

# An Experimental Study to Determine the Effect of Teacher - Student Approach in Health Education on Menstruation and Menstrual Hygiene to Adolescent Girls of Selected Schools in Vellore City

R. Lalmuanpuii

College of Nursing, Christian Medical College, Vellore, South India  
Email: [empee.ralte@gmail.com](mailto:empee.ralte@gmail.com)

**Abstract:** *The study is an attempt to determine the effect of teacher-student approach in health education on menstruation and menstrual hygiene to adolescent girls of selected schools in Vellore City. The collected data are tabulated and analysed using Statistical Package of Sociological Science (SPSS 17.0). The demographic data like age, religion, family income, education, type of family, age at menarche and source of information are analysed using descriptive statistics. The study also uses the following tests: independent 't,' paired 't' test, Pearson's correlation coefficient (r) test and chi-square test. In the experimental group (teachers), there is a significant increase in the mean score of knowledge (9.9 to 14.60), attitude (32.90 to 36) and practice (7.10 to 14.60) in post-test as compared to pre-test. Whereas in the control group, there is insignificant increase in the mean score of knowledge (10.10 to 13.60), attitude (29.70 to 30.30) and practice (6.30 to 7.30) after administering self-instructional pamphlets on menstruation and menstrual hygiene. In the experimental group (adolescent girls), there is a significant increase in knowledge (7.72 to 15.06), attitude (27.30 to 32.15) and practice (5.79 and to 8.58) after the structured teaching programme by the school teachers. Whereas in the control group, there is insignificant increase in the mean score of knowledge (7.03 to 10.87), attitude (25.76 to 26.90) and practice (6.30 to 7.30) after administering self-instructional pamphlets on menstruation and menstrual hygiene. The study concludes that the structured teaching programme is effective for both the school teachers and adolescent girls as compared to using self-instructional pamphlets on menstruation and menstrual hygiene.*

**Keywords:** Effectiveness, Health Education, KAP, Menstruation and Menstrual Hygiene, School Teacher, Adolescent Girls

## 1. Introduction

Health education is a process by which individuals and groups of people learn to behave in a manner conducive to the promotion, maintenance or restoration of health. Imparting health education to an educated group is a special arena of interest because of the fact that this educated groups may have a major role in the propagation of the achieved knowledge in future. The school teacher is the most important person in whom a child/student sees the "Parent Figure" away from home. The teacher has tremendous influence on him/her because of the "Emotional bonding" that takes place between him/her and the pupil. If a teacher is having adequate knowledge in this aspect, it could help to plan a teaching programme and health teaching guide for them.

## 2. Literature Survey

**Marvan and Bejarano (2005)** conducted a study on "Pre Menarcheal Mexican girls and their teacher's perceptions of preparation", students receive about menstruation at school. This study explored how fifth grade Mexican pre-menarcheal girls and their teachers view about the preparation and how students receive about menstruation at school. The study findings was that teaching about menstruation is problematic, but these findings provide information for teachers to meet the needs of girls more efficiently.

**Thakre, Thakre, Ughade&Thakre (2011)** conducted a study on "Menstrual hygiene: knowledge and practice" among the adolescent school going girls of Saoner, Nagpur district. Their knowledge on menstruation is poor and their practices are often not optimal for proper hygiene. Awareness regarding the need for information on healthy menstrual practices is very important.

**Dasgupta and Sarkar (2008)** has done a study on Menstrual Hygiene; How hygienic is the Adolescent Girls? at Rural Health Unit and Training Centre, Singur, West Bengal. In these studies they states that Menstrual Hygiene is a very important risk factors for reproductive tract infection, is a vital aspect of health education for adolescent girls. Educational television programmes, trained school nurses/health personnel, motivated school teachers and knowledgeable parents can play a very important role in transmitting the vital message of correct menstrual hygiene to the adolescent girl of today.

## 3. Methods/ Approach

To determine the existing knowledge, attitude and practice of school teachers and adolescent girls about menstruation and menstrual hygiene. To assess the level of knowledge, attitude and practice of adolescent girls who are exposed to teacher-student approach in health education about menstruation and menstrual hygiene as compared to the adolescent girls who used the self instructional pamphlets on menstruation and menstrual hygiene. To find the relationship between knowledge, attitude and practice of school teachers

about menstruation and menstrual hygiene. To find the relationship between knowledge, attitude and practice of adolescent girls about menstruation and menstrual hygiene. To assess the association between knowledge, attitude and practice of school teachers about menstruation and menstrual hygiene and their selected socio-demographic variables of teachers. To assess the association between knowledge, attitude and practice of adolescent girls about menstruation and menstrual hygiene and their selected socio-demographic variables of adolescent girls. The research design selected for the study was experimental design. Two group pre and post test design was used. The study was conducted in the Government English Medium Higher Secondary Schools of Vellore and Katpadi Blocks of Vellore City. The study population included female school teachers and adolescent girls of 9th standard who are studying in Higher Secondary School of Vellore City. Samples were collected using simple random techniques. The sample size was calculated according to the findings in pilot study. Total of 212 adolescent girls and 20 school teachers, who fulfilled inclusion criteria were selected for this study. Computer programme Statistical Package of Sociological Science (17.0) was used for data analysis. Descriptive statistics, Inferential statistics, Pearson's correlation coefficient (r) and Chi-square test was used to identify the association between knowledge, attitude, practice, and selected demographic variables.

#### 4. Results

Ten (50%) were in the age group of 30-40 years, and 50% were in the age group of 40-50 years. Eighteen (90%) were Hindus by their religion, 19 (95%) were married, 13 (65%) belonged to nuclear families, 11 (55%) are post graduates. Most of the school teacher's monthly family income range between Rs 20,000-30,000/- 11 (55%) and majority of them 13 (65%) had less than 10 years of teaching experienced. One fifty one (71.22%) of the students were in the age group of 14-15 years, and majority of them 174 (82%) were Hindus. One fifty nine (75%) are from nuclear families, 67 (32%) had a monthly family income of Rs 5001-10,000/- and 97 (46%) had attained menarche at the age of 13-14 years. One sixty five (78%) of them received information regarding menstruation from their parents. The mean knowledge score difference found between the pre test and post test in the experimental group was 4.7. The difference found in the practice mean score during the pre test and post test in the experimental group was statistically significant ( $p < 0.05$ ). There is a significant increase in the mean scores of knowledge, attitude and practice of adolescent girls in the post-test as compared to the pre test mean scores of adolescent girls about menstruation and menstrual hygiene. It also reveals that the difference in the knowledge, attitude and practice mean scores between the experimental and control group in the pre test and post test is highly significant ( $p < 0.001$ ). There was a positive correlation between the knowledge and practice of school teachers about menstruation and menstrual hygiene during the pre test which was statistically significant ( $p < 0.05$ ). In the post test, there was a positive correlation found between the knowledge and attitude which was statistically significant ( $p < 0.05$ ). The correlation between the knowledge and practice was also found to be highly significant ( $p < 0.01$ ).

There was a positive correlation found between the attitude and practice of the school teachers about menstruation and menstrual hygiene in the pre test which was statistically significant ( $p < 0.05$ ). There was a positive correlation found between the knowledge and attitude, attitude and practice, and knowledge and practice of adolescent girls about menstruation and menstrual hygiene in the post test which was statistically significant ( $p < 0.01$ ). There was a positive correlation found between the knowledge and attitude and attitude and practice of adolescent girls about menstruation and menstrual hygiene in the pre test which was statistically significant ( $p < 0.05$ ). The correlation found between the knowledge and practice, attitude and practice and knowledge and practice of adolescent girls about menstruation and menstrual hygiene in the post test was also found to be highly significant ( $p < 0.001$ ).

#### 5. Discussion

The present study findings revealed that teacher - student approach in health education is an effective way of educating the adolescent girls about menstruation and menstrual hygiene. It was motivating to know that all the selected teachers and adolescent girls had adequate knowledge, attitude and practice after the intervention of the structured teaching within short time. There may be a chance of subjectivity since the practice is measured by self administered responses. On the contrary, the present study highlights the effectiveness of structured teaching programme using teacher - student approach in health education to adolescent girls. It also revealed the need for creating awareness on menstruation and menstrual hygiene among adolescent girls.

#### 6. Conclusion

The study findings reveal that teacher-to-student approach in health education was effective in imparting knowledge from teacher to their students, which in turn will help to spread the health messages to the community in a wider level.

#### 7. Future Scope

The findings of the study reveals scope for further study. A similar study can be conducted using more samples and using student to student approach. A study can also be conducted to find out the knowledge and attitude of parents towards menstruation and menstrual hygiene. Lastly, A comparative study to compare the rural and urban subjects can be conducted.

#### References

- [1] Devi, K.D & Ramaiah, P.V. (1994). A Study on Menstrual Hygiene Among Rural Adolescent Girls. *Indian Journal of Medical Science*, 48 (6), 139-143.
- [2] Hoerster, K.D., Chrisler, J.C. & Rose, J.G. (2003). Attitudes toward and experience with menstruation in the US and India. *Women Health*, 38 (3), 77-95
- [3] Trinoye, & Pgunghomi, & Ajo. (2003). Menstruation: knowledge attitude and practices of students in Nigeria. *Journal of Medical Sciences*, 12(1), 43-51.

- [4] Marvan, M.L. &Bejarano, J. (2005). Pre Menarcheal Mexican girl's and their teachers perception student receive about menstruation at school. *Journal of School Health*,75(3), 86-89
- [5] Dhital, A.D., Badhu, B.P., Paudel, R.K. &Uprety, D.K. (2005).Effective of StructuredTeaching Plan in improving knowledge and attitude of School going Adolescents onreproductive health. *Kathmandu University Medical Journal*, 3(4), 380-383
- [6] Shukla. (2005). Working on menstruation with girls in Mumbai, India. Vacha Women's resource centre" EQUALS, 15,4-5.
- [7] Rembeck, G.I. & Moller, M. (2006).Attitudes and feelings towards menstruation and womanhood in girls at menarche.*Journal of pediatrics*, 95(6), 707-714
- [8] Adhikari, P., Kadel, B., Dhungel, S.I. &Mandal, A. (2007).Knowledge and Practice Regarding Menstrual Hygiene in Rural Adolescent Girls of Nepal.*Kathmandu University Medical Journal*,5 (3), 382-386
- [9] School Health Services Guide.(2007). Department of Defense Education Activity.
- [10] Anuradha.(2008). Menstrual Hygiene Practices and Reproductive Morbidity. A community based survey in rural Thiruvanthapuram, Kerala. SreeChitraTirunal Institute of Medical Sciences and Technology.AchuthaMenon Centre for Health Science Studies.
- [11] Dasgupta, A. &Sarkar, M. (2008). Menstrual Hygiene: How hygienic is the adolescentgirls? *Indian Journal of Community Medicine*,33(2), 77-80
- [12] Sharma, P., Malhotra, C., Taneja, D.K. &Saha, R. (2008). Problems Related to Menstruation Among Adolescent Girls. *Indian Journal of Pediatrics* 75 (2), 125-129
- [13] Dhingra, R., Kumar, A., &Kour M. (2009). Knowledge and Practices Related to Menstruation among Tribal (Gujjar) Adolescent Girls. *Ethno-Medicine*, 3(1), 43-48
- [14] Nemade, D., Anjenaya, S. &Gujar, R. (2009).Impact of Health Education on Knowledge and Practices about Menstruation.*Health and Population: Perspectives and Issues*32(4), 167-175.
- [15] Water Aid, (2009). Is Menstrual Hygiene and Management an issue for Adolescent Girls?.Water Aid in South Asia Publication. Retrieved on 12/12/2011 from <http://www.wateraid.org/Nepal>
- [16] Mann, N. (2010). Effectiveness of Teaching Programme on Puberty.*Nightingale Nursing Times*, 5(12), 17-20
- [17] Allah, E.S.A. &Elsabagh, E.E.M. (2011).Impact of Health Education Intervention on Knowledge and Practice about Menstruation among Female Secondary School Students in Zagazig City.*Journal of American Science*, 7 (9), 737-747
- [18] Shanbhag, D., Shilpa, R., D'Souza, N., Josephine, P., Singh, J. &Goud, B.R. (2011).Perceptions regarding menstruation and Practices during menstrual cycles. *International Journal of Collaborative Research on Internal Medicine and Public Health*4(7), 1353-1362
- [19] Jogdand, K. &Yerpude, P. (2011).A community based study on menstrual hygiene.*IndianJournal of Maternal and Child Health*, 13(3), 1-6
- [20] Manjula, R., Geethalakshmi, R.G. &Sangam, D.K. (2011).A Study on menstruation and menstrual hygiene.*Indian Journal of Public Health Research and Development*, 2(2), 57-59
- [21] Thakre, S.B., Thakre, S.S., Ughade, S. &Thakre, D.A. (2011). Menstrual hygiene: knowledge and practice. *Journal of Clinical and Diagnostic*, 5(5), 1027 – 1033
- Juyal, R., Kandpal, S.D., Semwal, J. &Negi, K.S. (2012).Practices of menstrual hygiene among adolescent girls in a District of Uttarakhand.*Indian Journal of Community Health*, 24(2), 124-128

### Author Profile



**Ms. R. Lalmuanpuui**, M.Sc (N), College of Nursing, Christian Medical College, Vellore, South India



**Dr. (Mrs) Vathsala Sadan**, Dean & HOD of Community Health Nursing, College of Nursing, Christian Medical College, Vellore, South India



**Dr. Prasanth H.R.** MBBS, MD. Community Medicine,. RUHSA Department, Christian Medical College, Vellore, South India