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MENSTRUAL PROBLEMS ARE PREVALENT AMONG YOUNG FEMALE STUDENTS PURSUING HEALTH SCIENCES AND THEY ARE ASSOCIATED WITH MENTAL STRESS IN PAKISTAN

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Abstract:
Aim: *The main purpose of our research was to measure the incidence of numerous menstruation disorders in female adolescents pursuing health sciences, as well as their relationship with academic pressure.*
Methods: *It really was cross-sectional research that took place sometime Between 2020 and April 2021 at health colleges of Sir Ganga Ram Hospital in Lahore, Pakistan. Eight hundred fifty young women between the ages of 19 and 26 years old responded to a questionnaire on menstruation problems and anxiety symptoms. The Statistical Package for The Social, version 15.0, was applied to analysis information.*
Results: *Ninety-two percent of college students had some type of menstruation issue. The many menstrual disorders described and their frequencies comprised inconsistent menstruation (28%), abnormal vaginal bleeding (10.4%), amenorrhea (10.3%), menorrhagia (4.5%), dysmenorrhea (85.8%), and premenstrual problems (47.8 percent). HPS was found in 38% of pupils. HPS and menstruation difficulties were shown to have a strong positive connection. Girls having HPS had 5 times, 3 times, and 3.9 times higher probabilities ratio for amenorrhea, dysmenorrhea, and menstrual problems, respectively (p0.06).*
Conclusion: *In the target group, the most common menstruation disorders (dysmenorrhea and premenstrual signs) were significantly related with anxiety. As a result, it is suggested that health science students are getting early psychiatric and gynecological psychotherapy to prevent possible difficulties.*
Keywords: *Menstrual Problems, Prevalent, Health Sciences, Mental Stress, Punjab, Pakistan.*

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INTRODUCTION:

Menstruation is a normal event that involves the release of blood from the uterine via the vagina at almost recurring monthly periods throughout a female's reproductive age. Regular menstruation begins in teenagers aged 12 to 14 years old, with a period lasting 5 days or fewer and a cycle lasting 20 to 50 days through an average blood loss of 25-82ml [1]. Menstruation illnesses include dysmenorrhea, premenstrual signs, menorrhagia, irregular vaginal bleeding, amenorrhea, oligomenorrhea, besides abnormal periods. According to studies, a significant quantity of the adolescent girls of reproductive years suffers from menstruation health problems. Menstrual difficulties are mostly not an expensive weight, but they are likewise one of leading reasons of absence and poor abstract in young girls. Dysmenorrhea is one of the most common menstruation disorders in adolescence, and it can lead to women being bedridden [2]. According to a review by Davis et al, 25-92 percent of teenage females had dysmenorrhea, with nearly 16 percent experiencing severe dysmenorrhea. Premenstrual sickness is yet another menstruation issue that might interfere with women's everyday activities. The pooled incidence of PMS was determined to be 46.9 percent in a comprehensive examination. Menstrual problems, such as menorrhagia, irregular uterine bleed, and polymenorrhagia, account for 13% of all gynecological referral and are typically linked with a high likelihood of invasive surgery. According to Coulter et al, 62 percent of women had a hysterectomy following six years after being sent for menorrhagia [3]. Menstrual periods can be influenced by a number of factors, including age, race, family background, smoking, exercise, and nutritional choices. Stress may be a significant contributor to or cause of monthly abnormalities, and a link has already been shown connecting anxiety and a variety of irregular periods such as menorrhagia, oligomenorrhea, dysmenorrhea, and PMS. Furthermore, a significant prevalence of menstruation issues has been reported in students pursuing medical and health studies [4]. The number of healthcare science participants stated that they are under constant and acute academic pressure as a result of their academics and examinations, which is leading in unfavorable health effects, including menstruation difficulties in females. There are a few studies in the literature on the incidence of menstruation disorders and their relationship with emotional stress. Nevertheless, the majority of current research either used a population size or did not use a validated stress survey. As a result, the current study was created to fill this need. The main aim of our research is to see if here is a link among psychological strain and menstruation difficulties utilizing a validated state anxiety scale questionnaire. The study's findings will aid in the investigation of this link and the development of methods for enhancing psychological and women's healthcare [5].

METHODOLOGY:

It really was cross-sectional research that took place sometime Between 2020 and April 2021 at the health colleges of Sir Ganga Ram Hospital in Lahore, Pakistan. Eight hundred fifty young women between the ages of 19 and 26 years old responded to a questionnaire on menstruation problems and anxiety symptoms. The SPSS, version 15.0, was used to analysis the information. In all, 768 pupils met the requirements for admission and were enrolled. The Deanship of Scientific Research Sir Ganga Ram Hospital, Lahore Pakistan granted ethical permission. Because this study was conducted human individuals, the Helsinki Declaration standards were rigorously adhered to the respondents were encouraged to deliver an anonymous menstruation problem identification questionnaire. The authors created the questionnaire judging by past comparable research. The survey asks regarding respondents' characteristics but also their menstrual rhythm (early puberty age, cycle length in days, amount of discharge in days, month regularity), blood loss characteristics, and a background of dysmenorrhea, amenorrhea, and premenstrual problems. The test procedure had been used to verify the validity and validity of the questionnaire. The identical questionnaire was given to 25 people over a 4-week period to check if they all replied the same way. PSS10 was selected to measure person's stress levels since it has been demonstrated to be extremely reliable in acknowledging the value of stress in the genesis of illness and interactive syndromes. PSS 10 scores ranging from 0 to 13 were classified as having little felt anxiety, 13 to 26 as having moderate perceived stress, and 28-41 as having significant symptoms. 22 Written permission was acquired, and all participants were promised that their identities would indeed be kept private. Because the participants were from health sciences schools, they comprehended and filled the questions extremely well, decreasing the chances of mistake. Normal menstruation and different menstrual diseases were defined using the following parameters:

Typical menstrual cycle: A typical menstrual cycle lasts 22 to 36 days, with menstrual flow lasting 3 to 7 days and an estimated blood loss of 21 to 82 ml.

Irregular cycle: An irregular cycle is one in which the length of the menstrual period varies abnormally.

Cycle length variance of 9 to 25 days is considered moderately irregular, while variability of 25 days or more is considered actual uneven. Amenorrhea is the absence of menstruation. Primary amenorrhea is defined as the lack of menstruation at the age of 16 in persons with normal testosterone levels; secondary amenorrhea is defined as the lack of periods for 5 regular periods, or for seven months. A menstrual cycle that lasts or more 38 days is referred to as oligomenorrhea. Hypomenorrhea is a condition wherein uterine menstruation occurs infrequently, for a short period of time (2 days), or both.

Statistical Analysis:

SPSS for Windows, Version 15.0, remained utilized to analyses the data. Qualitative data remained utilized to establish statistical profile, menstrual trends, and occurrence of numerous menstrual difficulties in young women college students. The Chi-square trial was performed to associate the occurrence or presence of monthly regularity in learners through diverse menstrual disorders, and p0.05 was tested for significance. The Spearman Pearson's autocorrelation was used to examine the relationship between stress and various menstruation issues. Odds ratios, on the other hand, have been computed using regression analysis.

RESULTS:

Table 1 provides demographic data. Table 2 displays menstrual designs of individuals, with cycle duration, blood loss volume, and the definitions in days. The current research discovered a significant frequency of menstruation difficulties among young Saudi students, with 92 percent experiencing some type of monthly difficulty. Ninety-two percent of college students had some type of menstruation issue. The many menstrual disorders described and their frequencies comprised inconsistent menstruation (28%), abnormal vaginal bleeding (10.4%), amenorrhea (10.3%), menorrhagia (4.5%), dysmenorrhea (85.8%), and premenstrual problems (47.8 percent). HPS has been detected in 38% of students. HPS and menstruation difficulties were shown to have a strong positive connection. Girls through HPS had 5 times, 3 times, and 3.9 times higher odds ratio for amenorrhea, dysmenorrhea, and menstrual problems, respectively (p0.06). Table 3 shows the incidence of emergence of different diseases, whereas Table 4 shows the percentages and frequencies of various symptomatology. Table 3 shows that a substantial percentage of students with abnormal menstruation also had amenorrhea (p0.002) or abnormal vaginal bleeding (p0.05). A significant conclusion of the current study revealed that 40% of students had HPS, with 28% of those students indicating that HPS was connected to their academics and examinations. Table 6 demonstrates a clear relationship among anxiety and dissimilar menstrual abnormalities, showing that participants through HPS remained four times extra probable to have amenorrhea, two times more probable to have dysmenorrhea, and 2.8 times more probable to have premenstrual symptoms, correspondingly.

Table 1:

Demographic data	**n (%)**
Age	
≤21	325 (45.5)
22-27	419 (58.6)
Residence	
Home	715 (94.8)
Hostel	25 (5.2)
Marital status	
Married	172 (24.9)
Single	575 (78.4)
Family size	
≤4	158 (25.2)
5-8	368 (48.5)
>8	138 (19.7)

Table 2:

Menstrual patterns	**n (%)**
Cycle length in days	
<20	99 (14.3)
20 - 26	317 (43.9)
27 - 36	266 (36.7)
>37	42 (6.6)
Duration of flow in days	
≤3	58 (8.8)
6-8	523 (71.9)
>8	141 (19.9)

Table 3:

Menstrual disorders	**n (%)**
Regular	526 (72.2)
Irregular	202 (28.1)
History of amenorrhea	69 (8.3)
Menorrhagia	27 (4.5)
History of dysmenorrhea	661 (88.8)
History of abnormal vaginal bleeding	68 (8.4)
Premenstrual symptoms	347 (47.8)

Figure 1:

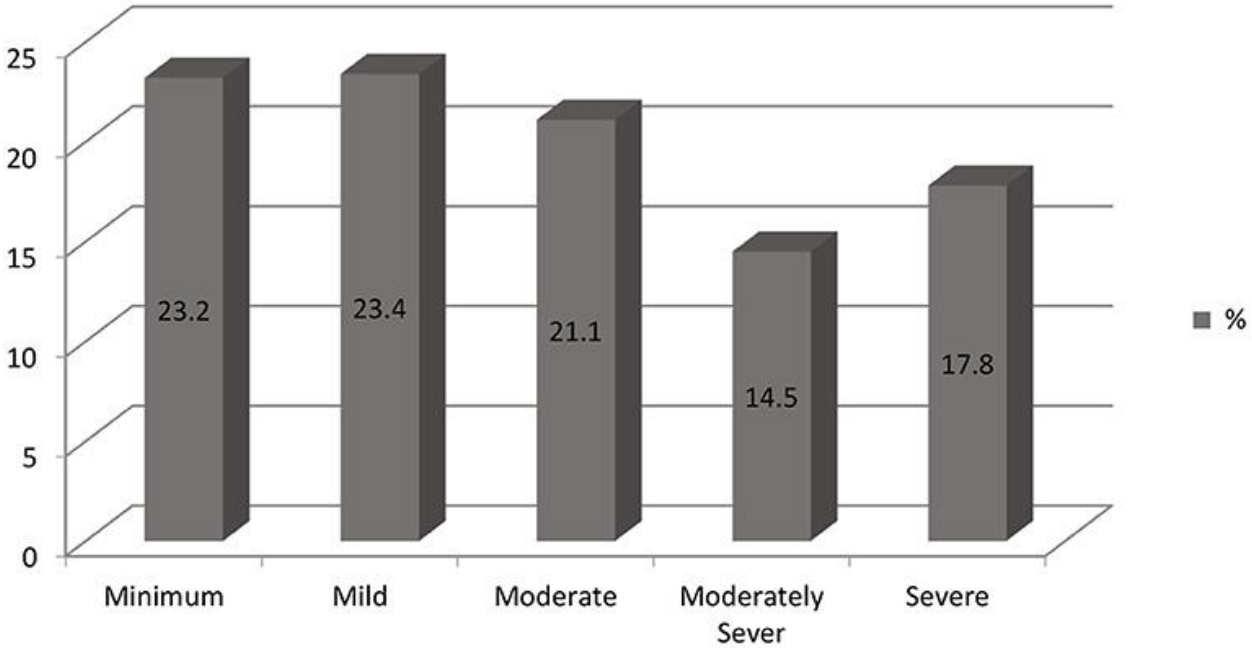
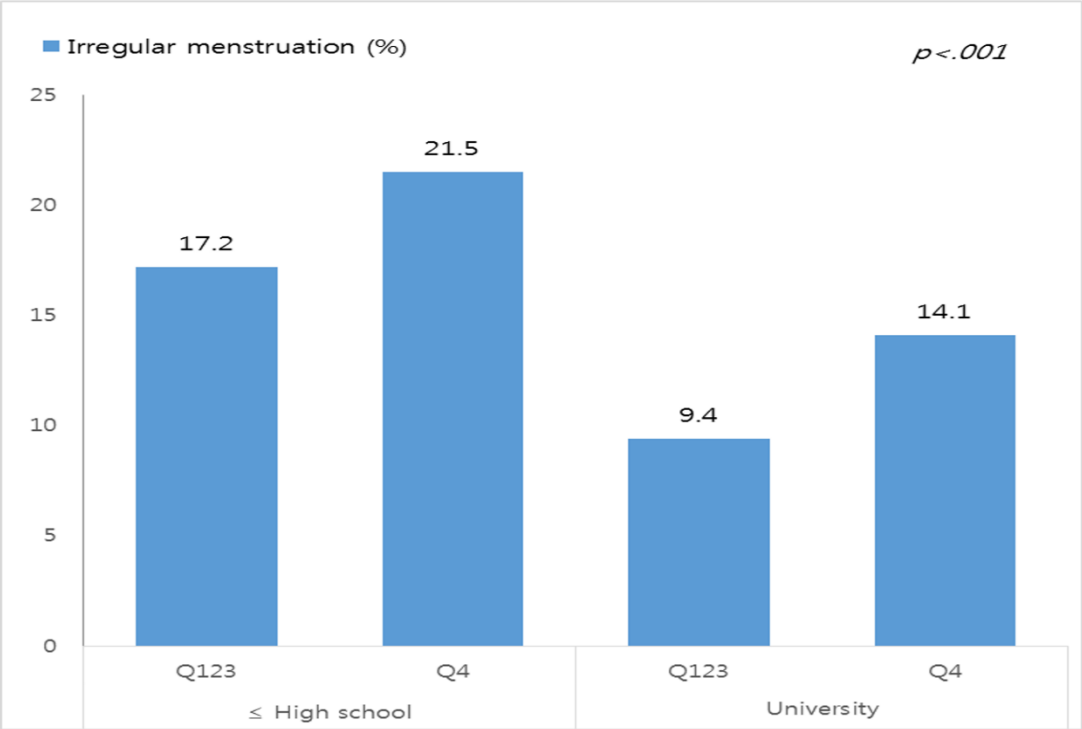


Figure 2:



DISCUSSION:

Stress and menstrual difficulties are two of the most prevalent health issues among young girls pursuing health sciences. According to the findings of this research, 42 percent of individuals had HPS, and 92.8 percent had some sort of menstruation issue. HPS was strongly and positively related associated amenorrhea, dysmenorrhea, and premenstrual syndrome [6]. Utilizing basic menstrual cycle parameters such as length and length of stream in days, this research discovered that 78 percent of individuals had a standard-length cycle, 71 percent had a typical length of flow, and 66 percent had normal blood loss. Differences in cycle length have already been reported in various groups, as well as intra- and inter-individual differences. For example, it was observed that 3.3 percent of the women in Punjab Pakistan had shorter menstrual periods (21 days) and 5.2 percent have longer menstrual cycles (>36 days). In current research, 14% of individuals had short menstrual bleeding, whereas 6% had lengthy menstrual periods. Nevertheless, in India, between 8% and 25% of the time, the same thing happened [7]. In the latest research, only 3.4 percent of individuals experienced menorrhagia, while 14 aggregate percentage polymenorrhagia (a short cycle duration of fewer than 24 days). These findings are comparable through both results of many other authors, suggesting that menorrhagia is less common in the youthful population and more common in those over the age of 37. In inconsistent with findings of Zhou et al and Fenster et al, current investigation found no link between mental trauma and menorrhagia or polymenorrhagia [8]. Abnormal menstruation was detected in 28% of research subjects, while amenorrhea (cycle duration of additional than 4 months) was originated in 11%. A substantial proportion of individuals having inconsistent menstruation also had amenorrhea (p0.002) [9]. Furthermore, a substantial positive connection was found among amenorrhea and HPS. Allworth et al. observed that anxiousness had a substantial impact on amenorrhea and irregular periods. Other researchers have discovered comparable possessions of stress on menstrual cycle duration. Nevertheless, research conducted by Sodo et al and Willey et al found no link among anxiety levels and menstruation rhythms in med scholars. Such disparities might be attributed to variations in study methods, the influence of other confounders, and personal variances in stress adaptation. Several students in the latest research who

were subjected to about the same feelings of pressure had regular menstruation [10].

CONCLUSION:

Finally, this research found that the incidence of menstruation issues and anxiety is relatively in height among young Pakistani female health sciences students. Furthermore, substantial positive relationship among mental anxiety and amenorrhea, dysmenorrhea, in addition premenstrual signs remained discovered.

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