "sleep consciousness,” bed sharing and use of Mercer's stages of becoming a mother can be used to help the mothers to incorporate the sleep changes into their lives. This may indirectly influence the perinatal outcome, because, sleep and rest increases the perfusion to the uterus. So the mother who took more rest and had adequate sleep would definitely minimize the complications.

**Geelhoed DW et al. (2003),** suggested strengthening the implementation of safe motherhood programme through information and reinforcement towards the practice, to reduce the complications and promote the maternal outcome.

**Barton JR, Istwan NB, Rhea D, Collins A, Stanziano GJ. (2006).** The outpatient management program, including the verbal and written patient education related to self-care procedures during pregnancy, was effective in reducing the need for
inpatient care and it was cost-effective, because the maternal and fetal complications were minimized.

McClure EM, Golden Berg RL, Bann CM. (2007), stated that, 10%, both maternal mortality and stillbirth rates decreased sharply, through frequent visits and antenatal care. But, four or more antenatal visits were not associated with significant reductions in maternal deaths until about 60% coverage was achieved. This insisted that just visits were not enough, information and motivation to practice was a must.


Mathews et al. (2007), reported that the traditional therapy for hypertension like, bed rest, low calorie, low salt, and sedation would improve the maternal fetal outcome.

The maternal and perinatal outcome could be improved by adhering self-care strategies in a proper way. It needed adequate motivation and re-enforcement. In this particular study it was re-enforced by the investigator and the level of adherence showed a significant relationship with their occurrence of PIH, maternal and perinatal outcome. So the H2 “the women who adhere SCS more show less occurrence of PIH, and better maternal-perinatal outcome than the women who adhere less”. Hence the researcher accepted the hypothesis.
The third objective of the study was “to correlate among the occurrence of PIH with maternal and perinatal outcome in both groups.” Inter correlation between dependent variables was done using Pearson’s method. In study group, (table 29,30) occurrence of PIH was having no statistical significance with maternal and perinatal outcome, because the ‘r’ value was 0.243. It indicated that though there was a possibility of adverse maternal and perinatal outcome with PIH, it was reduced to a certain level through the practice of SCS. Because many literatures support that, even when the mother was with hypertensive problems, the maternal and perinatal outcome could be improved.

The supported literatures for the above findings were: **Dissanayak V. (2007).** Suggested that, improving the guidelines for medical care, prenatal care and using the western diagnostic criteria at the time of booking or at the early weeks of gestation could reduce fetal and maternal morbidity and mortality. If so, mothers at risk could be identified and complications during pregnancy like PIH could be reduced. This insisted on antenatal care with regular visits and follow-ups.

**Vigli De Gracia P et al (2004)** determined the maternal outcome associated with severe chronic hypertension during the second half of pregnancy. The conclusion of the study was the intensive monitoring of the clinical status of the mother was associated with low maternal morbidity and the absence of maternal deaths. The particular study also focused on intensive monitoring of mothers from the first trimester. All the women were identified during the 12-16 weeks of gestation.
The other correlation between maternal and perinatal outcome was (table 29,30 & fig ) significant at the level of p< 0.01 with an ‘r’ value of 0.635. It clearly impose that, whenever there is a chance of better maternal outcome it will influence the perinatal outcome also positively. The studies that supported these findings were,

Ceska Gynecology. (2002), reported the fatal complications by hypertension in pregnancy that among 470 maternal deaths, there was 36 maternal deaths by severe PIH which contributed 7.7 % to total maternal mortality.10 cases were complicated by coma with DIC, 2 cases had abruptio placenta, and operative deliveries accounted for 71%. The mortality rate of fetus or newborn was 71%.

In the control group also (table 29,30), the occurrence of PIH was not having any statistical significance with maternal and perinatal outcome, but the ‘r’ value was -0.283. It was a   negative correlation and insisted that, whenever the women suffered with PIH, the maternal and perinatal outcome would be adverse. It supports the practice of SCS in terms of reducing complications and towards better maternal and perinatal outcome.

The other correlation between maternal and perinatal outcome was significant at the level of p< 0.01 with an ‘r’ value of 0.426. It clearly imposed that, whenever there was a chance of better maternal outcome it would influence the perinatal outcome also positively. It is same like study group. Both the findings suggested that, improving women health during pregnancy would improve maternal and perinatal outcome.

The fourth objective of this study was “ to associate the background variables with their occurrence of pregnancy induced hypertension, maternal and
perinatal outcome in both groups”. To measure this objective association was done using ANOVA, Beta co-efficient correlation and $\chi^2$ statistical analysis.

**Knowledge with background variables.**

Knowledge score on antenatal care and demographic variables were not having significant association except in family income at the level of $p<0.001$ with a ‘F’ value of 8.172. (table 31). The same way no significant association was found between knowledge score and investigations in study group. (table 32). But in control group knowledge score had significant association with type of work, family income at the level of $p<0.05$ with a ‘F’ value of 1.957 and 4.114 respectively. All others variables had no association with knowledge score. (table 33).

In regression analysis, knowledge score was related only with family income at the level of $p<0.01$ (table 55).

The data also revealed that, in control group knowledge score and hemoglobin had significant association at the level of $p<0.05$ with a ‘F’ value of 4.879 and 5.997 in I and II trimester respectively. Albuminuria in II and III trimester had significant association with knowledge score at the level of $p<0.001$. (table 33, 34). In regression analysis, it was significantly related with family income and habitance at the level of $p<0.05$. On investigations the Albuminuria mg/l I trimester had significant relation with knowledge score. At the level of $p<0.05$ with a ‘r’ value of 0.175 (table 56).
These findings suggested that, knowledge is very much essential in prevention of complications as well as in adherence of SCS. Because in the study group people who adhere SCS had fewer albumins in the urine. Rishma Dillon Pai, Fируза Parikh, supported these findings. (2007) like, plenty of fluids would prevent headaches, uterine cramping, UTI and swelling, because the indulging fluids indirectly increased the perfusion to placenta, thereby, the complications during pregnancy were prevented and the albuminuria reduced. Drinking fluids is also a one of the strategy included in this particular study.

**Level of adherence with background variables**

There was no significant association in the level of adherence of SCS with demographic and investigations in the study and control groups (table 35-42), except in albuminuria during II trimester in study group at the level p<0.05. It is supported by coelho T.M et al (2004) and Chip Chase J, Peebles D, Rodock C. (2003).

In study group the regression analysis between the level of Self Care Strategies adherence in first and second time with background variables showed significant relationship with albuminuria in II trimester at the level of p<0.05 with a’r’ value of -0.243. (Table 57, 59). but in control group, there was a significant relationship was found between the level of Self Care Strategies adherence and Type of Family at the level of p<0.05. (table 58,60). These findings suggested that Selfcare strategies adherence are needed to reduce the albumin level in the urine.
Occurrence of PIH. Maternal and perinatal outcome association with background variables:

The education had significant association with the occurrence of PIH (table 43) at the level of p<0.05 with ‘F’ value of 3.768. A similar significance was found between education and maternal and perinatal outcome by Wasunna A, Mohammed K. (2002): The comparative study in Nairobi suggested that unfavorable socio, demographic and obstetric factors like being a single parents, less formal education and being unemployed were the high risk factors for developing pre-eclampsia and related complications.

The age showed (table 47) a significant association with maternal outcome at the level of p< 0.01 with an ‘F’ value of 4.045. The perinatal outcome had no significant association with the background variables.

These findings were supported by the previous findings like, David etal. (1998), assessed the association between parity, age and socioeconomic status and found that, they are Interco related at the level of p<0.001 and may influence the pregnancy and the infant’s birth weight.

Jane Cleary, Goldman MD, Fergal, (2005), supported that increasing age was significantly associated with miscarriage. The ratio was 2:2.4 between 35-39years and 40 and > years. Chromosomal abnormalities ratio was 4.0:9.9. Congenital anomalies 1.4:1.7, GDM was 1.8: 2.4, placenta previa was 1.8:2.8 and LSCS was 1.6:2.0.in the same way, the age group of 35-39 years showed a risk for macrosomia in1.4% of the women, Placental abruption in 2.3%, preterm labor in 1.4%, LBW in 1.6% and PMR was in 2.2% of the women.
Trivedi SS, Pasrija S. (2007), found that teenage women were at a significantly higher risk for development of severe anemia (relative risk [RR] 1.61, P value <0.02), eclampsia (RR 1.95, P value <0.05), preterm labor (RR 1.25, P value <0.001), intrauterine growth retardation (RR 2.29, P value <0.001) and low birth weight (RR 1.24, P value <0.001). Assisted delivery (11.78% versus 2.23%, P value <0.001) was significantly more common and caesarean delivery (9.64% versus 17.18%, P value <0.001) was significantly less common among teenagers. The study concluded that, teenage women were at high-risk group, which was aggravated by social and cultural factors. Special attention was required to educate these women for more positive outcomes.

In all mentioned above studies age had significant association with maternal and perinatal outcome.

Vidyullatha B. (2007) identified the relationship between knowledge and birth weight of the newborn babies was significant at the level of p< 0.05. The study concluded that, the mothers who were illiterate and young, belonged to lower socioeconomic status and the medium level of knowledge were significantly associated with low birth weight of the babies.

In control group, only education had significant association with perinatal and maternal outcome at the level of p<0.001 with an ‘F’ value of 3.133. (table 49,54). On investigations, (table 46) there was an association between the presence of albuminuria in I and II trimester and occurrence of PIH with an ‘F’ value of 11.07& 5.199, it was significant at the level of p<0.01 & p<0.001 respectively.
Stepnie (2007), studied about the exercise in pregnancy on edema, placental perfusion and uterine cramping. The exercises recommended by physician would decrease the nausea, and mood swings which in turn helped in healthy pregnancy. Exercises increased the placental perfusion, and the relaxation of pelvic muscles will increase the tonicity of pereneal muscle and help in easy labor with less complications. The increased placental perfusion reduced the protein leak in the urine.

American Pregnancy Organization (2006) analyzed the relationship between rest and complications of pregnancy and announced that, bed rest decreased the venocaval compression and increased the blood flow to the placenta. So placental perfusion will increase and thereby complications like hypertension, which indirectly brought down the albuminuria.

In regression analysis of background variables with outcome variables by Beta coefficient correlation in study group found that, the significant relationship was found between Occurrence of Pregnancy induced hypertension and Hemoglobin (g) I trimester at the level of p<0.05 with a ‘r’ value of 0.230 (table 61). The same way the perinatal outcome also had significant relation with Hemoglobin (g) I trimester at the level of p<0.05 with a ‘r’ value of –0.240 (table 65).

The Control group regression analysis revealed that, (table 66) there was a significant relationship between perinatal outcome and education at the level of p<0.05 with a ‘r’ value of 0.193. On investigations Hemoglobin (g) I and II trimester had
significant relation at the level of p<0.05 with a ‘r’ value of 0.205 and –0.232 respectively.

These findings indicated that, hemoglobin level has comedown in control group when it compared to study group. It may be due to the effect of SCS.

5.1 LIMITATIONS

Many women registered only after 16 weeks, and most of them did not visit regularly. So sample selection was tough and the sample size was limited to 260, 130 in each group, as it was a long-term study and needed follow up individually for both the groups. The investigator tried to expand the sample size. But, due to a lot of problems in the access of samples during follow-ups, it was limited to 260.

Attrition was unavoidable, due to the change of habitance, place of delivery and other unknown reasons. The investigator visited their houses and contacted through telephone to get the details, but failed. The attrition samples were followed till 28 weeks, after which attrition occurred one by one in both the groups with a total of 10 samples. (4 in study group and 6 in the control group).

The control group was not restricted towards regular information, they were also motivated on antenatal care, their queries were answered throughout the study, and they were supported and encouraged as per the need whenever necessary. This might have influenced the outcome variables, but it was beyond the nature of the study.
Knowledge was compared between the groups after the implementation of SCS. But it is not included in the presentation of data because it was considered only as a background variable not as a dependent variable in this particular study. But it is checked to ascertain the effect of SCS in increasing the level of knowledge. The investigator kept the findings to support it.

Randomization was done to allot the samples equally in 2 groups; even then, there were statistical differences through chi-square test in few variables.

SCS was administered by them on daily basis throughout the antenatal period, the level of adherence was checked only twice with 4 weeks interval by the investigator. It was a subjective assessment.

All the mothers in both the groups maintained the diaries. The investigator assessed them before assessing the level of adherence.

Re-enforcement was done twice only in the hospital, but, as per the mothers request it was done at various intervals. Whenever they made a visit they were followed up for the practice of SCS and the control group also followed up to measure the outcome variables. This might have influenced the outcome measures, but it was the limitation of the study design.

The mothers were given contact numbers. But all the mothers did not contact the investigator. This might have created variances.
It was not possible by the investigator to supervise the practice of SCS at home, because the study setting was limited to SRH. But verbal instructions were given through telephone for them to practice.

12 experts validated the tool and module on SCS. It was not a standardized tool. The investigator prepared this with literature support. But, the investigator was able to check for reliability through various statistical formulas.

Religion was deleted from demographic variables as per the suggestion of ethical and research committee of SRMC & RI (SRU).

Data on Platelets in each trimester was removed after the pilot study. this was because the consultants did not prescribe it to all the mothers, and it was only to potential mothers with risk factors.

Only 50% of the mothers came out with difficulty in the practice of SCS. They were given counseling and helped out with problems and practice of SCS strengthened. Because of this there may be variances on outcome measures.