"A Study To Assess The Effectiveness Of Planned Teaching Programme On Ovarian Germ Cell Tumor Among Adolescent Girls In A Selected College At Udaipur."

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Abstract
Background Of The Study
Adolescence is a transitional stage of physical and mental development generally occurring between puberty and legal adulthood, but largely characterized as beginning and ending with the teenage stage. Reaching girls during adolescence is critical decisions made and behaviors established during this period affect their horizons later in life. Many serious diseases in adulthood have their roots in adolescence.

Germ cell tumors include a diverse group of tumors that arise from primitive germinal cells in either the gonads (ovaries, testicles).Germ cell tumors can occur almost anywhere in the body and can be either benign or malignant. Ovarian germ cell tumors are abnormal mass of tissue that forms in germ (egg) cells in the ovary. These tumors usually occur in teenage girls or young women, usually affect just one ovary and can be benign. Ovarian germ cell tumors represent 15 to 20 % of all ovarian tumors. They are rapidly growing neoplasm that arises from primordial germ cells derived from the embryo gonad. Of all gynecological tumors, ovarian malignancies represent the greatest clinical challenge. Ovarian cancer is the second most common malignancy of the female reproductive system and one of the leading causes of death among gynaecologic malignancies. Ovarian cancer represents a major surgical challenge requiring intensive and often complex therapies. It has the highest fatality-to-case ratio of all the gynaecological malignancies. Proper education is absolutely necessary in order to improve the adolescents' knowledge. Early detection of ovarian germ cell tumor is essential to decrease the chances of complications.

The aim of this study was to determine the effectiveness of planned teaching programme on ovarian germ cell tumor among adolescent girls in a selected college at Udaipur.

Statement Of The Problem
"A study to assess the effectiveness of planned teaching programme on ovarian germ cell tumor among adolescent girls in a selected college at Udaipur."

Objectives
The objectives of the study are to:
- *Determine the existing knowledge of adolescent girls regarding ovarian germ cell tumor using a structured knowledge questionnaire.*
- *Find the effectiveness of planned teaching programme on ovarian germ cell tumor among adolescent girls using the same structured knowledge questionnaire.*
- *Find the association between pre-test knowledge score and selected demographic variables.*

Hypothesis
The following hypotheses will be tested at 0 .05 level of significance
H1: The mean post-test knowledge score of adolescent girls on ovarian germ cell tumor will be significantly higher than the mean pre-test knowledge score.
H2: There will be significant association between pre-test knowledge score and selected demographic variable.

Method
An evaluative approach with quasi-experimental, one group pre-test post-test design without control group was used for the study. The sample consisted of 60 adolescent girls. The sample was selected using stratified

random sampling technique.

The data was collected prior to and after administration of the planned teaching programme on ovarian germ cell tumor. Post-test was conducted on the seventh day using the same tool.

Results

Descriptive and inferential statistics were used to analyze the data. Findings revealed that the mean pre-test knowledge score was 47.26% with mean ±SD 14.18±1.88 whereas the post-test mean knowledge score was 77.6% with mean ±SD 23.28±1.68.The difference between pre-test and post-test knowledge score showing an effectiveness of 30.34% with mean ±SD 10.67±3.23.

Paired 't' test was used to analyze the effectiveness of PTP which shows that the gain in knowledge was significant (t=25.66,df=59, p<0.05). The study findings had shown that there was a significant increase in the post test knowledge scores compared to pre test knowledge scores.

Chi- square test was used to analyze the association of pretest knowledge scores with selected demographic variables. Chi square value indicated that there was no significant association between pretest knowledge score of adolescent girls and selected demographic variables.

Interpretation And Conclusion

There is a significant increase in knowledge score of adolescent girls after teaching programme. Therefore, it is concluded that the planned teaching programme is highly effective in increasing the knowledge of adolescent girls on ovarian germ cell tumor.

Keywords: Effectiveness; planned teaching programme; ovarian germ cell tumor; knowledge; adolescent girls

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I. Introduction

Adolescence derived from Latin word means "to grow up". Adolescence is a transitional stage of physical and mental development generally occurring between puberty and legal adulthood, but largely characterized as beginning and ending with the teenage stage. An adolescent is a person between the age of 10 and 19 years.

The ovaries are paired sex glands. It is concerned for germ cell maturation storage and its release. Each gland is oval in shape and pinkish grey in colour. Various components of ovary are germ cells follicular cells and the stoma cells. The importance of ovary is to produce ova and the hormones estrogen and progesterone. Germ cells are either the egg or sperm cell (reproductive cell). Each mature germ cell is haploid (it has a single set of 23 chromosomes).

Ovarian germ cell tumors represent 15 to 20 % of all ovarian tumors. They are rapidly growing neoplasm that arise from primordial germ cells derived from the embryo gonad. Approximately 95% of germ cell tumors are represented by benign cystic teratomas and are relatively easy to diagnose. The remaining 5% are malignant germ cell tumors and responsible for most of the diagnostic difficulties. The world-wide incidence of ovarian germ cell tumor is 20 per 1, 00,000 and in India incidence rate is 22 per 1000 and Rajasthan five per 1,000. The incidence of ovarian germ cell Tumor increases the age group between 14 to 19 years.

All gynecological tumors, ovarian malignancies represent the greatest clinical challenge. Ovarian cancer is the second most common malignancy of the female reproductive system and one of the leading causes of death among gynaecologic malignancies. Ovarian cancer represents a major surgical challenge requiring intensive and often complex therapies. It has the highest fatality-to-case ratio of all the gynaecological malignances. A woman's risk at birth of having ovarian cancer sometime in her life is nearly 1.5% and that of dying from ovarian cancer is almost one percentage.

Ovarian germ cell tumors occurring in adolescent age group are unique with regard to their rarity, notoriously lethal when malignant and controversial in management. The surgical and medical management in adolescents can be modified when feasible and safe in order to maintain adolescent reproductive and menstrual capabilities. Ovarian germ cell tumors in childhood and the adolescents are reported to be 35% of all the cases seen. If present there is a 25% chance that the tumor is malignant. These tumors are rare accounting for one per cent of malignant neoplasm in this age group; ovarian tumors occur in young girls and can be discovered due to symptoms, on physical examination and or through imaging studies. Most ovarian tumors in perimenarchal period are asymptomatic, but may cause menstrual irregularities, pelvic pain and pressure symptoms.

Ovarian germ cell tumors are insidious in onset and usually are diagnosed at late stage. Common clinical features are abdominal pain, a lump and menstrual irregularities. Early diagnosis is possible by transvaginal ultrasonography, MRI and Positron Emission Tomography (PET). Young patients with benign tumors or early malignancy such as stage I A disease (tumor is found inside a single ovary) are treated with

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conservative surgery while in extended disease condition total hysterectomy, and bilateral salpingo-oophrectomy is done. In advanced stages, debunking surgery with adjuvant chemotherapy is the treatment of choice.

Indian young adolescents are facing the serious problem of lack of access to reliable knowledge on ovarian germ cell tumor. There has been a need to provide an education on ovarian germ cell tumor, its causes, diagnosis and management. This may reduce the risk of ovarian germ cell tumor.

Knowledge-based programs focus on teaching adolescents about their bodies and their normal functions, as well as provide detailed information about ovarian germ cell tumor may help the adolescent girls to identify their problems early and that can help to reduce the chances of extending the disease condition.

II. Need For The Study

The ovaries are paired sex glands or gonads in female which are concerned with germ cell maturation storage and its release, and steroid genesis. Germ cell ovarian tumors begin in the reproductive cells (egg) of the body. Germ cell tumors that originate outside the gonads may be birth defects resulting from errors during development of the embryo. Ovarian germ cell tumors usually occur in teenage girls or young women and most often affect just one ovary.

The incidence rate of ovarian tumor is higher in the developed countries (around 10 per 1,00,000) except Japan, than the developing countries (less than 5 per 1,00,000). Ovarian tumor has emerged as one of the most common tumor affecting women in India. Ovarian tumor is an important cause of mortality and morbidity in women. In India the incidence rate is 10 per 1,00,000. The highest incidence was noted in Delhi and Pune the incidence rate is 14%. Study findings reveled that in Rajasthan, women with a reported history of ovarian germ cell tumor were about five percent.

A retrospective study conducted among 75 cases of ovarian tumors in Mumbai to find the incidence of all suitable treatment of ovarian tumors across all age groups. The finding reveals that most of the malignant tumors occurred in the age group of 15 to 25 years. Benign tumors were common in the age 15-40 years. The commonest tumor was germ cell in origin. Most of the patients presented with late stage disease when survival is limited. Researcher concluded that early detection, prompt treatment of tumor can reduce mortality.

A retrospective study was conducted in Athens, Greece among adolescents (11- 19yrs) to evaluate the pathologic features of germ cell ovarian neoplasams and their relative frequency among ovarian tumors in the adolescent population. Researcher found a total of 86 ovarian tumors were identified, including 23 epithelium derived neoplasms (26.7%), 53 germ cell tumors (61.6%) nine sex-cord stromal tumors (10.5%) and one benign Brenner tumor (1.2%). Most cases of germ cell tumors were found in patients 17 years of age or older (14/23 cases, 60.9%). All tumors were unilateral, and their size ranged from 2.5-21 cm (mean 11.7 cm). The researcher concluded a relatively high frequency of germ cell ovarian neoplasms among all ovarian tumors in a purely adolescent population was found in study.

A retrospective study was conducted in Nigeria to document the histologic pattern, prevalence and age distribution of ovarian tumors among adolescents. The results revealed that a total of 486 ovarian biopsies were studied out of which 203 specimens were true ovarian neoplasms, 163 (80.3%) of the true neoplasms were benign while malignant ovarian tumors constituted 40 (19.7%). Ovarian malignancy constituted about seven percent of 203 gynaecological malignant tumors. Tumors of germ cell origin were the commonest, accounting for 107 (52.7%) of the true ovarian neoplasm seen. Surface epithelial tumors constituted 56 (27.6%), while sex cord- stromal tumors contributed 32 (15.8%). Mature teratoma was the commonest benign tumor, accounting for 98 (60.1%) cases of benign ovarian tumors. The researcher concluded that the germ cell tumors were the commonest ovarian neoplasm followed by surface epithelial tumors.

A case series study was conducted in Lahore General Hospital, Lahore to analyze various clinical presentation and the surgical management of ovarian pathology in young girls ranges from 15-25 years. The results showed that there were 20 cases with ovarian lesions. Most of patients presented at the age of 20-25 years. Mass abdomen seen in 30% cases, followed by pain abdomen in 20% .Lapratomy was done in most of cases and main aim was toward ovary sparing surgery as Cystectomy was done in 50% cases and Oophorectomy was done in 30% cases. About 85% cases were benign on histology report and 15% were malignant. The researcher concluded that benign lesions such as simple ovarian cysts are very common in adolescent age group.[16]

An experimental study was conducted in Sindh, Pakistan to analyses different clinical presentation and management of ovarian germ cell tumors in young girls up to 20 years .The findings reveals that the mean age was 17 years. The common symptoms included abdominal mass, abdominal pain, urinary problems, menstrual irregularities and generalized malaise. All patients were operated after preliminary investigations. Patients were advised to have follow-up post-operatively after 1 month. The follow up was done by oncologist and gynecologist. Six patients (12.5%) died and 22 (45.83%) were lost to follow up.[17]

An evaluative study was conducted in USA to evaluate the clinic pathological prognosis of ovarian germ cell tumor in adolescents. The results revealed that the median age is 20 years (range 10 to 30 years). The histologic subtypes included 36 dysgerminomas, 11 yolk sac tumors, three immature teratomas, embryonal carcinomas, and 19 mixed types. Two patients had contra lateral sex-cord tumors at presentation and follow-up. A median follow-up period of four to six years, 11 patients had recurrence. The median time to recurrence was eight months (6–28 months). Recurrences appeared in the abdominopelvic cavity in nine out of 11 patients. Cumulative survival rate was 97% and 60% in patients with dysgerminoma and nondygerminoma; respectively.

The researcher concluded that nondysgerminomas have an aggressive clinical course. Occurrence of ovarian germ cell tumors may be associated with immunosuppression in some patients.

Ovarian neoplasm is the most fascinating tumor of the women in terms of its histogenesis, clinical behavior and malignant potentiality. It has been mentioned that ovarian tumors account for 15% to 25% of all primary malignancy in female genital organ. It is labeled as the common cause of death from gynaecological malignancies. Ovarian neoplasm can occur in all age groups and no age is exempted. In young women, the most common benign ovarian neoplasm is germ cell tumor and among the older women epithelial cell tumor is common. The percentage of benign ovarian neoplasm change with the age of the women. During the clinical experience of researcher, it is observed that adolescents having less knowledge about ovarian germ cell tumor and its clinical symptoms and management. While giving planned teaching programme on ovarian germ cell tumor, adolescent girls can improve their knowledge regarding how to identify the ovarian germ cell tumor, signs and symptoms and management of ovarian germ cell tumor. Hence, the researcher felt the need to impart knowledge regarding ovarian germ cell tumor using a planned teaching programme, which is also found to be an effective method to spread health-related information and awareness among adolescent girls, thus preventing the occurrence of reproductive problems and complications of ovarian germ cell tumor.

III.   Objectives
"Challenges are what make life interesting and overcoming them is what make life meaningful."
Joshua J. Marine

The objective includes obtaining answers to the research questions, on testing the research hypotheses but may also encompass some broad aims like developing recommendations for changes to nursing practice based on the study result. Specific achievable objectives provide the researcher with clear criteria against which the proposed methods can be assessed.

This chapter deals with objectives of the study, operational definition, hypothesis, delimitation and conceptual frame work of the study .

Problem Statement

"A study to assess the effectiveness of planned teaching programme on ovarian germ cell tumor among adolescent girls in a selected college at Udaipur."

Objectives Of The Study
1. To assess the existing knowledge of adolescent girls regarding ovarian germ cell tumor using a structured knowledge questionnaire.
2. To administer find the effectiveness of planned teaching programme on ovarian germ cell tumor among adolescent girls using the same structured knowledge questionnaire.
3. To find out the association between pre-test knowledge score and selected demographic variables of ovarian germs cells .

Operational Definitions
1. **Assess**: In this study it refers to processes of measuring the level of knowledge of ovarian germs cell tumor.
2. **Effectiveness:** In this study, it refers to the extent to which the planned teaching programme on ovarian germ cell tumor has achieved the desired effect as evident from the gain in knowledge score as measured by the structured knowledge questionnaire.
3. **Planned teaching programme:** In this study, it refers to the systematically aprovide information on ovarian germ cell tumor by lecture and discussion with a view to improve their knowledge on ovarian germ cell tumor.
4. **Knowledge:** In this study it refers to college students awareness regarding ovarian germ cell tumor.
5. **Ovarian germ cell tumor:** In this study, it refers to ovarian germ cell tumor which is an abnormal mass of tissue that forms in germ cells in the ovary.
6. **Adolescents:** In this study, it refers to the adolescent girls in the age group of 17-19 years studying in a selected degree college.

Assumptions
1. Adolescent girls have some knowledge regarding ovarian germ cell tumor.
2. Knowledge of adolescent girls can be measured using a structured Knowledge questionnaire

Delimitations
The study is delimited to 60 adolescent girls of age group 17-19 years in a selected college.

Hypothesis
The following hypotheses will be tested at 0 .05 level of significance
H1: The mean post-test knowledge score of adolescent girls on ovarian germ cell tumor will be significantly higher than the mean pre-test knowledge score.
H2: There will be significant association between pre-test knowledge score and selected demographic variable.

Variables Of The Study
Variables of study is defined as a theoretical approach to the study of problems that are scientifically based, which emphasizes the selection, arrangement and classification of its concept. A Variables of study states the functional relationships between the events and is not limited to statistical relationship.

A Variables of study work is a broad conceptual structure or frameworks that provide a total perspective of the phenomena that are specific to that discipline.

Theory is a set of concepts, definitions, and propositions that project a systematic view of phenomenon by designing specific interrelationships among concepts for the purpose of describing, explaining, predicting, controlling or prescribing the phenomenon[21].

The present study aims to evaluate the effectiveness of PTP on ovarian germ cell tumor. The conceptual framework of the present study was adopted by the investigator based on Imogene King's Goal Attainment Model[20].

This model focuses on interpersonal relationship between the client and the nurse, in which interaction takes place between the nurse and the client and is influenced by the perception of both the nurse and the client. This interaction leads to mutual goal settings that are to be achieved by the client. In the present study the interaction takes place between the investigator and the adolescent girls.

Elements Of The System
King's operational definition of transaction has been used to identify the elements in interactions. These elements are action, reaction, disturbance (problem) mutual goal setting, transaction and goal attainment. The model essentially describes an interpersonal dyad (adolescent girls and researcher) in interactions, using mutual goal setting or decision making as a process that leads to goal attainment[21].

Perception
Perception is processes in which data obtained through the senses and memory is organized, interpreted and transformed, and are related to past experience, concept of self educational back ground.

In the present study the investigator and adolescent girls perceive the need to gain knowledge regarding ovarian germ cell tumor. Both the investigator and the adolescent girls set the goal to improve the quality of reproductive life.

Action
During the action phase, the investigator prepared structured knowledge questionnaire to assess the knowledge, and PTP on ovarian germ cell tumor. The adolescent girls are motivated to gain knowledge regarding ovarian germ cell tumor.

Interaction
It is defined as a process of perception and communication between person and environment and person and person, represented by verbal and nonverbal behaviours that are goal directed. During the interaction the investigator administers a structured knowledge questionnaire and PTP on ovarian germ cell tumor. The adolescents responds to the structured knowledge questionnaire, participates in the PTP on ovarian germ cell tumor. As a result of this planned teaching programme the adolescent girls and the investigator enter into the transaction phase.

Transaction

Transaction (goal outcome) is defined as observable behaviours of human beings interacting with their environment. When transaction occurs between nurse and the client, goals are attained. In this study the transaction consists of evaluation of target group for change in knowledge regarding ovarian germ cell tumor after the administration of PTP. (Post test)

Feed Back

It refers to the process by which the return of a portion of the output of a process or system to the input. For present study feedback is considered as the effectiveness of PTP on ovarian germ cell tumor in terms of gain in knowledge score. Effectiveness has assessed by testing the hypothesis that is, difference between pre-test and post test knowledge score which was tested by Y- X = E.
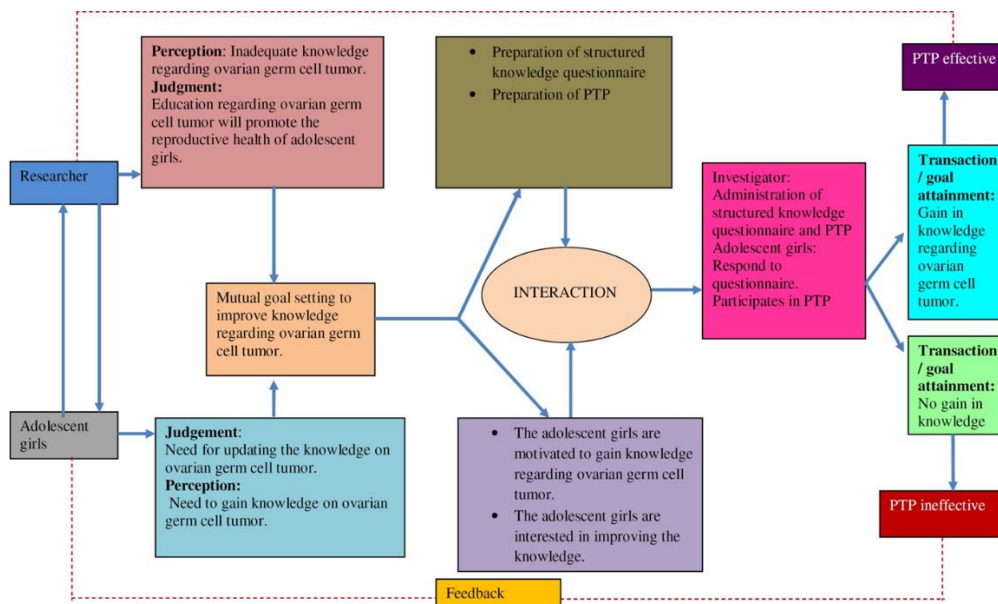

Figure1: Theoretical frame work based on King's goal attainment model

IV. Review Of Literature

Review of literature is one of the most important steps in research process. It is an account of what already known about a particular phenomenon. The main purpose of literature review is to convey the readers about the work already done and the knowledge and ideas that have been already established on a particular topic of research. A literature review is an account of the previous efforts and achievements of scholars and researchers on a phenomenon[19].

Review of literature is based on an extensive survey of books, journals and international nursing indices. It provides basis for selection and formulation of the problem, justifies the need for the study, develops the proper conceptual model for the study, throws light on the feasibility of the study, provides methodology for comparison and replication and helps to avoid obstacles and making generalizations.

The literature was reviewed by using MEDLINE, CINHAL, YAHOO search engine, GOOGLE search engine and PUBMED search apart from research and non research literature from journals and books, to have a better understanding and to gain insight in to the selected problem under study. The related literature for the present study is organized and presented into Four sections:

Section I: Review related to incidence of ovarian germ cell tumor. Section II: Review related to risk of ovarian germ cell tumor.
Section III: Review related to clinical presentation and surgical management of ovarian germ cell tumor.
Section IV: Review related to effectiveness of planned teaching programme.

Section I: Review Review Related To Incidence Of Ovarian Germ Cell Tumor.

Lippincott Williams & Wilkins (2017) Germ cell tumors of the ovary represent 15% of all ovarian tumors. These rapidly growing neoplasm's arise from primordial germ cells derived from the embryonal gonad and can reach impressive dimensions in a short period of time. About 95% of germ cell tumors are represented by benign cystic teratomas and are relatively easy to diagnose. The remaining 5% are malignant germ cell

tumors and are responsible for most of the diagnostic difficulties[5].

Gayathri k. et al. (2009) A retrospective study was conducted in North Bengal Medical College to find the incidence of different ovarian tumors of girls up to 20 years of age. Results showed that total 151 cases of ovarian tumor were received in pathology department in which 34 cases were malignant (22.6%). In malignant cases, 66% are of germ-cell origin–dysgerminoma being the commonest. Other malignant tumors, few lost the follow-up management and others expired due to   metastasis. Researcher found patients from hilly areas of North Bengal and low socio-economic status led to lower detection rate of ovarian tumors in early stage which are absolutely necessary for proper guidelines of management to reduce mortality[22].

Sah Sp, et al. (2004) A retrospective study was conducted for all the cases of ovarian tumors operated in Nepal Medical College Teaching Hospital, Nepal. About 158 cases of ovarian tumors were included in the study. The results showed that incidence of ovarian tumor were 16.7% among total gynecological admissions, out of which malignant ovarian tumor was 9.5%. The age range was 14 to 25years. About 27% were germ cell tumor which is common in younger age group. Commonest germ cell tumor was dysgerminomas 25.3%. Commonest complication of ovarian cyst was torsion (12.6%).The researcher concluded that benign ovarian germ cell tumor is common in all age group where as malignant ovarian germ cell tumor is common after 25years[23].

Koonings Pp, et al. (2004) An evaluative study was conducted in Canada among 5028 patients of ovarian germ cell tumor to assess the increased incidence of ovarian germ cell tumor from the year 2002-2007. Results revealed that in 2005, 412 ovarian germ cell tumor cases (4.3/1000) were reported, and a 63% increase of ovarian germ cell tumor cases from 35%. Researcher had concluded that the incidence had increased in age group of 10 to 25years[24].

An evaluative study was conducted in USA to evaluate population-based trends in incidence and survival rates for ovarian germ cell tumors originating within the females. Among 1268 subjects were included in the study. Results revealed that 414 cases (32.8%) were dysgerminomas, 449 (35.6%) immature teratomas, 37 (2.9%) mature teratomas with malignant degeneration, and 362 (28.7%) mixed germ cell tumors. Researcher concluded that rising trends reported for ovarian germ cell tumor incidence rates. Survival rates have improved in younger women but were lower for older women and for nondysgerminoma subtypes[25].

Storeide O, et al. (2007) A longitudinal study was conducted in Oman among 5045 adolescent girls (14-23years), to examine the incidence of ovarian germ cell tumor over the period 1990 to 2010 .The result found that the record incidence rates of ovarian germ cell tumor between 1990 to 2010 increased fivefold from 3.45 to 16.5 per 1000 population. Researcher concluded that incidence of ovarian germ cell tumor increased due to life style changes[26].

Section Ii: Review Related To Risk Factors Of Ovarian Germ Cell Tumor.

Claudic BS, et al. (2007) A meta-analysis of all published case control and cohort study was conducted in USA to estimate the relative risk and lifetime risk of ovarian tumor in women from age 15 up to 40years, with various categories of family history. The results revealed that the relative risk to first degree relatives is 3.1 (95% CI 2.6–3.7).

The relative risk to mothers of cases 1.1 (95% CI 0.8–1.6) was lower than the relative risks to sisters: 3.8 (95% CI 2.9–5.1), and daughters: 6.0 (95% CI 3.0–11.9); the explanation of this difference is unclear .Researcher concluded that women with a family history of ovarian tumor have a substantially higher risk of developing ovarian tumor compared with women without such a history. However the risk is small for most categories of family history, except for the small number of individuals who have more than one affected relative[27].

Hockin JC, et al. (2004) A case study was conducted in USA among 100 adolescent girls to assess the familial risk of ovarian germ cell tumor .Researcher found that 16 reports of ovarian germ cell tumor occurring either ovarian or extragonadal germ cell tumor. In this study the mean age at onset of ovarian germ cell tumor was younger population (age: 17 to 24yrs). Researcher concluded that the risk of ovarian germ cell tumors higher in multiple members of the same family[28].

Martin JN, et al. (2006) A retrospective study was conducted in Gynaecology department IRCCS San Raffales Hospital, Milan to investigate the outcome of patients with ovarian germ cell tumors and to define the risk factors for recurrence. Total 123 patients with ovarian germ cell tumors were reviewed .About 81 patients had primary treatment whereas the other 42 were referred for adjuvant chemotherapy or recurrence .

The results revealed that median age was 17yrs (range 10-28yrs). Forty-nine (39.8%) had dysgerminomas, 35 (28.5%) had immature teratomas, 12 (9.8%) had mixed germ cell tumors, 26 (21.1%) had

yolk sac tumors, and 1 (0.8%) had embryonal carcinoma.The researcher concluded that ovarian germ cell tumors have excellent prognosis, with 5-year overall survival rates[29].

Tewari, et al. (2004) A descriptive study was conducted in Karachi among 38 women between the age group of 18 to 25 years who diagnosed with ovarian germ cell tumor to describe the risk factors and clinical features of ovarian germ cell tumor. Results revealed that among the clinical features, the most common presenting symptom was abdominal pain in 37 (97.3%) where as history of amenorrhea and vaginal bleeding were found in 28 (73.6%) and 22 (57.8%) respectively. The most common physical sign was tenderness: abdominal tenderness in 28 (73.6%) patients. Risk factors were present in 23 patients (60.5%).Researcher concluded that abdominal pain was the single most consistent features of ovarian germ cell tumor. Proper education system is needed to control the risk factors[30].

Section Iii: Review Related To Clinical Presentation And Surgical Management Of Ovarian Germ Cell Tumor.

Williams SD, et al. (2012) A retrospective study was conducted in International Federation of Gynecology and Obstetrics, USA to review contemporary management of ovarian germ cell tumors including pathology, prognostic factors, surgical strategies, postoperative therapy, late effects of therapy, and treatment of recurrence. Results shows that 80% of patients undergo fertility-sparing surgery and chemotherapy may expect to preserve reproductive function. For patients with early-stage disease, cure rates approach 100%. For those with advanced-stage disease, cure rates are reportedly at least 75%. Researcher concluded that ovarian germ cell tumor that principally affects girls and young women. With optimal therapy, the prognosis is excellent, and most patients may retain reproductive function.[31]

Job Spira N, et al. (2007) A descriptive study was conducted in Austria to evaluate the efficacy of adjuvant therapy for ovarian germ cell tumors. The results showed that 72 patients had surgical resections of ovarian germ cell tumor and most received adjuvant therapy. About 16 patients (22%) had more advanced disease, tumor subtypes included dysgerminoma ($n = 20$), yolk sac tumor ($n = 8$), immature teratoma ($n = 29$) and mixed germ cell tumor ($n = 15$). Surgical management of the 56 consisted of total abdominal hysterectomy, bilateral salpingo- oophorectomy, 56 patients were treated with postoperative chemotherapy, predominantly platinum-based regimens.The researcher concluded that platinum-based adjuvant treatments allow most patients with ovarian germ cell tumors to have conservative surgery without compromising survival[32].

An evaluative study was conducted in USA to determine adolescents with localized ovarian germ cell tumor treated with chemotherapy have an event free survival of 85% without significant toxicity. Results revealed that 74 patients with median age 14 years are included in the study. About 41 patients had ovarian germ cell tumor and they are treated with four doses of chemotherapy. Researcher concluded that chemotherapy results in excellent event free survival and overall survival with minimal toxicity in children and adolescents with localized ovarian germ cell tumor.[33]

Prabhu Anusuya (2011) A retrospective study was conducted in 45 patients in Department of Obstetrics and Gynecology, Hacettepe University School of Medicine, Ankara, Turkey, to evaluate the significance of meticulous surgical staging, and whether type of initial surgery or adjuvant therapy impacted on survival in cases of pure ovarian dysgerminoma. Results revealed that 45 patients subjected to a surgical staging procedure 30 (67%) had stage I disease, 2 (4%) had stage II, 9 (20%) had stage III, and 4 (9%) had stage IV pure ovarian dysgerminoma. Thirteen of 45 patients were referred to have seemingly stage I disease. 21 patients with unilateral disease and fertility desire were treated with conservative surgery, 19 patients with nonconservative surgery, and in 5 suboptimal debulking could be carried out. The researcher concluded that After careful surgical staging and confirming unilateral disease, conservative surgery, followed if necessary by adjuvant chemotherapy, seems to be the ideal treatment in cases of pure ovarian dysgerminoma.[34]

Shaw JL, et al. (2010) A retrospective study was conducted in department of obstetrics and gynecology Istanbul University School of Medicine, Turkey, to review the outcome of treatment in patients with ovarian germ cell tumors and to define the risk factors for recurrence. The results showed that 23, (56%) had dysgerminomas, eight (19.5%) had mixed germ cell tumors, three (7.3%) had yolk sac tumors, three (7.3%) had immature teratomas, two (4.8%) had squamous cell carcinoma arising from a mature teratoma, one (2.4%) had embryonal carcinoma and one choriocarcinoma. 29,patients (70.7%) underwent conservative surgery and 12 patients (29.3%) had at least bilateral salpingo-oophorectomy. Seven patients (17%) had recurrence after remission. The overall survival time was 187 ± 8.43 months for all cases, 195 ± 8.49 for dysgerminoma and 161 ± 10.96 for non-dysgerminoma cases with a median follow- up time of 98.52 (8-204) months. The researcher concluded that the prognosis of germ cell tumors are satisfactory with current therapeutic strategies.[35]

Vichnin M., et al. (2008) A retrospective study was conducted in Department of Obstetrics and

Gynecology, the Catholic University, Seoul, Korea, to evaluate the clinicopathologic characteristics of ovarian germ cell tumors and to determine the association of their prognostic factors to primary treatment failure. Medical records of 57 patients with stages I to IV malignant ovarian germ cell tumor were reviewed. The results revealed that median age was 19years, and the median follow up period was 108 months. The histological types of the tumors were immature teratoma (n = 24), dysgerminoma (n = 20), endodermal sinus tumor (n = 8), mixed germ cell tumor (n = 4), and choriocarcinoma (n = 1).About 66.7% of the patients had stage I disease; 5.2% had stage II had 26.3%, stage III; and 1.8% had stage IV. After the initial surgery, 49 patients (86%) received cisplatin-based chemotherapy. The five-year survival rate was 96.5%. The researcher concluded that most ovarian germ cell tumors have excellent prognoses with primary treatment, and good reproductive outcomes can be expected.[36]

Pal A., et al., (2006) A case study was conducted in Greece in a 19 year old nullipara presented with 7 month history of abdominal pain and a rapidly growing abdominal mass. Results revealed that she had fertility-conserving surgery and adjuvant chemotherapy. Researcher concluded that early detection and treatment are important for good prognosis of ovarian germ cell tumor.[37]

Bernstein J., (2008) A prospective study was conducted in Military Hospital Rawalpindi, Pakisthan among 15 patients with adolescent ovarian tumors. Data was recorded regarding clinical presentation, patient's age, size of tumor, bilaterality, histopathology, staging if tumor was malignant and sites of extra ovarian involvement. The results showed that majority of patients fell in the subgroup 14–16 year age. Majority ovarian malignancy belonged to subgroup 17–19 years. Clinical presentation in the majority was mass abdomen and abdominal distension. There were five cases of dermoid cysts 33.3%, one patient had bilateral dermoids, one malignant and one benign. All four malignancies were found to be to non-epithelial on histopathology. The researcher concluded that the preponderance of non-epithelial tumors and high percentages of malignant germ cell tumors in adolescents. The incidence of malignant tumors in adolescents is higher than in adults.[38]

A descriptive study was conducted in Peshwar, Pakistan to identify the histopathological pattern of ovarian tumor among adolescent girls (15 to25yrs).Results showed that amongst the total numbers of 5732 gynecological admissions during study period the total numbers of ovarian tumors were 68. Out of which benign ovarian tumors were 61 (89.71%) and malignant ovarian tumors were seven (10.29%). The commonest histological pattern observed in the study was germ cell tumor (76.5%) including both benign and malignant tumors. The commonest benign tumor was serous cyst adenoma (24%) followed by mature cystic teratoma (18%). Common malignant ovarian tumors were granulosa cell tumors and endometriod carcinoma (each 28.5%).Researcher concluded that germ cell tumors are the commonest variety of ovarian tumors followed by epithelian cell tumors.[39]

Roth LK, et al. (2001) A Case series study was conducted in Gynaec Department , Lahore General Hospital, Lahore, to analyze various clinical presentations and the surgical management of ovarian pathology in young girls ranges from 15- 25 years .The results showed that among 20 cases were ovarian lesions. Most of patients presented at the age of 20-25 years (55%). Mass abdomen seen in (30%) cases, followed by pain abdomen in (20%). Lapratomy was done in most of cases and main aim was toward ovary sparing surgery as cystectomy was done in (50%) cases and oophorectomy was done in (30%) cases. About 85% cases were benign on histology report and 15% were malignant. Researcher concluded that ovarian tumors are rare in young age group. Benign lesions such as simple ovarian cysts are very common in adolescent age.[40] **Claudic BS, et al. (2007)** An evaluative study was conducted in Himachal Pradesh among 85 cases of ovarian germ cell tumor patients between the age group of 19-30 years to evaluate the clinical features of ovarian germ cell tumor. Results found that pain was the commonest symptom (91.7%) followed by bleeding per vagina (71.7%) and amenorrhea (41.4%). Researcher concluded that early diagnosis of ovarian germ cell tumor will avoid further complications.[41]

Bafna UD, et al. (2001) An evaluative study was conducted in Department of Gynaecologic Oncology, Kidwai Memorial Institute of Oncology, Bangalore, India, among 33 patients with ovarian germ cell tumor. The results showed that 12 patients had endodermal sinus tumor (EST), 11 dysgerminoma, seven mixed germ cell tumor, and three immature teratoma. Four out of six cases (66.6%) with bulky nondysgerminomatous tumor which was sustained in three cases and one recurred. Fifteen of the remaining 16 (93.7%) nonbulky, nondysgerminomatous tumors which was sustained in 14 cases and recurred in one. Researcher concluded that combination chemotherapy is effective in ovarian germ cell tumor after cytoreductive surgeries.[42]

Biswajit D, et al. (2010) A retrospective study was conducted in Adyar Cancer Institute, Chennai,India, among 40 patients with age less than 18 years to evaluate the clinical presentation, management, and outcome of ovarian germ cell tumor. The results revealed that the common histologies being mixed germ cell tumor (32%)

and dysgerminoma (27%). Ten percent of patients presented with ovarian torsion. Sixty- two percent of patients presented in advanced stage. Fertility preservation surgery was possible in 70% of the patients. Relapses were seen in 25% of the patients. Researcher concluded that patients with initial histology of teratoma and mixed germ cell tumor relapsed frequently.The mainstay of treatment being fertility preservation and cisplatin- based chemotherapy.

Section IV: Review Related To Effectiveness Of Planned Teaching Programme

Maya PK, et al. (2012) According to World Health Organisation a nurse is essentially a teacher in whichever field she may be working. If people, patients and caregivers were taught about their disease condition and management, they could actively participate in achieving their own health goals. An evaluative study was conducted on effectiveness of PTP on awareness regarding promotion of mental health among 50 adolescents in a selected college at Udaipur. The finding of the study showed that total mean percentage of the pre test knowledge score was 46.11% with mean and SD of 17.52±6.05 where as total mean percentage of post test knowledge score was 80.14% with the mean and SD of 30.45±4.02. This showed an increase of 34.03% in mean knowledge of adolescents after planned teaching programme. The findings showed that there was significant increase in the knowledge compared to the pre test knowledge score among adolescents.[44]

Sreevani, Renuka et al. (2019) A quasi experimental study was conducted to evaluate the effectiveness of palnned teaching programme regarding the adverse effect of tobacco smoking on knowledge gain of 10th standard adolescents in Kolar district,

Karnataka. Sample (30) was chosen by convenient sample technique.The study finding revealed a significant difference between pre test and post test knowledge scores(t=19.18,p<0.001) suggesting effectiveness of PTP in increasing the knowledge of students regarding the adverse effects of tobacco smoking.[45]

Anju Latha Bhai, et al. (2011) A pre- experimental study was conducted in Indore among sixty staff nurses working in a private hospital to assess the knowledge and practice of staff nurses regarding peripheral intravenous infusion. Findings of the study indicated that mean post test knowledge score was 27.2 which was much higher than the mean pre test knowledge score of 18.43. Post-test practice score was 38.23 which were also higher than the mean pre test practice score of 16.66. It was concluded that planned teaching programme was an effective teaching strategy (t=11.2, P<0.05) to increase the knowledge and improve the practice of staff nurses regarding peripheral intravenous infusion.[46]

An evaluative study was conducted on effectiveness of planned teaching programme on awareness regarding prevention of endometrial cancer among nursing students in selected college at Delhi. About 30 samples were selected using convenient sampling. The study findings revealed that post mean percentage was increased to 93.67% after the administration of planned teaching programme from the mean percentage of 48.25%. Paired 't' test showed a very high significant difference (t=29, P<0.05) between pre test and post test knowledge score which indicate that the planned teaching programme was very effective in improving the knowledge.[47]

Dhital AD, et al. (2005) An experimental study was conducted among 150 college students of Mumbai to determine the effectiveness of PTP on knowledge and attitude regarding female foeticide .The 't'test showed that post test mean score (43.41) was significantly higher than that of pretest mean scores (24.41).The t value (t = 42.22, p< 0.01) was highly significant indicated that planned teaching programme was effective in improving the knowledge of college students.[48]

Summary

This chapter dealt with related literature for the present study. The literature was presented with the following headings: incidence of ovarian germ cell tumor, risk of ovarian germ cell tumor, clinical presentation and surgical management of ovarian germ cell tumor, effectiveness of planned teaching programme among adolescent girls.

V.   Methodology

Research methodology is a way to systematically solve the research problem. It is a science that deals with the various steps that generally adopted by the researcher in studying his or her research problem along with the logic behind them. It describes various steps that are generally adopted by the researcher in studying the research problem, along the logic behind them and explain why the researcher uses a particular method or technique so that the research results are capable of being evaluated by the researcher or by others. Methodology of research organizes all the components of the study.[49]

The research methodology indicates the general pattern for organizing the procedure for gathering valid and reliable data for the study. It includes the research approach, research design, population, sample and sampling technique, selection and development of data collection tools. This research study was aimed to assess the effectiveness of planned teaching programme on ovarian germ cell tumor among adolescent girls in a selected college at Udaipur.

Research Approach:

The selection of research approach is the basic procedure for the conduct of research. A research approach tells the researcher so as to what data to collect and how to analyse it. It also tells us possible conclusion to be drawn from the data. Evaluative approach is an applied form of research that deals with the question how well the programme is meeting its objective. Its goal is to assess or evaluate the success of a programme[49]. In accomplish the objectives of the study evaluative approach was found to be appropriate to describe the effectiveness of planned teaching programme on germ cell tumor.

Research Design:

Research design is the overall plan for addressing research question, including specification for enhancing the integrity of the study. The research design refers to the portion of the research investigation that is concerned with sampling, decisions about actual gathering of data and the plan for data analysis. It refers to the researchers overall plan for obtaining answers to the research question, and for testing the research hypotheses. It also spells out the strategies that the researcher uses to develop information that is accurate, objective and interpretable.

In view of the nature of the problem under study and to accomplish the objectives of the study, pre-test, post-test design with quasi experimental approach was found to be appropriate to evaluate the effectiveness of planned teaching programme on ovarian germ cell tumor among adolescent girls. No comparison with the control group is provided.

The design used is depicted as follows:

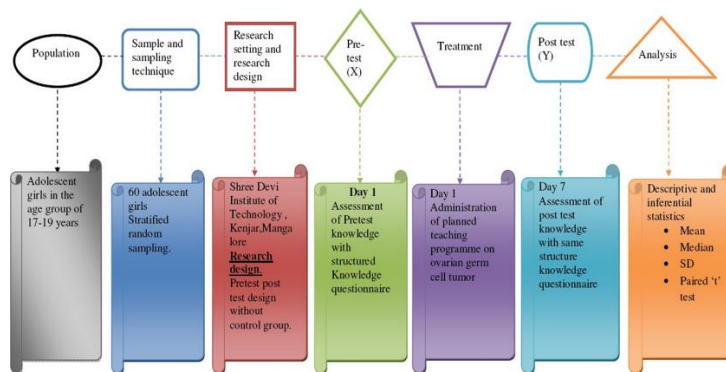| Group		Pre test	Intervention	Post Test
		O_1	X	O_2
Key:		**Table 1: One Group pre-test post-test design**		
O_1	=	Assessment of knowledge by pre-test		
X	=	Implementation of Planned teaching programme regarding ovarian		
		germ cell tumor among adolescent girls		
O_2	=	Assessment of knowledge by post-test		

FIGURE2: SCHEMATIC REPRESENTATION OF STUDY DESIGN

Setting:

The location for conducting the research is referred as the setting. The study was conducted in Udaipur College of Nursing Udaipur.
The College was selected for the study on the basis of :
☐ Geographical proximity.
☐ Feasibility of conducting the study.
☐ Availability of sample.

Variables under investigation:
Variables are the qualities, properties, or characteristics of a person, things, or situations that change or vary.

Independent variable: It is a stimulus or activity that is manipulated or varied by the researcher to create the effect on the dependent variable.
In the present study the independent variable is the planned teaching programme on ovarian germ cell tumor.

Dependent variable: A dependent variable is the response, behaviour or outcome the researcher wants to predict or explain.
In the present study it refers to the knowledge of adolescent girls regarding ovarian germ cell tumor.

Extraneous variable (Demographic variable): Extraneous variable is an uncontrolled variable that greatly influences the result of the study.
In the present study the demographic variables are age, educational status, type of family, family's monthly income and source of ovarian germ cell information of adolescent girls.

Population:
A population is a group whose members possess the specific attributes that the researcher is interested in studying.
In the present study the population consists of adolescent girls in the age group of 17- 19 years in a selected college at Udaipur.

Sampling procedure:
Sampling technique:
Sampling is a process of selecting a group of people, events or portion of the population to represent the entire population.
Stratified random sampling technique was used to select the sample for the present study. A sample that results when the researcher selects from different strata of the population in direct proportion, to their representation in the population is called proportionate stratified random sampling.
Udaipur Institute college of Nursing was selected as the setting of the study.

Each class, 1st year, II year and III year of nursing were considered as homogenous strata. First strata consist of 45 adolescent girls second strata consist of 60 adolescent girls and third strata consist of 42 adolescent girls. From each stratum 20 adolescent girls were selected by simple random sampling to make a total of 60 samples.

Sample and sample size:
Sample is the subset of the units from the defined populations who are selected to participate in the study.
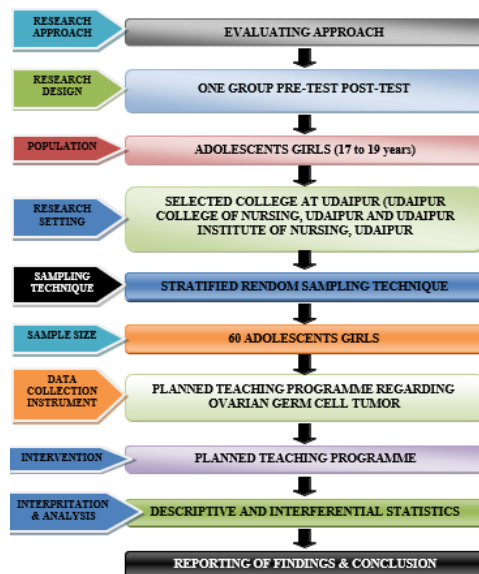The sample for the present study consisted of 60 adolescent girls who met the inclusion criteria.

FIGURE 3: SCHEMATIC REPRESENTATION OF RESEARCH METHODOLOGY

Inclusion criteria for sampling
☐ Adolescent girls in the age group of 17-19 years.
☐ Adolescent girls willing to participate in the study.
☐ Adolescent girls who are present at the time of data collection.

Exclusion criteria for sampling
Adolescent girls who are already exposed to teaching regarding ovarian germ cell tumor.

Development Of The Tool:
A tool is a device used to measure the concept of interest in a research project. The instrument selected in a research should be as far as possible the vehicle that would best obtain the data for drawing conclusions which are pertinent to the study. To fulfil the objectives of the study a structured knowledge questionnaire was prepared to measure the dependent variable before and after the administration of PTP.

An intense search of related literature and experts in the field of Obstetrics and Gynaecologic nursing were consulted for developing an appropriate tool. Items of the tool were collected, scrutinized, selected and checked for overlapping.

The steps followed for the development of the tool were as follows:
☐ Review of research and non-research literature was made in the areas relevant to ovarian germ cell tumor.
☐ Expert opinion and suggestions were taken from the field of Obstetrics and Gynecological Nursing, Obstetrician and Gynecologist and Medicine in determining the important areas to be included.

Preparation Of The Blue Print:
A blue print of structured knowledge questionnaire on ovarian germ cell tumor was prepared consisted of five sub areas. It depicted the distribution of items according to the content areas based on three domains namely knowledge, comprehension and application. Knowledge domain had 23 items (76.66%), comprehension had 02 items (6.67%), and application had 05 items (16.67%) covering all aspects of ovarian germ cell tumor.

Description Of The Tool:
The tool was constructed in two parts. Part I consists of demographic variables. Part II consists of 30 items on ovarian germ cell tumor under section A, B, C, D, and E.
Part I: Includes five items of demographic variables such as age in years, educational qualification, type of family, family's monthly income, source of ovarian germ cell information.
Part II: It consists of total 30 items related to knowledge regarding ovarian germ cell tumor. There were five sections. Section A consists of six items assessing the knowledge related to Anatomy and physiology of female reproductive system. Section B consists of five items assessing the knowledge related to concept of ovarian germ cell tumor. Section C consists of six items assessing the knowledge related to signs and symptoms of dysgerminomas. Section D consists of six items assessing the knowledge related to diagnosis of ovarian germ cell tumor. Section E consists of seven items assessing the knowledge related to treatment of ovarian germ cell tumor.

Development of criteria checklist for validating the tool:
Criteria checklist was developed to validate the tool regarding accuracy, relevance and appropriateness of the tool. Criteria checklist consists of three columns namely agree, disagree and remarks column. Experts were requested to give their valuable opinion and suggestions.

Criteria For Knowledge Score
Opinion from statistician, guide and experts had been taken into consideration to develop criteria for rating scale to categorize the adolescent girls according to their knowledge on ovarian germ cell tumor.

Interpretation Of Knowledge Score:
Scoring
Each item has only one answer. The correct answer carries '1' score and wrong answer carries '0' score. The highest possible score is 30. The scoring is arbitrarily graded as follows.

Table 2: Distribution of knowledge scores

Level of knowledge	Knowledge	Percentage
Very poor	0 – 9	≤ 30
Poor	10- 14	31– 49
Average	15–23	50 – 79

Good	24–30	80 – 100

Development Of Planned Teaching Programme

Teaching plan is a guide for the teacher because it helps to cover the topics comprehensively with proper sequence of points and without missing anything. The steps to prepare teaching plan are:
• Review of literature
• Framing the outline of the teaching plan
• Preparation and organization of content.
• Deciding the method of instruction and AV aids.
• Development of criteria checklist.
• Content validation of the PTP.
• Pretesting of the planned teaching programme.
• Preparation of the final draft.
• Iting the teaching plan.
• Evaluating the teaching plan.

Review Of Literature:

An extensive literature review was undertaken regarding ovarian germ cell tumor from the conceptual and data base material, internet sources, journals etc to prepare the planned teaching programme.

Framing the outline of the teaching plan:

The outline of the teaching plan was framed which included setting up of the general and specific objectives, specifying the date, time, place, and size of the group, number of sessions and duration of sessions.

Preparation and organization of content:

Content of the planned teaching programme was prepared and organized under various headings according to the specific objectives.

Deciding the method of instruction and AV aids:

The method of instruction adopted was lecture cum discussion. Visual aids used are power point and chalk board.

Development of criteria checklist:

The criteria checklist was developed to evaluate the teaching plan based on criteria stated. It consisted of six items under the headings objective, content, organization, presentation, language and practicability. It was sent to experts to get their opinions and suggestions regarding the relevance, appropriateness, accuracy and degree of agreement in each item of the planned teaching programme.

Content validation of the PTP and tool:

Validity is the degree to which an instrument measures what it is intended to measure. The prepared tool with the blue print, objectives, criteria checklist and planned teaching programme along with AV aids are given to seven experts to ensure content validity. Six experts are from the field of Obstetrics and Gynecological nursing and one from Obstetrics and Gynecologist. The experts were selected on the basis of their experience and clinical expertise in the problem being studied. The experts are requested to give their opinion and suggestions regarding the adequacy, relevance and appropriateness of the items. Twenty six questions had 100% agreement and four questions had disagreement and needed suggestions. Suggestions and recommendations given by the experts are accepted and necessary corrections are done for modifying the tool and teaching programme. The final tool consists of 30 items.

Pretesting of the PTP and tool:

Pre testing of the tool was done among ten adolescent girls along with PTP to determine the feasibility, understandability and ambiguity of the tool and also to check the time required to complete the tool.

The tool was found to be clear and feasible and was understood well by the samples. Time taken to complete the tool was 30 minutes.

Preparation of the final draft of planned teaching programme:

Final draft of planned teaching programme was organized under various headings such as anatomy and physiology of female reproductive system.

Editing the teaching plan: The prepared teaching programme was edited by professional editors.

Reliability: Reliability of an instrument is the degree of consistency with which it ensures the attribute it is

supposed to be measure.

The reliability of a measuring tool can be assessed in the aspect of stability, internal consistency and equivalence depending on the nature of the instrument.

The internal consistency (homogenity) approach estimate an instrument's reliability is probably the most widely used method. Indices of homogeneity estimates the extent to which different subparts of an instrument are equivalent in terms of measuring the critical attribute

In the present study reliability of the tool was tested by administering it on six adolescent girls. In order to ascertain reliability of structured knowledge questionnaire split half method was used. The test was divided into two equivalent halves and correlation for the half test was calculated, using Karl Pearson Correlation Coefficient formula, and significance of correlation was tested using Spearman Brown prophesy formula. The 'r' value was 0.91 and the tool was found reliable.

Pilot Study:

Pilot study is the smaller version of a proposed study conducted to refine the methodology. It is developed with similar objectives, the same data collection and analysis techniques.

Pilot study was conducted in Udaipur College of Nursing in the month of 10-02-2020 to 17-02- 2020 to find the feasibility of the study. Six subjects were selected by using stratified random sampling technique. The subjects for pilot study possessed the same characters as that of the same samples for final study.

Prior to the data collection, formal permission was obtained from the concerned authority. The selected samples were informed of the purpose of the study and the written consent was taken.

Pretest of level of knowledge of the adolescent girls regarding ovarian germ cell tumor revealed that 66.67% respondents had poor knowledge, 33.33% had average knowledge, and none had good knowledge. The mean±SD of pretest was 14.15±6.6 with a mean percentage of 47.16% where as post test was 23.8±3.9 mean percentage of 79.43%. The difference was 32.26%, which shown an increase in knowledge after administration of PTP. The significant difference between pre-test and post-test was found by using paired 't' test. The difference was found to be highly significant ($t= 5.4, df=5, p<0.05$). It was found that the study was feasible, the questionnaire and PTP were relevant and the time and cost of the study was within the limit.

Data Collection Procedure:

Prior permission was obtained from the Principal, Udaipur Institute of Nursing Udaipur. Keeping in mind the ethical aspect of research data was collected after obtaining informed consent of the sample. The respondents were assured of the anonymity and confidentiality of the information provided by them. The researcher has collected data from 60 samples. Data was collected in the month of 13-03-2020 to 19-3-2020. Pre test was conducted on the first day followed by the planned teaching programme. Lecture cum discussion was the method of instruction. The duration of the session was one hour. After seven days a post test was conducted using the same knowledge questionnaire to evaluate the effectiveness of planned teaching programme.

Plan For Data Analysis:

Descriptive statistics are useful for summarizing empirical information. Inferential statistics, which is based on laws of probability, provides a means of drawing conclusion about the population from which data is obtained for sample. The analysis of the data has been planned to be made based on the objectives and hypotheses using descriptive and inferential statistics.

Summary:

This chapter has dealt with the research methodology adopted for the study. It included research approach, research design, population, sample, sampling technique, research setting, and study instruments, development of PTP, pilot study, and procedure for data collection and plan for data analysis.

VI.   Results

The description of result is the heart of a research project. It is the communication of facts, measurements, and observation gathered by the researcher.

For achieving the results the collected data must be processed and analyzed in an orderly coherent fashion. The term analysis means the computation of certain measures that exist among data groups.

This deals with the analysis and interpretation of the results of the data collected from the sample of 60 adolescent girls regarding knowledge of anatomy and physiology of female reproductive system, concept of ovarian germ cell tumor, signs and symptoms of dysgerminomas, diagnosis of ovarian germ cell tumor , treatment of ovarian germ cell tumor. The gathered data was then organized, tabulated, analyzed and interpreted using descriptive and inferential statistics.

The data has been analyzed and interpreted in the light of the objectives and hypothesis of the study.

Objectives Of The Study:

Determine the existing knowledge of adolescent girls regarding ovarian germ cell tumor using a structured knowledge questionnaire.

Find the effectiveness of planned teaching programme on ovarian germ cell tumor among adolescent girls using the same structured knowledge questionnaire.

Find the association between pre-test knowledge score and selected demographic variables.

Hypothesis

H_1: The mean post-test knowledge score of adolescent girls on ovarian germ cell tumor will be significantly higher than the mean pre-test knowledge score .

H_2: There will be significant association between pre-test knowledge score and selected demographic variable at 0.05 level of significance.

Organization And Presentation Of The Findings:

The data collected were, tabulated, analyzed, interpreted and findings obtained were presented in the form of tables and figures represented under following sections.

Part I: Description of demographic characteristics of adolescent girls.

Part II: Distribution of pretest knowledge score of adolescent girls regarding ovarian germ cell tumor.

Section A: Assessment of the level of existing knowledge.

Section B: Area wise analysis of knowledge scores of adolescent girls.

Part III: Evaluation of effectiveness of planned teaching programme on ovarian germ cell tumor.

Section A: Area wise effectiveness of planned teaching programme.

Section B: Item wise effectiveness of planned teaching programme.

Part IV: Testing of hypothesis.

Part V: Association of the pre-test knowledge score of adolescent girls with demographic variables.

Part I: Description of demographic characteristics of adolescent girls

Deals with the distribution of adolescent girls according to their demographic characteristics. Collected data were analyzed using descriptive statistics and summarized in terms of frequency and percentage (table 2).

Table 3: Frequency and percentage distribution of adolescent girls according to their demographic variables. (n = 60)

| Sl No	Demographic variable	Frequency	%
1	**Age in years**		
	(a) 17	12	20
	(b) 18	38	63
	(c) 19	10	17
2	**Educational qualification**		
	(a) I year	20	33.33
	(b) II year	20	33.33
	(c) III year	20	33.33
3	**Type of family**		
	(a) Nuclear	45	75
	(b) Joint	7	12
	(c) Extended	8	13
4	**Family monthly income(in Rs)**		
	(a) 5001- 8000	4	6.67
	(b) 8001-10000	9	15
	(c) Above 10001	47	78.3
5	**Source of information**		
	(a) Mass media	3	5
	(b) Parents and siblings	13	21.67
	(c) No information	44	73.3
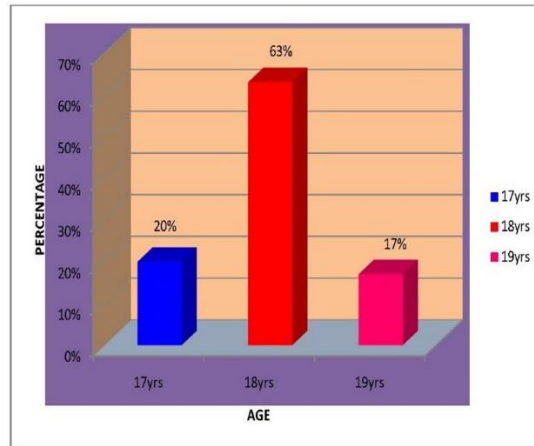
Figure 4: Bar diagram showing the distribution of adolescent girls according to their age

Distribution of adolescent girls according to their age shows that highest percentage of girls (63%) were in the age group of 18years, 20 % belongs to 17 years and 17% of them belong to 19 years of age.(figure 4.1).
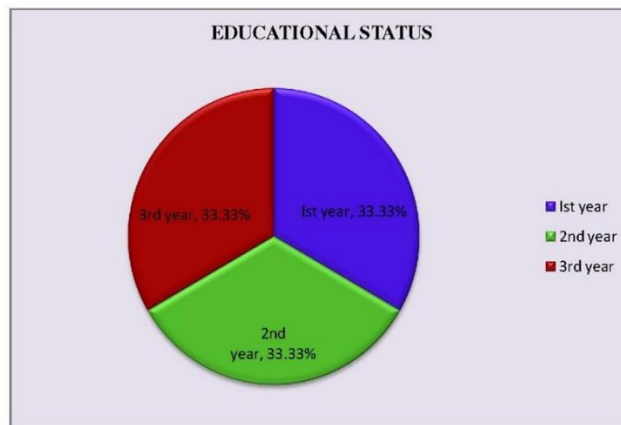

Figure 5: Pie diagram showing the distribution of adolescent girls according to their educational status

Distribution of adolescent girls according to their educational status shows that equal percentage 33.33% of the adolescent girls belong to each class 1st year, 2nd year and 3rd year Nursing. (figure 4.2).
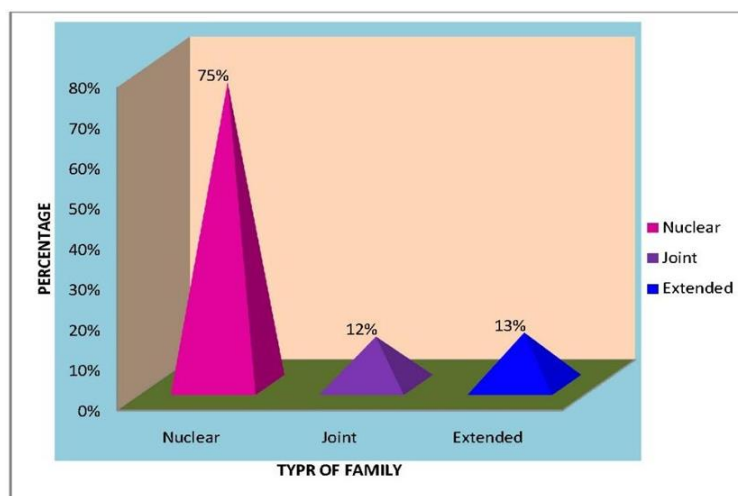

Figure 6: Pyramid diagram showing the distribution of adolescent girls according to their type of family

Distribution of adolescent girls according to their type of family shows that majority of the girls 75% belongs to nuclear family , 12% are from joint family and 13% from extended family .(figure 4.3).
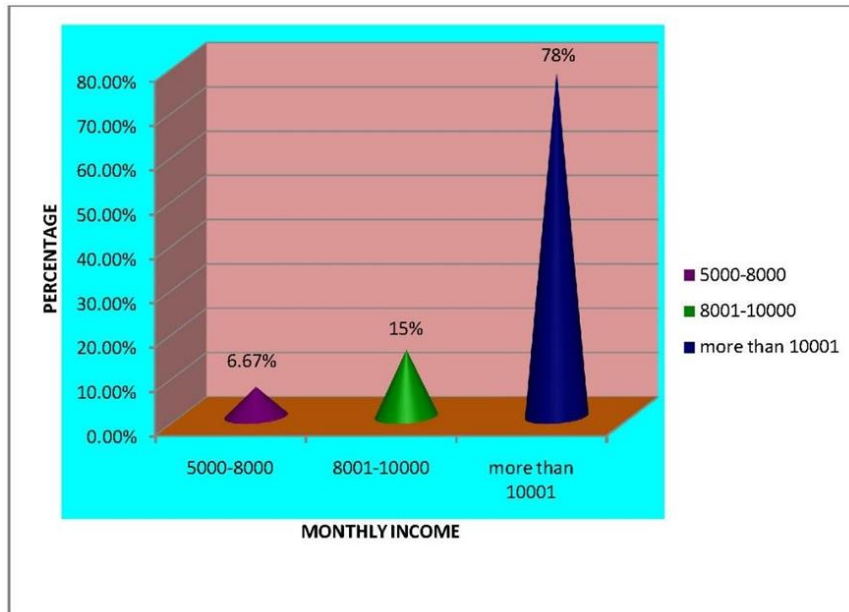
Figure 4.4: Cone diagram showing the distribution of adolescent girls according to their family income.

Distribution of adolescent girls according to their family income shows that most of (78.3%) them belongs to family income more than Rs. 10001/- month, 15% girls belongs to Rs. 8001-10000/- month and the least percentage (6.67%) belongs to of Rs. 5001-8000/- month (figure 4.4).
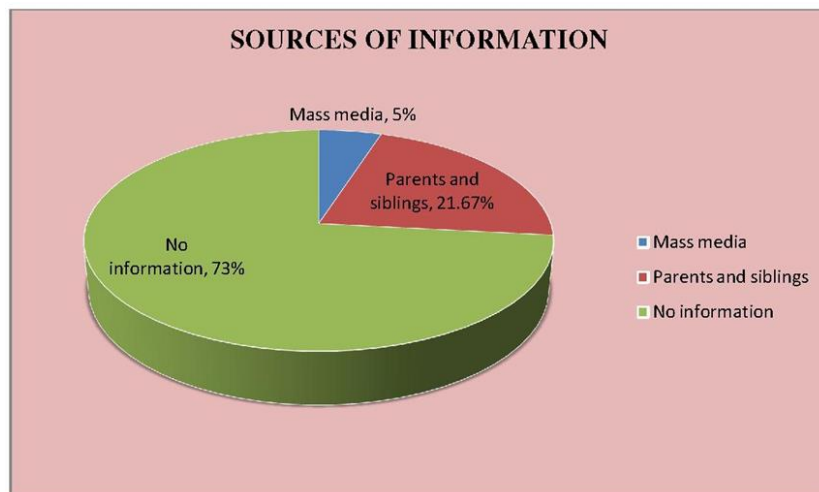

Figure 8: Exploded pie diagram showing the distribution of adolescent girls according to source of ovarian germ cell tumor information

Distribution of adolescent girls according to the source of health information reveals that highest percentage (73.3%) of girls had no information about ovarian germ cell tumor, 21.67% receive knowledge from parents and siblings and 5% receive knowledge from mass media. (figure 4.5)

Part II: Distribution of pre-test knowledge score of the adolescent girls regarding ovarian germ cell tumor

Section A: Pre-test knowledge score of adolescent girls regarding ovarian germ cell tumor

Table 4: Frequency and percentage distribution of pre-test knowledge score of adolescent girls regarding ovarian germ cell tumor.

(n=60)

Pre test			
Score	**Grade**	**Frequency**	**%**
0 – 9	Very Poor	Nil	Nil
10 – 14	Poor	34	56.7%

15 – 23	Average	26	43.3%
24 – 30	Good	Nil	Nil

Distribution of pre-test knowledge score of adolescent girls shows that highest percentage (56.7%) of the adolescent girls had poor knowledge score regarding ovarian germ cell tumor. About 43.3% of girls had average knowledge and none of them had very poor and good knowledge about ovarian germ cell tumor. (table 3.1).

Section B: Area wise analysis of pre test knowledge score knowledge scores of the adolescent girls.
Table 5: Description of area wise mean, SD, mean percentage of knowledge score.
(n = 60)

S.No.	Knowledge Area	Max. Possible Area	Mean Score	SD	Mean %
1	Anatomy and physiology of female reproductive system	6	3.45	.77	57.5
2	Concept of ovarian germ cell tumor	5	2.57	.62	51.4
3	Signs and symptoms of dysgerminoma	6	2.98	.75	49.67
4	Diagnosis of ovarian germ cell tumor	6	2.73	.66	45.5
5	Treatment of ovarian germ cell tumor	7	2.45	.79	35
	Total	30	14.18	1.88	47.26

Data presented in table 3.2 reveals that highest mean percentage 57.5% was found in the area of knowledge regarding "anatomy and physiology of female reproductive system" with mean ± SD of 3.45±.77. The least mean percentage of knowledge score 35% was found in the area of "treatment of ovarian germ cell tumor" with an area wise mean± SD of 2.45±.79. Analysis revealed that out of 30 maximum attainable score the total mean score was 14.18 which are 47.26% of the maximum score.

Section B: Post -test knowledge score of adolescent girls regarding ovarian germ cell tumor
Section A: Post -test knowledge score of adolescent girls regarding ovarian germ cell tumor.
Table 6: Frequency and percentage distribution of post -test knowledge score of adolescent girls regarding ovarian germ cell tumor.
(n=60)

Pre test			
Score	**Grade**	**Frequency**	**%**
0 – 9	Very Poor	Nil	Nil
10 – 14	Poor	Nil	Nil
15 – 23	Average	31	51.67%
24 – 30	Good	29	48.3%

Distribution of post-test knowledge score of adolescent girls shows that most percentage 51.67% of the adolescent girls had average knowledge score regarding ovarian germ cell tumor and 48.3% adolescent girls had good knowledge score regarding ovarian germ cell tumor. None of the adolescent girls had very poor and poor knowledge about ovarian germ cell tumor. (table3.3).

Section B: Area wise analysis of post test knowledge score knowledge scores of the adolescent girls.
Table 7: Description of area wise mean, SD, mean percentage of post test knowledge score.(n=60)

| S.No.	Knowledge Area	Max. Possible Area	Mean Score	SD	Mean %
1	Anatomy and physiology of female reproductive system	6	4.9	.9	81.67
2	Concept of ovarian germ cell tumor	5	3.73	.69	74.6
3	Signs and symptoms of dysgerminoma	6	4.87	.68	81.16
4	Diagnosis of ovarian germ cell tumor	6	4.91	.67	81.83

5	Treatment of ovarian germ cell tumor	7	4.87	1.049	69.57
	Total	30	23.28	1.68	77.6

Data presented in table 3.4 reveals that highest mean percentage 81.83% was found in the area of knowledge regarding "diagnosis of ovarian germ cell tumor" with mean ± SD of 4.91±.67. The lowest mean percentage of knowledge score was found in the area of "treatment of ovarian germ cell tumor" the mean percentage of 69.57% with an area wise mean± SD of 4.87±1.049. Analysis revealed that out of 30 maximum attainable score the total mean score was 23.28 which are 77.6% of the maximum score.

Part III: Evaluation of effectiveness of PTP on ovarian germ cell tumor.
Section A: Quartile distribution of the adolescent girls regarding ovarian germ cell tumor.
Fig 9: Ogives of the pre-test and post test knowledge score of adolescent girls regarding ovarian germ cell tumor.
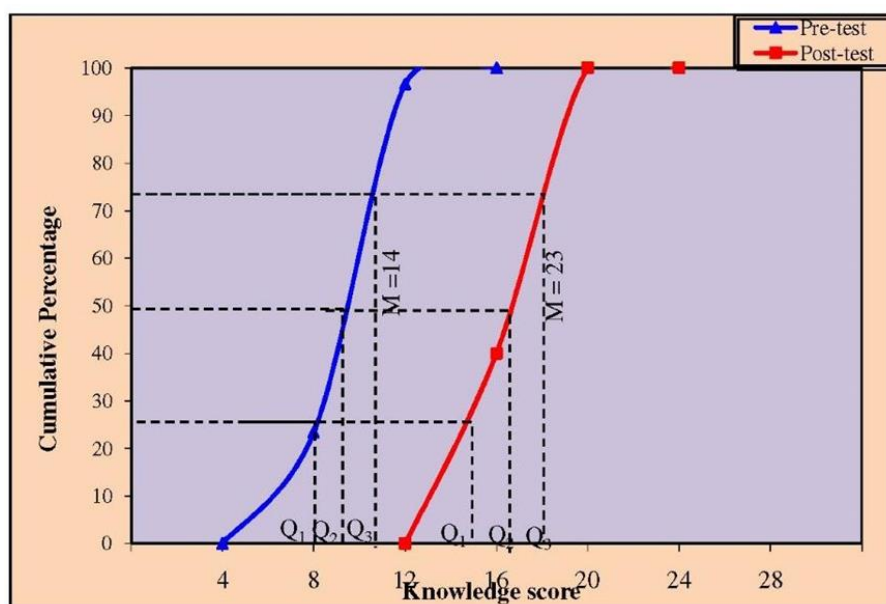
The data presented in the Ogive shows significant difference between the pre-test and post-test knowledge score. The pretest median was 14 whereas post-test median score was 23 showing a difference of nine. The ogive plotted shows that the first quartile score of post-test was higher than the third quartile score of pre- test. It reveals that there is a significant increase in knowledge of adolescent girls regarding ovarian germ cell tumor after administration of planned teaching programme. Hence the finding shows that planned teaching programme was effectiveness (figure 5).

Section B: Area wise effectiveness of planned teaching programme.
Table 8: Area wise effectiveness of PTP with mean, SD, mean percentage of pre- test and post-test knowledge scores of adolescent girls.

Areas	Max score	Pre test(X)		Post test(Y)		Effectiveness(Y-X)	
		Mean ±SD	Mean %	Mean±SD	Mean %	Mean ±SD	Mean %
Anatomy and physiology of female reproductive system	6	3.45±.77	57.5	4.9±.9	81.67	1.45±1.17	24.17
Concept of ovarian germ cell tumor	5	2.57±.62	51.4	3.73±.69	74.6	1.16±.86	23.2
Signs and symptoms of dysgerminoma	6	2.98±.75	49.67	4.87±.68	81.16	1.89±.99	31.49
Diagnosis of ovarian germ cell tumor	6	2.73±.66	45.5	4.91±.67	81.83	2.18±.91	36.33
Treatment of ovarian germ cell tumor	7	2.45±.79	35	4.87±1.049	69.57	2.42±1.34	34.57
Total	30	14.18±1.88	47.26	23.28±1.68	77.6	10.67±3.23	30.34

Comparison of area wise knowledge scores shows that the highest percentage of effectiveness seen in the area of "Diagnosis of ovarian germ cell tumor" the pretest score was only 45.5% with mean±SD 2.73±.66 whereas post test knowledge score was 81.83% with mean±SD 4.91±.67, showing an increase of 36.33% with mean 2.18±.91.

The lowest percentage of effectiveness seen in the area of "Concept of ovarian germ cell tumor" the pre-test knowledge score was 51.4% with mean ±SD of 42.57±.62 and post test knowledge score percentage was 74.6% with mean±SD 3.73±.69 showing an increase of 23.3% with mean±SD of1.16±.86.

Area wise distribution of the knowledge scores of the adolescent girls revealed that an increase of 30.34% was found in total mean knowledge score with mean±SD of10.67±3.23. Overall findings revealed that the mean percentage 77.6% of post-test knowledge score was more compared to mean percentage 47.26% of the pre-test knowledge score. The effectiveness of PTP was observed in all areas suggesting that it was effective in increasing the knowledge of the adolescent girls regarding ovarian germ cell tumor (table 3.5).

Item wise effectiveness of PTP among adolescent girls on ovarian germ cell tumor.
Table 9: Effectiveness of PTP on item wise correct responses of the adolescent girls in pre-test and post-test with regard to anatomy and physiology of female reproductive system.

Sl no	Items	Pretest(X)		Posttest(Y)		Effectiveness (y-x)	
		No	%	No	%	No	%
1.	The female internal genital organs are uterus, cervix, ovary	40	67	56	93.3	16	26.67
2.	Reproductive organ is ovary	41	68.3	54	90	13	21.67
3.	Female paired sex glands are ovaries	46	76.67	57	95	11	18.33
4.	The shape of the glands in the ovary is oval shape	17	28.3	36	60	19	31.67
5.	The colour of the ovary is pinkish gray	18	30	41	68.3	23	38.3
6.	The shape of the uterus is pyriform shape	41	68.3	52	86.67	11	18.33

The data presented in table 3.6 revealed that highest percentage (38.3%) of effectiveness was observed for the item no. 5 "The colour of the ovary is pinkish gray". The least percentage (18.33%) was observed for item No. 3 and item No.6 "Female paired sex glands are ovaries" and "The shape of the uterus is pyriform shape".

Table 10: Effectiveness of PTP on item wise correct responses of the adolescent girls in pre-test and post-test with regard to Concept of ovarian germ cell tumor.

S. no	Items	Pretest(X)		Posttest(Y)		Effectiveness (y-x)	
		No	%	No	%	No	%
7	Germ cell ovarian tumor commonly seen in adolescents.	50	83.3	52	86.67	2	3.33
8.	Organ affected dysgerminoma is ovary.	22	36.67	50	83.3	28	46.67
9.	Dysgerminoma is commonly found in the age group of 10 to 30 years.	26	43.3	41	68.3	15	25
10.	The risk factors of dysgerminomas are race, heriditory, obesity.	16	26.67	36	60	20	33.33
11.	Dysgerminomas is caused due to the external factor hormones.	39	65	45	75	6	10

Table 3.7 reveals that the highest percentage (46.67%) of effectiveness was obtained for the item no.8"Organ affected by dysgerminoma is ovary". The least effectiveness (3.33%) was found for the item no.7 "Germ cell ovarian tumor commonly seen in adolescents".

Table 11: Effectiveness of PTP on item wise correct responses of the adolescent girls in pre-test and post-test with regard to Signs and symptoms of dysgerminomas

S. no	Items	Pretest(X)		Posttest(Y)		Effectiveness (Y-X)	
		No	%	No	%	No	%
12.	Normal range of alfa feto protein is less than 20ng/ml.	37	61.67	49	81.67	12	20
13.	The commonest sign of dysgerminomas is abdominal pain.	14	23.3	53	88.3	39	65

14.	The major symptom of dygerminomas is increased level of alfa feto protein .	34	56.67	48	80	14	23.3
15.	The beta human chorionic gonadotropin level increased in ovarian germ cell tumor	36	60	55	91.67	19	31.7
16.	The symptom of leg weakness is seen in tumor in the sacrum	23	38.3	39	65	16	26.66
17.	The symptoms of dysgerminomas is incontinence of urine	34	56.67	52	86.67	18	30

The findings of table 3.8 reveal that the highest percentage (65%) of effectiveness was obtained for the item no.13 "The commonest sign of dysgerminomas is abdominal pain". The least effectiveness (20%) was seen for the item no.12 "Normal range of alfa feto protein is less than 20ng/ml".

Table 12: Effectiveness of PTP on item wise correct responses of the adolescent girls in pre-test and post-test with regard to diagnosis of ovarian germ cell tumor.

Sl no	Items	Pretest(X)		Posttest(Y)		Effectiveness (Y-X)	
		No	%	No	%	No	%
18.	Diagnostic measure that used to examine the fallopian tube is pelvic examination.	34	56.67	48	80	14	23.3
19.	The diagnostic measure that give information about ovarian germ cell tumor is serum tumor marker test.	21	35	51	85	30	50
20.	Sample of tissue is removed from the tumor and examined under microscope in biopsy	33	55	49	81.67	16	26.67
21.	The investigations that used to diagnose ovarian germ cell tumor is magnetic resonance imaging(MRI).	26	43.3	49	81.67	23	38.33
22.	The indication of increased HcG hormone is ovarian germ cell tumor	12	20	41	68.3	29	48.3
23.	In overian germ cell tumor ESR level increased	3761.7		57	95	2033.3	

The findings of table3.9 reveal that the highest percentage (50%) effectiveness was obtained for the item no.19 "The diagnostic measur that give information about ovarian germ cell tumor is serum tumor marker test". The least effectiveness (23.3%) was seen for the item no.18 "Diagnostic measure that used to examine the fallopian tube is pelvic examination".

Part IV: Testing of hypothesis
To evaluate the effectiveness of PTP, an alternative hypothesis was formulated.

Hypothesis
The following hypothesis will be tested at 0 .05 level of significance
H1: The mean post-test knowledge score of adolescent girls on ovarian germ cell tumor will be significantly higher than the mean pre-test knowledge score .
H2: There will be significant association between pre-test knowledge score and selected demographic variable.

The hypothesis was tested using paired' test. The value of't' was calculated to analyze the difference in knowledge of the adolescent girls regarding ovarian germ cell tumor.

Table 13: Significance of mean difference between pre-test and post-test knowledge score.

Areas	Mean	SD	SE	"t"
Anatomy and physiology of female reproductive system	1.45	1.17	0.15	10*
Concept of ovarian germ cell tumor	1.16	.86	0.11	10.9*
Signs and symptoms of dysgerminomas	1.89	.99	0.123	15.16*
Diagnosis of ovarian germ cell tumor	2.18	.91	0.118	18.47*

Treatment of ovarian germ cell tumor	2.42	1.34	0.172	14.37 *
Total	9.1	2.73	0.35	25.66 *

Highly significant, p<0.05,df = 59
Table value at 0.05 level of significance t = 2

Findings of table 4 reveals that the calculated' value, (t=25.66,p<0.05) was greater than the table value at 0.05 level in all the sessions. Therefore the null hypothesis was rejected and alternate hypothesis was accepted indicating that the gain in knowledge was not by chance. Hence it is concluded that there is significant gain in knowledge of adolescent girls through planned teaching programme on ovaraian germ cell tumor.

Part V: Association of the pre-test knowledge score of adolescent girls with demographic variables
This section presents findings on the association between the pre-test level of knowledge of adolescent college girls with demographic factors such as age, education, type of family, family's monthly income and source of ovarian germ cell information. In order to find the association between pre-test level of knowledge and these base line factors, the following hypothesis was stated to test the level of significance at 0.05 levels:
H_2: There will be significant association between pre-test knowledge score and selected demographic variable at 0.05 level of significance.
Chi square test was computed in order to determine the association between knowledge score and selected demographic variables

Table 14: Chi square values showing association between pre-test knowledge scores and sample characteristics.

S.No.	Sample Characteristics	☐ Median	> Median	Chi square	Level of Significance
1	Age in years				
	17	4	8		Not
	18	13	25	.63	Significant
	19	3	7		
2	Educational				
	qualification				Not
	I yr	10	10		Significant
	II yr	8	12	2.68	
	III yr	5	15		
3	Type of family				
	Nuclear	18	27		Not
	Joined	1	6	1.33	Significant
	Extended	1	7		
4	Monthly income of				
	family in Rs.				Not
	5001-8000	1	3	0.05	Significant
	8001-10000	2	7		
	☐10001	19	28		
5	Source of ovarian				
	germ cell tumor				
	information				
	Mass media	1	2		
	Parents and siblings	4	9	0.05	
	No information	15	29		

Data presented in Table 5 indicates that the chi square value of demographic variables such as age, educational qualification, type of family, monthly income of family, source of ovarian germ cell tumor information are not significant at 0.05 level of significance. Thus it is concluded that there is no significant association between pre test knowledge score of adolescent girls and selected demographic variables.

Summary
This chapter has dealt with the analysis and interpretation of the findings of the study. The data gathered was summarized in the master sheet and both descriptive and inferential statistics was used for analysis. The study findings had shown that there was a significant increase in the post test knowledge scores compared to pre test knowledge scores. Chi square value indicated that there was no significant association between pretest knowledge score of adolescent girls and selected demographic variables.

VII. Discussion

The present study is designed to assess the effectiveness of planned teaching programme on ovarian germ cell tumor among adolescent girls in selected colleges, Udaipur. Based on the nature of the problem under study and to achieve the objectives of the study a pre-test post-test design without a control group is adopted, since the study tried to find the effectiveness of a planned teaching programme on ovarian germ cell tumor among adolescent girls. Stratified random sampling technique is adopted for the study to select the sample. The data is collected from 60 adolescent girls/boys from a selected college at Udaipur.

The findings of the study are discussed under the following sections:
Part I: Description of demographic characteristics of adolescent girls.
Part II: Analysis of pretest knowledge of adolescent girls regarding ovarian germ cell tumor.
Part III: Evaluation of effectiveness of PTP on ovarian germ cell tumor.
Part IV: Testing of Hypothesis
Part V: Association of the pre-test knowledge score of adolescent girls with demographic variables.

Part I: Percentage wise distribution of adolescent girls according to their demographic variables.
Distribution of adolescent girls according to their demographic characteristics shows that majority of the girls (63.3%) were in the age group of 18 years. Equal percentages (33.33%) of the girls were from I, II, III year degree classes. Majority of the girls (75%) belongs to nuclear family, highest percentage of (78.3%) girls belongs to family income of more than Rs. 10001/- month, and highest percentage (73.3%) of girls had no information about ovarian germ cell tumor.

Part II: Analysis of pre-test knowledge of adolescent girls on ovarian germ cell tumor.
Section A: Level of knowledge of adolescent girls regarding ovarian germ cell tumor
Assessment of adolescent girl's level of knowledge shows that highest percentage (56.67%) of the adolescent girls had poor knowledge regarding ovarian germ cell tumor. About (43.3%) of adolescent girls had average knowledge. None had very poor and good knowledge about ovarian germ cell tumor.

Section B: Area wise analysis of pre test knowledge scores of the adolescent girls. The highest mean percentage (57.5%) was found in the area of knowledge regarding "anatomy and physiology of female reproductive system" with mean ± SD of 3.45±.77. The least mean percentage of knowledge score 35% was found in the area of "treatment of ovarian germ cell tumor" with an area wise mean± SD of 2.45±.79. The mean percentage of knowledge score in the area of "concept of ovarian germ cell tumor" was 51.4% with mean±SD of 2.57±.62. In the area of "signs and symptoms of dysgerminoma" the mean percentage was 49.67% with an area wise mean ±SD of 2.98±.75 and in the area of "diagnosis of ovarian germ cell tumor" the mean percentage was 45.5% with an area wise mean ±SD of 2.45±.79

Part III: Evaluation of effectiveness of PTP on ovarian germ cell tumor. Section A: Area wise effectiveness of planned teaching programme
Comparison of area wise knowledge scores shows that the highest percentage of effectiveness (36.33%) was in the area of "Diagnosis of ovarian germ cell tumor", which had pre-test knowledge score of 45.5% and post test knowledge score of 81.83%. Lowest effectiveness was observed in the area of "Concept of ovarian germ cell tumor" (23.2%) with pretest knowledge score of 51.4% and post test knowledge score of 74.6%.

Area wise distribution of the knowledge scores of the adolescent girls revealed that an increase of 30.34% was found in total mean knowledge score. Overall findings revealed that the mean percentage (77.6%) of post-test knowledge score was more than the mean percentage (47.26%) of the pre-test knowledge score. The effectiveness of PTP was observed in all areas suggesting that it was effective in increasing the knowledge of the adolescent girls regarding ovarian germ cell tumor.

Similar study was conducted among 30 mothers of adolescent girls to find out the effectiveness of planned teaching programme on the care of adolescent girls with regards to menstruation for in selected communities of Kerala. The findings of the study revealed that the pretest knowledge score was 38.3% and post

test knowledge score was 75.9% shows a significant increase (37.6%) in the post test knowledge scores (t = 17.127,P<0.05) after the administration of planned teaching programme. This shows that planned teaching programme was effective in increasing knowledge.

Section B: Item wise effectiveness of PTP among adolescent girls on ovarian germ cell tumor Items related to Anatomy and physiology of female reproductive system

The highest percentage (38.3%) of effectiveness was observed for the item No.5 "The colour of the ovary is pinkish gray". The least percentage (18.33%) of effectiveness was observed for item No 3 and 6 "Female paired sex glands are ovaries" and "The shape of the uterus is pyriform shape".

Items related to Concept of ovarian germ cell tumor

The highest percentage (46.67%) of effectiveness was obtained for the item no.8 "Organ affected by dysgerminoma is ovary". The least effectiveness (3.33%) was seen for the item no.7 "Germ cell ovarian tumor commonly seen in adolescents".

Items related to Signs and symptoms of dysgerminomas

The highest percentage (65%) of effectiveness was obtained for the item no.13 "The commonest sign of dysgerminomas is abdominal pain". The least effectiveness (20%) was seen for the item no.12 "Normal range of Alfa feto protein is less than 20ng/ml".

Items related to diagnosis of ovarian germ cell tumor

The highest percentage (50%) effectiveness was obtained for the item no.19 "The diagnostic measure that gives information about ovarian germ cell tumor is serum tumor marker test". The least effectiveness (23.3%) was seen for the item no.18 "Diagnostic measure that used to examine the fallopian tube is pelvic examination".

Items related to Treatment of ovarian germ cell tumor.

The highest percentage (48.3%) of effectiveness was obtained for the item no.24 "Unilateralsalpingo oophorectomy is a surgical procedure to remove one ovary and one fallopian tube". The least effectiveness (28.33%) was seen for the item no.28 "Both ovaries and fallopian tube is removed in bilateral salpingo oophorectomy".

The study findings was also supported by a study conducted in Kolkata among 30 staff nurses to find out the effectiveness of Planned Teaching Programme on selected obstetrics emergency drugs for the nursing personnel working in labour unit.

There was significant difference between the pre-test scoreandpost-test core=11.2,p< 0.05). The study findings revealed that the PTP was effective in increasing the knowledge of nursing personnel.

Part IV: Testing of hypothesis

A significant increase in the post-test score were observed in adolescent girls from the pretest knowledge score of ovarian germ cell tumor. Hence the research hypothesis "the mean post-test knowledge score of the adolescent girls is significantly higher than the mean pre-test knowledge scores (t= 25.66, p<0.05). It revealed that PTP was very effective in improving the knowledge level of the adolescent girls regarding ovarian germ cell tumor.

The finding of this study is consistent with the study conducted to assess the effectiveness of a planned teaching programme on knowledge regarding puberty among 80 pre adolescent girls in Vijaya English School at Hassan. The results of the study shows that overall mean knowledge score 33.52%, (mean ± SD of 8.38±3.20) of pre test is less than the post test knowledge score 80.72%, (mean± SD of 20.18± 2.25) on different aspects of puberty. Hence the teaching programme is an effective strategy (t=12.3, p<0.05) in increasing the knowledge on puberty.[53]

Part V. Association of the pre-test knowledge score of adolescent girls with demographic variables.

The chi square values of demographic variables like age, educational qualification, type of family, family's monthly income and source of ovarian germ cell tumor information were (0.063,2.68,3.6,1.32,0.05) not significant at 0.05 level of significance. Thus it is concluded that there is no significant association between pretest knowledge score of adolescent girls and selected demographic variables.

This study finding was also supported by an evaluative study finding on effectiveness of PTP on prevention of PIH among antenatal mothers which shows that there is no significant association between the pre-test knowledge score and selected demographic variables like age, education and religion at 0.05 level of significance.

Summary

This chapter dealt with the discussion of findings in relation to other similar studies and insight receives by the investigator during the period of data collection.

VIII. Conclusion

Germ cell tumors are a diverse group of tumors that all begin in germ cells ,the cells in the developing fetus that become egg cells. Most of the germ cell tumors occur in the ovary. However ovarian germ cell tumor require surgery, although some kinds are also treated with additional radiation and chemotherapy.[55]
This chapter deals with the conclusions drawn based on the present study.

IX. Major Findings

Distribution of adolescent girls according to their demographic characteristics shows that majority of the girls (63.3%) were in the age group of 18 years. Equal percentage (33.33%) of the girls was from I, II& III year engineering classes. Majority of the girls (75%) belongs to nuclear family, highest percentage of (78.3%) girls belongs to family income of more than Rs. 10001/- month, and highest percentage (73.3%) of girls had no information regarding ovarian germ cell tumor.

The study reveals that in pre-test knowledge assessment most (56.67%) adolescent girls had poor knowledge. About 43.3% had average knowledge and none had very poor knowledge and good knowledge. Whereas in post test 48.3% adolescent girls gained good knowledge, 51.67% had average knowledge.

The overall post test mean percentage was 77.6% with mean±SD was 23.28±1.68 which is higher than pre-test mean percentage (47.26%) with mean±SD 14.18±1.88. This revealed that there was significant difference between mean pre-test and mean post test scores. Area wise analysis of pre-test knowledge score showed that the highest mean percentage (57.5%) was found in the area of knowledge regarding "anatomy and physiology of female reproductive system". The least percentage (35%) was obtained for the area of knowledge regarding "Treatment of ovarian germ cell tumor".

The difference between the pre-test and post-test knowledge scores was very highly significant (t=25.66,df=59, p<0.05) indicating the effectiveness of the planned teaching programme in improving knowledge of the adolescent girls regarding ovarian germ cell tumor.

The findings of the present study shows that chi square values of demographic variables like age, educational qualification, type of family, family's monthly income and source of ovarian germ cell tumor information were (0.063,2.68 ,3.6,1.3,0.05) not significant at 0.05 level of significance .Thus it is concluded that there is no significant association between pretest knowledge score of adolescent girls and selected demographic variables.

The following conclusions are made based on the above findings.

☐ In pre-test it has been found that majority of the adolescent girls had poor knowledge

☐ After the intervention as PTP it has been found that there was gain in adequate knowledge, by reducing the poor knowledge category and increasing the good category.

☐ It is evident that PTP was effective in improving the knowledge of adolescent girls regarding ovarian germ cell tumor (t=25.66, p<0.05).

☐ There was no association between pre-test knowledge score and age, education, monthly income, type of family and knowledge regarding ovarian germ cell information.

Implications

The findings of the present study have implications in various areas of nursing education, nursing practice and nursing research. The health care delivery system at present is giving more emphasis on preventive rather than curative aspect.

Nursing Practice:

Nurses are the largest, health care workforce in the nation, comprising nearly three million workers. Nursing care is provided across the lifespan in every health care setting. Professional obligation of nursing is the provision of caring services to human beings. Practice of nursing has a direct and significant impact on human health. Educational programmes with effective teaching strategies motivate people to follow healthy practices in their day today life. The educative role of the nurses is an important component of the nursing practice.

The adolescents should receive adequate attention as a preparation to meet their future roles. Health education through various strategies is an important way to impart knowledge and information. Midwives can easily carry out planned as well as incidental health education programme for improving the knowledge of adolescent girls on ovarian germ cell tumor. Nurses are in a better position to provide knowledge to the community. Hence nurses should take keen interest in preparing different teaching strategies for the schools,

colleges and community.

Nursing Education:

Education helps the individual to learn new things and thereby it plays an important role in changing the behaviour of the learner. A nurse at postgraduate level needs to develop various skills in preparing the material for health teaching according to the level of the participants of the teaching programme. Nurses should have thorough knowledge regarding various aspects of health in order to provide comprehensive care to the society. One of the important aspects of health is reproductive health.

Midwives need to have in depth knowledge regarding reproductive health and issues so that they can motivate the adolescent girls in education about the anatomy and physiology of female reproductive system, concept of ovarian germ cell tumor, signs and symptoms of dysgerminomas, diagnosis of ovarian germ cell tumor, treatment of ovarian germ cell tumor. Nurses need to have knowledge regarding how to integrate health education into all levels of curriculum in nursing education. The findings of the study would help the nurses to develop an insight into the importance of health education regarding ovarian germ cell tumor.

Nursing Research

Nursing practice should be based on scientific body of knowledge.To thrive as a profession, nursing must keep pace with knowledge explosion, update the knowledge and set pace for future health care. The result of the present study shows the apparent knowledge deficit of the adolescent girls regarding ovarian germ cell tumor and effectiveness of a planned teaching programme on ovarian germ cell tumor. More innovative teaching methods like reproductive health issues package can be implemented and its effectiveness can be evaluated.There is increased need for more research studies in different areas on ovarian germ cell tumor. They can take professional accountability to educate and motivate student nurses towards health promoting practices.

Limitations:
1. Sample size is small so the generalization of the finding is limited.
2. Study is conducted only in selected degree college so the generalization of the finding is limited.

Recommendations

Based on the findings following recommendations were put forward for the further research.
- A similar study can be conducted on a larger sample.
- A similar study can be conducted in community area among reproductive age group women.
- A structured instructional module can be conducted to determine the effectiveness of SIM on ovarian germ cell tumor.
- A follow up study can be conducted to determine the effect of teaching in terms of gain in knowledge on ovarian germ cell tumor.
- A similar study can be undertaken with a control group design.

Summary

This chapter has presented a brief description of the study, its major findings, conclusion on the basis of the findings, implications to the nursing field and the limitations of the study. Recommendations for further research study are also listed.

X. Summary

The chapter presents the summary of the study. The overall aim of the study was to test the effectiveness of planned teaching programme regarding ovarian germ cell tumor among adolescent girls by comparing their pe-test and post-test knowledge scores.

Ovarian germ cell tumors are a type of ovarian neoplasm principally affecting young women. The causes of germ cell tumors are not well understood, few identified risk factors exist, thus provide little information on the possibility of preventing ovarian germ cell tumor. However, there are ways of improving prognosis with regards to ovarian germ cell tumors. Ovarian germ cell tumors are difficult to catch in early stages; women who go for regular gynaecological checkups are the only way to identify the disease condition.

Adolescent girls are included in the high risk group for ovarian germ cell tumors , so adolescent girls want to know about the ovarian germ cell tumor and the complications that are coming in their reproductive life . Although teens are exposed to this kind of topics, they want help of few qualified resource persons to deal with these issues.

Several studies have shown that there is lack of knowledge for adolescents regarding ovarian germ cell tumor. Researchs have adopted various strategies to improve the knowledge and ability of adolescent girls to lead a healthy reproductive life. This study made use of planned teaching programme to increase the knowledge

on ovarian germ cell tumor.

Objectives Of The Study:
The objectives of the study are to:
 Determine the existing knowledge of adolescent girls regarding ovarian germ cell tumor using a structured knowledge questionnaire.
 Find the effectiveness of planned teaching programme on ovarian germ cell tumor among adolescent girls using the same structured knowledge questionnaire.
 Find the association between pre-test knowledge score and selected demographic variables.
The study attempted to examine the following hypothesis at 0.05 level of significance.
H_1: The mean post-test knowledge score of adolescent girls on ovarian germ cell tumor will be significantly higher than the mean pre-test knowledge score.
H_2: There will be significant association between pre-test knowledge score and selected demographic variable .

Assumptions
The study assumes that:
 Adolescent girls will have some knowledge regarding ovarian germ cell tumor.
 Planned teaching programme will increase the knowledge score of adolescent girls regarding ovarian germ cell tumor.

Conceptual framework of this study based on Imogene King's 'goal attainment theory. In the present study interaction takes place between the investigator and the adolescent girls to improve the knowledge on ovarian germ cell tumor.

This study made use of an evaluative approach with a pretest post test design without control group, to determine the effectiveness of PTP in terms of gain in knowledge and acquiring the ability.

A stratified random sampling technique was selected for using 60 adolescent girls. The following tools were used to collect data.

Tool I: Demographic data which contains five items.
Tool II: Structured knowledge questionnaire to assess the knowledge regarding ovarian germ cell tumor.

The steps involved in the development of the instrument were preparation of the blue print, construction of the questionnaire, content validation by seven experts, pretesting and testing and testing for reliability. Split half technique was used to find out the reliability of structure knowledge questionnaire (r= 0.91).

Pilot study was conducted on six adolescent girls. This gave basis for the investigator to conduct the actual study. The actual study was conducted on 60 adolescent girls in Udaipur College of Nursing at Udaipur. The duration of the study was one month.

Pre test was conducted on the first day followed by the teaching programme. After seven days a post test was conducted using the same knowledge questionnaire to evaluate the effectiveness of planned teaching programme. The data obtained was analysed in terms of the objectives and hypothesis using descriptive and inferential statistics The findings of the study revealed that adolescent girls lack knowledge on ovarian germ cell tumor. The mean pre test knowledge score was 14.18 and post test knowledge score was 23.28. The effectiveness of PTP was tested in terms of gain in knowledge and it was statistically significant (t=25.66, df=59, p<0.05) at 0.05 level of significance.

The study finding indicates that there is no significant association between pre test knowledge score of adolescent girls and selected demographic variables such as age, educational qualification, type of family, family's monthly income and source of ovarian germ cell information.

Summary:
On the whole carrying out the present study was an experience to the investigator. It also helped a great deal to explore and improve the knowledge and ability of the researcher and respondents. Constant encouragement and guidance of the guide, co operation and interest of the respondents to participate in the study contributed to fruitful completion of the study.

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