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Research Article

**EVALUATION OF THE PREVALENCE OF PAINFUL
MENSTRUATION OR DYSMENORRHEA AMONG GIRLS OF
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Abstract:

Objective: The aim of this study is to estimate the prevalence of painful menstruation or dysmenorrhea among girls of high school of Lahore, Punjab, Pakistan.

Methodology: Total 660 females of high school of Lahore were the participant of this research work. We wrote letter to every participant to give them invitation of this case work. The measures of correlation coefficient & permutation of Pitman tests valid for the continuous & discrete distributions measured to provide the estimation of the relationship between occurrence and seriousness of painful menstruation and its related social as well as biological variables.

Results: The findings of this work shows that 14.40% (n: 85) girls were suffering from painful menstruation which was disturbing their routine activities and remained no improved with the utilization of the analgesics. The outcome of this case work show that there was a strong correlation between biological variables and painful menstruation, between age of start of first menses period & seriousness of dysmenorrhea as well as the period of flow of menses. In addition, very early onset of the menses cycle has an association with the seriousness of dysmenorrhea.

Conclusion: Advance knowledge of the patho-physiology of this complication of dysmenorrhea may provide us better methods for its treatment and save the girls from severe pain.

Keywords: Menstruation, Outcome, Complication, Onset, Seriousness, Permutation, Coefficient.

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INTRODUCTION:

Major dysmenorrhea is a type of agonizing syndrome which usually occurs in the period of flow of menses in ovulatory cycles [1]. The start of this complication is normally 6-12 months after the first period of menses which concurs with the incidence of consistent ovulatory cycles [1]. However, information about the occurrence of dysmenorrhea among 72.0% females differ to a high degree. Total 15.0% females have suffered from painful menstruation which has the ability to disturb their routine activities [1]. The decrease in the hours of working especially in days of school among young females as a consequence of painful menstruation was in the reports because of in national as well as economic importance [2]. This problem is the main cause of the personal as well as family disturbance. Girls with dysmenorrhea are available in society with less success more problems with adjustment to school in comparison with the normal healthy females with normal menstruation [1].

METHODOLOGY:

There were total six hundred and sixty females of high school were the part of this research work. The selection of these participants carried out randomly. Females with the age of fifteen to eighteen years of age from Lahore were the part of this case work. There were total more than 2 thousand girls in this age group. We wrote a letter to the participants to give them invitation. They filled the questionnaire and return that papers. The questionnaire consisted the information as the duration of menstruation, seriousness of nature of pain, requirement of medical intervention and ability to perform work in the period of menstruation. We gave the assurance to all the females of their confidentiality. Some questions were describing first menses date.

In this research work, we used 2 instruments for the calculation of seriousness of dysmenorrhea among

our participants. First was the verbal multidimensional system of scoring. This particular system of scoring was measuring the severity of pain & taking into account the effects of the pain on routine activities. In the second test, we asked the girls to evaluate the seriousness of dysmenorrhea with the help of linear analogue scale. The calculation of the continuous distributions carried out for the estimation of the association between incidence and seriousness of dysmenorrhea and related social and biological factors. Permutation test of Pitman was in use to find out the association coefficient among all 4 grades of painful menstruation and social and biological factors.

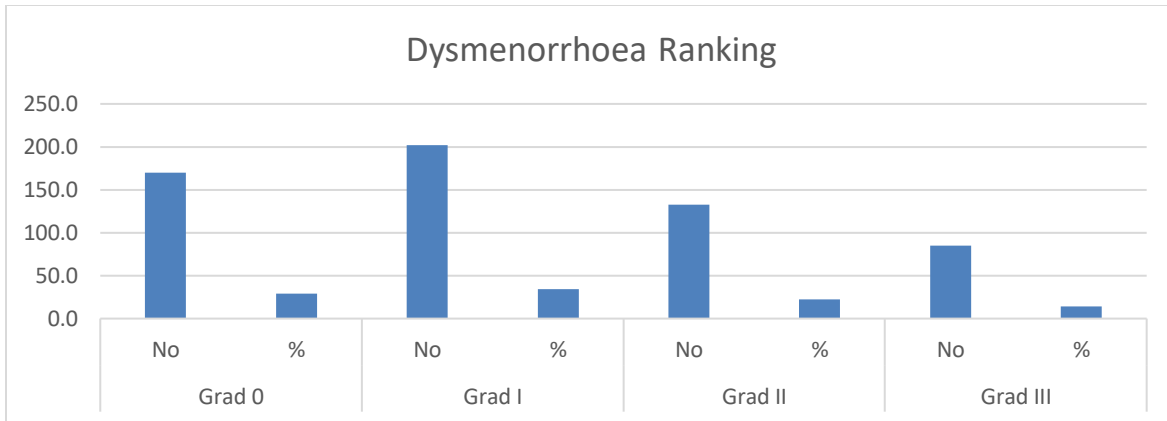
RESULTS:

Total 500 females were the part of this case work. Ten percent females among them left the questionnaire blank. The findings of this work show that about 71.2% females were suffering from dysmenorrhea. Eighty-five females were suffering severe nature of dysmenorrhea which was disturbing their normal life activities and they have no prevention with the use of analgesics. We compared the extremity of the pain measured by two instruments. The findings show no important disparity among 2 methods of evaluation of pain's grade. The findings of this research work show that 28.80% (n: 170) females suffered no dysmenorrhea. There was no important association between dysmenorrhea & biological variables as mentioned in Table-2. There was an important correlation available between age of menarche and the extremity of the dysmenorrhea. Additionally, menarche in early age has a relation with increase in the seriousness of dysmenorrhea.

The outcome of this work shows that there was an important association between the extremity of this complication and the whole period of the flow of menses as elaborated in Table-1.

Table-I: Dysmenorrhea Ranked in Order of Prevalence and Severity in the Total Population

Grad 0	No	170.0
	%	28.80
Grad I	No	202.0
	%	34.23
Grad II	No	133.0
	%	22.54
Grad III	No	85.0
	%	14.40

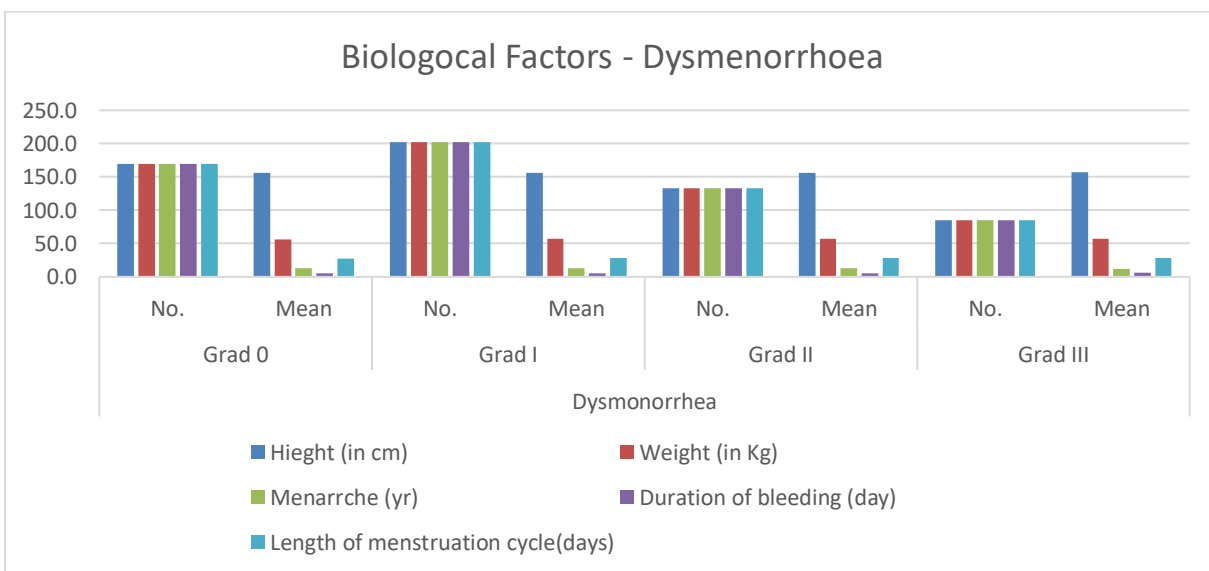


There is an increase in the seriousness of dysmenorrhoea with the increase in the period of menses flow, but the height and the weight of the girl was not affecting this situation. About 38.64% females were suffering from this complication in the 1st year after the dysmenorrhoea. The duration between first menses period and the onset of this complication

is available in Table-3. Dysmenorrhoea as stated by the females of this case work has an important association with the dysmenorrhoea of the mothers as well as sisters. The findings also show that there is a positive association between the quantity of the bleeding during menstruation and extremity of dysmenorrhoea.

Table-II: The Severity of Dysmenorrhoea Related to Certain Biological Factors

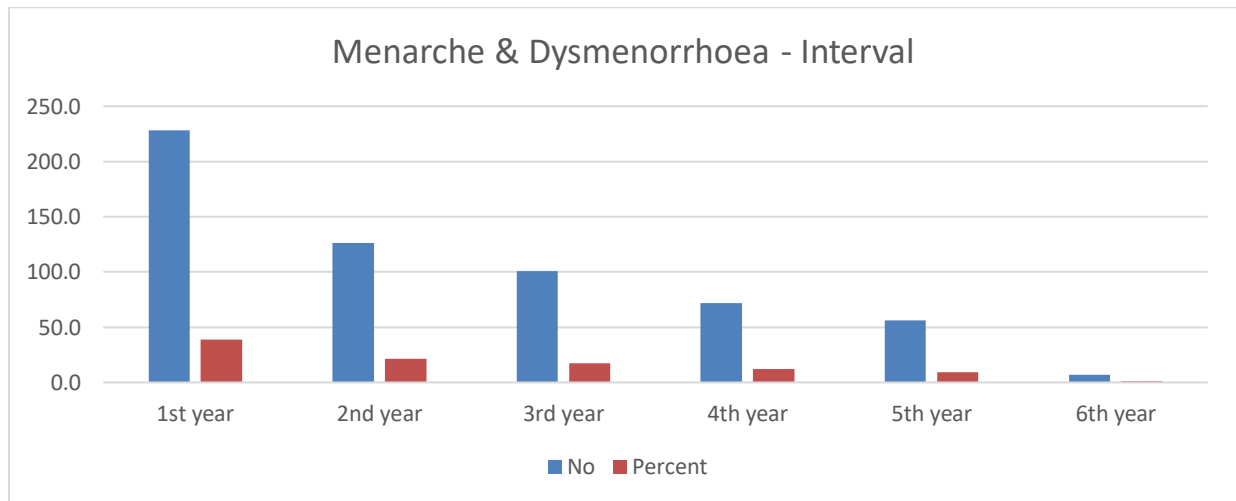
Biological factors	Dysmenorrhoea								Correlation Analysis
	Grad 0		Grad I		Grad II		Grad III		
	No.	Mean	No.	Mean	No.	Mean	No.	Mean	
Height (in cm)	170.0	156.30	202.0	156.20	133.0	156.10	85.0	157.20	Not Sig
Weight (in Kg)	170.0	56.60	202.0	57.50	133.0	57.10	85.0	57.30	Not Sig
Menarche (yr)	170.0	13.20	202.0	13.00	133.0	12.70	85.0	12.40	P<0.01
Duration of bleeding (day)	170.0	5.00	202.0	5.20	133.0	5.50	85.0	5.80	P<0.01
Length of menstruation cycle(days)	170.0	27.20	202.0	27.90	133.0	28.50	85.0	28.50	Not Sig



The assessment of the quantity of bleeding in menstruation carried out by the females as mild or slight, moderate or medium, severe or heavy.

Table-III: Interval Between Menarche and the Start of Dysmenorrhoea

Dysmenorrhoeal (after menarche)	No	Percent
1st year	228.0	38.640
2nd year	126.0	21.350
3rd year	101.0	17.110
4th year	72.0	12.200
5th year	56.0	9.490
6th year	7.0	1.180

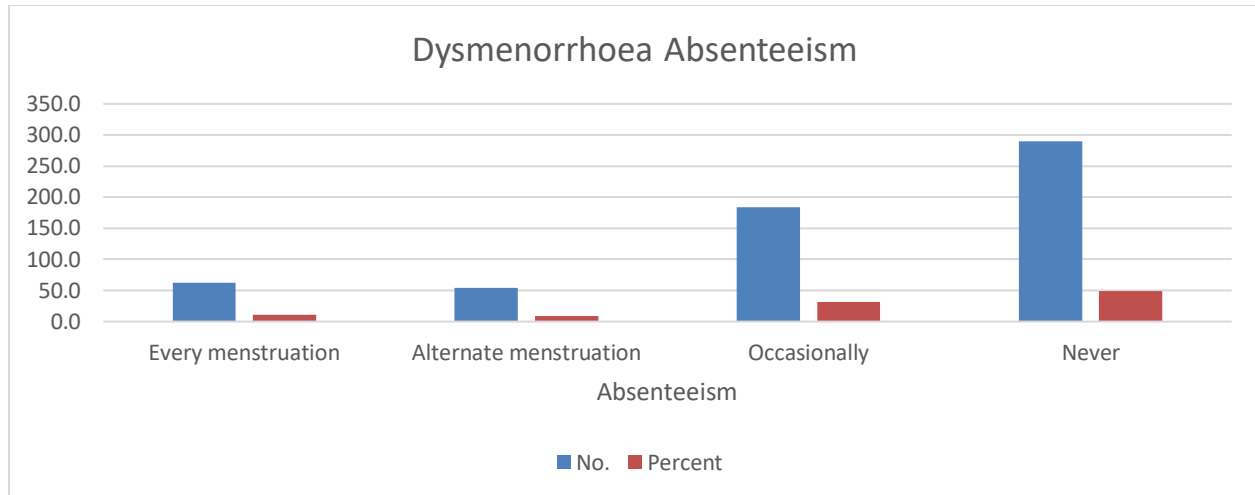


Females also gave the quantity of their napkins utilized in one day when the period of menses was at height. Table-4 shows the rate of absenteeism as a consequence of dysmenorrhoea. We found that 51.0% females were absent from their normal routine work or school as a consequence of this complication. The absentee from the routine activities at the time of each menstruation period was available in case of

10.50% females of this case work. About 36.40% females were regularly taking analgesics in the duration of menses for the prevention of this painful state. Total 22.0% females suffering from dysmenorrhoea were consulting doctors to tackle this complication. Total 21.0% females who were suffering from this complication had consulted doctors in past.

Table-IV: Absenteeism related to severity of dysmenorrhoea

Absence attributed to dysmenorrhoeal	No.	Percent
Every menstruation	62.0	10.50
Alternate menstruation	54.0	9.15
Occasionally	184.0	31.32
Never	290.0	49.00



DISCUSSION:

It is very hard to measure the pain in dysmenorrhea because it occurs with other unhappy sensations and those sensations impacts the measurement of the pain. This complication is a multidimensional marvel and there should be a multidimensional system of scoring for its measurement. In current research work, measurement of the extremity of dysmenorrhea carried out with the help of verbal multidimensional system of scoring which was providing the stages to the seriousness of pains and presenting the impacts of this pain on routine activities. In this case work, the results showed that an important percentage of the females studying in high schools is suffering from the complication of dysmenorrhea. The rate of dysmenorrhea in the past research works has a range from 3.0% to 90.0% [3]. This very high difference in the rates of this complication is because of selective nature of the past case works.

The case work conducted by Coppen & Kessel is probably the minimum selection of previous case works [4]. Those interrogations researched five hundred females from the registers of the patients of various English subjects. In the research work with English questionnaire, forty-five percent females found with moderate to severe or severe dysmenorrhea [5]. Females with early first menstruation period were suffering particularly high because of dysmenorrhea in comparison with the females with late first menstruation period. About 38.0% females faced the dysmenorrhea in the 1st year after start of the first menstruation period [6]. So, our findings confirmed the conclusion of Anderson & Milsom's which showed that dysmenorrhea is simply not a sign that happens as a consequence of ovulation [7].

Regarding the correlation between dysmenorrhea of participants and same complication among their

mothers & sisters, there was a significant association. The research work of Widholm & Kantero supported our results [8]. The history of the family plays an important part in the occurrence of this complication. In this research work, we investigated the therapeutic needs of females suffering from dysmenorrhea. Total 38.0% females of his case study were using the analgesics on regular basis in menstruation period as a therapy to prevent dysmenorrhea [9]. Total 21.0% females got referrals to specialists to tackle this problem. There are many probable descriptions for the hesitance of females to report dysmenorrhea to their doctors [10]. Majority of females take dysmenorrhea as a routine part of the female body and they have no belief in the prevention of this complication from treatment.

CONCLUSION:

There is a need of better awareness of pathophysiology of painful menstruation which can provide better and effectual methods of treatments for the prevention of dysmenorrhea. This can lead to the decrease in clinical as well as social consequences of this disease of painful menstruation or dysmenorrhea.

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