# ABSTRACT

Adolescent girls in India are a vulnerable group because they are often denied access to basic necessities like education and healthcare. Adolescence, which marks the passage from childhood to adulthood, is characterised by the child's growth and development.. It is acknowledged as a unique time in a girl's life cycle that needs special consideration. The menarche, which marks the beginning of a woman's reproductive stage of life, is a crucial developmental step for her biologically.

## TITLE

“An exploratory study to assess the impact of nurse initiated menstrual hygiene management program on menstrual awareness among adolescent HIV clients and their experiences on menstruation at a tertiary care hospital Chennai’’ – A Mixed analysis

## OBJECTIVES

* explore the experiences of the menstrual awareness among Adolescent HIV Clients
* assess the pre-test level of menstrual awareness among Adolescent HIV Clients.
* assess the impact of Nurse Initiated Menstrual Hygiene management program on menstrual awareness among Adolescent HIV Clients.
* compare the pre-test and post-test level of menstrual awareness among Adolescent HIV Clients .
* associate the post test level of menstrual awareness among Adolescent HIV Clients with their selected bio socio demographic variables.
* combine the findings of qualitative and quantitative data

## METHODOLOGY

This study was conducted with 30 participants ( early adolescents with HIV) in both qualitative and quantitative approach using Exploratory sequential design( Convenience sampling) and Pre-experimental design purposive Sampling technique. I have applied the Von betlanffy theory for this study.

## RESULTS

In qualitative aspect the adolescent verbalized ***“It was bit difficult ,then I adjusted to it”***

The participants expressed negative emotion towards menstruation. Tiredness was consistently as a physical challenge that participants had to go through their daily activities . In post test aspect the effectiveness of Nurse Initiated Menstrual Hygiene Management Program was assessed ,the participants verbalized ***“Very useful to me”***

From above ,it is clearly stated that Nurse Initiated Menstrual Hygiene Management Program was very effective and also highlighted positive change in behavior.

In quantitative aspect the adolescent with HIV had no prior knowledge and practice about menstrual hygiene (during pretest )the findings was knowledge and practice score was 10.0% and 0% whereas after administration of Nurse Initiated Menstrual Hygiene Management Program ,there was difference in pretest and post test level of knowledge and practice level among study participants.The post test level of knowledge and practice score was 73.33% and 70% respectively

The study was highly significant (p<0.001) .After administration of Nurse Initiated Menstrual Hygiene management Program ,the knowledge and practice on menstrual awareness was assessed both subjectively and objectively.

From the above discussion ,the study findings proved that the Nurse Initiated Menstrual hygiene management program has improved the knowledge and practice on menstrual hygiene among adolescent HIV clients .hence the nurse must concentrate on teaching menstrual hygiene practices among early adolescents and helps to solve the social stigma regarding menstruation

**CONCLUSION**

The study was inferred that Nurse Initiate Menstrual Hygiene Management Program was the best teaching strategy in imparting knowledge regarding menstrual awareness which were the commonly encountered problems in developing and developed countries, that can be educated through an ongoing Nurse Initiate Menstrual Hygiene Management Program by Nurses. Therefore, it is very essential to give more emphasis on increasing the knowledge and practice among adolescents with HIV

**CHAPTER I**

**INTRODUCTION**

***“Adolescence is a new birth,for the higher and more completely human traits are now born’’***

 ***G. Stanley Hall***

Adolescent girls in India are a vulnerable group because they are often denied access to basic necessities like education and healthcare. A person is designated an adolescent by the World Health Organization if they are between the ages of 10 and 19. Adolescence, which marks the passage from childhood to adulthood, is characterised by the child's growth and development. The child's physical, psychological, and biological growth takes place throughout this time. It is acknowledged as a unique time in a girl's life cycle that needs special consideration. The menarche, which ushers in the reproductive stage of a woman's life, is a significant biological turning point in her development.. The typical age at menarche, which is between 12 and 13, is largely constant among populations. Unfortunately, the situation for girls gets worse due to ignorance about menstruation preparation and management or due to shyness and embarrassment. Despite being a natural occurrence, menstruation is still frowned upon in Indian culture since it is seen as filthy and unclean. When their period finally arrives each month, millions of adolescent girls around the world experience a dreadful cycle of pain, discomfort, embarrassment, worry, and solitude. Adolescent girls continue to be ignorant of the scientific facts and sanitary health practises, which can occasionally have a negative impact on their health, because menstruation and menstrual practises are still shrouded in taboos and socio-cultural constraints.It is well known that girls' adolescence is a unique stage of their lives that calls for particular and unique care. Due to ignorance about the scientific nature of menstruation, there are many psychological and religious hurdles around it. The period of adolescence is thought to be the most susceptible to developing infections of the urinary tract, the reproductive tract, and other sexually transmitted diseases. Therefore, promoting safe behaviours and lessening the suffering of millions of women may be made possible by raising awareness of menstruation from an early age. Health care should place a high priority on managing menstrual hygiene. Adolescent females think that having periods is something shameful that should be kept private. Due to this, adolescent girls are more susceptible to experiencing mental, emotional, and physical issues.

.**BACKGROUND OF THE STUDY**

**INTERNATIONAL LEVEL**

World menstrual day is an international awareness day for menstruation and menstrual hygiene .It is held annually on May 28.The theme for World Menstrual Hygiene Day (2022) is '**making menstruation a normal fact of life by 2030**'.

Every year, this day is observed in an effort to break the taboo surrounding menstruation, raise awareness about the significance of managing menstrual hygiene, and empower girls to realise their full potential.Increased attention must be paid to adolescents and young people if the tide of the AIDS epidemic is to be turned.Globally, the proportion of HIV-positive people who are young adolescents and teenagers is rising. 150,000 [44,000-310,000] of the 410,000 [194,000-690,000] young people (10 to 24) who contracted HIV for the first time in 2020 were teens between the ages of 10 and 19.(Estimated by UN AIDS in 2021).

**NATIONAL LEVEL:**

In 2019, the estimated number of PLHIV in the country was 23.48 lakh (17.98 lakh - 30.98 lakh). According to estimates, there are 3.96 lakh PLHIV in Maharashtra, 3.14 lakh in Andhra Pradesh, 2.69 lakh in Karnataka, 1.61 lakh in Uttar Pradesh, 1.58 lakh in Telangana, 1.5 lakh in Tamil Nadu, 1.55 lakh in Bihar, and 1.04 lakh in Gujarat (Figure 3).Another 18% of the total PLHIV size was given by the states of West Bengal, Delhi, Punjab, Rajasthan, Madhya Pradesh, Odisha, and Haryana. In total, these 15 States accounted for 90% of PLHIV estimations (NACO, 2019).

**STATE LEVEL:**

The Scoping Study on Menstrual Hygiene Management- PNP/NNP in November 2018 cites a UNICEF survey that found that 79 percent of girls in Tamil Nadu are not aware of proper menstrual hygiene procedures.

 According to the recently published India HIV Estimation 2019 report, Tamil Nadu (0.23% [0.16-0.29]) had the lowest estimated adult (15-49 years) HIV prevalence trend in India, which has been dropping since the epidemic's peak in 2000.

**INSTITUTIONAL LEVEL**

The statistics for 10-15 years of female children attended at PCoE at Institute of Child Health and Hospital for Children ,ART centre for past three years is

|  |  |  |  |
| --- | --- | --- | --- |
| YEAR | 2020 | 2021 | 2022 |
| Number of female children (10-15 year old) attended in PCoE –ICH ART CENTRE | 59 | 50 | 43 |

In year 2022, Every month 43 adolescent girls visit the PCoE ART CENTRE at Institute of child health and hospital for children.

## NEED FOR THE STUDY

Although menstruation is a natural occurrence, it is frequently viewed as a private matter in many regions of India. Once a girl reaches adolescence, menstrual hygiene becomes a significant factor in her life and has been linked to a variety of traits. Studying adolescent girls' attitudes and menstrual hygiene experiences is crucial because it is a rigorous procedure and a substantial source of morbidity as well.

Girls in our nation do not always have access to information on puberty until they reach menarche. The majority of girls—71%—are unaware about menarche and menstrual hygiene. The majority of girls approach their mothers for advice and assistance, however 70% of mothers view this as nasty discourse about menstruation.According to a study by Mansi Tiwari (2018) on menstrual practises in rural India, these practises depend on basic sanitation infrastructure, the availability of napkins, and people's attitudes toward menstruation, which are seen as filthy and unclean. As a result, various initiatives are required to address the issues with menstrual hygiene.

According to a study by Anjali Mahajan (2017) among school-going adolescent girls in Himachal Pradesh, it is determined that only about 29% of girls have adequate knowledge, and 71% of girls do not. This lack of knowledge is closely related to superstitious beliefs, cultural practices, and the mother's education.According to the practice scores, 19 percent of respondents had bad practice, 69 percent had fair practice, and 12 percent had good practice.

• Global data on the mechanisms, timing, and prevalence of HIV infection in adolescent females are lacking, despite their increased vulnerability. To determine how and at what age adolescent females are contracting HIV, further information is required. This would make it possible to establish targeted HIV prevention programmes and interventions that take into account the particular needs, social positions, and developmental stages of girls.

Yeast infections in the vagina, other vaginal infections like bacterial vaginosis, common STDs like gonorrhoea, Chlamydia, and trichomoniasis, human papillomavirus (HPV) infections that cause genital warts and can lead to cervical cancer, and pelvic inflammatory disease (PID) infection of a woman's reproductive organs and menstrual cycle are just a few of the additional symptoms that changes like ceasing to have periods.

Adolescent girls with HIV are at a higher risk of infection and have weakened immune systems, making them more susceptible to severe health problems if they do not maintain proper menstrual hygiene habits. As menstruation and HIV infection are social stigmas in our society,

Nurses are primary healthcare providers who are accountable for giving patients the knowledge they need to manage their menstrual hygieneInforming women and girls about menstrual hygiene products, hygiene management, and encouraging them is a big part of the nurse's job.When it comes to comprehending the emotional and physical changes that take place during menstruation, there is a large knowledge gap in the general community (Sommer, 2009).

Since patient contact is a significant component of the profession of nursing, nurses play a crucial role in ensuring that the population is knowledgeable about menstrual hygiene. When talking, the nurses must be both professional and competent.

As an ongoing public health issue and a human right issue , the health care sector among other institutions do not only have responsibility to address this problem ,they also have capacity to .It must be handled on global level,national level, and last but not least local level (Sommer, Hirsch,Nathonson &Parker,2015)

Menstruation has remained under-researched and under addressed and there is no much research studies regarding menstrual hygiene in qualitative aspects , among adolescent HIV clients, the researcher felt need to look into this topic in order to protect the health of adolescent HIV clients.The researcher is interested in doing research in both qualitative and quantitative aspect as mixed analysis.

**1.2 STATEMENT OF THE PROBLEM**

“An exploratory study to assess the impact of nurse initiated menstrual hygiene management program on menstrual awareness among adolescent HIVclients and their experiences on menstruation at a tertiary care hospital Chennai’’ – A Mixed analysis

**1.3 OBJECTIVES**

* explore the experiences of the menstrual awareness among Adolescent HIV Clients
* assess the pre-test level of menstrual awareness among Adolescent HIV Clients.
* assess the impact of Nurse Initiated Menstrual Hygiene management program on menstrual awareness among Adolescent HIV Clients.
* compare the pre-test and post-test level of menstrual awareness among Adolescent HIV Clients .
* associate the post test level of menstrual awareness among Adolescent HIV Clients with their selected bio socio demographic variables.
* combine the findings of qualitative and quantitative data

**1.4 OPERATIONAL DEFINITION**

**ASSESS:**

 To assess the knowledge and practice of menstrual hygiene among adolescent HIV patients.

**IMPACT**

 Refers to the by-significant difference in pre and post test scores among adolescent HIV patients after Nurse Initiated management programme.

**NURSE INITIATED MANAGEMENT**

 Refers to those aspects of menstrual hygienic knowledge and practices among Adolescents girls diagnosed with HIV and the complication of unhygienic practices for improving their quality of life with computer assisted teaching, positive reinforcement techniques

**MENSTRUAL HYGIENE PRACTICES:**

The hygienic measures followed by the adolescent girls

**ADOLESCENT HIV CLIENT**

 Adolescents girls with age group of 10-14 years of age and diagnosed with HIV and on treatment

**EXPERIENCES**

The experiences felt by adolescent HIV clients during their menstrual period

**1.5 HYPOTHESES**

**H0 :** The is no significant difference between the pre and post test level of knowledge and

 practice on Nurse Initiated Menstrual Hygiene management program among

 Adolescent HIV clients

 **H1:** There is a significant difference between the pre and post-test level of knowledge

 and practice on Nurse Initiated Menstrual Hygiene management program among

 Adolescent HIV Clients

 **H2:** There is a significant association between the selected bio socio demographic

 variables with their post test scores of Nurse Initiated Menstrual Hygiene

 management program among Adolescent HIV Clients.

**1.6 ASSUMPTIONS**

1. The adolescent HIV clients will have inadequate menstrual hygienic practices.

 2. The adolescent HIV clients will have low quality of life than others.

**1.7 DELIMITATION**

1. The study is limited to the adolescent HIV clients in the selected hospital at Chennai.

2. The study period is limited to 4weeks of duration.

 3. The sample size is limited to 30 adolescent HIV clients

**CHAPTER II**

**REVIEW OF LITERATURE**

A critical phase of the research process is the literature review. The primary goal of the literature review is to provide a solid understanding of the research activities that must be carried out in educational and clinical practise. Reading about topics of popular interest can help the researcher focus on open research questions or discover novel applications that are appropriate for the study. This chapter examines the pertinent literature review on menstrual hygiene knowledge and practise in adolescent girls.

**LITERATURE RELATED TO :**

**SECTION 1:** Literature related to knowledge and practice on menstrual hygiene

**SECTION 2:**Literature related to experience on menstruation

**SECTION 3:**Conceptual framework

**LITERATURE RELATED TO KNOWLEDGE AND PRACTICE ON MENSTRUAL HYGIENE**

***Anne Sebert Kuhlmann(2021)*** conducted a survey research method among female students enrolled in grades 9 through 12 at a public high school in St. Louis, Missouri. Participants' average ages were 15.78 1.28. 64.4 percent (95 percent CI 55.1 percent - 73.0 percent) of respondents reported feeling insecure about their period products. 66.9 percent (95 percent CI 57.7 percent -75.3 percent) of respondents said they have used at least one school resource to get period products. A lack of period products caused one-third of the participants (33.6 percent [95 percent CI 25.0 percent -43.1 percent]) to miss school.

***Juliana Lubis et al(2022)*** exhibited a explanatory cross sectional design among 33 teenagers ,the study revealed that ***Juliana Lubis et al(2022)*** exhibited a explanatory cross sectional design among 33 teenagers ,the study revealed that ,60.9% of adolescents gained knowledge about personal hygiene during menstruation. Adolescent behavior about personal hygiene during menstruation obtained 60.9% which is less supportive of health, so this study shows that there is an influence of adolescent knowledge about menstruation on personal hygiene behavior during menstruation in environment III Silandit village.

***Bhandari et al (2021)*** formulated a community based survey. Data was collected using a questionnaire including the demographic information of each participant.The study lasted for six months. 84 participants from the age range of 10-15 years participated in the study, and it was discovered that 57 of them had had early menarche. This study was conducted to determine the prevalence of early menarcheal age in teenage girls and the degree of menstrual hygiene knowledge among adolescent schoolgirls in Karad. According to this study, menarche occurred on average at the age of 11.05. They typically enter menarche unprepared because they lack the knowledge of menstruation and menstrual hygiene. Compared to other girls, those who reached menarche earlier had less knowledge.

***Dr.Manish singh et al (2018)*** performed a cross sectional study among the female medical undergraduate students. The study found that information was gathered utilising a pre-designed, pre-tested, semi-structured, anonymous questionnaire. Participants in the study had an average age of 19.95 +1.41 years. Menarche occurred on average at 13.38 + 1.28 years old. The majority of participants (82.31%) practised appropriate menstrual hygiene and had sufficient understanding about menstrual hygiene. A 45.38 percent absence rate in college was discovered. Pain and discomfort were found to be the leading causes of college absenteeism (36.92 percent), followed by unhygienic restrooms (21.54 percent), a lack of water in the restroom (13.85 percent), a concern about stains (6.15 percent), a lack of a trash can (1.54 percent), and a lack of privacy in the restroom (0.77 percent). To guarantee that teenage women and girls receive the necessary support.

***Sumit Aggarwal et al (2021)*** conducted a study among 122 adolescents girls between ages of 13 and 19 years and were evaluated by personal interview and questionnaires. All of the girls were secluded during menstruation and lacked the necessary scientific understanding regarding menstruation. They were susceptible to infections and utilised homemade or cloth sanitary pads. There is an urgent need for information sharing with schoolchildren and their families, for menstrual hygiene education, and for rural communities to have access to the necessary sanitary goods.

***Neerja Agarwal et al (2018)***  conducted a community based cross sectional study at department of obstetrics and Gynaecology in connection with department of community medicine, Raipur among 263 adolescent girls The majority of adolescent girls who attend school are between the ages of 13 and 14. 50.95 percent of girls, 21.67 percent of girls, and 12.93 percent of girls reported having their menstrual cycles aged 13, 12, and 14, respectively. Only 17.87 percent of the girls used sanitary napkins, whereas 49.81 percent of the girls used cloth. 32.70% of the girls felt that their external genitalia needed more cleaning. Only 58.17 percent of girls cleaned their genitalia with soap and water. It was shown that abdominal pain (59.70 percent) was the most common complaint during menstruation.

***J Parle et al (2019)***formulated a cross-sectional study with 600 adolescent schoolgirls in the rural Raigat district to assess their knowledge, attitudes, practices, and perceptions regarding menstruation. The study's findings showed that more than half had inadequate knowledge and poor practises regarding menstruation and menstrual hygiene, at 53.3 percent and 52.8 percent, respectively. Despite their lack of information, 55.2 percent of respondents said they had heard of menstruation before reaching menarche. Adolescent age (?2=267.294, p=0.00), mother's education (?2=77.331, p=0.00), and menstrual hygiene practise (?2=111.745, p=0.00) were factors that were substantially linked with knowledge of menstruation and menstrual hygiene. therefore the researcher came to the conclusion that menstrual hygiene and health education programmes should be developed to support adolescent girls' improved health.

***Vishna shah et al(2019)*** conducted a mixed method in the rural Kiang West district of The Gambia.Mothers, teenagers, and teachers participated in twenty focus group discussions and thirteen in-depth interviews to learn more about their perspectives on menstruation, cultural beliefs, sources of information, and understanding of menstrual hygiene management methods. Additionally, a survey of 331 schoolgirls was conducted to determine their attitudes, practises, and understanding regarding menstruation and its management. The qualitative data was analysed using inductive content analysis, and the quantitative data was analysed using descriptive analysis and chi-squared testing. When addressing menstruation, all groups acknowledged difficulty, embarrassment, and humiliation. Before menarche, two thirds of the girls in the poll said they had learned about menstruation, but most of them said they felt unprepared. Although teachers were the primary source of knowledge, most females preferred to consult their mothers when seeking advice. Despite the fact that males did not need to be taught about menstruation, mothers reported having trouble talking about it with their kids, despite the fact that boys were really interested in learning more. Unless they receive complimentary pads from school, the majority of girls utilised reusable cloth.

***Bishal Pokrel (2020)*** performed a cross-sectional descriptive study among 151 physically disabled peoples. Self-structured questionnaire and face-to-face interview was used as data collection tools and techniques about (80.13 percent) were aware that a woman's cycle should last 26 to 30 days, (91.39 percent) had mentioned that they shouldn't visit holy sites during this time, and (94.03 percent) shouldn't cook during this time. While 69.53 percent of respondents changed pads twice a day, 83.44 percent of respondents utilised sanitary products. The majority of responders (91.39%) disposed of sanitary pads in trash cans. Parents taught 87.41% of respondents about menstruation hygiene.

**LITERATURE RELATED TO EXPERIENCE ON MENSTRUATION**

***Molly secor turner (2020)*** conducted a qualitative research among 12 participants aged 12-16 years study revealed four main themes: (1) learning about menstruation, (2) experiencing menstruation, (3) managing menstruation, and (4) social norms and meaning of menstruation.  Participants talked about how little they understood about menstruation and how they felt uncertain about using period hygiene items. Lack of proper access to menstrual hygiene products, a lack of time to change products, anxiety over losing menstrual blood, and effects on school attendance were among the difficulties faced at school.

***Deepanjali Behera (2015)***conducted a qualitative study to evaluate people's beliefs, behaviors, and experiences with menarche, menstruation, and convenience A sampling technique was employed to choose 32 teenage girls. The study found that participants lacked sufficient knowledge of menstruation and its stages, especially those who had not yet reached menarche. Focus group talks were used to gather data on the participants' perceptions, behaviors, and experiences related to menarche and menstruation, which were then analyzed thematically.. All conversations about menstruation took place between friends, and mothers were found to be just marginally involved. While most of the girls still wear outdated clothes, several of the females were wearing sanitary pads. Major barriers to their use included financial concerns and a lack of access to sanitary pads.

***Erin N. Sweeney et al (2022)*** exhibited a online mixed-methods survey was established using qualtricsamong 30 nurses working in elementary schools, using snowball sampling. Themes for each question were found using a deductive semantic thematic analysis and the Integrated Behavioral Model (IBM) as a framework. Using qualtrics, an 11-item online mixed-methods survey based on the Integrated Behavioral Model (IBM) was created with ten qualitative questions and one quantitative question. There are no possibilities for professional development for school nurses or for them to learn how to teach primary pupils about menstrual health and cleanliness.

**CHAPTER III**

**RESEARCH METHODOLOGY**

Research methodology, which addresses several facets of study structure, is the overall strategy for solving the research problem. It serves as a roadmap for the study's design, execution, and analysis. The description of the research method, research design, research setting, study population and size, variables, sampling techniques, description of the tool, content validity, and reliability, pilot study, intended format for data collecting, and plan for data analysis are all included.

## 3.1 RESEARCH APPROACH

In this study,Mixed research approach was used.

## 3.2 RESEARCH DESIGN

Pre-experimental design (one group pre-test and post-test design), which helps to examine relationship among variables was used by the investigator.

Qualitative : Exploratory sequential design.

## 3.3 SETTING OF THE STUDY

The setting was chosen based on the investigator's familiarity with the institution, the Department of ART Center, the viability of the study, the availability of the subjects, the approval, and the setting's proximity to the investigation. The study was conducted in Department of ART centre, at Institute of Child Health and Hospital for Children, Egmore and Chennai- 08

## 3.4 DURATION OF THE STUDY

The duration of data collection from 20.06.2022 to 17.07.2022 (4weeks).

## 3.5 STUDY POPULATION

### 3.5.1 Target Population

The target population of this study was adolescent with HIV

### 3.5.2 Accessible Population

Adolescent with HIV attending the ART centre at Institute of child health and hospital

## 3.6 STUDY SAMPLE

The sample consists adolescent client with HIV who met inclusion criteria attending in ART centre,Institute of child health and hospital , Chennai 08

 **3.7 SAMPLING TECHNIQUE:** PHASE I: QUALITATIVE: Convenience sampling

 PHASE II:QUANTITATIVE: Purposive sampling

 **3.8 TOOL FOR DATA COLLECTION:**

The tool should be developed after extensive review of literature and discussions with experts as a tool to collect data.

**Section A:** Socio Demographic Questionnaire

**Section B:** Unstructured interview schedule

**Section C:** Knowledge and practice of menstrual hygiene practices questionnaire

**SAMPLING CRITERIA:**

**INCLUSION CRITERIA:**

* Adolescent diagnosed with HIV Clients and on treatment
* Early adolescents. (10-14 years of age)
* Able to understand & speak Tamil.
* Adolescent HIV Clients who are stable

**EXCLUSION CRITERIA:**

* Late adolescent(15-19 years of age)
* Not willing to participate
* Adolescent With complications

**3.9 VARIABLES UNDER THE STUDY:**

**DEPENDENT VARIABLE:** Knowledge and Practices on menstrual hygiene among Adolescent HIV Clients

 **INDEPENDENT VARIABLE**: Nurse Initiated menstrual hygiene management programme

**3.10 METHOD OF DATA COLLECTION**

Informed consent was in their understandable language was obtained and Qualitative data about experiences during menstruation was collected as an in depth unstructured interview with 05 participants .In quantitative aspect the pretest knowledge and practice was assessed using semi structured questionnaire developed by investigator .Nurse initiated menstrual hygiene Management programme was given to the participants in their own language

Quantitative data was collected after the intervention from the Adolescent HIV Clients with 30 participants.

In qualitative aspect ,the impact of Nurse Initiated Menstrual Hygiene Management programme was also assessed

Both qualitative and quantitative data was collected sequentially and results are merged at the time of interpretation.

**SAMPLE SIZE:**

Qualitative: 05 numbers

Quantitative :30 numbers.

**SAMPLE SIZE CALCULATION:**

Sample size was calculated based on Shoba P et al previous study incidence of menstrual hygiene practice of 68% among adolescents with 95% confidence limit and 25% of relative precision of estimate using the following formula

Formula for sample calculation **=(Z)2X(1-p)**

 **(p)X(e)2**

P=68% e=18% z=1.96

 **Sample size (N)** = (1.96)2 X (1-0.68)/0.68X(0.25)2

 =3.84(0.32)/0.0425 = 29 =30 adolescents HIV clients.

**Based on**

Shobha P Shah, Rajesh Nair, Pankaj P Shah, Dhiren K Modi, Shrey A Desai &Lata Desai Reproductive Health Matters , 21:41, 205-213, DOI: 10.1016/S0968-8080(13)41691

## 3.11 DEVELOPMENT AND DESCRIPTION OF THE TOOL

### Development of the Tool

### The researcher has created a semi-structured questionnaire that is appropriate. The researcher created the tool after a thorough examination of the literature, expert advice, and content validity from the medical, nursing, and statistics departments. During the pilot research, the tool underwent pre-testing. During data gathering, clients were directly assessed

### .Description of the Tool

It consists of 3 sections.

### Section –A

It deals with demographic variables of the sample that includes mothers age, educational status, occupation, monthly income of the family, religion, residential place, type of family, gender, order of birth, number of children in the family.

### Section –B

Unstructured interview schedule

### Section – C

Knowledge and practice questionnaire on menstrual hygiene

## 3.12 CONTENT VALIDITY

After construction of questionnaire for “A Pediatric nurse-led culturally sensitive intervention on medication adherence and quality of life among mothers of child with hemophilia at pediatric tertiary care hospital, Chennai -08”, it was tested for its validity and reliability.

The tool's validity was evaluated using content validity. Medical professionals, nursing specialists, and one research statistical expert determined the content validity. They recommended making certain changes to the tool. Following the changes, they approved this tool for assessment. effectiveness of nurse initiated intervention regarding knowledge and practice questionnaire among adolescent HIV clients at ART centre at Tertiary Care Hospital, Chennai - 08.

## 3.13 ETHICAL CONSIDERATION

The study was proposed and submitted to the ethical committee, Madras Medical College and the committee approved the study with Reference No., EC.Reg.NO.ECR/270/Inst/TN/2013/RR-20/02.03.2022, NO. 31032022.The aim of the study and their role during the study were clearly explained to every respondent. All participants gave their free, informed consent to take part in the study. Information on the matter was kept confidential. As a result, the researcher complied with the research committee's ethical directives. The Director of the Chennai-based Institute of Child Health and Hospital for Children was contacted in order to gain the necessary approval to carry out the study. Human rights were not violated in the course of conducting the study.

### Human rights

The study was proposed among the experts of the Institutional Ethics Committee and got the permission to carry out the study

The study details was also explained to the Professor and Head of the Department of Pediatric centre of Excellance ART centre, Institutue of Child health and Hospital for Children, to carry out the study in the Pediatric centre of Excellance ART centre and got the permission.

The content validity was received from the various experts in the Child Health Nursing.

### Beneficence

Potential benefits and risks were explained to the caregivers of adolescent with HIV

### Dignity

Caregivers and adolescents were informed about the study in detail and ensured their participation

Informed consent was obtained from the caregivers.

Freedom was given to the participants in opting to participate in the study or withdrawal from the study.

### Confidentiality

Confidentiality and anonymity pledge was ensured. The study participants were also ensured for maintain the confidentiality of their details.

### Justice

The study participants were treated with justice

The Nurse initiated menstrual hygiene management programme was provided to the participants through the computer assisted teaching after the pre-test.

## 3.14 TANSAC (Tamil nadu state aids control society) APPROVAL

The study was proposed and submitted to the TANSAC committee, Egmore and the committee approved the study with Reference No., 005529/TANSACS/M&E/2019.Dt: 09/06/2022The aim of the study and their role during the study were clearly explained to every respondent. All participants gave their free, informed consent to take part in the study. Information on the matter was kept confidential. As a result, the researcher complied with the research committee's ethical directives. The Director of the Chennai-based Institute of Child Health and Hospital for Children was contacted in order to gain the necessary approval to carry out the study. Human rights were not violated in the course of conducting the study.

## 3.15 PILOT STUDY

The pilot study was conducted from 06.06.2022 to 13.06.2022 in Pediatric centre of Excellance ART , Institute of Child Health and Hospital for Children, Egmore and Chennai-08. Formal permission was sought from the Director of the Hospital for conducting this study.

The pilot study was conducted with 5 subjects and they were selected using Non-probability Purposive sampling method, fulfilled the inclusion criteria and verbal and written consent obtained. On the first day, the pre-test to the subjects by using self administered questionnaire, Knowledge and practice questionnaire on menstrual hygiene, After pre-test, 45 minutes Nurse initiated menstrual hygiene management intervention by using computer assisted teaching was given. After 7 days, post-test was conducted to assess the knowledge and practice among same samples with same questionnaire.

Findings of the study revealed that correlation coefficient was very high and it was a good tool for assessing the knowledge and practice on menstrual hygiene among adolescent with HIV and the study was feasible and practicable to conduct the main study in at in Pediatric centre of Excellance ART ICH&HC, Chennai -08. The data collection for the main study was planned to be done by excluding the samples of the pilot study.

## 3.16 RELIABILITY OF THE TOOL

After pilot study, reliability of the tool was assessed by using Test retest method. Knowledge score reliability correlation coefficient value is 0.78 which is very high and it is a good tool to assess the Knowledge and practice on menstrual hygiene management programme at Pediatric Tertiary Care Hospital, Chennai - 08.

Reliability of the tool was assessed by using inter rater method and Cron bach alpha method. Knowledge score reliability correlation coefficient value was 0.86 and practice score reliability correlation coefficient value was 0.82. These correlation coefficients were very high and it is good tool for assessing the knowledge and practice on menstrual hygiene management among adolescent with HIV

## 3.17 DATA COLLECTION PROCEDURE

The formal permission obtained from Institutional Ethics Committee, Madras Medical College, Chennai and the Director, ICH&HC, Egmore, Chennai to conduct the main study. The data collection was done from 20.06.2022 to 17.07.2022. The researcher first introduced herself and had a general talk with all caregivers of children, to identify the adolescent who fill the inclusion criteria and selected 30 samples by Non probability purposive sampling technique and explained the purpose of the study and got written consent from all the study participants’ caregivers of adolescent with HIV

The data collected from Monday to Saturday between 8 am to 4 pm. On the first week the qualitative data collected by unstructured interview schedule. The pre-test, knowledge and practice on menstrual hygiene was assessed among adolescent with HIV who were gathered in Pediatric centre excellence of ART , The computer assisted teaching was performed to all participants regarding menstrual hygiene .On the 7 thday the post test was conducted from the same subjects using same tool knowledge and practice on menstrual hygiene management programme .The effectiveness of Nurse initiated menstrual hygiene management programme was assessed in qualitative aspect also.The knowledge and practice among participants was assessed both subjectively and objectively at Pediatric centre for Excellance ART ICH&HC, Chennai -08.

**DATA ANAYSIS AND INTERPRETATION**

The analysis is a process of organizing and synthesizing the data in such a way that the research questions can be answered and the hypotheses are tested.

The most crucial stage of the research process is data analysis and interpretation, which includes calculating certain metrics and looking for patterns of relationships between data sets. In order to evaluate the menstrual hygiene management program, the data obtained from 30 adolescent girls with HIV in the Pediatric Center of Excellance ART, Institute of Child Health, and Hospital for Children, Egmore were analyzed and interpreted in this chapter.The information was tallied, arranged, and analyzed in accordance with the goals. Data analysis starts with a description that is relevant to the inquiry and uses some concepts and numerical data.The investigator can organize the data and assess the amount of information using descriptive statistics, while inferential statistics is used to determine the

**Organization of the data**

Data collected were organized under the following sections.

**Section-A**: Distribution of demographic variables of the study participants.

**Section-B**: Assessment of pre-test percentage of knowledge and practice on menstrual hygiene management among adolescent with HIV

**Section-C**: Assessment of post-test percentage of knowledge and practice on menstrual hygiene management among adolescent with HIV

**Section-D:** Comparison of domain wise mean score between pre-testand post-test level of menstrual hygiene management

**Section-E:** Effectiveness of nurse initiated menstrual hygiene management program.

**Section-F:**  Association between the post test level of impact on nurse initiated

 menstrual hygiene management program among adolescent HIV clients

 with their selected bio socio demographic variables

**STATISTICAL ANALYSIS**

* Demographic variables in categories were given in frequencies with their percentages.
* knowledge score and practice score were given in mean and standard deviation.
* Association between demographic variables and knowledge score / practice score were analysed using pearson chi-square test
* Quantitative knowledge score/ practice score in pretest and posttest were compared using student’s paired t-test.
* Correlation between knowledge and practice score were analyzed using pearson correlation coefficient.
* Qualitative level of knowledge/ practice score in pretest and posttest were compared using Stuart-Maxwell test /extended McNemar test
* Association between posttest knowledge score/ practice score with demographic variables are assessed using chi square test
* Simple bar diagram, Multiple bar diagram, Pie diagram , simple bar with 2 standard error bar diagram were used to represent the data . ≤0.05 was considered statistically significant. All statistical test are two tailed test. Statistical analysis was carried out using the Statistical Package for Social Sciences (SPSS, version 22) statistical software’s.

**“AN EXPLORATORY STUDY TO ASSESS THE IMPACT OF NURSE INITIATED MENSTRUAL HYGIENE MANAGEMENT PROGRAM ON MENSTRUAL AWARENESS AMONG ADOLESCENT HIVCLIENTS AND THEIR EXPERIENCES ON MENSTRUATION AT A TERTIARY CARE HOSPITAL CHENNAI’’ – A MIXED ANALYSIS.**

* explore the experiences of the menstrual awareness among Adolescent HIV Clients
* assess the pre-test level of menstrual awareness among Adolescent HIV Clients.
* assess the impact of Nurse Initiated Menstrual Hygiene management program on

menstrual awareness among Adolescent HIV Clients.

* compare the pre-test and post-test level of menstrual awareness among Adolescent HIV Clients .
* associate the post test level of menstrual awareness among Adolescent HIV Clients with their selected bio socio demographic variables.
* combine the findings of qualitative and quantitative data

**ANALYSIS AND INTERPRETATION**

**QUALITATIVE**

This chapter deals with the classification and analysis of data collected from the group of participants who are early adolescent with HIV .

 The data collection period was between . all interview were conducted within this time frame.

**4.1 INTERPRETATION AND ANALYSIS**

 The process of analysis and justification of theme development has been described. The specific process of how the findings were organized and interpreted is now described.

**INTRODUCTION TO THE THEME**

 The overall aim of the qualitative study is to explore the experience on menstruation

 among early adolescent with HIV

The major themes involved in the study is :

1. The experience of menarche and a resenting emotion
2. The experience of living with periods
	1. Physical experiences during menstruation
	2. Emotional experiences during menstruation
	3. Superstitions related to menstruation
	4. Missing school during menstruation
3. Impact of intervention

3.1. No prior knowledge

 3.2. New learnings

 3.3. Use of multimedia

3.4. Positive change in behavior

**RESPONDENT 1:**

**The experience of menarche and a resenting emotion**

 *“It was bit difficult. Then I adjusted it.”*

 The participants expressed a negative emotion when they got their first period.

 Some associated the feeling with physical pain while others mentioned it was

 an overall difficult experience which they had not signed up for.

 **Physical experiences during menstruation**

Tiredness was consistently given as a physical challenge that participants had to

 go .Through during their periods which in some cases kept the participants from

 going through their daily activities.

**Emotional experiences during menstruation**

While participant expressed they did not feel any form of emotion during their

 periods, others expressed distress emotions including anger and nervousness.

 **Missing school during menstruation**

Most of the participants did not feel that the periods caused a hurdle towards

 attending school. However one participant said that she skipped school when

 she had backache and another said she skipped school because she did not

 have proper facilities at school hence she skipped during periods.

**RESPONDENT 2:**

**Physical experiences during menstruation**

*“I have viscous kind of feel but I don’t get stomach pain.”-*

 The participant had feeling with physical pain while others mentioned it was an overall difficult experience.

**Superstitions related to menstruation**

*“Yes, they have told. I felt even Goddess is a female, then she might have also gone through it, we are also female like her, why shouldn’t I go near the God?”*

The participant verbalized participants expressed how they are forbidden from going near the sacred area where God is worshipped

**RESPONDENT 3:**

**Superstitions related to menstruation**

*“only on the first day they had told me that, that’s it. They said don’t come out, negative energies might affect, like spirits might enter the body.”*

The participant expressed that she is not allowed to go to temple on first day of menstruation.

**RESPONDENT 4:**

**IMPACT OF INTERVENTION**

**No prior knowledge :**

*“I did not know about it earlier. No one at home had also ever told me anything about menses but you told about many things.”-*

Participants admitted that whatever was taught during the couselling were new to them and they had no knowledge before it. One participant mentioned how these cautions were not even given from her own family.

**New learnings :**

*“I used to be the same way on all days but you taught me how I have to be, what I have to eat. I came to know about all that only after you told me. I came to know that I have to take head bath, maintain cleanliness and hygiene only after you told me. So it was very useful to me.”*

Hygiene was one major new learning that the participants had during the counselling from the researcher. Periodic change of sanitary napkins and cleanlines was emphasised on to be helpful learnings.

**Positive change in behavior :**

*“I got to know only after you told me about it. Before this I used to use cloth but only after you explained I came to know there is so much in the pad. Hereafter I will use it as you said.”-*

All participants were thankful for the counselling. They were optimistic about using it during the time of their future periods and also share it among their peers.

**RESPONDENT 5:**

**Use of multimedia**

*“When you were explaining, rather than explaining just through words, you showed it like a video to me, so I could understand it even more better”-*

Participants highlighted the use of videos and photos to be helpful in understanding the concepts better.

**Positive change in behavior**

*“hereafter I would be even more careful and change the pad correctly on time and whatever do and don’ts during the menses time are there, you have told me about all that, how to follow all that, it was all very useful. I will try the way you have told me. I will also teach this to my friends as well.”*

* **OBJECTIVE 2:ASSESS THE PRE-TEST LEVEL OF MENSTRUAL AWARENESS AMONG ADOLESCENT HIV CLIENTS.**

**Table 4.2 :**Each statement wise pre-test percentage of knowledge score on Menstrual Hygiene management program among Adolescent HIV Clients.

|  |  |  |
| --- | --- | --- |
| sno | statements | Pretest Knowledge score |
| Correct response | Not correct response |
| n | % | n | % |
| 1 | Age at menarch( years) | 30 | 100.00% | 0 | 0.00% |
| 2 | Menstrual cycle pattern | 30 | 100.00% | 0 | 0.00% |
| 3 | Menstrual flow according to you | 30 | 100.00% | 0 | 0.00% |
| 4 | Have you heard about menstruation before attaining menarche? | 30 | 100.00% | 0 | 0.00% |
| 5 | What was the source of information before menarche? | 30 | 100.00% | 0 | 0.00% |
| 6 | What is the cause for menstrual bleeding? | 4 | 13.33% | 26 | 86.67% |
| 7 | What sanitary material should be ideally used during menstruation? | 5 | 16.67% | 25 | 83.33% |
| 8 | How frequently should you change the sanitary pad per day ? | 5 | 16.67% | 25 | 83.33% |
| 9 | How should the sanitary pad be safely disposed? | 7 | 23.33% | 23 | 76.67% |
| 10 | Do you change your undergarments daily? | 13 | 43.33% | 17 | 56.67% |

The table 4.2 depicts pretest percentage of knowledge score onMenstrual Hygiene management program among Adolescent HIV Clients. Maximum knowledge score 100% for the questions Age at menarch ( years), Menstrual cycle pattern, Menstrual flow according to you, Have you heard about menstruation before attaining menarche? And they had minimum score for cause for menstrual bleeding(13.33%)

|  |  |  |
| --- | --- | --- |
|  sno | statements | Pretest Practice score |
| Correct response | Not correct response |
| n | % | n | % |
| 1 | What sanitary material are you using during menstruation? | 6 | 20.00% | 24 | 80.00% |
| 2 | Where do you procure sanitary pads? | 30 | 100.00% | 0 | 0.00% |
| 3 | How often do you change the sanitary pads ? | 8 | 26.67% | 22 | 73.33% |
| 4 | Where do you dry your innergarments after washing? | 9 | 30.00% | 21 | 70.00% |
| 5 | Do you have toilet facility at home? | 30 | 100.00% | 0 | 0.00% |
| 6 | Do you clean your external gentalia during menstruation ? | 16 | 53.33% | 14 | 46.67% |
| 7 | How do you clean your external genetalia? | 4 | 13.33% | 26 | 86.67% |
| 8 | When do you clean your external genetalia during menstruation ? | 18 | 60.00% | 12 | 40.00% |
| 9 | Do you follow hand hygiene ? | 15 | 50.00% | 15 | 50.00% |
| 10 | Do you change your undergarments daily during menstruation ? | 9 | 30.00% | 21 | 70.00% |

Above table depicts the pretest percentage of practice score on Menstrual Hygiene management .Most of the adolescents had maximum practice score 100% for procuring sanitary pads. (13.33%) of adolescents clean their external genetalia

* **OBJECTIVE 3:ASSESS THE IMPACT OF NURSE INITIATED MENSTRUAL HYGIENE MANAGEMENT PROGRAM ON MENSTRUAL AWARENESS AMONG ADOLESCENT HIV CLIENTS.**

**.Table 4.6:**Each statement wise post-test percentage of knowledge score on Menstrual Hygiene management program among Adolescent HIV Clients.

|  |  |  |
| --- | --- | --- |
| sno | statements | Pretest Knowledge score |
| Correct response | Not correct response |
| n | % | n | % |
| 1 | Age at menarch( years) | 30 | 100.00% | 0 | 0.00% |
| 2 | Menstrual cycle pattern | 30 | 100.00% | 0 | 0.00% |
| 3 | Menstrual flow according to you | 30 | 100.00% | 0 | 0.00% |
| 4 | Have you heard about menstruation before attaining menarche? | 30 | 100.00% | 0 | 0.00% |
| 5 | What was the source of information before menarche? | 30 | 100.00% | 0 | 0.00% |
| 6 | What is the cause for menstrual bleeding? | 26 | 86.67% | 4 | 13.33% |
| 7 | What sanitary material should be ideally used during menstruation? | 23 | 76.67% | 7 | 23.33% |
| 8 | How frequently should you change the sanitary pad per day ? | 26 | 86.67% | 4 | 13.33% |
| 9 | How should the sanitary pad be safely disposed? | 24 | 80.00% | 6 | 20.00% |
| 10 | Do you change your undergarments daily? | 21 | 70.00% | 9 | 30.00% |

Above table shows the posttest percentage of knowledge score on Menstrual Hygiene management program among Adolescent HIV Clients. (100%)had maximum knowledge score Age at menarch( years), Menstrual cycle pattern, Menstrual flow according to you, knowledge before attaining menarche .(70.00%) of them change their undergarments daily .

**Table 4.8:**Each statement wise post-test percentage of practicescore on Menstrual Hygiene management program among Adolescent HIV Clients.

|  |  |  |
| --- | --- | --- |
| sno | statements | Pretest Practice score |
| Correct response | Not correct response |
| n | % | n | % |
| 1 | What sanitary material are you using during menstruation? | 21 | 70.00% | 9 | 30.00% |
| 2 | Where do you procure sanitary pads? | 30 | 100.00% | 0 | 0.00% |
| 3 | How often do you change the sanitary pads ? | 23 | 76.67% | 7 | 23.33% |
| 4 | Where do you dry your innergarments after washing? | 20 | 66.67% | 10 | 33.33% |
| 5 | Do you have toilet facility at home? | 30 | 100.00% | 0 | 0.00% |
| 6 | Do you clean your external gentalia during menstruation ? | 19 | 63.33% | 11 | 36.67% |
| 7 | How do you clean your external genetalia? | 25 | 83.33% | 5 | 16.67% |
| 8 | When do you clean your external genetalia during menstruation ? | 24 | 80.00% | 6 | 20.00% |
| 9 | Do you follow hand hygiene ? | 20 | 66.67% | 10 | 33.33% |
| 10 | Do you change your undergarments daily during menstruation ? | 29 | 96.67% | 1 | 3.33% |

Above table shows the pretest percentage of practice score on Menstrual Hygiene management program among Adolescent HIV Clients. (100%) had toilet facility at home and procure sanitary pads. (63.33%) of adolescents clean their external genentalia.

 **Table 4.9: POSTTEST LEVEL OF PRACTICESCORE**

|  |  |  |
| --- | --- | --- |
| Level of practice | No. of *adolescents* | **%**  |
| Poorpractice | 0 | 0.00% |
| Moderate practice | 9 | 30.00% |
| Goodpractice | 21 | 70.00% |
|  Total | 30 | 100.0% |

Table No 4.9 depicts the level of practice score on score on Menstrual Hygiene management program among Adolescent HIV Clients. In general none of adolescents are having poor practice score, 30.00% of them having moderate practice score and 70% of them are having good practice.

**OBJECTIVE 4: COMPARE THE PRE-TEST AND POST-TEST LEVEL OF MENSTRUAL AWARENESS AMONG ADOLESCENT HIV CLIENTS**

**Table4.10:** Each statement wise pre-test and post-test percentage of knowledge score on Menstrual Hygiene management program among Adolescent HIV Clients.

|  |  |  |
| --- | --- | --- |
| sno | statements | Knowledge score |
| Pretest | Posttest |
| n | % | n | % |
| 1 | Age at menarch( years) | 30 | 100.00% | 30 | 100.00% |
| 2 | Menstrual cycle pattern | 30 | 100.00% | 30 | 100.00% |
| 3 | Menstrual flow according to you | 30 | 100.00% | 30 | 100.00% |
| 4 | Have you heard about menstruation before attaining menarche? | 30 | 100.00% | 30 | 100.00% |
| 5 | What was the source of information before menarche? | 30 | 100.00% | 30 | 100.00% |
| 6 | What is the cause for menstrual bleeding? | 4 | 13.33% | 26 | 86.67% |
| 7 | What sanitary material should be ideally used during menstruation? | 5 | 16.67% | 23 | 76.67% |
| 8 | How frequently should you change the sanitary pad per day ? | 5 | 16.67% | 26 | 86.67% |
| 9 | How should the sanitary pad be safely disposed? | 7 | 23.33% | 24 | 80.00% |
| 10 | Do you change your undergarments daily? | 13 | 43.33% | 21 | 70.00% |

Above table shows the pretest and posttest percentage of knowledge score on Menstrual Hygiene management program among Adolescent HIV Clients.They had maximum knowledge score 100% for the questions Age at menarch( years), Menstrual cycle pattern , Menstrual flow according to you, knowledge about menstruation before attaining menarche ,(13.33%) of adolescents knew the cause for bleeding.

**Table 4.11:**Each statement wise percentage of knowledge gain score on Menstrual Hygiene management program among Adolescent HIV Clients

|  |  |  |
| --- | --- | --- |
| sno | statements | Knowledge gain score |
| Pretest | Posttest | % of gain score |
| 1 | Age at menarch( years) | 100.00% | 100.00% | 0.00% |
| 2 | Menstrual cycle pattern | 100.00% | 100.00% | 0.00% |
| 3 | Menstrual flow according to you | 100.00% | 100.00% | 0.00% |
| 4 | Have you heard about menstruation before attaining menarche? | 100.00% | 100.00% | 0.00% |
| 5 | What was the source of information before menarche? | 100.00% | 100.00% | 0.00% |
| 6 | What is the cause for menstrual bleeding? | 13.33% | 86.67% | 73.34% |
| 7 | What sanitary material should be ideally used during menstruation? | 16.67% | 76.67% | 60.00% |
| 8 | How frequently should you change the sanitary pad per day ? | 16.67% | 86.67% | 70.00% |
| 9 | How should the sanitary pad be safely disposed? | 23.33% | 80.00% | 56.67% |
| 10 | Do you change your undergarments daily? | 43.33% | 70.00% | 26.67% |

Above table shows the each questionwise percentage of knowledge gain score on Menstrual Hygiene management program among Adolescent HIV Clients. 73.34% of adolescents knew the cause for menstrual bleeding. 26.67% change their garments daily

**Table 4.12: COMPARISON OF OVERALL KNOWLEDGE AND PRACTICE SCORE BEFORE AND AFTER NURSE INITIATED MENSTRUAL HYGIENE MANAGEMENT PROGRAM**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | No. of *adolescents* | PretestMean±SD | PosttestMean±SD | Mean difference Mean±SD | Student’s paired t-test |
| Knowledge Score | 30 | 6.13 ± 0.90 | 9.00 ± 1.02 | 2.87 ± 1.07 | t=14.62 P=0.001\*\*\* DF = 29, significant |
| Practice Score | 30 | 4.83 ± 1.37 | 8.00 ± 1.02 | 3.17 ± 1.15 | t=8.90 P=0.001\*\*\* DF = 29, significant |

\*\*\* very high significant at P≤0.001

Table no 5.2 shows the comparison of overall knowledge score before and after the administration of nurse initiated menstrual hygiene management program.

Considering knowledge score, On an average, adolescents improved their knowledge score from 6.13to 9.00 after the administration of intervention. In contrast during pretest they were able to answer only 6 questions before administration of intervention, they were able to answer upto 9 questions. Due to nurse initiated menstrual hygiene management program they were able to answer 3 more questions correctly. This difference is statistically significant. Statistical significance was calculated by using student’s paired ‘t’test.

In light of the practice score, After receiving the intervention, teenagers' practice scores increased on average from 4.83 to 8.00. Or we may state that during the pretest, only 5 questions could be answered before administration intervention, but they could respond up to 8. The nurse-initiated menstrual hygiene management program allowed them to accurately respond to three additional questions. There is a statistically significant difference here. The student's paired 't' test was used to determine statistical significance.



*Fig 4.55: Simple bar with 2 standard error bar diagram compares the pretest and posttest adolescents knowledge score*

**Table 4.13:COMPARISON OF PRETEST AND POSTTEST LEVEL OF KNOWLEDGE&PRACTICE SCORE**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Level**  | Pretest | Posttest | Extended McNemar’s test |
| n | % | n | % |
| Knowledge | Inadequate knowledge | 10 | 33.33% | 0 | 0.00% | **χ2=20.21 P=0.001\*\*\*(S)** |
| Moderate knowledge | 17 | 56.67% | 8 | 26.67% |
| Adequate knowledge | 3 | 10.00% | 22 | 73.33% |
|  Total | 30 | 100.00% |  30 | 100.00% |
| Practice | Poor practice | 19 | 63.33% | 0 | 0.00% | **χ2=22.72 P=0.001\*\*\*(S)** |
| Moderate practice | 11 | 36.67% | 9 | 30.00% |
| Good practice | 0 | 0.00% | 21 | 70.00% |
|  Total | 30 | 100.0% |  30 | 100.00% |

\*\*\*very high significant at p≤0.001 level

*Table no.5.3 shows the pretest and post-test level of knowledge/practice score among* Adolescent HIV Clients.

*Considering knowledge score,*

Before intervention, 33.33% of the adolescents are having inadequate knowledge score, 56.67% of them having moderate knowledge score and 10% of them are having adequate knowledge.

After intervention, none of the adolescents are having inadequate knowledge score, 26.67% of them having moderate knowledge score and 73.33% of them are having adequate knowledge.

Considering practice score,

Before intervention, 46.67% of them are having Not at all Satisfied score, 53.33% of them are having Partly Satisfiedscore, none of them are having Satisfiedscore and none of them having very Satisfied score.

After intervention, none of them are having Not at all Satisfied score, none of them are having Partly Satisfied score, 20% of them are having Satisfied score and 80% of them having very Satisfied score.

Level of knowledge, practice gain score between pretest and posttest was calculated using Extended McNemar’s chi-square test.

***Fig 4.55: Percentage wise distribution of comparison of pretest and post-test level of knowledge score***

***Fig 4.56: Percentage wise distribution of comparison of pretest and post-test level of practice score***

**TABLE 4.14: CORRELATION BETWEEN KNOWLEDGE GAIN SCORE AND PRACTICE GAIN SCORE**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Correlation between | Mean gain score± SD | Karl pearson correlation coefficient | interpretation |
| Knowledge gain Vs practice gain | knowledge | 2.87 ± 1.07 | r=0.45 p=0.001\*\*\* significant  | There is a significant, positive moderate correlation between knowledge gainscore and practice gain score. It means knowledge gain score increases their practice gain score also increases moderately. |
| Practice | 3.17 ±1.15 |

\*\*\* very high significant at P≤0.001

Interpretation for r-value

Pearson correlation coefficient is denoted by “r”

“r” always lies between -1 to +1

0.0 – 0.2 poor correlation

0.2 - 0.4 fair correlation

0.4 - 0.6 moderate correlation

0.6 – 0.8 substantial correlation

0.8 - 1.0 strong correlation

**Table 4.15: EFFECTIVENESS OF NURSE INITIATED MENSTRUAL HYGIENE MANAGEMENT PROGRAM**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  | Max score | Mean score | % of mean score | Mean Difference of gain score with 95% Confidence interval | Percentage Difference of gain score with 95% Confidence interval |
| Knowledge | Pretest | 10 | 6.13 | 61.30% | 2.87(2.47 – 3.27) | 28.70%(24.70% –32.70%) |
| Posttest | 10 | 9.00 | 90.00% |
| Practice | Pretest | 10 | 4.83 | 48.30% | 3.17(2.44 – 3.89) | 31.70%(24.40% –38.90%) |
| Posttest | 10 | 8.00 | 80.00% |

Table no 4.15 shows the effect of nurse initiated menstrual hygiene management program on menstrual hygiene awareness among adolescent HIV clients and their experiences at a tertiary care hospital chennai.

Considering knowledge gain score, On an average, in posttest after having nurse initiated menstrual hygiene management program, adolescents gained 28.70% more knowledge score than pretest score.

Considering practice gain score, On an average, in posttest after having nurse initiated menstrual hygiene management program, adolescents are gained 31.70% more practice score than pretest score.

Differences and generalization of knowledge /practice gain score between pretest and posttest score was calculated using and mean difference with 95% CI and proportion with 95% CI.

**OBJECTIVE 5: ASSOCIATE THE POST TEST LEVEL OF MENSTRUAL AWARENESS AMONG ADOLESCENT HIV CLIENTS WITH THEIR SELECTED BIO SOCIO DEMOGRAPHIC VARIABLES**

**Table 4.16: ASSOCIATION BETWEEN POSTTEST LEVEL OF KNOWLEDGE SCORE AND ADOLESCENTS’DEMOGRAPHIC VARIABLES**

|  |  |  |  |
| --- | --- | --- | --- |
| **Demographic variables** | Posttest level of knowledge score | n | Chi square test |
| Moderate | Adequate |
| n | % | n | % |
| Age in years | 10-13yrs | 3 | 14.29% | 18 | 85.71% | 21 | **χ2=5.49P=0.02\* (S)** |
| 14-15 yrs | 5 | 55.56% | 4 | 44.44% | 9 |
| Presence of caregiver | Mother | 3 | 23.08% | 10 | 76.92% | 13 | χ2=0.15P=0.70 (NS) |
| Father/others | 5 | 29.41% | 12 | 70.59% | 17 |
| Education of the father | Informal education | 4 | 40.00% | 6 | 60.00% | 10 | χ2=1.36P=0.24 (NS) |
| Primary& above | 4 | 20.00% | 16 | 80.00% | 20 |
| Education of the mother | Informal education | 3 | 21.43% | 11 | 78.57% | 14 | χ2=0.36P=0.54 (NS) |
| Primary& above | 5 | 31.25% | 11 | 68.75% | 16 |
| Occupation of the father | Unskilled Worker/ | 5 | 22.73% | 17 | 77.27% | 22 | χ2=0.65P=0.42 (NS) |
| Semiskilled Worker | 3 | 37.50% | 5 | 62.50% | 8 |
| Occupation of the mother | Home maker | 5 | 27.78% | 13 | 72.22% | 18 | χ2=0.02P=0.89 (NS) |
| Others | 3 | 25.00% | 9 | 75.00% | 12 |
| Monthly family income | <Rs.5000 | 3 | 16.67% | 15 | 83.33% | 18 | χ2=2.30P=0.12 (NS) |
| Rs 5000- Rs.10000 | 5 | 41.67% | 7 | 58.33% | 12 |
| Religion | Hindu | 6 | 35.29% | 11 | 64.71% | 17 | χ2=1.49P=0.22 (NS) |
| Muslim/Christian | 2 | 15.38% | 11 | 84.62% | 13 |
| Residential place of parents | Urban/Sub Urban | 3 | 13.64% | 19 | 86.36% | 22 | **χ2=7.16P=0.01\*\* (S)** |
| Rural | 5 | 62.50% | 3 | 37.50% | 8 |
| Type of family | Nuclear/broken family | 3 | 23.08% | 10 | 76.92% | 13 | χ2=0.15P=0.70 (NS) |
| Joint family/extended | 5 | 29.41% | 12 | 70.59% | 17 |

\*\*very high significant at p≤0.01 levelP>0.05 not significant

Table no 4.16 shows the association between pretest level of knowledge score and adolescents demographic variables14-15 years, and urban area adolescents are having more adequate level of practice score than other. Statistical significance was calculated using chi square test.

**Table 4.17: ASSOCIATION BETWEEN POSTTEST LEVEL OF PRACTICE SCORE AND ADOLESCENTS’ DEMOGRAPHIC VARIABLES**

|  |  |  |  |
| --- | --- | --- | --- |
| **Demographic variables** | Posttest level of practice score | n | Chi square test |
| Moderate | Good |
| n | % | n | % |
| Age in years | 10-13yrs | 9 | 42.86% | 12 | 57.14% | 21 | **χ2=8.21P=0.01\*\* (S)** |
| 14-15 yrs | 0 | 0.00% | 9 | 100.00% | 9 |
| Presence of caregiver | Mother | 5 | 38.46% | 8 | 61.54% | 13 | χ2=0.78P=0.38 (NS) |
| Father/0thers | 4 | 23.53% | 13 | 76.47% | 17 |
| Education of the father | Informal education | 2 | 20.00% | 8 | 80.00% | 10 | χ2=0.71P=0.39 (NS) |
| Primary& above | 7 | 35.00% | 13 | 65.00% | 20 |
| Education of the mother | Informal education | 3 | 21.43% | 11 | 78.57% | 14 | χ2=0.91P=0.33 (NS) |
| Primary& above | 6 | 37.50% | 10 | 62.50% | 16 |
| Occupation of the father | Unskilled Worker | 7 | 31.82% | 15 | 68.18% | 22 | χ2=0.13P=0.72 (NS) |
| Semiskilled Worker | 2 | 25.00% | 6 | 75.00% | 8 |
| Occupation of the mother | Home maker | 4 | 22.22% | 14 | 77.78% | 18 | χ2=1.30P=0.25 (NS) |
| Others | 5 | 41.67% | 7 | 58.33% | 12 |
| Monthly family income | <Rs.5000 | 5 | 27.78% | 13 | 72.22% | 18 | χ2=0.11P=0.74 (NS) |
| Rs 5000- Rs.10000 | 4 | 33.33% | 8 | 66.67% | 12 |
| Religion: | Hindu | 6 | 35.29% | 11 | 64.71% | 17 | χ2=0.52P=0.47 (NS) |
| Christian/Muslim | 3 | 23.08% | 10 | 76.92% | 13 |
| Residential place of parents | Urban/Sub Urban | 7 | 31.82% | 15 | 68.18% | 22 | **χ2=5.49P=0.02\* (S)** |
| Rural | 2 | 25.00% | 6 | 75.00% | 8 |
| Type of family | Nuclear/broken family | 3 | 23.08% | 10 | 76.92% | 13 | χ2=0.52P=0.47 (NS) |
| Joint family/extended | 6 | 35.29% | 11 | 64.71% | 17 |

Table no 4.17 shows the association between posttest level of practice score and adolescents demographic variables. 14-15 years, and urban area adolescents had more adequate level of practice score than other. Statistical significance was calculated using chi square te

**CHAPTER V**

**DISCUSSION**

The chapter discusses the study's findings in light of a suitable literature evaluation, statistical analysis, and study objectives. The current study's objective is to evaluate the nurse-initiated program for managing menstrual hygiene among adolescents with HIV. in in Pediatric centre of Excellence ART , Institute of Child Health and Hospital for Children, Egmore. A total of 30 samples were selected for the study by using convenient sampling technique and among which 5 samples were collected for qualitative data using purposive sampling technique and 30 samples were selected for quantitative data. The investigator explained the study to the participants and assessed the knowledge and practice on menstrual hygiene .The data was analyzed using descriptive statistics (distribution, mean, standard deviation) and inferential statistics (chi-square test ). The collected data were computerized and analyzed using SPSS version 2.5. The discussion of the present study is based on the findings obtained from the statistical analysis of assessment based on the objectives of the study.

**FINDINGS BASED ON SOCIODEMOGRAPHIC VARIABLES**

* 36.67% adolescent girls were in the age group of 12-13 years
* 43.33% caregivers accompanied adolescent girls with HIV
* 33.33% fathers completed their informal education
* 46.67% mothers completed their informal education
* 73.33% fathers were unskilled worker
* 60.0% mothers were homemaker
* 60.0% family income were less than Rs.5000
* 56.67% were hindus
* 50.0% were residing in suburban
* 30.0% were in living in joint family

## STATEMENT OF THE PROBLEM

“An exploratory study to assess the impact of nurse initiated menstrual hygiene management program on menstrual awareness among adolescent HIV clients and their experiences on menstruation at a tertiary care hospital ,Chennai’’ – A Mixed analysis

## OBJECTIVES

* explore the experiences of the menstrual awareness among Adolescent HIV Clients
* assess the pre-test level of menstrual awareness among Adolescent HIV Clients.
* assess the impact of Nurse Initiated Menstrual Hygiene management program on menstrual awareness among Adolescent HIV Clients.
* compare the pre-test and post-test level of menstrual awareness among Adolescent HIV Clients .
* associate the post test level of menstrual awareness among Adolescent HIV Clients with their selected socio demographic variables.
* combine the findings of qualitative and quantitative data

## FINDINGS BASED ON OBJECTIVES

* **OBJECTIVE 1: EXPLORE THE EXPERIENCES OF THE MENSTRUAL AWARENESS AMONG ADOLESCENT HIV CLIENTS**

The participants expressed a negative emotion when they got their first period(menstruation). Some associated the feeling with physical pain while others mentioned it was an overall difficult experience which they had not signed up for.

The present study was based on the theme of

* The experience of menarche and a resenting emotion
* The experience of living with periods
* Physical experiences during menstruation
* Emotional experiences during menstruation
* Superstitions related to menstruation
* Missing school during menstruation
* Impact of intervention
* 3.1. No prior knowledge
* 3.2. New learnings
* 3.3. Use of multimedia
* 3.4. Positive change in behavior

Tiredness was consistently given as a physical challenge that participants had to go through during their periods which in some cases kept the participants from going through their daily activities

Most of the participants did not feel that the periods caused a hurdle towards attending school. However one participant said that she skipped school when she had backache and another said she skipped school because she did not have proper facilities at school hence she skipped during periods.

Almost all participants admitted that whatever was taught during the counselling were new to them and they had no knowledge before it. One participant mentioned how these cautions were not even given from her own family

Hygeine was one major new learning that the participants had during the counselling from the researcher. Periodic change of sanitary napkins and cleanlines was emphasised on to be helpful learnings.

The findings of the study is consistent with the study conducted by***Molly secor turner (2020)***

The research identified four key themes: (1) understanding menstruation, (2) experiencing menstruation, (3) managing menstruation, and (4) societal norms and the significance of menstruation.Participants talked about how little they understood about menstruation and how they felt uncertain about using period hygiene items. Lack of proper access to menstrual hygiene products, a lack of time to change products, anxiety over losing menstrual blood, and effects on school attendance were among the difficulties faced at school.To conclude the adolescent expressed negative emotion towards menstruation and physical pain in doing their daily activities.The adolescents with HIV verbalized menstruation caused hurdle towards attending school due to improper facilities in school.

* **OBJECTIVE 2: ASSESS THE PRE-TEST LEVEL OF MENSTRUAL AWARENESS AMONG ADOLESCENT HIV CLIENTS.**

The present study illustrated the level of pre-test level of knowledge and practices of menstrual hygiene among adolescent HIV clients before the administration of nurse initiated menstrual hygiene management program .

In the pre-test 33.33% of adolescents were having inadequate knowledge score,56.67% of them having moderate knowledge score and 10% of them were having adequate knowledge and 63.33% of adolescents were having poor practice score, 36.67% of them having moderate practice score and none of them are having adequate practice.

The findings of the present study are consistent with a a study conducted by ***J Parle et al (2019)*** performed a cross-sectional study on knowledge,attitude,practice and perception about menstruation and menstrual hygiene , among 600 adolescent school girls in rural areas of Raigat district and the study revealed that more than half 53.3% and 52.8% of the respondent had poor knowledge and poor practice on menstruation and menstrual hygiene respectively. Despite of poor knowledge majority of respondent 55.2% heard about menstruation before attaining menarche. Factors that were significantly associated with  knowledge of menstruation and menstrual hygiene were adolescent age (?2=267.294, p=0.00), mother’s education (?2=77.331, p=0.00) and practice on menstruation (?2=111.745, p=0.00).and investigator concluded that Health education strategies and awareness programon menstruation and menstrual hygiene should be framed to promote better health of adolescent girl.

From the above ,it is revealed that majority of adolescent girls lack knowledge and practices on menstrual hygiene .

**OBJECTIVE 3: ASSESS THE IMPACT OF NURSE INITIATED MENSTRUAL HYGIENE MANAGEMENT PROGRAM ON MENSTRUAL AWARENESS AMONG ADOLESCENT HIV CLIENTS.**

The present study illustrated the post test level of knowledge and practices on menstrual hygiene management program among adolescent HIV clients.

In the posttest level of knowledge score on Menstrual Hygiene management program among Adolescent HIV Clients in general none of the adolescents were having inadequate knowledge score, 26.67% of them were having moderate knowledge score and 73.33% of them were having adequate knowledge.

The findings of the present study is compared with the study conducted by the **Ishwarya Santhanakrishnan et al (2018)** evaluated the Menstrual awareness and practices among teenage schoolgirls have improved as a result of health education. The interventional study took place in PSG Public Schools in Coimbatore from June to September of 2016. Self-administered questionnaires were used to gather the baseline data. Health education on menstrual hygiene was provided using PowerPoint and video presentations for a total of one hour, one week following the baseline evaluation. The same self-administered survey was used to obtain follow-up data three months later. The girls' understanding of the reason for menstruation improved (by 91%). At the follow-up, there was a noticeably higher frequency (86%) of changing pads. Compared to the baseline, a higher percentage of girls (82%) dried their underwear in the sun. After changing the diaper, over 74% of the girls cleaned their hands with soap.From the above ,it is clearly stated that Nurse Initiated Menstrual Hygiene Management Program was effective and had difference in knowledge and practice level in pretest and post test on menstrual hygiene among study participants

**OBJECTIVE 4 COMPARE THE PRE-TEST AND POST-TEST LEVEL OF MENSTRUAL AWARENESS AMONG ADOLESCENT HIV CLIENTS .**

The present study illustrated the comparison between the pretest and post test level of knowledge and practices on menstrual hygiene management program among adolescent HIV clients

The study revealed that Considering knowledge score, On an average, adolescents are improved their knowledge score from 6.13to 9.00 after the administration of intervention. Or we can say , in pretest they are able to answer only 6questions before administration intervention, they are able to answer upto 9 questions. Due to nurse initiated menstrual hygiene management program they are able to answer 3 more questions correctly. This difference is statistically significant. Statistical significance was calculated by using student’s paired ‘t’test.

Considering practice score, On an average, adolescents areimproved their practice score from 4.83 to 8.00 after the administration of intervention. Or we can say , in pretest they are able to answer only 5 questions before administration intervention, they are able to answer upto 8 questions. Due to nurse initiated menstrual hygiene management program they are able to answer 3 more questions correctly. This difference is statistically significant. Statistical significance was calculated by using student’s paired ‘t’test.

*Considering knowledge score,*

Before intervention, 33.33% of the adolescents had inadequate knowledge score, 56.67% of them having moderate knowledge score and 10% of them are having adequate knowledge.

After intervention, none of the adolescents had inadequate knowledge score, 26.67% of them having moderate knowledge score and 73.33% of them are having adequate knowledge.

Considering practice score,

Before intervention, 46.67% of them was Not at all Satisfied score, 53.33% of them are having Partly Satisfiedscore, none of them are having Satisfiedscore and none of them having very Satisfied score.

The above study indicated that the significant difference between pretest and posttest level of knowledge and practice on menstrual hygiene **. Hence the hypothesis (H1)**: stated earlier that there is significant difference between the pretest and post test level of knowledge and practice on Nurse Initiated Menstrual Hygiene Management Program among Adolescent HIV clients ,the H1 accepted

The findings of present study was supported by ***Abhishek Singh et al(2020)*** performed a cross-sectional study among 649 school girls during January to August 2019 using a convenience sampling technique. After collecting baseline information using a pretested, predesigned, standardized questionnaire, the participants in the control and intervention groups were exposed for the Didactic Lecturers and Focussed group discussions , respectively, and 1 month after such intervention, the same questionnaire was again self-administered by participants. All tests were performed at a 5% level of significance using SPSS (version 22.0).

There was a difference in the knowledge and practice mean score of participants in the control group for pre- and post intervention, which was highly statistically significant (P < 0.001).

To conclude the nurse initiated menstrual hygiene management program was effective factually.There was a significant difference in pretest and post test level of knowledge and practice on menstrual hygiene among adolescent HIV client .

**OBJECTIVE 5: ASSOCIATE THE POST TEST LEVEL OF MENSTRUAL AWARENESS AMONG ADOLESCENT HIV CLIENTS WITH THEIR SELECTED BIO SOCIO DEMOGRAPHIC VARIABLES.**

The current study report was association between the post test level of impact on nurse initiated menstrual hygiene management program among adolescent HIV clients with their selected socio demographic variables

The study revealed that the association between pretest level of knowledge score and adolescents demographic variables14-15 years, and urban area adolescents are having more adequate level of practice score than other. Statistical significance was calculated using chi square test.

In the current study report was association the level of knowledge on menstrual hygiene among adolescent HIV client and it is statistically significant with **χ2=20.21 P=0.001\*\*\*(S)** and practices is statistically significant with **χ2=22.72 P=0.001\*\*\*(S)**

The findings of the present study is correlated with the study conducted by ***Bikis Yaynie Shibeshi et al (2021)*** evaluated the Disparities in menstrual hygiene management between urban and rural school girls in Northeast ,Ethiopia, An institution-based comparative cross-sectional study was employed among 1078 schoolgirls (539 urban and 539 rural) from February to March 2020. The participants were selected using a multi-stage sampling technique. A structured self-administrative questionnaire and observational checklist were used for data collection. Bivariate and multivariable logistic regression analysis with a 95% confidence interval was employed. A P- value less than 0.05 was used to declare statistical significance.

 The overall menstrual hygiene practice was low, it was relatively better among urban schoolgirls. This calls for more effort to solve these problems and achieve sustainable development goals.

The above study indicated that the demographic variables influence the knowledge and practice on menstrual hygiene management program. **Hence the hypothesis (H2)** : stated earlier that “there is significant association between the selected socio demographic variable with their post test scores of nurse initiated menstrual hygiene management program among Adolescent HIV clients , the H2 is accepted (p<0.05) significant.

To conclude the ,there was a significant association between the post test level of knowledge and practice with socio demographic variable.

**OBJECTIVE 6: COMBINE THE FINDINGS OF QUALITATIVE AND QUANTITATIVE DATA**

In qualitative aspect during pretest the participants expressed negative emotion towards menstruation. Tiredness was consistently as a physical challenge that participants had to go through their daily activities .**Themes and subthemes evolved as, FIRST EXPERIENCE(**sub themes- A resenting emotion towards menarche experience, physical and emotional experience during menstruation, missing school during menstruation .In this adolescents expressed distress emotions including anger and nervousness and frustration which is also evidenced in pretest level of knowledge and practice among adolescent which was inadequate.

The current study’s qualitative findings were coincided with the ***Molly secor turner (2020).***The research identified four key themes: (1) understanding menstruation, (2) experiencing menstruation, (3) managing menstruation, and (4) societal norms and the significance of menstruation.Participants talked about how little they understood about menstruation and how they felt uncertain about using period hygiene items. Lack of proper access to menstrual hygiene products, a lack of time to change products, anxiety over losing menstrual blood, and effects on school attendance were among the difficulties faced at school. In post test aspect the effectiveness of Nurse Initiated Menstrual Hygiene Management Program was assessed ,the participants verbalized ***“Very useful to me”***

Themes evolved as **IMPACT OF INTERVENTION(** new learning ,positive change in behavior).In this adolescents expressed the use of photos were helpful in better

Nurse Initiated Menstrual Hygiene Management Program was very effective and also highlighted positive change in behavior which is evidenced by difference in pretest and post test level of knowledge and practice level among study participants.The post test level of knowledge and practice score was 73.33% and 70% respectively.Nurse Intiated Menstrual Hygiene Management Program improves the knowledge and practice .

The study was highly significant (p<0.001) .After administration of Nurse Initiated Menstrual Hygiene management Program ,the knowledge and practice on menstrual awareness was assessed both subjectively and objectively.Nurse intiated menstrual hygiene program was explained Qualitatively as well as Quantitatively in Holistic manner.

Quantitative findings were coincided with ***Zelalem Belaney, Birhanie Mekuriaw (2019).***He assessed the knowledge and menstrual hygiene practice among 791 randomly selected adolescent school girls in southern Ethiopia using multi stage sampling technique.The study revealed that 68.3%had poor knowledge of menstruation and 60.3% of girls had poor menstrual hygiene practice .Majority of adolescent school girls had poor knowledge regarding menstruation and their hygienic practices are incorrect. This demonstrates a need to design acceptable awareness creation and advocacy programs to improve the knowledge and promote safe hygienic practice of adolescent school girls during menstruation.

From the above discussion ,the study findings proved that the Nurse Initiated Menstrual hygiene management program was improved the knowledge and practice on menstrual hygiene among adolescent HIV clients, hence the nurse must concentrate on teaching menstrual hygiene practices among early adolescents and helps to solve the social stigma regarding menstruation.

The present study revealed that Impact of nurse initiated menstrual hygiene management program among adolescent HIV client found effective.

# CHAPTER –VISUMMARY, IMPLICATIONS, LIMITATIONS,RECOMMENDATIONS & CONCLUSION

This chapter is divided into two sections. In the first section summary and findings of the study are presented. In the second section Implication in various areas of Nursing Practices, Nursing Education, Nursing Administration, Nursing Research, Recommendation & conclusion of the study is presented

## 6.1 SUMMARY OF THE STUDY

The study was conducted to assess the the impact of nurse initiated menstrual hygiene management program on menstrual awareness among adolescent HIVclients and their experiences on menstruation at a tertiary care hospital Chennai’’ –Mixed analysis

A pre-experimental (one group pre-test and post-test design). The study period was 4 weeks (20/6/22)to (16/7/22). Purposive sampling technique was used for quantitative sample selection and convenient sampling for qualitative sample selection. The total samples of the study consist of 30 adolescent girls in Pediatric centre of excellence ART at ICH&HC, Egmore and Chennai-08. The data collected using a self-administered questionnaire for demographic variables, and semi structured questionnaire for assessing knowledge and practice . The reliability of the tool was assessed by using inter rater method and cronbach alpha method. The data analysis and interpretation were done by using descriptive and inferential statistics.

Chapter II deal with the review of literature with knowledge and practice on menstrual hygiene .

The conceptual frame work of the study was based on the Ludwig Von Bertalanffy(1950)

Chapter III deals with research approach ,design,settings of the study ,duration of the study population,and study sample ,sample size ,sampling criteria ,and sampling technique, research variables,development and description of tool, content validity, protection of human rights ,pilot studt,data collection procedure and data analysis.

Chapter IV deals with the data analysis and interpretation by statistically and by thematic analysis, pictorial representation also made.

The writer re-examines the scene to note detail and emotions, reflect on meaning ,examine ,reflect on meaning and examine what went well or expose a need for additional learning and relate what transpire to rest of life.

Subthemes were created by using a self structured tool and the interview was translated by transcribed verbatim ……Which is the qualitative worksheet according to the subtheme?

Then based on subtheme ,the theme was formulated and was discussed as a solution.

##  6.2. IMPLICATIONS OF THE STUDY

The following implications of vital concern in the field of Nursing Practice, Nursing Education, Nursing Administration and Nursing Research, are derived from the study.

**6.2.1 NURSING PRACTICE**

* The pediatric field of health care in providing care that is focused on the needs of children and families, the pediatric healthcare environment is different from that of adult healthcare.The field of pediatric nurses has great responsibility to protect early adolescent from consequences of illness and promote health
* In order to deliver high-quality care, nurses in a variety of work situations should be aware of their roles and abilities in the pediatric unit.Nurses must be aware and consider all holistic health servies provide to family unit.
* The study's findings highlighted the importance of educating nursing staff and student nurses in order to organize and carry out health teaching programs on a regular basis and to advance early adolescents' knowledge and skill levels.Nurses shall conduct menstrual hygiene management programme regarding menstrual hygiene practices.
* Nurses can utilize the findings of the study in the practice.

### 6.2.2 NURSING EDUCATION

* Nurse educator should plan and implement the in-service education to all nursing students to update their knowledge in nurse initiated menstrual hygiene management program
* Health teaching modules is prepared by the researcher about nurse initiated menstrual hygiene management program for enhancing the student’s knowledge for better understanding about Mentrual hygiene and its management & improves family participation and coping ability.
* This research study emphasizes the need for developing good teaching skill among student nurses on nurse initiated menstrual hygiene management program
* Student nurses should be motivated in participating and organizing teaching programmes like Mass educational programme, inservice training programme. Student development programme on various aspects whenever posted in clinical settings not only for learning purpose but also for Health education to parents and community.

### 6.2.3 NURSING ADMINISTRATION

* Appointment of nurses in community area is useful to concentrate on early adolescents on menstrual hygiene
* The health service should include individual and group health education regarding menstrual hygiene
* Conducting school health programme regarding menstrual hygiene ,menstrual absorbents available and method of disposal to students and teacher.
* Nurse administrator can disseminate the research knowledge in to the pediatric nurses so that the care giver will be benefited.
* The expanded and extended role of the professional nurses can provide facilities to improve knowledge regarding Pediatric nurse-led culturally sensitive intervention among mothers of children.

### NURSING RESEARCH

* Evidence based nursing practice must take higher profit in order to increase the knowledge of nurse initiated menstrual hygiene management program among early adolescents.
* The nurses as well as students should be encouraged to take more qualitative and quantitative researches related to nurse initiated menstrual hygiene management program.
* The study finding can be utilized for development of research – based policies and programmes.
* This study provides scope for further studies.

## 6.3. LIMITATIONS

* The researcher could not generalize the findings as the sample size is small.
* Large study but duration for data collection only for four weeks
* Only knowledge and practice of the early adolescent was assessed in the study
* Difficult to single investigate to this study

## 6.4. RECOMMENDATIONS

* A similar study can be done on a large scale.
* This study can be conducted as a comparative study in urban and rural areas.
* A similar study can be conducted by using various instructional media i.e. simulation.
* A similar study can be conducted by mixed methodology both in quantitative and qualitative aspects.
* This study can be conducted as randomized controlled trail research design with control group.

**CONCLUSION**

In this study in qualitative aspect the themes involved in this study are first menstrual experience ,living with periods and impact of intervention and subthemes are A resenting emotion towards menarche experience, Physical experiences during menstruation, No prior knowledge, New learnings, Use of multimedia, Positive change in behavior

The study revealed that, the participants expressed a negative emotion when they got their first period. Some associated the feeling with physical pain while others mentioned it was an overall difficult experience, Tiredness was consistently given as a physical challenge that participants had to go through during their periods which in some cases kept the participants from going through their daily activities. Most of the participants did not feel that the periods caused a hurdle towards attending school. However one participant said that she skipped school when she had backache and another said she skipped school because she did not have proper facilities at school hence she skipped during periods.

In this study quantitative aspect 33.33% have inadequate knowledge and 56.67% have moderate knowledge and in practice level the adolescents have 63.3% in pretest level in menstrual hygiene .After the Nurse Initiated Menstrual Management program, the knowledge level and practice level accelerated to 73.3%and 70% respectively and the menstrual experiences.

The effectiveness of the Nurse Initiated Menstrual Hygiene Management Program was analysed through post test and their experience on watching computer assisted teaching, the adolescents revealed that ,Almost all participants admitted that whatever was taught during the couselling were new to them and they had no knowledge before it. One participant mentioned how these cautions were not even given from her own family.

Hygiene was one major new learning that the participants had during the counseling from the researcher. Periodic change of sanitary napkins and cleanliness was emphasized on to be helpful learnings. All participants highlighted the use of videos and photos to be helpful in understanding the concepts better. All participants were thankful for the counseling. They were optimistic about using it during the time of their future periods and also share it among their peers

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