

# EFFECT OF HEALTH EDUCATION INTERVENTION ON QUALITY OF LIFE AMONG ADOLESCENT STUDENTS WITH PREMENSTRUAL SYNDROME

Mrs. Shubharani S. Muragod <sup>1\*</sup>, Dr. Sangeeta N. Kharde <sup>2</sup>

<sup>1</sup> Assist Professor, Dept of OBG Nursing KAHER Institute of Nursing Sciences, Belagavi. shubhamuragod@gmail.com

<sup>2</sup> Vice Principal, HOD Dept of OBG Nursing KAHER Institute of Nursing Sciences, Belagavi. sangeeta.kharde@gmail.com

## Abstract

**Background:** Premenstrual symptom is a common cyclic disorder among young and mid-age women. It causes several difficulties in adolescents which includes impaired physical activities, psychological wellbeing and severe dysfunction in routine activities. Young adolescents may get affected with their academic performance and social activities. Hence the study aims to evaluate the Education Intervention on QoL (Quality of Life) among adolescent girls.

**Methods:** Quasi-experimental study was conducted using Cluster random sampling. 478 girls were assessed for PMS symptoms in which 300 girls with mild and moderate PMS were included in the study. These 300 girls suffering with PMS were again divided into two groups. Tools used to collect data were Demographic profile, Premenstrual syndrome rating scale and Short Form-36 (SF-36) scale with health related Quality of life Questionnaire. SPSS software was used to analyze the data.

**Results:** showed that among 478 girls the prevalence of PMS in present study was found about 93.51% (mild, moderate, severe and very severe symptoms) and only 6.49 % students had no symptoms. Health education intervention given to adolescent girls was effective in improving their Quality of Life.

**Conclusion:** Proper health awareness given to adolescent girls on frequent intervals will help them to have a quality life.

**Keyword:** Premenstrual syndrome, Adolescent students and Quality of life.

## INTRODUCTION

Pregnancy and childbirth Premenstrual Syndrome is a group of somatic and emotional symptoms, that occur during the luteal phase of menstruation and are clinically significant. PMS symptoms usually subside within one week of the commencement of menstruation. These symptoms can cause severe discomfort and functional impairment<sup>1</sup>. The global pooled prevalence of PMS-affecting women in reproductive age is 47.8%<sup>2</sup>. Epidemiological research results shows that about 80% to 90% of women have at least one PMS symptom<sup>3</sup>. It primarily affects female college students, and negatively impacts their quality of life and academics<sup>3</sup>. Hence this study was intended in evaluating the effect of Health Education Intervention on Health-related Quality of Life among adolescent students.

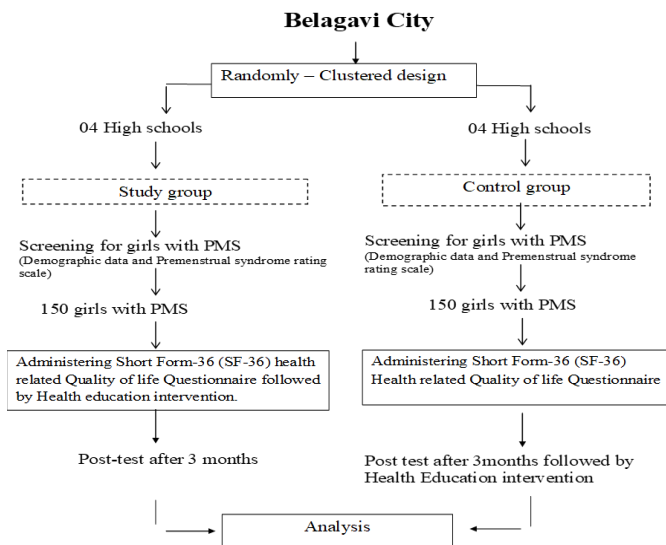
## MATERIALS AND METHODS

Quasi-experimental, nonequivalent pretest- posttest control group design was used. Total 8 schools were selected which includes both government and private high schools of Belagavi city. Cluster random sampling was used to select the schools. 478 adolescent female students were assessed for PMS symptoms in which 300 students having mild and moderate symptoms were enrolled in the study. 300 students were further

divided in two groups as Experimental group (150) and Control group (150).

Students menstruating from last one year were included in the study. Students with major menstrual issues and under medication were excluded in the study. Premenstrual syndrome rating scale was used to find the students with PMS and Short Form-36 (SF-36) health-related Quality of Life Questionnaire was used as tool. Obtained ethical clearance from the Institutional Ethical committee of KLE Academy of Higher Education and Research (KAHER), Belagavi. Permission for data collection was obtained from principals of each high schools. Informed consent was signed by the parents of adolescent girls.

## DATA COLLECTION



## RESULTS

**Section I:** The demographic information of 478 participants showed 170 (35.76%) adolescent students were of 14 years of age. The majority of respondents 303 (63.39%) were under weight and 21 (4.39%) were belonging to overweight. 379 (79.29%) were Hindus. Educational status in majority of mothers was primary education 250(52.30%) and fathers was 184 (38.49%).

**Section II:** Prevalence of PMS showed that showed that among 478 adolescent students, 93.51% of the students had one or the other symptoms out of which 83% Of students had mild to moderate symptoms, 06% students had severe and 4% of them had very severe symptoms and 07% of them had no symptoms of PMS.

**Section III:** Evaluating the effect of health educational intervention on Quality of Life among adolescent girls with PMS.

**Table I: Comparison of the mean scores of QoL before and after three months of health education intervention in study group and control group.**

Times	Study group			Control Group			t-value	p-value
	Mean	SD	SE	Mean	SD	SE		
Pre-test	52.17	8.28	0.65	52.94	7.79	0.61	0.8676	0.3862
Post-test	64.14	11.91	0.93	55.02	6.70	0.52	8.5194	0.0001*
Difference	11.97	13.44	1.05	2.07	2.94	0.23	9.1819	0.0001*

Independent t test

\*p value <0.05 significance

There is significant difference between mean post-test value of study group (64.14) and control group (55.02) and  $t = 8.5194$  when  $p < 0.05$  of significance. Hence there is improvement of

QoL in study group compared to control group after the health education intervention.

**Table II: Comparison between pretest and post- test total scores of study group and control group.**

Groups	Times	Mean	SD	Mean Diff.	% of change	t-value	p-value
Study group	Pretest	52.17	8.28	-11.97	-22.94	11.3703	0.0001*
	Post-test	64.14	11.91				
Control group	Pretest	52.94	7.79	-2.07	-3.92	9.0008	0.0001*
	Post-test	55.02	6.70				

Dependent t test

\*p value <0.05 significance.

Table 2: Shows the description about comparison between the per test and posttest of study and control group. In Study group pre-test the mean was (52.17) and SD (8.28). The post- test mean was (64.14) and SD (11.91) and the obtained 't' value 11.37, which was significant on 0.05 level.

Percentage of change in study group was high (22.94) than in control group (3.92) hence the health education intervention is effective in improving the Quality of Life among adolescent girls.

## DISCUSSION

The present study results showed that out of 478 participants majority of the participants were belonging to 14 years of age 170 (35.56%), where in the study conducted by Delara et al, mean age of participants was 15.78 which is near similar to the present study<sup>4</sup>. In the present study majority of respondents 303

(63.39%) were under weight and 21 (4.39%) were belonging to overweight, the study conducted by Akbari M R showed that among 270 medical students 210 (77.77%) students had normal weight and only 4 (1.48%) were obese which were contradicting the present study this may be due to the difference in age group and geographic variations<sup>5</sup>.

Prevalence of PMS in the present study was 93.51% out of which 83% Of students had mild to moderate symptoms, 06% students had severe and 4% of them had very severe symptoms and 07% of them had no symptoms of PMS. According to the study conducted by Arbabi M, PMS severity in most of the study participants was (62.22%) moderate and 8.89% were mild which contradicts our study findings<sup>7</sup>. The study conducted by Kamat SV, et al 2019 showed the prevalence of 19.3% were of moderate to severe PMS and 4.6% of them had PMDD which contradicts the present study results<sup>8</sup>. The study conducted on adolescent

girls by Abirami P revealed that 26 (26%) of have mild symptoms of PMS and 55 (55%) have moderate symptoms of PMS and is similar to the present study findings<sup>9</sup>.

Comparison of the mean scores of QoL before and after three months of health education intervention in study group and control group showed the there is significant difference between mean post-test value of study group (64.14) and control group (55.02) and  $t = 8.5194$  when  $p < 0.05$  of significance. Improvement of QoL in study group compared to control group after the health education intervention was significant in present study. The interventional study conducted on PMS are on improving the knowledge level, reduction of symptoms etc.

## CONCLUSION

Adolescents are curious to know solution for the problems what they face in day today's life. It is important to know from where they gather the information the friends, mass media, professionals or the parents. Hence proper and adequate health awareness given to adolescent girls on frequent intervals by the professionals or the teachers will help them to solve their personal issues and in turn will help them in improving their quality life.

## References

1. Yesildere Saglam H, Orsal O. Effect of exercise on premenstrual symptoms: A systematic review. *Complement Ther Med*. 2020 Jan; 48: 102272.
2. Frey Nascimento A, Gaab J, Kirsch I, Kossowsky J, Meyer A, Locher C. Open-label placebo treatment of women with premenstrual syndrome: study protocol of a randomised controlled trial. *BMJ Open*. 2020 Feb 17;10(2):e032868.
3. Gudipally PR, Sharma GK. Premenstrual Syndrome. [Updated 2023 Jul 17]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2023 Jan-. <https://www.ncbi.nlm.nih.gov/books/NBK560698/>
4. Delara, M., Ghofranipour, F., Azadfallah, P. et al. Health related quality of life among adolescents with premenstrual disorders: a cross sectional study. *Health Qual Life Outcomes* 10, 1 (2012). <https://doi.org/10.1186/1477-7525-10-1>
5. Akbari M R, Sudharani M, Kallapurackal SJX, Ramya V, Gowda M R N, Suryakantha AH. Prevalence of Premenstrual Syndrome among Medical Students. *Natl J Community Med [Internet]*. 2017 Jun. 30 [cited 2023 Dec. 27];8(06):292-4. Available from: <https://njcmindia.com/index.php/file/article/view/925>
6. Khalilzadeh, P., Amirzadeh-iranagh, J., Khalkhali, H.R. et al. Evaluating the effect of educational intervention based on the health belief model on the lifestyle related to premenstrual syndrome and reduction of its symptoms among the first-grade high school girls. *BMC Public Health* 23, 1001 (2023). <https://doi.org/10.1186/s12889-023-15950-y>
7. Arbabi M, Shirmohammadi M, Taghizadeh Z, Mehran A. The Effect of Premenstrual Syndrome on Quality of Life in Adolescent Girls. *Iran J Psychiatry*. 1;3(3):105-109.
8. Kamat SV, Nimbalkar A, Phatak AG, Nimbalkar SM. Premenstrual syndrome in Anand District, Gujarat: A cross-sectional survey. *J Family Med Prim Care*. 2019 Feb;8(2):640-647. doi: 10.4103/jfmpc.jfmpc\_302\_18. PMID: 30984687; PMCID: PMC6436252.
9. Abirami p, and A. S. "Assess The Prevalance Of Premenstrual Syndrome Among Adolescent Girls At SRM College Of Nursing , SRM University, Kattankulathur". *Asian Journal of Pharmaceutical and Clinical Research*, vol. 10, no. 5, May 2017, pp. 202-5, doi:10.22159/ajpcr.2017.v10i5.13332.
10. Chau JPC, Chang AM. Effects of an educational programme on adolescents with premenstrual syndrome. *Health Education Research*. 1999;14(6):817-30
11. Ramya S et al. Effect of educational program on premenstrual syndrome in adolescent school girls. *Int J Reprod Contracept Obstet Gynecol*. 2014 Mar;3(1):168-171 [www.ijrcog.or](http://www.ijrcog.or)
12. Katjiukua CR et al. Prevalence and knowledge of premenstrual syndrome among adolescent girls in India. *Int J Community Med Public Health*. 2020 Dec;7(12):5169-5181 <http://www.ijcmph.com>
13. Arbabi M, Shirmohammadi M, Taghizadeh Z, Mehran A. The Effect of Premenstrual Syndrome on Quality of Life in Adolescent Girls. *Iran J Psychiatry*. 1;3(3):105-109.