

Exploring the Psychosocial and Physical Dynamics of Premenstrual Syndrome Among Women Aged 15–30 in Pakistan

Kainaaf Yousaf¹Amna Shafique²Momina Yahya³Kanza Mahmood⁴Zainab Tahir⁵Kanza.mahmood786@gmail.com

¹ Lecturer, Department of Applied Psychology School of Professional Psychology University of Management and Technology Lahore

^{2,5} Lecturer, Department of Psychology, Lahore Garrison University

³ Research Assistant, Lahore University of Management Sciences

⁴ Clinical Psychologist at Tele Doctor, m-health department MILVIK Mobile Pakistan.

Abstract

The research aim to understand the experiences and factors of pre menstrual syndrome in Pakistan. Data was collected from six participants with the age range of 15-30 years. Sample was recruited using non probability convenient sampling. Qualitative research design was used to understand the indepth dynamics of pms. Semi- structured interview protocol was used including 18 stimulus questions. Data was analyzed through thematic analysis. Results describe 12 super ordinate themes including Disadvantage of unawareness, Knowledge major effects on lifeMental strain Mood symptoms,Physical Symptoms, diet, sleep, blue light and sun interaction. Results will be significantly assist in the development of management plan for women experiencing a major concern if their life.

Keywords: Qualitative Research, Premenstrual Syndrome, Thematic Analysis, Women, Clinical Intervention.

Introduction

A large number of women of reproductive ages, who are fertile and got periods every month with regulated or non-regulated menstruation cycle, mostly experience different kinds of physical signs and symptoms moreover, they also experiences signs and symptoms of emotional disturbance or difficulties. Such signs and symptoms typically appear some days before the onset of the menstruation cycle. It is also noted from the past surveys and findings that more than 80% of women of a population experiences mild level of symptoms that may be physical, emotional or both. before the onset of menses, while rest of the 20% of women suffering from extreme and intense level of symptoms which not only affect

them but also cause significant disturbance and difficulties in nature area of their life which disturb there basic or mandatory day to day activities (Quintana, Whitcomb, Ronnenberg, Bigelow C, Houghton & Bertone, 2017).

The aim of this study was to investigate the existence, knowledge, and the attitude of females towards premenstrual syndrome (PMS). It is noted that majority of the population of Pakistan belongs to youth and young woman are at higher risk of premenstrual syndrome if there is insufficient knowledge related to this condition in youth then it was difficult for the individual to address and understand the reason behind the symptoms they are going through which cause more adverse effects so

the main target is to evaluate the existence and knowledge related to premenstrual syndrome among youth so that techniques were designed to spread awareness related to condition in population.

There is also a condition called premenstrual dysphonic disorder which is not so common and a small number of populations were affected by it but it is far more serious condition than that of the premenstrual syndrome. Mostly this disorder comprises of behavioral and affective symptoms that occurs mostly during the late phase of luteal phase of ovulation cycle only a few number of cases are reported to by women to doctor (Elliott, 2002).

The prevalence rate of premenstrual syndrome among the individual belongs to the age group of adolescents varies from 10% to 53% while it is higher among women of young ages. Gynecologists and obstetricians defined premenstrual syndrome as a condition belongs to the clinical category characterized by cyclic presence of physical and emotional symptoms which has no relationship with any organic condition typically appears before the onset of menstrual cycle hence, the cause of premenstrual syndrome is still unknown but it seems that it may appear due to the change in hormonal quantities before four to five days before the onset of menstrual cycle that cause mood change and physical signs and symptoms with in an individual (Tschedian, Bertea & Zamp, 2010).

Different studies and contribution were made to evaluate multiple risk factors that can be connected or associated with premenstrual syndrome some of these factors were targeted like stress of individual, age of

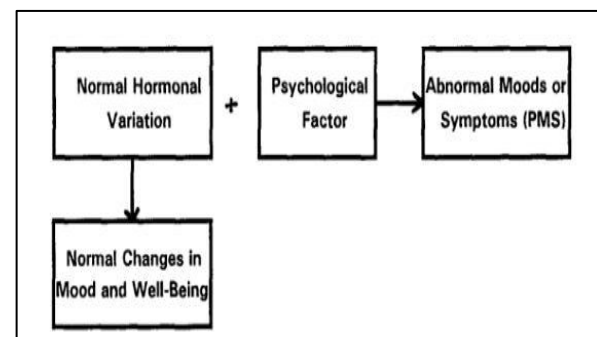
individual, body mass index of an individual, and marital status of the individual were found to intense the symptoms (Purdue, 2016).

The psychosomatic model

The model state that the hormones are not the only culprit of the condition definitely there is also an involvement of the third party that's is the

Woman's temperament, traits, personality and psychology which appears as a hindrance in sification of cyclical changes in mood and well-being through a psychosomatic mechanism. Some contributors also reported that such Symptoms appears in such women who are facing conflict with their gender role and denied there femininity. Moreover those women who are more neurotic experience more Symptoms.(woods,1967)

Literature Review



Felicia et al., (2017) around 80% of conceptive age ladies experience physical or enthusiastic side effects before beginning of menses. Of these ladies, ~20% experience manifestations sufficiently extreme to meddle with social working and life exercises, and meet clinical rules for premenstrual condition (PMS). In excess of 100 unique manifestations are related with PMS. Manifestation groupings will in general be steady inside an individual,

however differ unmistakably between ladies. Expected contrasts in the etiology of indications propose that PMS may have subtypes that address unmistakable substances. The objective of this investigation was to distinguish side effect designs utilizing factor examination. We at that point utilized straight relapse to assess relations between PMS hazard factors with factor scores for the manifestation designs. Examination included: (1) 414 solid ladies matured 18-30 years; (2) the subgroup of these ladies meeting set up rules for PMS ($n = 80$). All members gave data on the event and seriousness of 26 premenstrual indications by approved survey. Four particular indication designs arose, marked Emotional, Psychological/Cognitive, Physical, and Consumption. We noticed a direct connection between weight record and the Consumption design in both the absolute examination populace ($p = 0.03$) and the PMS subset ($p = 0.04$). Furthermore, in the absolute populace, active work was conversely connected with the Physical example ($p = 0.04$), however emphatically connected with the Consumption design ($p = 0.03$). Results from this examination are predictable with recently recognized examples and recommend that unmistakable subtypes of PMS exist. Future investigations of social elements ought to assess relationship with manifestation designs notwithstanding PMS as a total issue.

Gul piner, Meric Colak and Ergun Oksoz (2011) The reason for this examination is to dissect the recurrence of Premenstrual Syndrome (PMS) in understudies, the components influencing Premenstrual Syndrome and the impact of Premenstrual Syndrome on life quality. The exploration was performed on 316 understudies who learn at Medical Sciences Faculty of Başkent University and acknowledged to participate in the examination. The information of the examination was incorporated by utilizing

"Survey Form", "PMS Rating Scale" and "Life Quality Scale" created by the analysts. In the examination of the information; Percentage dissemination, Chi-square test, One Way Anova test, Logistic relapse, Multi ostensible relapse investigation were utilized. PMS was identified in 72.1% of the understudies. The most continuous indications are principally low back torment, stress-uneasiness, apprehensive displeasure, widening and bosom delicacy. PMS was discovered altogether high in those understudies who have feminine anomaly, who have dysmenorrhea, who devour 2 cups of espresso or above each day and who smoke and drink liquor ($p < 0.05$). At the point when the connection of PMS with life quality was assessed, it was resolved that the existence quality abatements as PMS score normal expand ($p < 0.05$). PMS rate is high in understudies and this unfavorably influences the existence quality. It was uncovered that the preventive, informative and consultancy jobs of the clinical staff turned out to be a greater amount of an issue in diminishing the impact of the components causing as well as irritating these indications to diminish PMS occurrence and to improve the existence nature of the understudies.

J clin Diagn Res (2014) Premenstrual Syndrome (PMS) is a typical medical condition in ladies in conceptive age. The current examination meant to research the pervasiveness of PMS utilizing meta-investigation strategy. This meta-examination efficiently surveyed the commonness of PMS. A pursuit was led utilizing watchwords Premenstrual Syndrome, PMS, pervasiveness PMS and indication of PMS in solid English articles. The underlying hunt 53 articles were accessible. After survey of full-text articles, 17 articles were chosen for examination. Information were consolidated utilizing meta-examination (irregular impacts model). Information were investigated utilizing

STATA programming, Version 11.1 Overall, 17 investigations met our consideration measures. The pooled pervasiveness of PMS was 47.8% (95% CI: 32.6-62.9). The most reduced and most elevated predominance were accounted for in France 12% (95% CI: 11-13) and Iran 98% (95% CI: 97-100) separately. Nonetheless, meta-relapse dissipate plot showed an expanding pattern in the commonness of PMS during 1996-2011 however relationship between pervasiveness of PMS and year of study was not importance ($p = 0.797$). Considering that various apparatuses have been utilized in examinations and numerous investigations have been planned dependent on a restricted example, in this manner, future exploration needs to think about the predominance of PMS in various nations of world.

Rational

Being female is not easy. The body to female carrier bundle of chemical messengers and transmitters that link together and affect the behavior and mood. Similarly before the onset of menstruation the body chemical level change some hormones like the quantity of estrogen decrease which stimulate the production of Follicle stimulating hormone and LH due to decrease in the estrogen level symptoms like depression, body pain and breast tenderness occurs which are the characteristics symptoms of premenstrual syndrome. Previous researches underlined the impact of conduction but ignore the environmental factors that increase the intensity of symptoms. The present study aim to find the magnitude of condition with in the Pakistan along with full filling the gap of literature by analyzing environmental factors related to the premenstrual syndrome.

Research question

What are the psychosocial factors and experience of women undergoing with the condition of premenstrual syndrome in early ages ?

Method

Research Design

Qualitative research design was used in the present study to evaluate the impact and magnitude of Premenstrual syndrome among females of Pakistan.

Sample and Sampling Strategy

The sample consisted of (N=12) collected from local female of township Lahore and kamoke city. The age range of students was 14- 30years. The sample was recruited using non-probability purposive sampling. It will be used because the section of the sample was depending upon the possibility and consent of the respondents. Data was collected via online interview methodology. according to following criteria

Interview protocol

Interview sheet comprises items in order to evaluate presence, effects, factors, daily functioning, diet, interaction with sun and supplements consumption related questions like to access the physical, sleep and mood related symptoms two items were used “Do you feel pain, irritation or crankiness during or before the days of menstruation”, “Do you feel mental strain before the days of periods”, “Do you feel any disturbance in sleep” and “Do you feel worried”. Furthermore some of the items are accessing the impact on daily functioning “Do this crankiness affect your mood “and “Do this mental strain and irritation affect your life”. Some of items access the knowledge in common women and how unawareness affects them “In your opinion do common women has knowledge about PMS” and “How unawareness negatively affect them” one to access about consult “ Do you ever consult to any one (i.e. doctor, mother, father, sister, friend or others)”. Some items designed to access life style like “how’s your diet (Balanced/ not balanced)”, “ How much time do you interact with sun”, “ how much blue light do you consume by using mobile, T.V, laptops etc. ” and “ Do you consume

any sublimates like calcium or vitamin D). These questions were asked by participants participating in the present study on premenstrual syndrome.

Procedure

From the very beginning, study started from acquiring the kind permission of authority and supervisor for the selection of problem statements of study. A self-constructed demographic information sheet and interview questions were selected and approved under the kind and enlightening guidelines of the honorable supervisor. Then the research design, features of the sample and sampling strategy were decided under the bright and clear guidelines of the supervisor. Data was collected through online modality on zoom, Google meet and phone call. The worth of the investigational study and the nature of the questions were explained to the participants. Then the research design, features of the sample and sampling strategy were decided under the bright and clear guidelines of the supervisor. Consent was obtained from participants prior to data collection and recording of statements the consent was also recorded and the purpose of study is also recorded. The confidentiality of identity and responses will be maintained in study. It was also guided to participants that the participants had full right to leave at any time. After taking the consent form interview questions were asked from the participant. Flayers were shown to participants during the session and shared with participants after completing the session. After obtaining the information participants were thanked for their quality time by a thank you message in the session.

Qualitative Analysis

It was qualitative in nature. The data was written on a paper in the form of transcript Interpretations of lines and translation of verbatim was done in Urdu and noted in English from this themes of data were extracted after collection themes of data

subthemes were collected from the data and flowcharts were constructed and graphs were constructed.

Result

The section comprises of the themes, subthemes, verbatim of every individual participant, major table to analyze themes and subthemes and there frequencies and percentages. At last a flow chart was designed to access the themes and subthemes in an organized form.

Major table of themes and subthemes

Super ordinate themes	Sub ordinate themes	Frequency	Percentage
Physical Symptoms	● Body pain	5	71.43
	● Pain in back and belly	1	14.28
	● Tiredness	1	14.28
Mood symptoms	● No major worries	1	3.85
	● Normal mood	1	3.85
	● Irritability	6	23.08
	● Crankiness	3	11.54
	● Sadness	1	3.85
	● Worthlessness	1	3.85
	● Depression	1	3.85
	● Mood swings	1	3.85
	● Worry of pain	3	11.54
	● Aggression	1	3.85
	● Anger	3	11.54
	● Reticent	2	7.69
	● Laziness	1	3.85
	● Everything seems awkward	1	3.85
Mental strain	● No mental strain	3	60
	● Tension about pain	1	20
	● Tension about adjustment of mood	1	20
Major effects on life	● No major effect on life	2	22.22
	● No disturbance in social relationship	1	11.11
	● Disturbance in family relationship	3	33.33
	● Lose of studies	1	11.11
	● Laziness	1	11.11
	● Increase in anger	1	11.11
Knowledge in common woman	● No knowledge about PMS	4	50
	● Have knowledge about PMS	2	25
	● If have then ignore it	1	12.5
	● If have then careless	1	12.5
Disadvantage of	● Increase in worry	2	18.18

unawareness	● Disturbance in relationship	2	18.18
	● Personality disturbance	1	9.09
	● Routine disturbance	1	9.09
	● Irritation	1	9.09
	● Depression	1	9.09
	● Increase in irritability	1	9.09
	● effect daily life	1	9.09
	● Health issues	1	9.09
Diet	● Not a balanced diet	3	50
	● Balanced diet	3	50
Sleep	● No effect	2	33.33
	● Deficiency in falling asleep	2	33.33
	● Decline in sleep duration	1	16.66
	● Disturbed sleep	1	16.66
Interaction with sun	● Very less interaction	1	16.66
	● Less interaction	1	16.66
	● More than half of the day	4	66.66
Consumption of blue light (use of mobile, TV and laptop)	● Infrequent Use	2	33.33
	● Moderate use	1	16.66
	● Frequent use	2	33.33
	● More than 1/4 of the day	1	16.66
Any medication or health sublimates	● No	3	50
	● Vitamin D	1	16.66
	● Calcium	2	33.33
Any consult (Health care professionals, Mother, Sister, Friend or Other)	● No consult to health care professionals	6	54.54
	● Not talked to family member	1	9.09
	● Use self-prescribed medicines	3	27.27
	● Control mood by own	1	9.09
	● Use of remedies	1	9.09

Interpretation of the most repetitive verbatim

"I doesn't feel hopeless ness but i feel irritation, crankiness and extreme pain"

One of the participants shared her experience during the days of mensuration characterized by feeling extreme pain in body and experiencing crankiness and irritation during thesis days moreover pain is also experienced during the days of menstruation this pain is extreme and affects her.

"I don't talk much on this time majorly i remain quite, I don't work much i just remain lie on the bed"

One of the participants elaborated that during her days of menstruation the mood symptoms are like remain quiet and don't want to talk to anyone. Doing work is not easy it feels like having no energy or lack of energy and one just want to stay on bed and don't want to work anymore the mood is also irritable due to which one don't want to talk to other.

"I feel worried about experiencing the same for 7 days again"

One of the participants shared that menstruation beings worry. one feel worry about menstruation because of experiencing the same circumstances for a week again

"Sometimes, it depends something i feel ahhh! It is going to start again"

One participant shared that she experience mental strain during and before the days of menstruation she feels like she have to face the same circumstances again and bear the mood and physical symptoms again for number of days.

"Yes! It effects my life like my relationship with family and my friend don't like my attitude and Behavior"

The condition and symptoms of premenstrual syndrome affect the relationship of life of one participant. Like causing disturbance in the relationship with the close relationship including the membership of family and disturbance in relationships with friends too like disturbance in the relationship with friends due to mood disturbance individual become irritable and don't show good Behaviors which is not bearable by friends that cause disturbance in relationships with friends

"I feel difficulty in falling asleep"

One of the participants shared the experience of find it difficult to fall asleep that affect her sleep too.

"Common women don't have knowledge about the condition (PMS) but they should know"

According to the one of the participant most of the common woman belongs to Pakistan don't have knowledge related to the symptoms they are experiencing moreover they don't have much knowledge about the condition name premenstrual syndrome but a women should have knowledge about it

"I guess they have knowledge"

One of the participant shared her opinion according to her common women has knowledge about the condition they are experiencing in the course of particular days "Unawareness cause disturbance in their relationships and shape their personality accordingly in a bad way"

According to the opinion of one of the participant the unawareness of the condition make them fall prey to a cycle of continuous irritation that effect there relationships and the continuous irritation make them behave and react in a particular way that affect them

by changing their personality in a negative way.

"My diet is not balanced i eat only vegetables and rice"

it is noted that those participants that reported to have a balanced diet are more likely to experience mild symptoms or completely absence of symptoms. One of the participant reported that she don't have a balanced diet only a few things are consumed by her like veritable and rice only.

"My diet is balanced i eat everything"

One of the participant Reported to have a balanced diet like eating fruits, vegetables nuts and meat etc.

"Interaction with sun is poor"

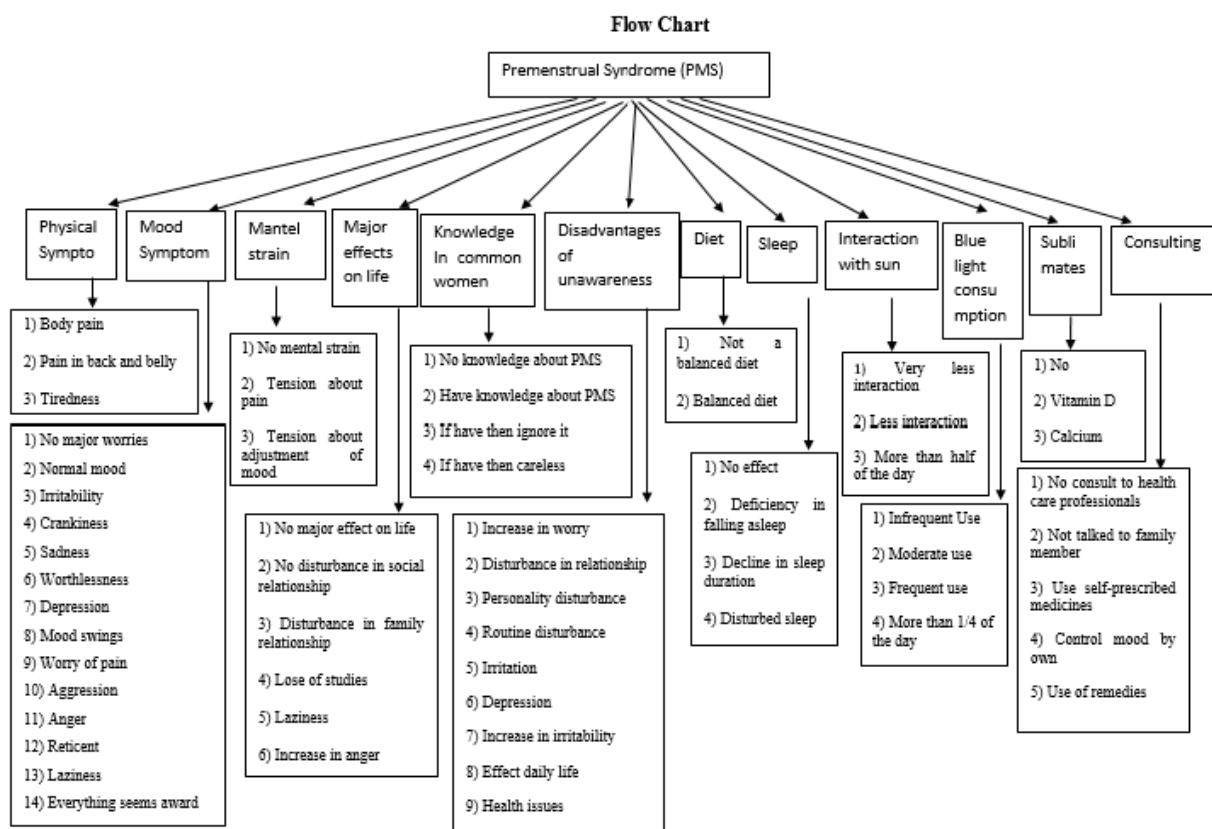
One of the participant Reported that her interaction with sun and consumption of sunlight is not a good that can affect her level of vitamin d in body

"i use mobile around 7-8 hours in a day"

One of the participant Reported to use mobile seven to eight hours a day that is her consumption of blue light.

"No i don't take sublimates"

One of the participant Reported not to consume sublimates like calcium and vitamin d and experiencing symptoms of premenstrual syndrome.



Discussion

The present study was to investigate factors of premenstrual syndrome and its impact on daily life of females. Premenstrual syndrome is a mixture of symptoms that most females get a week or two before periods. Many females, over 90% said that they receive some symptoms of premenstrual syndrome, such as irritation, headaches and moodiness. Premenstrual syndrome is a very difficult situation that affects a female emotions, physical and mental health and her behavior during the days of menstrual cycle, basically before her menstrual cycle. Premenstrual syndrome (PMS) is a routine of life among adult females and a very common condition in women's. Symptoms of

premenstrual syndrome affects more that 90% female. The aim of the present research was to explored existence of premenstrual syndrome and its factors.

The main hypothesis of the study was to investigate premenstrual syndrome significantly impact on females life. Data was collected via online interview of females to investigate the impact of premenstrual syndrome on female's life. The results showed that the majority of female were aware of premenstrual syndrome and mostly of females knew about premenstrual syndrome. The results showed that 77.78 % females reported that premenstrual syndrome have effects and PMS impact on their life. While 22.22% female reported that PMS have no effects on their life while only 7.7 females reported that they didn't get any

worries about premenstrual syndrome. When it was asked from females how premenstrual syndrome effects their life they said they get physical symptoms, mood symptoms and mental strain. In physical symptoms 71.43% females reported that they felt body pain while 14.28% complaint about pain in backbone, bally pain and tiredness. Mood symptoms they reported that are common in every female is irritability, mood swings, anger, depression, worry of pain and laziness round about 92.3 female reported these symptoms. During interview when asked to females about mental strain before menstrual cycle or premenstrual cycle. 40% females reported that they feel mental strain during their menstrual cycle. 20% reported that they feel tension about pain and 20% reported that they feel worries about mood adjustment that disturbed during menstrual cycle. Estrogen hormone play a vital in the health of females. Researcher reported that shifting in the estrogen hormone reason of mood disturbance. In the days before menstrual cycle, female's estrogen level rise and fall dramatically and its level out 2 to 3 days after periods starts. This shifting may affected the women's mood and behavior. While 60% females reported they didn't receive or feel any type of mental strain.

An indigenous research sported the results of current study. The research by (Aleena Mohib, Amara Zafar, Areeba Najam, Hafsa Tanveer & Rehana Rehman, 2018) the aim of the research was find out existence, knowledge and attitude in female students toward premenstrual syndrome (PMS). Total 448 female students were added in this research from three different universities. The results of this research showed that

79.5% females reported common symptoms including irritability, anger outbursts and depression. 60% females reported that PMS disturbed their daily routine life, while 77.5% females believed that PMS is significant issue and have impact on their life. The results of this research supported the current research. Another exploration (Nisar et al) interviewed 172 medical students record on menstrual cycle. Mood symptoms were dominant in this study 83% students females suffer in mood symptoms while 68% students were suffer in physical students. Additionally 33.33% females reported in the current study that premenstrual syndrome effects their relationship and 11.11% increase in anger, loss of studies and laziness. In the context of Pakistan, Pakistani females are mostly raised thinking that premenstrual syndrome is a part of be a female, and they should not complain about it rather they accept it as a part of life and routine of every month.

In Pakistani culture no one of women's want to talk about premenstrual syndrome because they perceive it as routine of life. The women's don't bother that it is damage their health and relationship as well. Shame is another factor that influence on premenstrual syndrome in Pakistan. Women's didn't want to treat it and talk about PMS because our ancestor females don't talk about it.

The second hypothesis of the present study was unbalanced diet and less interaction of sun intensify the symptoms of premenstrual syndrome. The results of current study revealed that 50% females reported that they didn't balanced in their diet during menstruation days. Due to pain

and irritation they didn't want to do anything even they missed their meal. It may disturbed their health and decline in their health. While 50% females reported that they balanced in their diet before and during menstruation cycle. A study by (Annette McDermott, 2018) this revealed that high level of progesterone during the premenstrual situation may lead to high level of eating and body dissatisfaction. On the other side, Estrogen seems too correlated with decrease in appetite.

Sunlight activated or may release the hormone in our mind. Exposure of sunlight release a hormone in our brain this hormone called serotonin. Serotonin is a hormone that one another reason of booting mood and helping a person feeling clam and focused on their work. Results of the current study showed that 33.32 females reported less interaction with sunlight it may lead disturbance in their mood but 66.66 % females reported they have good interaction with sunlight and their half day interaction with sunlight. (Rachel Nall, 2019) in his article he explain the benefits of sunlight. He said that without or less exposure of sunlight, it can slow down the level of serotonin. Low level of this hormone correlated with major depression.

The last and third hypothesis of the current study was nutrients deficiency i.e. calcium and vitamin D deficiency intensify premenstrual syndrome. Different studies suggest that deficiency in calcium and vitamin D may cause the symptoms of premenstrual syndrome. Additionally females who have diet with calcium and vitamin D are at low risk of developing premenstrual syndrome compared to other

females who have not calcium and vitamin D full diet. The results of the current study showed that 50% reported that they didn't take calcium and vitamin D fill diet even they don't bother it can decline their health badly. And 50% females reported that they consume vitamin D and calcium diet. They have less symptoms of PMS. A research (Fatemeh Abdi, Gity Ozoli & Sadat Rahnemaie, 2020) the purpose of this research was to investigate the role of calcium and vitamin D in premenstrual syndrome. Reporting of the study was that low serum levels of calcium and vitamin during luteal phase of period's cycle were cause the symptoms of PMS. The administration of calcium and vitamin D said diet rich in two calcium and vitamin reduce the symptoms of premenstrual syndrome.

Blue light exposure may affect menstrual cycle, the results of the study showed that 66.66% females reported that they frequently use blue light before their menstrual cycle and during menstrual cycle. 34% females reported that they used blue light less frequent. Continuously use of mobile, TV and laptop may effects the mood and behavior. It can decline in health, increase in headache pain and increase the level of irritation.

Health care professional and close relationship (i.e. mother, sister & friends) play a vital role in premenstrual syndrome. The results of the current study revealed that 54.54% females reported that they didn't talk any health care professional because they think that it is a part of life and routine of every month. 27.27% females reported that they Use self-prescribed medicines before and during menstrual cycle. While 9.09%

females reported that they didn't talk and share their problem of premenstrual syndrome with their close relationship (i.e. mother, sister and friends). Mood swings are difficult situation in premenstrual syndrome. Mostly females complain mood swings in menstrual cycle. 9.2% females reported that they control their mood swings before menses and during menses.

Inadequate knowledge about premenstrual syndrome in female may problematic for them. Local female have less knowledge about it and they didn't want to gain knowledge about it. The results of current study revealed that 50% females have no knowledge about premenstrual syndrome, 25 % have knowledge about it and 25%b females ignore have careless premenstrual syndrome. According to the present study, women's who have no knowledge about PMS, they would face disadvantages of ignorance. Reported disadvantages by females are irritation, mood swings, effect daily life, health issues and disturbance in daily life.

Conclusions

Premenstrual syndrome have significantly impact on daily life of females. Premenstrual syndrome effects the emotions, physical and psychological health of females. Every female should gain knowledge of PMS and didn't ignore it. Calcium and Vitamin D play a vital role in PMS because these two substance reduce the symptoms of PMS, so females should use diet rich with Calcium and Vitamin D. Every females should consume sunlight.

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