

# Protocol on Development of Comprehensive Menstrual Symptoms Scale for Grading the Menstrual Problems Among Adolescent Girls

Bali N. Thool, Vaishali Taksande, Sunita Shrivatav and Shalini Lokhande

*Smt. Radhikabai Meghe Memorial College of Nursing, DMIMSU (Deemed to be University), Sawangi Meghe, Wardha Maharashtra, India*

## ABSTRACT

The adolescent girls face a gamut of problems of which the menstrual problems are the most common. Because menstrual problems are subtle, the problems often are unreported. The objective of this study was to estimate the prevalence of menstrual problems, namely dysmenorrhea, menorrhagia, and irregular menstrual cycles. The menstrual problems form an important domain of adolescent health and because these problems go unreported, it is necessary that adequate attention and care is provided. On this focusing group the more researches are needed to measure menstrual symptom experienced by women of variable ages. Present research focus on experiences of adolescents during menstruation and also focus the early problems finding To develop the comprehensive menstrual symptoms scale and grading the menstrual problems of adolescent girls in schools (mild, moderate, severe) In this study used the quantitative research approach used the developmental research design (cross-sectional, correlational, Interventional design) and using non-randomized purposive sampling techniques on 100 adolescent girls of 10-16 years of age from school of Wardha. Grading scale will be used for assessing the pre-menstrual and menstrual problems. Then the correlation will be done among the problems of pre-menstrual and menstrual. Ethical approval was obtained by IEC, DMIMSU (DU)/IEC/2020-21/8981. The study result will be concluded from the result and data will be disseminated in peer-review publication. Comprehensive menstrual symptoms scale on the basis of twelve factors will be developed and validated and used for the data collection for piloting. The study result will be concluded that find out the menstrual problems on the basis of grading scale and referred for the treatment to resolve the upcoming menstrual problems of adolescent girls and maintain the good reproductive health.

**KEY WORDS:** ADOLESCENT GIRLS, COMPREHENSIVE, MENSTRUAL SYMPTOMS SCALE.

## INTRODUCTION

Adolescence is a transition period from childhood to adulthood and is characterized by a spurt in physical, endocrinal, emotional, and mental growth, with a change from complete dependence to relative independence. The period of adolescence for a girl is a period of physical and psychological preparation for safe motherhood. As the direct reproducers of future generations, the health of adolescent girls influences not only their own health, but also the health of the future population. Almost a

quarter of India's population comprises of girls below 20 years.

One of the major physiological changes that take place in adolescent girls is the onset of menarche, which is often associated with problems of irregular menstruation, excessive bleeding, and dysmenorrhea. Of these, dysmenorrhea is one of the common problems experienced by many adolescent girls.

Exact origin of the word dysmenorrhoea is not known, but it has been mentioned in the ancient literature worldwide. Vivid description and social stigma associated with menstruation related mood and behavioural changes date back to Hippocrates, the Talmud and the Bible. In spite of the fact of existence of painful menstruation in ancient literature, it was only in the last half of past century when dysmenorrhoeal has been accorded impartial scientific evaluation.

Biosc Biotech Res Comm P-ISSN: 0974-6455 E-ISSN: 2321-4007



### Identifiers and Pagination

Year: 2021 Vol: 14 No (9) Special

Issue Pages: 383-385

This is an open access article under Creative

Commons License Attribution 4.0 Intl (CC-BY).

DOI: <http://dx.doi.org/10.21786/bbrc/14.9.71>

### Article Information

Received: 10<sup>th</sup> June 2021

Accepted after revision: 15<sup>th</sup> July 2021

Disorders in cycles or its irregularities are a major gynecological problem among female adults especially adolescent and a major source of anxiety to them and their family. Studies have shown that a large proportion of the female population of reproductive age suffers from menstruation-related health issues. Abnormal menstrual cycle is any deviation from the normal cycle.

**Rational:** The World Health Organization (WHO) has defined adolescence as the age group of 10-19 years. Adolescents in India comprise 19.3% of the total Indian population. This period is marked by the onset of menarche. Disorders in cycles or its irregularities are a major gynecological problem among female adults especially adolescent. The most prevalent menstrual problems (Dysmenorrhea and premenstrual symptoms) in the target population. Only 48% of the adolescent girls population in India are aware about menstruation prior to the first period. The Comprehensive research tools not used in research study for evaluation of menstrual problems

**Aim:** The aim of the study is to develop the comprehensive menstrual symptoms scale and grading the menstrual problems of adolescent girls in schools (mild, moderate, and severe).

**Objectives:** To develop the comprehensive menstrual symptoms scale for grading the menstrual problems among the adolescent girls.

## METHODOLOGY

Quantitative research approach and the developmental research design (cross-sectional, correlational, Interventional design) used and using non-randomized purposive sampling techniques on 100 adolescent girls of 10-16 years of age from school of Wardha. Material will be used for data collection in this study is comprehensive menstrual symptoms scale as a tool. Scoring of menstrual symptoms scale on the basis of six factors Negative affection, Changes of activity level Physical symptoms. Mood changes. Changes in concentration level. Body water retention. The scale being further modified and added the more factors such as PBAC pictorial blood assessment chart. Dysmenorrhea, Menorrhagia, Premenstrual dysphonic disorder (PMDD) on the basis of 0,1,2,3,4 scoring.

**Modified Comprehensive Menstrual Symptoms Scale:** The Modified Comprehensive menstrual symptoms scale developed to assess and identify the menstrual problems in premenstrual and menstrual symptoms. The assessment program starts with basic instructions giving details of how to use the scale and grading the symptoms. The following symptoms leading to a comprehensive yet quick menstrual problems assessment and grading. Focusing sequentially on the following symptoms or problems. The part on history has twelve factors.

1. Premenstrual syndrome (PMS).
2. Menstrual symptoms

3. Negative affection,
4. Changes of activity level
5. Physical symptoms
6. Mood changes
7. Changes in concentration level
8. Body water retention
9. PBAC pictorial blood assessment chart.
10. DYSMENORRHEA
11. MENORRGEA.
12. Premenstrual dysphonic disorder (PMDD).

**Focus Group Discussion For Social And Cultural Acceptability:** As a part of translation process a focus group discussion was arranged in the teaching area of the schools. Among the 10 adolescent girls.

**Inclusion And Exclusion Criteria:** Who are fulfill the age criteria. Those girls are with premenstrual syndrome and menstrual irregularity

**Sample Size:** Based on the available literature of related researches Formula for difference between two proportion is used

$$n = \frac{4pq}{L^2}$$

Where, P=63.3% -Cumulative percent of variance

$$q = 100 - p = 100 - 63.3 = 36.7, L = \text{Allowable error} = 10\% \text{ of}$$

$$p = \frac{10 * 63.3}{100}$$

$$= 6.33$$

$$n = \frac{4 * 63.3 * 36.7}{6.33^2}$$

$$= 92.92$$

Study Outcomes -

$$= 92.92$$

N=100 adolescent girls

Primary outcome - Develop, evaluate, Assess and Grading the symptoms scale - mild, moderate, severe.

Secondary outcome - Mild and Moderate cases will be received the nursing intervention and severe cases will be referred to the obstetrics opinion for treatment and managing the symptoms of adolescent girls.

**Data Management And Monitoring:** In Comprehensive menstrual scale consist of demographic variables including the following factors, Premenstrual syndrome (PMS). Menstrual symptoms Negative affection, Changes of activity level Physical symptoms. Mood changes. Changes in concentration level. Body water retention. PBAC pictorial blood assessment chart. Dysmenorrhea. Menorrhagia. Premenstrual dysphonic disorder (PMDD). Using the CMSS in premenstrual and menstrual symptoms in three consecutive months of menstrual period. Then according to the grading of mild, moderate and severe assessing the girls. mild, moderate symptoms girls provide the nursing intervention and severe grade symptoms referred to the obstetrics opinion for further treatment. Fig. no. 1

**Statistical Considerations:** Statistical analysis will be performed by using the SPSS and parametric and non parametric tests used.

**Ethical and Dissemination:** IEC,DMINSU(DU)/IEC/2020-21/8981. The study result will be concluded from the result and data will be disseminated in peer-review publication.

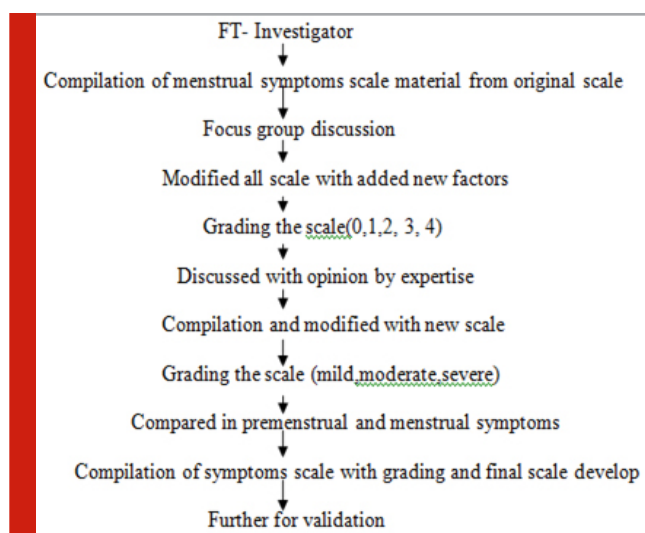
## CONCLUSION

The study result will be concluded that find out the menstrual problems on the basis of grading scale and referred for the treatment to resolve the upcoming menstrual problems of adolescent girls and maintain the good reproductive health. This scale will be used in future to find out the menstrual problems of adolescents girls in schools by the teachers also.

**Conflict of interest:** Nil

**Financial support:** Self

## Schematic Diagram To Development Of Scale -Fig. No. 1



## ACKNOWLEDGEMENTS

I would like to express my sincere thanks to all faculties of Smt. Radhikabai nursing College, Sawangi (Meghe) Wardha, India for smooth completion of my research work. We acknowledge the immense help received from the scholars whose articles are cited and included in

references of this manuscript. We would like to thank the authors whose works have cited and included in this study such as Lee, KyuEun<sup>1</sup>, Sonal Kulshrestha<sup>1</sup>, SONYA NEGRIFK Sathish Kumar<sup>F</sup>, et al. We are also grateful to authors / editors / publishers of all those articles, journals and books from where the literature for this article has been reviewed and discussed.

## REFERENCES

- J Health Psychol. Author manuscript; available in PMC 2015 Jan 21. Published in final edited form as: J Health Psychol. 2009 Oct; 14(7): 899–908. doi: 10.1177/1359105309340995
- SONYA NEGRIFK, LORAH D. DORN, JENNIFER B. HILLMAN, and BIN HUANG. *Glob J Health Sci.* 2016 Aug; 8(8): 135–144. Published online 2015 Dec 17. doi: 10.5539/gjhs.v8n8p135
- Shabnam Omidvar, 1 Fatemeh Bakouei, 1 Fatemeh Nasiri Amiri, 1 and Khyrunnisa Begum<sup>2</sup>
- Dysmenorrhea among higher secondary school girls of Imphal West district, Manipur: A cross-section study. KSathish Kumar, Shantibala Konjengbam, Hanjabam Sanayaima Devi Department of Community Medicine, Regional Institute of Medical Sciences, Imphal, Manipur, India. Year : 2016 | Volume : 30 | Issue : 1 | Page : 38-43
- Sonal Kulshrestha<sup>1</sup>, Prof. Anisa M. Durrani<sup>2</sup> 1 Research Scholar, 2 Professor; Department of Home Science, Faculty of Agricultural Sciences, Aligarh Muslim University (A.M.U.), Aligarh - 202001, Uttar Pradesh, INDIA
- Ameade et al. *BMC Women's Health* (2018) 18:39 <https://doi.org/10.1186/s12905-018-0532-1>
- Evans Paul Kwame Ameade<sup>1\*</sup>, Anthony Amalba<sup>2</sup> and Baba Sulemana Mohammed.
- GLOBAL JOURNAL OF MEDICINE AND PUBLIC HEALTH. Garima Sangwan<sup>\* 1</sup>, B.M Vashisht<sup>2</sup> <https://doi.org/10.1016/j.jad.2014.03.006> Get rights and content
- Patricia M. Meadena<sup>S.</sup> Ann Hartlage Jennifer Cook-Karrb <https://doi.org/10.1016/j.psychres.2005.01.003> Get rights and content
- Bergthór Björnsson<sup>1</sup>, Kjartan B Orvar, Asgeir Theodórs, Matthías Kjeld Affiliations expand PMID: 17062901
- Jennifer N Mahon<sup>1</sup>, Kelly J Rohan<sup>2</sup>, Yael I Nilni<sup>2 3 4</sup>, Michael J Zvolensky Affiliations expand PMID: 25269759 DOI: 10.1007/s00737-014-0456-1
- Sonya Negriff<sup>1</sup>, Lorah D Dorn, Jennifer B Hillman, Bin Huang Affiliations expand PMID: 19786516 PMID: PMC4301608 DOI: 10.1177/1359105309340995