CHAPTER - V
DISCUSSION

Postnatal period is the most vulnerable period for very mother and newborn and the most neglected area of maternal and child health (WHO-2013) lack of systematic and individualized care leads to increased chance for potential postnatal complications. Postnatal nursing problems are common because of lack of systemic postnatal nursing care and no regular evaluation of existing nursing practice, therefore it is important to reinforce the systematic standard practice of postnatal nursing care not only implementing the comprehensive postnatal care but evaluating for its quality which always enhances the physiological, functional and psychological wellbeing of the mother, hence implementation of CPNS has been done to test the quality care in this study.

This chapter offers a detailed insight into the findings of this study as interpreted through statistical analysis. The findings are discussed in relation to the objectives, need for the study, available literature.

From the current study, it is evident that there are defined benefits due to systematic implementation of comprehensive postnatal nursing care that reduces the actual postnatal illness and possible complications in the postnatal period also it is evident from previous literature is the fact that implementation of comprehensive postnatal care reduces the postnatal nursing problems and complications and improves the physical, functional and psychological wellbeing of the postnatal mother that enhances the satisfaction of nursing care given by the nurse.

The aim of this study is to identify the outcomes of postnatal nursing problems after implementation of comprehensive postnatal nursing care among the postnatal mothers against the routine care and evaluate the outcomes by assessing the physiological wellbeing, Functional well-being and psychological wellbeing of the mother and check the satisfaction of the postnatal mother, lesser the postnatal problems higher the postnatal satisfaction leads to good postnatal outcome, more postnatal nursing problems lesser the satisfaction, therefore in this study outcomes of
nursing problems are compared with study group and control group. The investigator has used CPNS module and trained and reinforced the nurses, in BBMP hospitals and requested the nurses to practice in study group and found its outcome among the postnatal mothers who got admitted in the postnatal ward in BBMP hospitals. The findings are discussed in relation to the objectives of the study and the strength and limitation.

In this study the nurses who gave consent are requested to attend the training and reinforcement session on CPNS conducted as 7 sessions in their settings at 12-1pm, 7th session is was and conducted planned for missed out staff and for night duty staff, nurses were informed from the very next day of session to adapt and follow and continue to practice the learned comprehensive postnatal strategies, they were motivated and appreciated for their participation and their continuous practice of CPNS in their shifts. Non-probability convenient sampling technique was found suitable for the study after getting informed consent, as per the standard staff patient ratio norms 1:5 sample size, one nurse assigned for each five postnatal mothers for both study and control group respectively, this perspective supported by study conducted by Della A.Forster(2006) therefore the study conducted using the total sample nurses are 86 in study and 86 in control group from the total of 24 maternity centers, total postnatal mothers used as sample are 430 in study group and 440 in control group for this study research design utilized was non-equivalent control group posttest only design.

Data collection about the demographic variables, were collected from all nurses initially before start of each CPNS training session, from postnatal mothers data on demographic variables are collected on their first postnatal day and on fifth day posttest interview schedule conducted data regarding outcomes of postnatal nursing problems and level of satisfaction of CPNS is assessed in the study group similarly from the data collection from postnatal mothers are collected about outcomes of postnatal nursing problems in the control group.

The outcome of postnatal nursing problems are assessed after implementation of comprehensive postnatal nursing care strategies are assessed as physiological wellbeing that includes ambulation done after rest there is no leg pain, provision
hygienic care such as breast and nipple care, skin care and perineal care done, prevent infections in breast, nipple and perineum, meet the elimination needs such as bowel and bladder reduces incidences of urinary retention, dysuria, rectal pain and rectal bleeding , Nutritional needs are met as per the postnatal requirements prevents any altered nutritional status in mother aggravated by vomiting, anorexia, diarrhea and constipation if present in postnatal mother, treatment of potential minor illness in postnatal mother such as blurred vision and headache , foul smelling vaginal discharge therefore there is reduction of postnatal complications like eclamptic fits, postpartum hemorrhage, puerperal infection, thrombo-embolism, breast and nipple infections, constipation, diarrhea and functional wellbeing assessed by examination of postnatal vital index which includes checking of body temperature, pulse and respiration , blood pressure and regular assessment of height of the uterus that checks the involution of the uterus, and also psychological wellbeing analyzed by assessment of mental status of the mother find out any chances of anxiety or depression most common risk factors, therefore provide guidance and counseling to handle the postpartum period safely in healthy manner, by full filling the psychological needs, family support and guidance individualized care, educating them about postnatal care, newborn care since knowledge deficit is the common problem among the mothers and caretakers, it is important to provide discharge instruction and follow up care that helps the mother not only to gain knowledge about it but also improves satisfaction and confidence level to lead a safe postpartum period. On the whole satisfaction about the CPNS among the postnatal mothers are assessed in study group against routine care in control group.

**Background Demographic characteristics of postnatal mother:**

Study included postnatal mother’s undergone normal delivery had normal pregnancy and with selected co-morbidity conditions such as Pregnancy induced hypertension, gestational diabetes mellitus and anemia, the major focus was on assessment of outcomes of postnatal nursing problems after implementation of CPNS in study group, postnatal mother with cardiac conditions, bronchial asthma and with surgical conditions are not included in the study. A descriptive analysis of the demographic variables of postnatal mother in study and control group (Table 11) figure-4-9.
Age: 50.9% of postnatal mothers in study group and 48.6% in control were found same majority in category of age group 18-23 yrs, similarly in least category of 34-38 years of 2.8% were found in study in 3.6% in control group respectively. This shows that the samples were distributed evenly amongst both groups, eliminating potential bias.

Education: The 35% of postnatal mothers in study group and 34% control group were found have same majority had done up to Pre University College education similarly least percentage 13% in study group and 12% in control group had done primary school education respectively indicating a non-significant difference in sampling amongst study and control groups.

Gravida: The 56.5% of postnatal mothers in the study group and 53.2% in control group were found to have same majority as primi mothers similarly least 2.3% were found in both groups were Grand multi Gravida in study group and 6.6% in control group indicating a non-significant difference in sampling among study and control groups. (Figure-6)

Caretakers: 43.3% of postnatal mothers in study group and 38% in control group were found to have same majority as mother in both groups respectively similarly the least 7.7% in study group and 8% in control group were also found to same caretaker as friends respectively (Figure-7)

Source of information: The regarding source of information about postnatal care 32.8% of postnatal mothers in study group and 30.9% in control group obtained information from same source of information as media and similarly least from parents 16% in study and 15% in control group respectively indicates homogeneity between the groups.

Health status of postnatal mother: under the health status of postnatal mother both the group has same majority of 57.7% in study and 61.4% control group were diagnosed as postnatal mother with no identified medical and pregnancy induced illness whereas under identified comorbidity condition both the group found to have Anemia of 18.4% in study group and 15.5% in control group whereas least found in
both study 7.7% and 6.8% control group were gestational diabetes (Figure-9)

The Chi-square test was performed to assess the significance of proportion of postnatal mothers according their demographic characteristics in between the study and control group. All through the descriptive analysis of demographic variables of postnatal mother, the Chi-square results was found to be remain not significant (p>0.05).

It evidenced that the sample of postnatal mothers observed in study and control group were found to be homogeneous in their demographic characteristics as per the requisite of base line characteristics of study and control study.

Distribution of Description of demographic characteristics of nurses in both study and control groups. (Table 12, Figure 10 to 15)

The table 12 presents the frequency and percentage distribution of nurses according to their demographic variables in both the groups. The Chi-square test was performed to assess the significance of proportion of nurses according their demographic characteristics in between the study and control group.

Age: The majority of the nurses 27% in study and 28% in control group were found under the same age group between 26-30 years and similarly least were 17% in study and 19% were in age 41-45 yrs respectively shows samples are evenly distributed between the groups.

Course: The majority of nurses 40% in study group and 35% in control group were found to be BSc nurses the similarly least were 20% Post basic nurses in study group and 22% in control group respectively. (Figure-11) indicates that homogeneity between the groups.

Type of family: majority of nurses 49% in study and 45% in control group were found to have similar family type that is nuclear family and similarly least 12% belong to extended family in study group and 11% in control group respectively (Figure-12)

Monthly income: Majority of the nurses 38% earn rupees 10000-15000 in study
group and the least were 18% earn rupees 15001 and above. In control group majority of nurses 38% earn 6000-10000rupees and least 15% earn rupees15001 and above. (Figure-13) therefore least percentage has high income in both group.

**Designation:** The majority of the nurses 48% hold designation of nurse junior in study group and the least 38% were nurse senior, in control group majority of nurses were 49% hold designation of nurse junior and least were 39% were nurse senior indicates that samples are evenly distributed between the groups. (Figure-14)

**Experience in postnatal ward:** The majority of the nurses 48% in study group and 49% in control group had same experience of 2-5yrs and similarly least in study group14% and 13% in control group had 11 years and above experience in postnatal ward, samples are evenly distributed between the groups (Figure-15).

All through the table the Chi-square results was found to be remain not significant ($p>0.05$). It evidence the sample of nurses observed in study and control group were homogeneous in their demographic characteristics as per the requisite of base line characteristics of study and control study.

**First objective** was to compare the outcomes of Postnatal Nursing Problems in postnatal mothers after implementation of CPNS by the nurses in the study group. (Table 13, Figure 16)

**First to compare the overall outcomes of Postnatal Nursing Problems in postnatal mother**

In study group none of them had high level of postnatal nursing problems, 207(48.1%) had moderate level of postnatal nursing problems 223(51.9%) had very low postnatal nursing problems, whereas in control group majority 284(64.5%) had high postnatal nursing problems, 131(29.8%) had moderate postnatal nursing problems and 25(5.7%) had low postnatal nursing problems (Figure-16) from the findings it is evident that there is good outcome in study group after implementation of CPNS Since none of the postnatal mothers had high level of postnatal nursing problems, which reveals high level of physical wellbeing, functional wellbeing and psychological wellbeing of postnatal mothers who availed CPNS, whereas in control
group 284(64.5%) had high level of postnatal nursing problems The above study finding are supported by the study done by Lydia Kanise Chimtembo (2013), conducted study to assess quality of comprehensive postnatal care that midwives provide to women seeking comprehensive postnatal services actual practice was observed and compared to a standard checklist on postnatal care practice.

To compare outcomes postnatal physical nursing care problems to assess the physical wellbeing: (table 14, figure 18)

In study group none of them had high level postnatal physical nursing problems, in study group 207(48.1%) had moderate level of postnatal physical nursing problems 223(51.9%) had very low postnatal physical nursing problems in study group who received CPNS, whereas in control group majority 284(64.5%) had high postnatal physical nursing problems and 125(28.5%) had moderate postnatal physical nursing problems and only least 31(7.0%) of them had low postnatal physical nursing problems of those postnatal mothers who received routine care. postnatal physical nursing problems such as leg pain, breast and nipple pain, perineal infections, bladder and bowel illness, minor illness such as hyperpyrexia, fowl smelling vaginal discharge, headache, blurred vision, Pain in the sutured area and lower back abdominal pain, therefore practicing CPNS found to be effective in controlling and preventing the all postnatal physical nursing problems since none of them had high postnatal physical nursing problems in the study group. (Figure-17).

The above study findings are supported by study conducted by Hourieh Shamshiri Milani (2017) on regular postpartum home care visits and assessment of physical nursing problems among postnatal mothers, this study aimed to provide regular postpartum home care visit for mothers to assess physical nursing problems among postnatal mothers with an aim to prevent the physical nursing problems in puerperium, The study concluded that the regular postpartum home care visit program had a positive effect on in prevention of physical nursing problems.

To compare outcomes postnatal functional nursing care problems to assess the functional wellbeing (table 15, figure 18)

In study group none of them had high level postnatal functional nursing problems, in 368(85.6%) had low level of postnatal functional nursing problems 62(14.4%) had moderate postnatal functional nursing problems in study group who
received CPNS, whereas in control group majority 430(97.7%) had moderate and least had 10(2.3%) low postnatal functional nursing problems and none of them had high postnatal functional nursing problems who received routine care (Figure-18) functional problems arises when postnatal vital index is not regularly checked by the nurse, such as check body temperature, pulse, respiration, BP every 4-6hrs and fundal height every day at same time, if not alterations in vitals like hyperpyrexia, palpitations, increased breath, giddiness due to hypotension or hypertension, changes in involution of uterus hard uterus or boggy leading to postpartum bleeding results complicating the postnatal mothers life.

The above findings are supported by the study conducted by Kairithia Fredrick (2015) to assess the Adequacy of vital signs monitoring in post-delivery mothers at the Naivasha District Hospital in Kenya, The study evaluated the monitoring and documentation of postpartum maternal vital signs, 95.8% had BP were taken at least once only, 58.4% had temperature recorded, 34.2% never had their pulse rate measured and about 17.1 had respiratory rate measured more than once during their hospital stay. The study recommended that there is need to emphasis on monitoring and documentation of maternal vital signs as a means of early detection of post-delivery complications.

**To compare outcomes postnatal psychological nursing care problems to assess the psychological well-being (table 16, figure 19)**

In study group none of them had high level postnatal psychological nursing problems, 238(55.3%) in study group had low level of postnatal psychological nursing problems, 192(44.7%) had moderate postnatal psychological nursing problems in study group, whereas in control group majority 284(64.5%) had moderate and least had 156(35.5%) high level postnatal psychological nursing problems (Figure-19) postnatal psychological nursing problems such as such as fear, anxiety, mood swings and knowledge deficit on aspects of postnatal care (Figure-19), the study finding were supported by Deborah McCarter et al (2016) who conducted study on Effectiveness of Discharge Education on Postpartum Depression to determine effectiveness of an educational intervention in reducing or preventing symptoms of postpartum depression, It evidenced that postnatal mothers who received guidance and counselling as a part of CPNS proved that majority of postnatal mothers elicited low postnatal psychological problems.
Therefore from the table 13 to 16 findings clearly elicits that study participants who availed CPNS had elicited low and moderate postnatal physical, functional and psychological nursing problems that had led to physical wellbeing, functional and psychological wellbeing among the postnatal mothers respectively, whereas in control group postnatal mothers elicited high and moderate postnatal physical, functional and psychological nursing problems, that may leads to complications in postnatal period.

This findings directed the investigator to accept the research hypothesis (H1) there is significant difference between the outcome of post natal nursing problems after implementation of CPNS in study group and the routine postnatal nursing care in control group.

**Second objective to compare the outcome of postnatal nursing problems and satisfaction of CPNS among the postnatal mothers in study and control group**

From the table 19 and 20 (Figure: 22) compares Mean, SD, Mean Percentage, unpaired t test and p value to compare overall postnatal nursing problems and satisfaction of CPNS in study group and control group.

Overall postnatal nursing care problems in study group mean value 42.56 and SD of 10.421, whereas in control group the mean value of 73.0 and SD of 12.423. Therefore overall Mean difference were of -30.44 and unpaired test t-value is -39.107 (p<0.001) shows statistically significant in study group than the control group.

Regarding the overall satisfaction level of CPNS the mean score value 37.87, SD 6.394 out of maximum score of 42 in study group, whereas in control group mean value is 20.55,SD 6.994. Therefore overall Mean difference value were 17.32 and unpaired test t-value is 38.077 (p<0.001) shows statistically significant in study group than the control group.

Regarding the aspect of postnatal physical nursing problems the mean value was 28.15 and SD of 9.0504 out of the maximum score of 57 in study group. But in control group, mean value was 48.93 and SD of 11.807, Therefore Mean difference were 20.78, and unpaired test t-value is -28.555 (p<0.001) shows statistically significant in study group than the control group.
Regarding the aspect of postnatal functional nursing problems, the mean value were of 5.72 and SD 1.758, out of the maximum score of 15 in study group, whereas in control group mean value 9.93 and SD of 0.581, Therefore Mean difference value were of 4.21, and unpaired test t-value is -47.645 (p<0.001) shows statistically significant in study group than the control group.

Regarding the aspect of postnatal psychological nursing problems, the mean value were of 8.69 and SD 2.988, out of the maximum score of 18 in study group, whereas in control group mean value 14.14 and SD of 2.878, Therefore Mean difference value were of 5.45, and unpaired test t-value is -27.396 (p<0.001) shows significant statistically significant in study group than the control group.

It is evidenced that from the analysis of comparison of outcomes of Mean, SD, Mean difference and unpaired t test values with (p<0.001) of postnatal nursing problems and level of satisfaction after implementation of CPNS was found to be effective, since majority of postnatal mothers elicited low level of overall postnatal physical, functional and psychological nursing problems indicating high level physical, functional and psychological well-being respectively.

It is evidenced that from the analysis of comparison of outcomes of postnatal nursing problems and level of satisfaction after implementation of CPNS was found to be effective than the routine care, majority of postnatal mothers had low postnatal nursing problems with high satisfaction, than the postnatal mothers who availed routine care in control group which has been found to be significant with the p-value p<0.001, this above finding are supported by the study conducted by Somayyeh Naghizadehet (2013) to assess patients’ satisfaction with postpartum care in teaching and nonteaching hospitals in Tabriz, Iran.

The findings of the study directed the investigator to accept the research hypothesis (H3), there will be significant difference between the outcome of postnatal nursing problems and satisfaction level among postnatal mothers after implementation of CPNS in study group.
Third objective to compare the satisfaction level among the postnatal mothers in study and control group (Table 17, Figure 20)

In study group majority of postnatal mothers 304(70.7%) had high level satisfaction of CPNS implementation and least 126(29.3%) had moderate level of satisfaction and none of them had poor satisfaction of CPNS in study group.

In control group majority of postnatal mothers 233(53%) had poor level of satisfaction of routine care least 207(47%) had moderate level of satisfaction of routine care in control group and none of them had high level of satisfaction of routine care (Figure 20).

Further, it was observed that a majority of postnatal mothers were highly satisfied in study groups who received CPNS, but whereas majority of postnatal mothers were poorly satisfied with routine nursing care in control group, From the (table 18) elicits the Mean 37.87 and SD 6.37 in study group is higher than the Mean 20.55 and SD 6.994 in the control group with t value 38.077 and were statistically significant with p value < 0.001 indicates high level of satisfaction of CPNS who availed in the study group than the routine care in control group.

Findings of the study was supported by Jipi Varghese (2012) conducted study to evaluate the level of satisfaction perceived by postnatal mothers following nursing care in postnatal wards.

The findings of the study directed the investigator to accept the research hypothesis (H2) that there will be significant difference in the satisfaction of CPNS Implementation by nurses among postnatal mother in study group than the postnatal mother who availed routine postnatal nursing care in control group.

Fourth objective was to find out the correlation with outcome of postnatal nursing problems and satisfaction level among the postnatal mothers in study group who received CPNS in study group (Table 21.)

From the table 21 it reveals that overall Postnatal nursing problems there is negligible negative correlation exist between level of satisfaction and overall Postnatal nursing problems with Karl Pearson’s coefficient r = -0.159, P<0.001 were
statistically significant in study group, there is negligible negative correlation exist between level of satisfaction and overall Postnatal nursing problems r= -0.056 with p 0.238 were statistically not significant in control group (figure 23.a. and b)

Regarding aspects Physical Postnatal nursing problems there is negligible negative correlation exist between level of satisfaction and Physical Postnatal nursing problems with Karl Pearson’s coefficient r =0.172 P<0.001 were statistically significant in study group, there is negligible negative correlation exist between level of satisfaction and Physical Postnatal nursing problems r= -0.055 with p 0.253 were statistically not significant in control group.(Figure 24.a.and b).

Regarding aspects functional Postnatal nursing problems there is negligible positive correlation exist between level of satisfaction and functional Postnatal nursing problems with Karl Pearson’s coefficient r = 0.077, P=0.110 were statistically not significant in study group, there is negligible positive correlation exist between level of satisfaction and functional Postnatal nursing problems r = 0.071 with p= 0.137 were statistically not significant in control group. (Figure.25.a.and .b)

Regarding aspects psychological Postnatal nursing problems there is negligible negative correlation exist between level of satisfaction and psychological Postnatal nursing problems with Karl Pearson’s coefficient r =-0.051, P= 0.289 were statistically not significant in study group, there is negligible negative correlation exist between level of satisfaction and psychological Postnatal nursing problems r =-0.033 with p=0.486 were statistically not significant in control group.(Figure.26.a .and .b)

It evidenced that there is negligible negative correlation exist in overall postnatal nursing problems and level of satisfaction findings of the study elicits that low in postnatal nursing problems has correlation with in high satisfaction level among the postnatal mothers received the CPNS through nurses in study group than control group. The findings of the study are supported by study conducted by Hanan Mohamed Soliman (2015) on Correlation between Patients' Satisfaction and Nurses' Caring Behaviors Patients have the right to expect Quality of care.

The findings of the study directed the investigator to accept the research hypothesis (H4) There will be significant correlation between the outcome of postnatal
nursing problems and satisfaction level among postnatal mothers after implementation of CPNS in study group.

**Fifth objective was to find the association of selected demographic variables of postnatal mothers and outcome of Postnatal Nursing Problems in the study group.** (Table 22 and 23)

Findings of the chi-square value from the table 22 reveals the association of demographic variables of postnatal mother with the postnatal nursing problems as follows

**Age** of the postnatal mother are not statistically significant with association of low level and moderate level of postnatal nursing care problems, with chi-square value 6.882 and p value p=0.076.

**Education** of the postnatal mothers are not statistically significant with association of low level and moderate level of postnatal nursing care problems, with chi-square 3.514, and p value p=0.319.

**Gravida** of the postnatal mothers are not statistically significant in association of with low level and moderate level of postnatal nursing care problems with chi-square value 1.363, with p value p=0.506.

**Caretaker** of the postnatal mothers are not statistically significant in association of low level and moderate level of postnatal nursing care problems with chi-square value 2.472, with p value p=0.480.

**Source of information** in the postnatal mothers are not statistically significant in association of low level and moderate level of postnatal nursing care problems with chi-square value 2.724, with p value p=0.436.

**Health status of postnatal mother** are not statistically significant in association of mother with low level and moderate level of postnatal nursing care problems with chi-square value 0.952, with p value p=0.813.
It is inferred that selected demographic variables such as age, education, caretaker, source of information and health status of the postnatal mothers are not statistically significant in association with outcome of low and moderate level of postnatal nursing problems in study group.

**Multi nominal regression analysis for study group**

From the table 23 reveals the strength of association with selected demographic variables with outcome variable, Multi nominal regression analysis done in study group as follows:

Findings: From the table 23 reveals the extent of association of outcome- low postnatal and moderate postnatal nursing problems with categories of demographic variables in study group ,Odds ratio and confidence interval-lower and upper with p value as follows on comparing with the reference:

**Age:** Findings from the Odds ratio and confidence interval and the p value indicates that On comparing the age group 34-38 as reference with other age group 18-23 yrs, 24-28 yrs were more likely to have low postnatal nursing problems and 29-33 yrs age were less likely to have low postnatal nursing problems in study group.

**Education:** Findings indicate that on comparing reference for education –Graduate with Primary school has less likely to have low than moderate postnatal nursing problems whereas Higher secondary school and PUC educated has more likely to have low postnatal nursing problems than moderate postnatal nursing problems respectively which is not statistically significant..

**Gravida:** Findings On comparing reference for Gravida -Grand multi Gravida with Primi Gravida has more likely to have low than moderate postnatal nursing problems and with Multi Gravida has less likely to have low postnatal nursing problems than moderate postnatal nursing problems which is not statistically significant.

**Caretaker:** Findings on comparing reference for caretaker -friends with Mother and relatives, postnatal mother is more likely to have low postnatal nursing problems than moderate postnatal nursing problems whereas Mother in law there is less likely to have low postnatal nursing problems than moderate postnatal nursing problem which is not statistically significant.
Source of information: Findings On comparing reference for source of information - media with parents there is more likely to have low postnatal nursing problems than moderate postnatal nursing problems whereas with relatives and friends there is less likely to have low postnatal nursing problems than moderate postnatal nursing problems in postnatal mother which is not statistically significant.

Health status of the postnatal mother: Findings On comparing reference of -No identified medical and pregnancy induced illness- Normal pregnancy with Gestational diabetes there is more likely to have low postnatal nursing problems than moderate postnatal nursing problems whereas with Pregnancy Induced hypertension and anemia there is Less likely to have low postnatal nursing problems than moderate postnatal nursing problems in postnatal mother which is not statistically significant. From the above table 22 and 23 findings reveal that there is no statistically significant association of selected demographic variables with low and moderate level of postnatal nursing mothers in study group.

It is inferred that after chi-square test and multinomial regression analysis to assess the strength of association of selected demographic variables such as age, education, caretaker, source of information and health status of the postnatal mothers with low postnatal nursing problems and moderate postnatal nursing problems in postnatal mother were found to be statistically non-significant.

Therefore findings direct the investigator to accept the null hypothesis that there is no significant association with selected demographic variables of postnatal mothers and the outcome of postnatal nursing problems in study group.

Association between postnatal nursing problems among postnatal mothers and their selected demographic variables in control group:

From the table 24 chi-square test values reveals the association of demographic variables of postnatal mother with the postnatal nursing problems in control group as follows.

Age of the postnatal mother are not statistically significant with the association of with low level, moderate and high level of postnatal nursing care problems, with chi-square value 10.396, and p=0.109
**Education** of the postnatal mother are not statistically significant with low level, moderate and high level of postnatal nursing care problems with chi-square value 5.353, and p=0.499.

**Gravida** of the postnatal mother are not statistically significant association with low level, moderate and high level of postnatal nursing care problems with chi-square value 3.922 and p=0.417.

**Caretakers** of the postnatal mother are not statistically significant with the association of with low level, moderate and high level of postnatal nursing care problems with chi-square value 4.074 and p=0.667.

**Source of information** in the postnatal mother are not statistically significant with association of low level, moderate and high level of postnatal nursing care problems with chi-square value 2.137 and p=0.907.

**Health status of postnatal mother** are not statistically significant with association of low level, moderate and high level of postnatal nursing care problems with chi-square value 8.193 and p=0.224.

Findings from the table 24 reveal that there is no statistically significant association of selected demographic variables with low and moderate and high level of postnatal nursing care problems in control group.

**Multi nominal regression analysis for control group: (low and high postnatal nursing problems)**

From the table 25 reveals the findings on strength of association of outcome-low postnatal and high postnatal nursing problems with categories of demographic variables in control group, Odds ratio and confidence interval-lower and upper with p value as follows:

On comparing reference age 34-38 yrs with the 18-23 yrs age group (OR: .214, CI: .043 to 1.058, P=.059) and 24-28 years age group has less likely (OR: .143, CI: .027 to 763, P=.023*) to have low postnatal nursing problems than high postnatal nursing problems which is statistically significant.
**Education:** From the findings on comparing reference for education with primary school has less likely to have low than high postnatal nursing problems which is not statistically significant, whereas with higher secondary and PUC and has more likely to have low than high postnatal nursing problems which are not statistically significant.

**Gravida:** From the findings on comparing reference for Gravida with primi Gravida and multigravida less likely to have low than high postnatal nursing problems which are not statistically significant.

**Caretaker:** From the findings on comparing reference for caretaker friends for category mother and relatives has more likely to have low postnatal nursing problems than high postnatal nursing problems whereas On comparing reference for caretaker friends with category mother-in law has less likely to have low than high postnatal nursing problems which are not statistically significant.

**Source of information:** From the findings on comparing reference for source of information media with parents and friends for the postnatal mother were less likely to reveal low than high postnatal nursing problems which is not statistically significant whereas on comparing reference for source of information media with relatives for the postnatal mother were more likely to have low than high postnatal nursing problems which are not statistically significant.

**Health status of postnatal mother:** From the findings on comparing reference for health status of postnatal mother with No identified medical and pregnancy induced illness- Normal pregnancy with Gestational diabetes, Pregnancy Induced hypertension and Anemia in the postnatal mother were more likely to have low than high postnatal nursing problems which are not statistically significant.

On comparing the association of outcomes with low and high postnatal nursing problems with in selected demographic variables in control group, findings of multi nominal regression analysis reveals that Postnatal mother in age group 24-28 yrs less likely to have associated with outcomes of low postnatal nursing problems than high postnatal nursing problems also found to be statistically significant, whereas
other age groups, education, Gravida, caretaker, source of information and health status of the postnatal mother are not found be associated with outcomes low and high postnatal nursing problems in control group.

Therefore findings direct the investigator to accept the null hypothesis that there is no significant association with selected demographic variables of postnatal mothers and the outcome of postnatal nursing problems in study and control group.

**Multi nominal regression analysis for control group: (moderate and high postnatal nursing problems)**

From the above table 26 reveals the findings on strength of association of outcome- moderate postnatal and high postnatal nursing problems with categories of demographic variables in control group, Odds ratio and confidence interval-lower and upper with p value as follows:

**Age** 34-38 yrs with the 18-23 yrs (OR: .654, CI: .201 to 2.127, P=.480) ,24-28 years (OR: .648, CI: .197 to 2.134, P=.476) and with the 29-33 years age group has less likely to have moderate postnatal nursing problems than high postnatal nursing problems in postnatal mother which is not statistically significant.

**Education** primary school (OR: .749, CI: .351 to1.598 P=.455), PUC (OR: .852, CI: .491 to 1.481 P=.571) are less likely to have moderate postnatal nursing problems whereas with higher secondary (OR: 1.217 , CI: .687 to 2.154 P=.501) has more likely to have moderate postnatal nursing problems than high postnatal nursing problems in postnatal mother which is not statistically significant.

**Gravida** -primi mother has less likely (OR: .601, CI: .256 to 1.415 P=.244) and multi Gravida mother (OR: .643, CI: .270 to 1.530 P=.318) are less likely to have moderate postnatal nursing problems than high postnatal nursing problems in postnatal mother which is not statistically significant.

**Care taker** Mother (OR: .611, CI: .275 to 1.361 P=.228) ,Mother-in law (OR: .696, CI: .286 to 1.695 P=.425) and relatives has less likely (OR: .566, CI: .254 to 1.257 P=.162) to have moderate postnatal nursing problems respectively than high postnatal nursing problems in postnatal mother which is not statistically significant.
**Source of information** media with parents (OR: .961, CI: .495 to 1.863 P=.905) and relatives (OR: .927, CI: .525 to 1.638 P=.795) are less likely to have moderate postnatal nursing problems respectively whereas with friends (OR: 1.011, CI: .580 to 1.763 P=.969) are more likely to have moderate postnatal nursing problems than high postnatal nursing problems in postnatal mother which is not statistically significant.

**Health status of postnatal mother**-gestational diabetes has more likely (OR: 1.428, CI: .620 to 3.288 P=.403) with pregnancy induced hypertension (OR: 1.034, CI: .565 to 1.892 P=.913) with Anemia (OR: 1.161, CI: .630 to 2.143 P=.632) are more likely to have moderate postnatal nursing problems than high postnatal nursing problems in postnatal mother which is not statistically significant.

Therefore findings direct the investigator to accept the null hypothesis that there is no significant association with selected demographic variables of postnatal mothers and the outcome of postnatal nursing problems in control group.

**Sixth objective was to find Association between satisfaction levels with selected demographic variables of postnatal mothers in study group.**

Chi-square test were conducted to find the association, Findings From the table 27 reveals the association of demographic variables of postnatal mother with the level of satisfaction of postnatal mother after implementation of CPNS in study group as follows:

Age of the postnatal mother are not statistically significant with association of moderate level and high level of satisfaction found to be significant with chi-square value 0.361 and p=0.948

Education of the postnatal mother are not statistically significant with association of moderate level and high level of satisfaction with chi-square value 6.319 and p=0.097

Gravida of the postnatal mother are not statistically significant with the association of moderate level and high level of satisfaction with chi-square value 2.322 and p=0.313
Caretakers of the postnatal mother are not statistically significant with the association of moderate level and high level of satisfaction with chi-square value 6.755 and p=0.080.

Source of information in the postnatal mother are not statistically significant with the association with moderate level and high level of satisfaction with chi-square value 2.510 and p=0.474

Health status of postnatal mother in the postnatal mother are not statistically significant association with moderate level and high level of satisfaction with chi-square value 1.754 and p=0.625

Findings from the table 24 reveal that there is no statistically significant association of selected demographic variables with moderate and high level of satisfaction in study group. Therefore findings direct the investigator to accept the null hypothesis that there will be no association of satisfaction level of CPNS implementation among postnatal mothers with their selected demographic variables in study group.

STRENGTH OF THE STUDY

- The study was conducted in twenty four similar settings with large sample size directs the investigator to generalize the results of the study utilized the recommendations given by WHO-postnatal health care guide (2013), based on the guidance study conducted with successful results obtained from this study will be evidence based research.
- Findings of study fills the lacunae in evidence based research publications expressed by WHO recommendations on postnatal care (2013), especially in areas of postnatal nursing problems where this study proves that systematic regular implementation of comprehensive postnatal care prevents the potential postnatal illness
- This study proved and results showed the high satisfaction level among the postnatal mothers, implementation of CPNS acted as preventive measures for postnatal mothers from actual and potential nursing problems.
This study explains need for regular evaluation of comprehensive postnatal strategies to prevent postnatal illness.

This study showed the importance of reinforcement of comprehensive nursing care will significantly improve the outcomes of postnatal care that not only benefits the postnatal mother but also provides job satisfaction among nurses for systematic implementation of nursing care.

This study can be implemented in other aspects of perinatal care such as antenatal care, intra-natal and neonatal care.

LIMITATIONS OF THE STUDY

- The study was limited to postnatal care, study required large sample size, and time consuming data collection.
- Getting cooperation from the postnatal mothers to get the data, some mothers had minor discomforts were not able to participate.
- There was no fixed time for data collection during postpartum period, the data were collected according to the mother’s convenience.
- Attrition among the postnatal mothers was unavoidable, due to fear of participation, transfer to other hospital for further treatment.
- Attrition among the nurses was also unavoidable due to long leave or sick leave.

Investigator prepared tool both interview schedule were non standardized tool and the reliability was checked through various statistical formulae. 8 -10 experts validated the tool and the booklets.