DISCUSSION
Discussion of the study result tries to untangle the finding. The actual meaning of the outcome and try to put the things in action. The study findings will not be enough to give the final information about the full implications. The implication that a researcher gives to the finding of the study play a fair and significant task in the report. In this section of the discussion, it is typically dedicated to a consideration of the study limits, recommendation, interpretation of the findings of the study which will corporate the study implications.

In the chapter of discussion, it includes the explanation of findings, where the researcher presents the finding through critical analysis along with comparison with other similar research findings. This section also presents the verdict on whether the findings support existing theories. It also explain the results and in attendance possible outcome how the findings of the study has come out to be.

**Couples need to be educated on this aspects:** (Diane MF, Margaret AC, 2003)

**Start of education of couples**

1. Eighteen fifty one
   - Start Sanitary association to teach the community.

2. After ten years
   - Same association aim to educate women about care of child

3. Nineteen eighty
   - Industrial revolution where lady were involved in work.

4. Nineteen ninety seven
   - Postnatal care education

5. Nineteen thirty
   - Providing an attender to help the women while going through the delivery and after care.

6. Nineteen ninety seven:
   - Chichton suggested about all the aspects for caring the women.

7. Nineteen ninety eight:
   - Midwifes policy of practice was passed.

8. Nineteen ninety nine:
   - Emphasis more on the education during the prenatal period
9. Two thousand:

More authority to the lady through education.

The process of teaching starts when they come to hospital for the first time before confirmation of pregnancy. Then the midwife dialogue them on different area in order to provide the pre beginning care. People thinks this is a concept for the rich citizens who have money to go through such care. In spite, they think it is going to be benefitted to the poor category as maximum information can be availed by them. The nurses plan about the teaching of the target set to go through the process of planned parenthood. (Diane MF, Margaret AC, 2003).

As there had been lots of changes in the health sector by bringing out many report. Currently the cases had been seen as the lady call in the home set up for the discussion process. It is a very expedient steps for both the midwife and the potential pairs to decide and commence the education throughout the pregnancy and also the bond goes ahead of the delivery. Choosing such environment is the best and conductive for the mothers as she is familiar and free to talk about her needs and anticipation. No acquaintance in people, space and time. It allows them to freely express their choice of birth method and any enquiry on it. The midwife take the advantages of advising what to be and not to be follows like good daily habits, exercises, activity, rest time etc. (Diane MF, Margaret AC, 2003).

The education of the couples is carried out by many association related to National childbirth trust. Some of the factors are always brought into consideration while organizing such classes.

Mainly on the modern picture concepts: (Diane MF, Margaret AC, 2003).

1. Surroundings:

Starting from the seating arrangement to the lighting, space and ventilation need to be taken care while preparing a class for educating the couples. They can be made to seat in a round conferences or a small face to face group so as to have a good eye contact and express their feeling. Other forms of teaching aids such as pamphlet, booklet, handouts should be made available where the necessary information are provided on any area of care during pregnancy. It is very important to consider the needs of the women while delivering the education. (Diane MF, Margaret AC, 2003).

2. Encouragement:
A renown author stated that some kinds of human needs are planned where through the positive reinforcement things goes well. She had also mentioned about the exterior and interior factors which hinders the persons behavior to perform. Inner is control by the basic immune factors where other one will have lots of extraneous things comes in picture. Maslow in nineteen ninety seven stated the needs of the human beings.

**Mainly five basic requirements:**
- Firstly the necessity of everyday life such as food, clothing, shelter, oxygen, water, where a person depends for survival.
- Secondly the person concerns about the atmosphere that he should be away from all harmful hazards or secure in life in term of health, accident, wealth, etc.
- Thirdly interaction with the society. A person is a social being where he needs socialization for the exchange of information or the needs. That is the way to survive in the life.
- Fourthly understanding between health care provider and receivers. Here the midwifes needs to established an understanding with the couples expectancy and needs for care.
- Fifthly, if the above needs are meet and satisfy by the persons, the last one they will be worried is that whether they will be able to stand themselves and think that they can fulfil the needs. *(Diane MF, Margaret AC, 2003).*

The main ways the couples get the attentiveness and wisdom is through the seeing and believing. The concepts with the scientific rationale is taught to the women for being practical in life. Another author also acknowledged that in the traditional way the couples gets the information from the friends and family who provide half knowledge and they followed that to prepare themselves. Some depends on readymade available magazines, books where the fancy picture and attractive things are present. Others also access to the internet where anybody share the information and others blindly follow the instruction. But the session arranged by the midwifes has lots of scientific proof information that the accurate and exact things are being brought out to the expectants couples. So as a midwife, needs lots of skill and efficient in term of knowledge and practice so as to impart the
right kinds of knowledge. Technique used in teaching apart from lecture methods are:

- AV aids
- Live sharing of exact methods
- Materials in the form of hand outs.

The blueprint of classes can be anything which the lady would have interest to know. Many times, she never wants to know about the labor process as every women labor process is different experience with any other women. The concepts of baby care and after birth was a keen interest area where mostly they would enquired during sessions. Well planned classes always think about the psychological factors. They are condition like postnatal despair, blues which occurs when the anticipation are not fulfilled dye to certain unavoidable issues. So mothers needs to be strongly prepared mentally to face and overcome the journey of paternity. *(Diane MF, Margaret AC, 2003).*

**Some of the important area of planned parenthood:**

Recently there has a witness of drastic changes in the maternity services where a mothers stay less time in the hospital after birth and less care needed compared to those olden days where more days and care was required and services also.

1. **Lady who goes for job and their partner:**

   Partners involvement in the delivery and labor process has become a part of maternity services. Such changes occurs as the women involvement in the running house hold as an equal responsible as man. The family pattern alteration is the responsible factors. Numerous studies reported the significance of men involvement in the whole system of planning and preparing till the delivery of the child.

2. **Low status and less deprived community:**

   The problem of the common public for attending such classes is because of economic background and the type of job they do. It is obvious that rather than paying for the classes they could afford for their daily living. Because of the constraints of the work and not having enough time, one cannot be able to make time for any other things. If the timing are relaxed and offers as per their suitable,
then the attendance may raise and good number of couples will initiate for such activities.

3. Particular category of people:

Many community group does not encourage to attend to classes, rather they think that the another members or relatives of the family can help them to gain the information on the care of pregnancy, diet, exercises, delivery mode and after birth of the child. So in order to meet the requirement of such groups, some author had develop a video based on the feasibility of the mothers tongue so that throughout the pregnancy they can be accessed to the video and clear their doubts.

4. Young women:

The most category of people are the girls below 18 years of age. Many act has passed to control the pregnancy below this age but government failed to do so. This group never received proper guidance and classes, less aware of the whole concepts then finally the outcome used to be never good in term of her health and baby. They are prone to many complication like bleeding, PIH, unwanted pregnancy. The child will be born as preterm, less weight, more death after birth. (Diane MF, Margaret AC, 2003).

Many organization has initiated to work for the vulnerable groups as they are the target population requiring a maximum awareness and care to reduce the mortality rate. The midwives play an important role to guide and help them prepare their body and themselves to cope up with the process. The phase of life going through stages of childbirth and delivery is a game changer in one’s life where and uncertain can happens at any course of life. The need to go through the changes of every steps start for the investigation, scanning, drugs treatment, worries of the support system, financial partners support and many more things. Mainly about afterbirth, the care of the baby, feeding and the role change in her life. The mental curve goes from happiness to worries. The care of the child, physical strain, not getting proper rest and sleep affects in every aspects of life. (Diane MF, Margaret AC, 2003).

The midwives need to consider some of the ethical issues while doing any procedures. Many writer had brought out a outline of the ethics. It help them to overcome many professional issues in practices.

**Stages of ethics:**

- 1st level: decision
In the first one, a person taking a decision on any matters. Everybody take a judgment everyday in their life. For instances, buying things, going out and for many things. The nurse need to be more careful while making a decision on the clients decision. There should not be a unfair between the parties. Each individual are different in beliefs and action in the community. It is again important to first analyze our self before the decision is placed.

Second level is the policy. Every hospital has its own terms and condition to carry out the activities. Each one of us are bond to the obligation. Either it comes from the higher authority for general things. Otherwise the flame protocol made to be followed by everyone carried out the procedures.

Third one is the beliefs. It is the understanding created by the care providers. The four principles followed while carrying out the profession. They are independence, profit, owns right and not to destruction.

(Diane MF, Margaret AC, 2003).

In this chapter, finding are brought out after the literature, hypotheses, objectives.

DISCUSSION
The organized results are as follows:

Section 1: Finding of demographic variables among health professionals.

Demographic variables of health professionals.

- In the present study (57.7%) were 21-25 years, (17.7%) 26-30 years, (17.3%) were 31-35 years and minimum (7.3%) were 36 years and above.
- In the present study majority of respondents (83%) were females and minority (17%) were males.
- With respect to professional qualification, majority of respondents (53%) were GNM, 22% were PB.B.Sc Nursing, (14.3%) were Basic B.Sc and 10.7% were lab assistant.
- In regards to work experience, mostly (62%) were 1-5 years of working, (29%) had 6-10 and (9%) had 11-15 years.
 Mostly that is (71%) had no previous knowledge about placental stem cell and its utilization and minority (29%) had previous knowledge.

- With respect to source of information, majority of respondents, (47.1%) got knowledge from media, 24(27.6%) got knowledge from continuing nursing education, 17(19.5%) got knowledge from friends and 5(5.7%) from family.

Section 2: Assessment of level of knowledge and practice about Placental Stem cell and its utilization among various health professionals

The present study found that, more than half, (58.7%) had inadequate knowledge about placental stem cell and its utilization, the rest (41.3%) got some knowledge and none were aware about the concept.

Section 3: Relationship between knowledge and practice regarding placental stem cell and utilization.

It was found that knowledge and practice regarding placental stem cell and its utilization was r=0.620 among health professionals by a linear correlation and also was highly significant. It implied an increase in knowledge bears the further increase in practice.

Finally it can be concluded that the improvement in practice was gain only when the knowledge on the topic is updated, but some extraneous factors interfered in the outcome. It was proof through the analyses done by linear regression and R square.

Hypothesis testing-1

$H_0$: There is no significant relationship between knowledge and practice about placental stem cell and its utilization among health professionals.

Vs

$H_1$: There is significant relationship knowledge and practice about placental stem cell and its utilization among health professionals.

The table 3.1 showed the knowledge and practice about placental stem cell and its utilization. It was found to be highly significant ($P <0.001$). The regression analysis presented in table 3.2 was also found to be significant. It may be ended as significant relationship on knowledge and practice regarding placental stem cell and its utilization among health professionals.
Section-4: Association of knowledge and practice regarding placental stem cell and its utilization among health professionals.

It depicted outcomes of Chi-square test analysis, which was carried out to determine the association between knowledge regarding placental stem cell and utilization among health professionals and variables. Accounted for association, age in years ($\chi^2=10.795$, df 3), gender ($\chi^2=6.894$, df 1), professional qualification ($\chi^2=7.763$, df 3), previous knowledge regarding placental stem cell collection ($\chi^2=10.795$, df 3), and source of information ($\chi^2=10.795$, df 3) were associated with knowledge (P <0.05) significantly. The demographic variable work experience only was not significantly associated (P >0.05).

In this study, it was indicated that the outcomes of Chi-square test analysis, which was carried out to determine the association between practice about placental stem cell and utilization among health professionals and the selected demographic variables. Accounted for association, age in years ($\chi^2=17.850$, df 3), professional qualification ($\chi^2=15.252$, df 3), previous knowledge regarding placental stem cell collection ($\chi^2=3.870$, df 3), and source of information ($\chi^2=9.170$, df 3) associated with practice (P <0.05) statistically significant. The demographic variable of gender and work experience only was not significantly associated.

The present study shown that the knowledge regarding placental stem cell and utilization among health professionals was significantly associated with age, gender, professional qualification, previous knowledge regarding placental stem cell collection and source of information at 0.05 level (P <0.05). Similarly, the practice regarding placental stem cell and utilization among health professionals was significantly associated with age, professional qualification, previous knowledge regarding placental stem cell collection and source of information.

This indicated as knowledge and practice regarding placental stem cell and utilization was significantly associated and demographic variables.

Above findings reported that the health professionals have inadequate knowledge on placental stem cell collection and its utilization. Hence, the health personnel needs to updates with the recent advancement in term of technology or skill. Through the continuing education programme also the knowledge and practice can be improved. Medical personnel need to enhance their skills in every aspects of care. So that the clients are benefitted with the proper services. Therefore, the
researcher developed a self instructional module to gain knowledge on recent advancement on placental stem cells.

**Section-5: Comparison of Mean and SD of knowledge and practice regarding stem cell and utilization among health professionals over their selected demographic variables.**

**Section 1 : Demographic variables of health professionals.**

In the present study (57.7%) were 21-25 years of age, (17.7%) were 26-30 years, (17.3%) were 31-35 years and minimum (7.3%) were 36 years and above.

Similarly, a study by Hannan M.M.Tork, et al (2018) on knowledge and attitude about health care provider regarding stem cell in Qassim region. The study included 250 of them in 5 hospitals, Qassim, KSA. The finding revealed that most of respondents were less than 30 years of age.

In another study by Ujala J, et al (2017) study to provide STP and thereby help to increase the knowledge of staff nurses on UCB cell. The finding indicated that more than half i.e (53.3%) of the nurses were 21-25 years.

Similarly a study by Manal Farouk Moustafa & Entisar Mohammad Youness (2015) on the nurses knowledge about UCBB and its barrier in Women's Health Hospital, Assiut University Hospitals, Egypt. The studied sample consisted of 150 nurses, most of the participant were between 19 - 58 Years of age.

Similar study by Amisha S Amin, Vinaya Kumary T, Viji Prasad (2016) study revealed that 48% of staff nurses were of age group 26-30 years.

The present study found that most of the respondents (83%) were females and minority (17%) were males.

Similarly a study by Ujala J, et al (2017) study to provide STP and thereby increase staff nurses level of knowledge of on UCB. The result revealed that all nurses (100%) were females.

Similarly, a study by Hannan M.M.Tork, et al (2018) on knowledge and attitude about health care provider regarding stem cell in Qassim region. The finding indicated that most of the participants were females.
A study conducted by Manal Farouk Moustafa & Entisar Mohammad Youness (2015) on the nurses knowledge about UCBB and its barriers. The studied sample consisted of 150 nurses, the gender of all of them were females.

A study conducted by Amisha S Amin, Vinaya Kumary T, Viji Prasad (2016) on the knowledge regarding UC stem cell therapy among staff Nurses. The study revealed that most of the staff nurses were females (82%) and only 18% were male nurses.

With respect to professional qualification, majority of respondents (53%) were GNM, 22% were PB.B.Sc Nursing, (14.3%) were B.Sc and 10.7% were lab assistant.

Similarly, a study conducted by Hatzistilli H (2014) on health professional regarding knowledge and attitude towards the UCB donation, Greece. There were 109 health professionals from three Hospitals, Thessaloniki. The structured questionnaire were given. The study result showed that most of the participants were nurses i.e 34.9% were midwives and 34.8% were nurses and the remaining, 23.9% were physician and other health professionals.

A study conducted by Ujala J, et al (2017) to provide STP on UCB stem cells. It was revealed that majority of nurses (91.7%) were GNM. Similarly, a study by Hannan M.M.Tork, et al (2018) on knowledge and attitude about health care provider regarding stem cell in Qassim region. The finding indicated that most of the participants were nurses.

Another study by Amisha S Amin, Vinaya Kumary T, Viji Prasad (2016) study indicated that the maximum of staff nurses participated in the study were GNM’s (58%).

In regards to work experience, maximum of which (62%) had 1-5 years of working, (29%) had 6-10 and (9%) had 11-15 years.

A study conducted by Ujala J, et al (2017) finding indicated as many had work already more than 8 years i.e 31.7%, 30% had somewhere two yrs experience, 28.31% were having 3-5 year & others 10%said more than 8 years experience.

Similarly, a study by Hannan M.M.Tork, et al (2018) on knowledge and attitude about health care provider regarding stem cell in Qassim region. In the study subjects were taken from 5 big set up. Total of two hundred fifty health personnel.
The finding indicated that most of the participants had practiced for less than 10 years.

**Majority of the respondents (71%) and minority (29%) showed about the previous knowledge about placental stem cell and its utilization.**

Similarly a study by Ujala J, et al (2017) revealed that more from deliver room 47.7%, 40% were from labour room and 18.3% were OT staff and had no previous exposure to placental stem cell.

Similarly, a study conducted by Hippokratia, (2014) showed that 15.6% of the participants had knowledge on the placental stem cell collection methods and the usage.

The majority of the respondents i.e (89 %) say that there is a need of a education training program to be arranged, 93.5% of the respondents say that they have not received any kind of training program from past 5 years or got little UCBC, and the procedures of the placental stem cell.

In another study by Amisha S Amin, Vinaya Kumary T, Viji Prasad (2016) study shown that most of the participants (89%) had no previous information regarding stem cell therapy.

**With respect to source of information, majority of respondents, (47.1%) got knowledge from media, 24(27.6%) got knowledge from continuing nursing education, 17(19.5%) got knowledge from friends and 5(5.7%) from family.**

Similarly, a study conducted by Karagiorgou LZ (2014) to find out Greeks opinion about UCB. Secondly they also wanted to find out loop hall in encouraging the target group on UCB store and also the ways for increasing the donation of the cord blood. The finding indicated that 35% of the respondents got knowledge from media and remaining 25 % from doctors.

In another study by Ujala J, et al (2017) study to provide STP and increase staff nurses knowledge on UCBSCs. The study finding was that 61.7% i.e maximum get to explore from the others means like internet, papers etc.

A similar study by Sudhanshu Kumar Das et al (2017) showed that 67% were aware of UCBB and remaining (33%) were unaware, where the advertisements are being the most common source among 100 health professionals.
In another study by Manal Farouk Moustafa & Entisar Mohammad Younness (2015) on Nurses knowledge about UCBB and its barrier. The goal was to assess the knowledge regarding CBB and recognize the with hold in the process of expansion and functioning of CBB in Women's Health Hospital, Assiut University Hospitals, Egypt. The first source of information the participants followed was the books and magazines, then next to seminars and conferences (39.3% and 14.0%).

Similar study by Amisha S Amin, Vinaya Kumary T, Viji Prasad (2016) conducted study indicated that the most of the participants (11%) had got the information from media.

Section 2 : Assessment of level of knowledge and practice about Placental Stem cell and its utilization among various health professionals.

It was found that, more than half, (58.7%) had inadequate knowledge about placental stem cell and its utilization, the rest (41.3%) had moderate knowledge and adequate knowledge was found none.

The above finding was supported by many studies. Similarly, a study conducted by Hippokratia, (2014) showed that 15.6% of the participants had knowledge on the placental stem cell collection methods and the usage. Most of the respondents i.e (89%) say that there is a need of a education training program to be arranged, 93.5% of the respondents say that they have not received any kind of training program from past 5 years or got little on the aspects of CB collection, and the procedures of the placental stem cell.

The another study by Ujala J, et al (2017) study to provide STP and increase the information on UCB. The finding depicted on regards to CB procedures , 45% some knowledge, 26.7% favourable knowledge, 20% very bad, only 8.3% were update in knowledge.

Amisha S Amin, Vinaya Kumary T, Viji Prasad (2016) , study to find out their knowledge level regarding Umbilical cord blood stem cell therapy. It was shown that 90% of staff nurses had poor knowledge and remaining 10% were moderate on CBSCs therapy.

In another study by Hend S Mohammed, Hend EL Sayed (2015) study finding depicted a bad opinion on the concepts prior to training with 88.7%. 90.6% had improve the knowledge after the intervention of three months.
A contradictory study conducted by Sudhanshu Kumar Das et al (2017) showed that 67% were aware of UCBB and remaining (33%) were unaware, where the advertisements are being the most common source among 100 health professionals. Among 67% aware health professionals, 20% (14) people were telling expensive but affordable and 62% (41) about useful but not necessary now. Out of 33% people, 23% people were agreeing that it is very useful and 60% expensive.

A study conducted by Amira Mohammed Saed Mohammed Khali & Sabah Mohammad El Sayed Sharshor (2016) study finding indicated that that 69 % of nurses lack in knowledge about stem cells.

A study conducted by Manal Farouk Moustafa & Entisar Mohammad Youness (2015) on nurses knowledge about UCBB and its barrier. The finding showed that 79.7% of the nurses are lacking in Knowledge.

A study conducted by Hatzistilli H (2014) study findings indicated that Health professionals knowledge on the UCB indicated that 15.6% had knowledge regarding the method of collection and procedure of UCB.

A study conducted by Lye Jee Leng, et al (2016) on association between nurses knowledge and attitude on SC appliance in medicine. The study finding revealed that 86.6% i.e maximum had moderate and more than half i.e 60.8% of the nurses showed positive attitude towards the importance of stem cells in medicine.

Similarly, Peberdy L (2016) study to analysis the ways they learn about the CB collection. It revealed that professional knowledge on CB collection were limited thereby communication to the expectant parents on CB collection was inappropriate.

A study conducted by Hannan M.M.Tork, et al (2018) on knowledge and attitude about health care provider regarding stem cell in Qassim, KSA. The result indicated that 56% participants knowledge was average and good knowledge was found in few, only 31.2 %.

Rachna Gill, Bhupinder Kaur, Mohinder Kaur and P Latha (2018) study on placental stem cell, CB banking and its utilization. The findings revealed that 44.66% of health care professionals were having adequate knowledge and 55.33% of health care professionals were having inadequate knowledge.
Section 2: Assessment of level of practice about placental stem cell and its utilization among various health professionals

The present study found that, more than half (58.0%) of health professionals had average level of practice about placental stem cell and its utilization, the rest (42.0%) of them had poor practice and none of them had good practice.

Similarly, a study conducted by Hatzistilli H (2014) on health professionals knowledge and attitude towards UCB donation in Greece. The findings showed that health professionals had only 15.6% information regarding CB collection techniques and its uses.

Similar study by Manal Farouk Moustafa & Entisar Mohammad Youuness (2015) on nurses knowledge about UCB banking and barrier in Women's Health Hospital, Assiut University Hospitals, Egypt. The finding showed that approximately three quarters i.e 78.7% nurses had inadequate knowledge about the UCBB, while (21.3%) only of the participant nurses' knowledge were adequate.

In another study by Celluzzi CM (2014) study finding revealed that 50% required a kind of training on the CB collection procedures.

Section 3: Relationship between two variables

It was found that there was linear relationship and it was found to be $r=0.620$ among health professionals and also $S t(P < 0.001)$. This implied an the increase in knowledge bears the further increase in practice.

The regression model was obtained as $(Practice = 4.20 + 1.035 \times knowledge)$ which indicated that there is a relationship between the two variables. 38.4% changes in skill was obtained through the R-square value which was 0.384, indicated that the upgrading on expertise directly relate on the level of knowledge but some extraneous variables can also be a factors.

Hypothesis testing-1

$H_0$: There is no significant relationship between knowledge and practice about placental stem cell and its utilization among health professionals.

Vs

$H_1$: There is significant relationship knowledge and practice about placental stem cell and its utilization among health professionals.
There was a relationship between knowledge and practice and which was significant regarding placental stem cell and its utilization among health professionals. It was presented through the regression analysis table 3.1 and 3.2. The level of significant was high.

Similarly, a study conducted by Lopes LA, et al (2016) on good practices in collecting UCB and placental blood. The goal of the study was to become aware of the factors associated with the quality of UB and placental blood specimens. The result confirmed that there has been a connection with OBG and paediatric elements, there was a bigger relationship with functioning elements, ensuing inside want to modify the expert skill within group of workers and medical team concerned in gathering this form of blood taken by staff to yield excessive first-class cells which can be a demonstration of excellent information level.

Section-4: Association of knowledge and practice regarding placental stem cell and its utilization among health professionals.

It reported outcomes of Chi-square test analysis, which was carried out to determine the association between knowledge regarding placental stem cell and utilization among health professionals and selected demographic variables. Accounted for association, age in years ($\chi^2=10.795$, df 3), gender ($\chi^2=6.894$, df 1), professional qualification ($\chi^2=7.763$, df 3), previous knowledge regarding placental stem cell collection ($\chi^2=10.795$, df 3), and source of information ($\chi^2=10.795$, df 3) were associated with knowledge ($p < 0.05$) significantly. The demographic variable work experience only was not significantly associated ($p > 0.05$).

Similarly, Lye Jee Leng, et al (2016) study on association between nurses knowledge and attitude on SC claim in medicine, tertiary teaching hospital. It was found statistically significant difference in total knowledge scores and nurses clinical working experiences ($p = 0.003$). The majority of nurses showed a positive on SCs usage in medicine. Implementation of an in-service educational programme should be promoted to enhance the impact of knowledge and attitudes on stem cell application to fit contemporary health care needs.

In another study by Manal Farouk Moustafa & Entisar Mohammad Younness (2015) on nurses knowledge about UCBB and its Barrier. The end result proven that no relationship determined among knowledge score and the chosen demographic variables such as age, gender, religion, academic, year of experience and area of
experience. So the association was found to be there with score and selected demographic variables like preceding expertise and supply of records as their value was more than the table one.

In another study by Amisha S Amin, Vinaya Kumary T, Viji Prasad (2016) study to determine the level of expertise regarding UCB stem cell therapy. 100 personnel nurses in decided on Hospital. The study results additionally depicted the association among knowledge ratings and few selected variables like previous knowledge, information etc

Soon Lean Keng, et al (2016), study to determine the association between nurses knowledge and attitudes toward the application of stem cells in medicine in a tertiary teaching hospital in Kelantan, Malaysia. The finding revealed that more than half (n=59; 60.8%) of the nurses exhibited a positive attitude towards the beneficial potential of SCs in medicine. Total knowledge scores and nurses’ clinical working experiences had a difference (p =0.003).

The present study showed the outcomes of Chi-square test analysis, which was carried out to determine the association between practice about placental stem cell and utilization among health professionals and selected demographic variables. Out So like for association, age in years ($\chi^2 = 17.850$, df 3), professional qualification ($\chi^2 = 15.252$, df 3), previous knowledge regarding placental stem cell collection ($\chi^2 = 3.870$, df 3), and source of information ($\chi^2 = 9.170$, df 3) related with practice. The demographic variable, gender and work experience only was not significantly associated.

The present study shown that some of the demographic variables like age, gender, professional qualification, previous knowledge and source of information at 0.05 level (p<0.05) was significantly associated with the knowledge regarding placental stem cell collection and its utilization.

Similarly, demographic variables such as age, professional qualification, previous knowledge regarding placental stem cell collection and source of information was significantly associated with the practice regarding placental stem cell and utilization among health professionals.

So the findings reported that there was a significant association between the two aspects with their socio demographic variables.
Finally, the above result depicted that there was less knowledge level among the health professionals about the placental stem cell and its utilization. So it is high time that the health personnel needs to improve their skill in performing the stem cell collection and updates information on this topic. They play a vital role to educate the couples to come forward to donate more number of stem cell. The researcher shown a keen interest to help the health personnel to be train and gain the skill in performing this procedures. Thereby the clients will be able to utilize the maximum facilities of the services and the health care is improved.

**Section- 5: Comparison of mean scores of knowledge and practice over their demographic variables.**

It was shown in the study that the F-test for ANOVA to analyse mean scores of knowledge on PSC among health professionals over age in years, professional qualification and work experience were found to be statistically significant and knowledge over source of information was not significant. The unpaired test was worked out to find difference between knowledge over previous information, it was found to be statistically significant and knowledge over gender was not significant. So the knowledge significantly differs over demographical variables of age, professional qualification, work experience and previous information regarding placental SC

The F-test for ANOVA also was done to compare the mean scores of practice over age in years, professional qualification, work experience and source of information regarding placental stem cell collection and utilization of health professionals were found to be statistically significant. The unpaired t-test was worked out to find the significant difference between practice over previous information, it was found to be statistically significant and practice over gender was not significant. It indicated that there is significantly differs over demographical variables of age, professional qualification, work experience, previous information and source of information regarding placental stem cell collection and utilization among health professionals.
**Question wise score:**

**Knowledge questionnaire**

**Question no 1:**
correct answer is 244 (81.3%), incorrect answer is 56 (19.7%)

**Question no 2:**
Correct answer is 156 (52.3%), incorrect answer is 144 (47.7%)

**Question no 3:**
Correct answer is 52 (17.3%), incorrect answer is 248 (82.7%)

**Question no 4:**
Correct answer is 142 (47%), incorrect answer is 158 (53%)

**Question no 5:**
Correct answer is 66 (22%), incorrect answer is 34 (78%)

**Question no 6:**
Correct answer is 172 (57%), incorrect answer is 212 (43%)

**Question no 7:**
Correct answer is 255 (85%), incorrect answer is 45 (15%)

**Question no 8:**
Correct answer is 162 (54%), incorrect answer is 270 (46%)

**Question no 9:**
Correct answer is 95 (32%), incorrect answer is 205 (68%)

**Question no 10:**
Correct answer is 47 (16.3%), incorrect answer is 253 (83.7%)

**Question no 11:**
Correct answer is 204 (68%), incorrect answer is 96 (32%)

**Question no 12:**
Correct answer is 208 (69.3%), incorrect answer is 92 (30.7%)

**Question no 13:**
Correct answer is 69 (23%), incorrect answer is 231 (77%)

**Question no 14:**
Correct answer is 113 (38%), incorrect answer is 187 (62%)

**Question no 15:**
Correct answer is 28 (9.3%), incorrect answer is 272 (90.7%)

**Question no 16:**
Correct answer is 216 (72%), incorrect answer is 84 (28%)
Question no 17:
Correct answer is 65 (22%), incorrect answer is 235 (78%)

Practice Questionnaire
Question no 1:
Correct answer is 58 (19%), incorrect answer is 242 (81%)
Question no 2:
Correct answer is 132 (44%), incorrect answer is 168 (56%)
Question no 3:
Correct answer is 104 (35%), incorrect answer is 196 (65%)
Question no 4:
Correct answer is 227 (76%), incorrect answer is 73 (24%)
Question no 5:
Correct answer is 120 (40%), incorrect answer is 180 (60%)
Question no 6:
Correct answer is 132 (44%), incorrect answer is 168 (56%)
Question no 7:
Correct answer is 232 (77%), incorrect answer is 68 (23%)
Question no 8:
Correct answer is 166 (35%), incorrect answer is 134 (65%)
Question no 9:
Correct answer is 233 (78%), incorrect answer is 76 (22%)
Question no 10:
Correct answer is 256 (85.3%), incorrect answer is 44 (14.7%)
Question no 11:
Correct answer is 187 (62%), incorrect answer is 113 (38%)
Question no 12:
Correct answer is 66 (22%), incorrect answer is 234 (78%)
Question no 13:
Correct answer is 113 (38%), incorrect answer is 187 (62%)
Question no 14:
Correct answer is 195 (65%), incorrect answer is 105 (35%)
Question no 15:
Correct answer is 98 (33%), incorrect answer is 202 (67%)
Question no 16:
Correct answer is 214 (71%), incorrect answer is 86 (29%)

Question no 17:
Correct answer is 198 (66%), incorrect answer is 102 (34%)

Question no 18:
Correct answer is 210 (70%), incorrect answer is 90 (30%)

Question no 19:
Correct answer is 210 (70%), incorrect answer is 90 (30%)

Question no 20:
Correct answer is 15 (5%), incorrect answer is 285 (95%)

Question no 21:
Correct answer is 8 (3%), incorrect answer is 202 (97%)

Question no 22:
Correct answer is 40 (13%), incorrect answer is 260 (87%)

Question no 23:
Correct answer is 175 (58%), incorrect answer is 125 (42%)

Question no 24:
Correct answer is 79 (26%), incorrect answer is 221 (74%)

Question no 25:
Correct answer is 158 (53%), incorrect answer is 142 (47%)

SUMMARY
In this context, it dealt with discussion which gives a brief account of the results of the study, what it means, and application of it in practice. It also concluded relationship between knowledge and practice regarding placental stem cell and its utilization among health professionals was highly significant. There was significant association of knowledge and practice regarding placental stem cell and its utilization among health professionals with their demographic variables.