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A BROAD STUDY ON OLIGOMENORRHIEC STATUS OF SCHOOL LEVEL SPORTS PERSON

[1]Varuni Negi, [2]Dr Parmod Kumar Sethi

[1]Research Scholar, Shri Venkateshwara University, Gajraula, UP

[2]Assistant Professor, PGDAV College (E), University of Delhi

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Abstract

The objective of the study was to conduct a broad survey on the trend and prevalence of selected menstrual disorders among sportsperson at school level in Delhi. It was hypothesized that there is an association between selected menstrual disorder and age of the sportsperson at school level. Besides, is was also hypothesized that all the selected menstrual conditions are not equally distributed among sportsperson at school level. Total 1820 girl students from various Government Schools in Delhi were selected on simple random basis to collect data. The ages of selected girls were in the range of 11 to 18 years [14.01 ± 2.102]. The study was delimited to selected menstrual disorder i.e. Oligomenorrhea. In order to assess the association between age of subjects and their responses on selected menstrual disorder, following variables were selected - Age Group and Menstrual Disorder. In order to assess equal distribution of responses, following variables were selected - Menstrual Disorders i.e. Oligomennorhea. A self-designed questionnaire was applied to collect data. In order to assess association between variables and equal distribution of responses, Chi-square statistical test was applied by using SPSS (version 16) software. The obtained result proved that there is an association between age and Oligomenorrhiec menstrual disorders among sportsperson at school level [Chi-square (χ^2) = 37.974]. Furthermore, it was concluded that the selected menstrual conditions i.e. Regular and Painful menstruation, Regular and Non-Painful menstruation, Irregular and Painful menstruation, and Irregular and Non-painful menstruation are not equally distributed among sportsperson at school level.

Keywords: *Oligomenorrhea*

Introduction

Adolescence is the period of transition between puberty and adulthood. Menarche is one of the markers of puberty and therefore can be considered as an important event in the life of adolescent girls. Studies suggested that menarche tends to appear earlier in life as the sanitary, nutritional, and economic conditions of a society improve. For most females, it occurs between the age of 10 and 16 years; however, it shows a remarkable range of variation. The normal range for ovulatory cycles is between 21 and 35 days. While most periods last from 3 to 5 days, duration of menstrual flow normally ranges from 2 to 7 days. For the first few years after menarche, irregular and longer cycles are common.Menstruation is a biological phenomenon laden with cultural implications. Individuals do not experience the body in a socio-cultural vacuum. In turn, women's interpretations of the physiological and hormonal changes associated with menstruation cannot be understood outside of the social and historical context in which they live, which is influenced by the meaning ascribed to these menstrual changes by westernised medical discourses (Ussher, 2006). Throughout history, menstruation has been assigned roles that ranged from defining a woman's status and social role to being seen as a curse that all women had to endure (Anjum, Zehra, Haider, Rani, Siddique & Munir, 2010). It is this positioning of the female reproductive body as inadequate and needing to be controlled, and of menstruation as a site of madness and debilitation, which provide the framework for women to interpret changes associated with menstruation as pathological symptoms (Ussher, 2006). For centuries, both medicine and religion have methodically devalued the roles assigned to females and excluded women from power in society through patriarchal beliefs about the female reproductive body (Cahill, 2001). This is still evident in many cultures and religions today (Tiwari, Oza & Tiwari, 2006; Umeora & Egwuatu, 2008). The use of such dated sources does present a problem, as the results may not be indicative of the current attitudes and beliefs of Indian women. However, these need to be studied with utmost importance. Researcher was intended to study the role and prevalence of selected menstrual disorder among young girls studying in Delhi schools. The purpose of the study was to conduct **"A Broad Survey on Oligomenorrhiec Status of School Level sports person"**. Following objectives of the research were stated by scholar: To assess the Oligomenorrheic status of sportsperson at school level, To assess the Oligomenorrheic status of sportsperson at school level at different age level, To assess the association between selected menstrual disorder and age of sportsperson at school level, To

assess the prevalence of selected menstrual disorder among sportsperson at school level, To assess the prevalence of selected menstrual disorder among sportsperson at school level at different age, To observe whether there is equal occurrence of cases under different menstrual conditions among sportsperson at school level, and To observe whether there is equal occurrence of cases under different menstrual conditions among sportsperson at school level of different ages.

The study was confined to 1819sportsperson at school level randomly from different school. The study was further confined to schools in Delhi. The study was further confined to the girl students of age group of 11 to 18 years. The number of subject in this age category was considered as a limitation of the study. Since the data collected was subjective in nature, the reliability of the responses was considered one of the limitations of the study. Psychological state of the subjects may effects the result of the study and this was considered as the limitation of study.

The result of the study will help the health experts to better understand the concept and trend of mensuration among sportsperson at school level. It may further help health experts to make better health policies for sportsperson at school level. The result would also help health professionals to understand the current status of menstrual disorders among sportsperson at school level. The study would help to reveal the association between age and Oligomenorrheic disordersportsperson at school level. The finding will fill up to the existing knowledge in the concerned area.

PROCEDURE AND METHODOLOGY

Subjects

For the purpose of survey, total 1820sportsperson from various Government Schools in Delhi were selected to collect data. The ages of selected girls were in the range of 11 to 18 years.

Variables

The study is delimited to selected menstrual disorder i.e. Oligomenorrhea among sportsperson at school level in the age range between 11 to 18 years. After reviewing the literature, consultation with the experts and researcher's own understanding the following variables were selected for purpose of this study:

1. In order to assess the association between selected menstrual disorder, following variables were selected-
   - Oligomenorrhea
2. In order to assess the association between age of subjects and their responses on selected menstrual disorder, following variables were selected-
   - Age Group
   - Menstrual Disorder
3. In order to assess equal distribution of responses, following variables were selected-
   - Menstrual Disorder

Sampling procedure

Simple random sampling was used to collect data from sportsperson of various government schools in Delhi. Simple random sample means that each unit in the population has the same inclusion probability and all the units are independent. Students were accessed through the acquiring permission and support from competent authority of the schools.

Design of the research

The research design used in this study was a cross-sectional survey design. A cross-sectional survey collects data to make inferences about a population of interest. This design allowed for the collection of data regarding the samples experience of menstruation. The use of a self-designed questionnaire which included only three questions was best suited for this study as it allowed collecting huge data. In order to maintain confidentiality of responses of subjects, no personal information was asked.

Tools and Techniques Used

In order to fulfil the objectives of the research, a self-designed questionnaire was applied to collect data. The questionnaire contained following questions which are as follows:

Question 1 – Are you having painful menstruation or non-painful menstruation?

Question 2 – Are you having regular menstruation or irregular menstruation?

Question 3 – What is your age?

Question 4 – Do you play organised/competitive sport?

The first question reveals the Dysmenorrheic (painful menstruation) status of the subjects whereas, the second question revealed the Oligomenorrheic (infrequent menstruation) status of the subjects. The age of the subjects was asked to assess its

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association with menstrual disorder i.e. Oligomenorrhea was selected for the research. The format of questionnaire and data collection method is placed at Annexure A

Data Collection

The researcher accessed students as outlined in the sampling procedure section. The aims of the study were explained to each participant. Earlier, permission to conduct the proposed study was obtained from the competent authority. The participants were informed that participation in the study was completely voluntary and they were allowed to not to answer any or all questions. Each participant was asked the four questions contained in questionnaire. The researcher was available to answer any questions that the participants may have had or to help in answering the questions if assistance was needed. However, participants seemed to have no difficulty with the content of the questionnaire.

Statistical Technique

The data was collected from sportsperson of Delhi government schools and used for the statistical treatment that specifies descriptive statistics. Various information has shown in graphical format such as Bar graph, Line graph, Pie Chart etc. when and wherever required. In order to assess association between variables and equal distribution of responses, Chi-square statistical test was applied by using SPSS (version 16) software. In all the cases 0.05 level of significance was fixed to test the hypothesis.

RESULTS AND DISCUSSIONS

In order to make a better understanding on the topic, the selected variables i.e. age of the subjects and Oligomenorrhea were not only surveyed on a large scale. Besides, there were many appropriate statistical techniques applied and many objectives were fulfilled. The objectives of the research were as follows: To assess the Oligomenorrheic status of sportsperson at school level, To assess the Oligomenorrheic status of sportsperson at school level at different age level, To assess the association between selected menstrual disorder and age of sportsperson at school level, To assess the prevalence of selected menstrual disorder among sportsperson at school level and To assess the prevalence of selected menstrual disorder among sportsperson at school level at different age.

The study was not only confined to assess the association of variables or equal occurrence of variables. But, the association and occurrence of variables were also studied in respect of the age of subjects. The minimum age of the students was 11 years and maximum age for the same was 20 years. Mean and standard deviation value for their age was 14.01 ± 2.102.

Table 5.1

Age wise list of all students with their weightage (in percent)

AGE	NO. OF STUDENTS	PERCENT
11 YEARS	138	7.58
12 YEARS	236	12.96
13 YEARS	234	12.86
14 YEARS	281	15.44
15 YEARS	257	14.12
16 YEARS	282	15.49
17 YEARS	289	15.88
18 YEARS	100	5.49

It was found that there were 138 sportspersons were in 11 years of age. In 12 years of age, there were 236 sportspersons who responded to questionnaire. 234 sportspersons were belonging to 13 years of age. There were 281 sportspersons from 14 years of age. 257 sportspersons from 15 years of age. 282 sportspersons from 16 years category. 289 sportspersons from 17 years of age. 100 sportspersons from 18 years of age.

Table 5.2

Oligomenorrheic status of sportsperson at school level

		OLIGOMENORRHIEC	
		REGULAR MENSTRUATION	**IRREGULAR MENSTRUATION**
11 YEARS	**Count**	75	63
	Expected Count	90.7	47.3

12 YEARS	**Count**	139	97
	Expected Count	155.1	80.9
13 YEARS	**Count**	135	99
	Expected Count	153.8	80.2
14 YEARS	**Count**	187	94
	Expected Count	184.7	96.3
15 YEARS	**Count**	175	82
	Expected Count	168.9	88.1
16 YEARS	**Count**	217	65
	Expected Count	185.3	96.7
17 YEARS	**Count**	198	91
	Expected Count	189.9	99.1
18 YEARS	**Count**	68	32
	Expected Count	65.7	34.3

Out of total 138, 75 were found to have regular menstruation whereas 63 were found to have irregular menstruation. However, the expected count for regular menstruation and irregular menstruation was 90.7 and 47.3 respectively. Out of total 236, 139 were found to have regular menstruation whereas 97 were found to have irregular menstruation. However, the expected count for regular menstruation and irregular menstruation was 155.1 and 80.9 respectively. Out of total 234, 135 were found to have regular menstruation whereas 99 were found to have irregular menstruation. The expected count for regular menstruation and irregular menstruation was 153.8 and 80.2 respectively. Out of total 281, 187 were found to have regular menstruation whereas 94 were found to have irregular menstruation. However, the expected count for regular menstruation and irregular menstruation was 184.7 and 96.3 respectively. Out of total 257, 175 were found to have regular menstruation whereas 82 were found to have irregular menstruation. However, the expected count for regular menstruation and irregular menstruation was 168.9 and 88.1 respectively. Out of total 282, 217 were found to have regular menstruation whereas 65 were found to have irregular menstruation. The expected count for regular menstruation and irregular menstruation was 185.3 and 96.7 respectively.Out of total 289, 217 were found to have regular menstruation whereas 65 were found to have irregular menstruation. However, the expected count for regular menstruation and irregular menstruation was 185.3 and 96.7 respectively. Out of total 100, 68 were found to have regular menstruation whereas 32 were found to have irregular menstruation. The

expected count for regular menstruation and irregular menstruation was 65.7 and 34.3 respectively.

Chi-square (χ^2) calculation for association between age and oligomenorrhiec status of sportsperson at school level. The value of Chi-square (χ^2) was found to be 37.974, which is significant at 0.05 level of significance as the p-value is 0.00. Thus, we rejected the null hypothesis drawn a statement as "There is no association between age and oligomenorrhiec status of sportsperson at school level. It may be concluded that there is a significant association between age of sportsperson at school level and their oligomenorrhiec status on the issue of different age level of sportsperson at school level their menstruation status in term of Oligomenorrhea.

Table 5.3

Chi-square test for Oligomenorrheic and Dysmenorrheic status of sportsperson at school level

	Chi-square	df	Asymp. Sig. (2-sided)
Oligomenorrheic	37.974[a]	9	.000

Table 5.4

Menstrual Trend among Sports Person at school level

	Observed N	Expected N	Residual
REGULAR MENSTRUATION	1196	910.0	286.0
IRREGULAR MENSTRUATION	624	910.0	-286.0

The selected subjected also manifested the menstrual trend among sports girls at school level in following manner: 1) it was observed that most of the sports girls are having regular menstruation 2) whereas the prevalence of painful menstruation among school girls who were participating in sports were more. The significant p-value i.e. less than 0.05 level of significant for Oligomenorrhea also ensured the reliability of obtained result.

Table 5.5

Chi-square test for menstrual trend

	Oligomenorrhea
Chi-Square	1.798E2[a]
Df	1
Asymp. Sig.	.000

CONCLUSIONS AND RECOMMENDATIONS

On the basis of objectives of the study and result obtained after statistical application, the following conclusions were drawn: It was also observed that the selected menstrual problems are not equally distributed among sports girls at school level. Where most of the girls were having regular menstruation, they also found to have painful menstruation. On the basis of obtained results, it could also conclude that there is no association between age of the subjects and Oligomenorrhiec status of the subjects. Above mentioned conclusions and finding has revealed many facts and filled the gap in information available regarding relationship of various menstrual disorder and age of sportsperson at school levelin Delhi. Now, following recommendations are made with future research perspective: It was also recommended that same sportsperson at school level need special attention for their dysmenorrheic status.Similar study can be taken on females at college level and onward by same method.Similar study can also be taken on other menstrual disorders that are left in this study. A study can be conducted on association of menstrual disorders and lifestyle factor of females.Further study can be conducted on association of various menstrual disorder and nutritional status of sportsperson at school level.Similarly, a study can also be conducted on association of various menstrual disorder and nutritional status of girls of other age group.

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