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The Effect of Humour Style on Premenstrual Syndrome: A Cross-Sectional Study

Mizah Tarzının Premenstrual Sendrom Üzerindeki Etkisi: Kesitsel Bir Çalışma

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ABSTRACT

Objective: This study aimed to determine the effect of humour style on premenstrual syndrome (PMS).

Methods: The population of the descriptive and cross-sectional study consisted of 7,573 female students attending the university. The layered sampling method was used for sample selection, and the research was completed with 327 students. The study data were collected between November 2020 and May 2021.

Results: The Affiliative humour and Self-enhancing humour points were statistically significantly higher in students who did not experience PMS compared to those who did (*P*<.001, *P*=.013). The Aggressive humour and Self-defeating humour points of students with PMS were statistically significantly higher than those of students without PMS (*P*<.001, *P*=.001).

Conclusion: The study results showed that the levels of negative humour were higher in females with PMS, and levels of positive humour were higher in females without PMS. As the level of Self-enhancing humour increased, the probability of PMS decreased, and as the level of Self-defeating humour increased, the probability of PMS also increased. According to this, supporting and cultivating a positive sense of humor that positively impacts health and health perception will enhance women's well-being.

Keywords: Humour style, health, premenstrual syndrome, woman

ÖZ

Amaç: Bu çalışmanın amacı mizah tarzının premenstrual sendrom (PMS) üzerindeki etkisini belirlemektir.

Yöntemler: Tanımlayıcı ve kesitsel tipte gerçekleştirilen araştırmanın evrenini üniversitede öğrenim gören 7573 kız öğrenci oluşturmuştur. Örneklem seçiminde tabakalı örnekleme yöntemi kullanılmış olup araştırma 327 öğrenci ile tamamlanmıştır. Araştırma verileri Kasım 2020 ile Mayıs 2021 tarihleri arasında toplanmıştır.

Bulgular: PMS yaşamayan öğrencilerin, Katılımcı Mizah ve Kendini Geliştirici Mizah puanlarının PMS yaşayan öğrencilere göre istatistiksel olarak anlamlı derecede yüksek olduğu belirlenmiştir (*P*<,001, *P*=,013). PMS yaşayan öğrencilerin Agresif Mizah ve Kendini Yıkıcı Mizah puanlarının PMS yaşamayan öğrencilere göre istatistiksel olarak anlamlı derecede yüksek olduğu belirlenmiştir (*P*<,001, *P*=,001).

Sonuç: Araştırma sonuçları, PMS olan kadınlarda olumsuz mizah düzeylerinin, PMS olmayan kadınlarda ise pozitif mizah düzeylerinin daha yüksek olduğunu göstermiştir. Kendini Geliştirici Mizah düzeyi arttıkça PMS olasılığı azalmakta, Kendini Yıkıcı Mizah düzeyi arttıkça PMS olasılığı da artmaktadır. Buna göre sağlık ve sağlık algısını olumlu yönde etkileyen olumlu mizah tarzının desteklenmesi ve geliştirilmesi kadın sağlığını olumlu etkileyecektir.

Anahtar Kelimeler: Mizah tarzı, sağlık, premenstrual sendrom, kadın

This article is a master's thesis study at Yozgat Bozok University Institute of Graduate Education. Also, the research was presented as an oral presentationin 13th International Medicine and Heath Sciences Researches Congress, 26 - 27 August 2023, Ankara.

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INTRODUCTION

The menstrual cycle, which is an essential determinant of women's health, is defined as the preparation of the body for fertilisation and pregnancy at specific intervals, beginning with puberty and continuing until menopause.[1] Many physical, psychological, and emotional symptoms and problems can occur during the menstrual period in women. The most frequently encountered problems are dysmenorrhea and premenstrual syndrome (PMS).[2]

A meta-analysis encompassing 17 studies from different countries reported the global prevalence of premenstrual syndrome (PMS) as 47.8%. The lowest and highest prevalence rates were recorded in France (12%) and Iran (98%).[3] In Turkey, the prevalence of PMS ranges between 47.3% and 52.2%.[4-6] These findings indicate that PMS is a widespread condition globally, with prevalence rates varying due to regional differences.

Women's health is significantly affected by PMS, and the severity varies from person to person. Physical symptoms include fatigue, oedema, a feeling of fullness and pain in the breasts, headache, changes in appetite, weight gain, bodily pain, and swelling of the extremities. Emotional or behavioural symptoms include irritability, a deterioration in interpersonal communications, mood changes, depression, reduced concentration, excessive sleeping, or insomnia.[7,8] These symptoms generally disappear with the onset of menstruation. Physical, biological, and psychosocial factors have been reported in the etiology of these symptoms.

Although the pathophysiology of PMS has not been clarified, the hormonal fluctuations in the luteal phase of the menstrual cycle, abnormal serotonergic activity, and abnormalities in progesterone and neurotransmitter gamma-aminobutyric acid (GABA) are thought to play a role.[7-9] It has been reported that women with PMS are hypersensitive to the hormonal changes that occur during the menstrual cycle. [8]

The lifestyle of an individual is known to affect PMS. Tsai et al.[10] found that women who exercise regularly have fewer premenstrual symptoms. In a study of university students, it was concluded that neurotic and inconsistent individuals experienced more severe PMS symptoms.[11] An individual's personal characteristics affect their perception of health-illness and the responses given. Therefore, the personal characteristics of a woman can affect the severity of PMS. It is known that some stimuli, such as daily events, in women with a sensitive personality trigger PMS.[11] While many factors are effective on PMS, it is also thought that the humour style of a woman could affect the severity of PMS symptoms.

When the word humour is used, what usually comes to mind is amusing jokes, caricatures, and films. However, in the sense of psychology, humour determines a person's emotions, thoughts, and behaviours in response to events.[12] People can use humour for their self-enhancement or developing interpersonal relationships. When doing this, they adopt a style that does not harm themselves or others, or a style that can be selected that will hurt themselves and others. The humour style to be used by an individual is classified in four different ways, two positive and two negative. These are Affiliative humour and Self-enhancing humour as the positive styles, and Aggressive humour and Self-defeating humour as the negative styles. While Self-enhancing and Self-defeating humour are directed at personal development, Affiliative humour and Aggressive humour are used in social relationships.[13]

It has been reported that humour is helpful in respect of physical and psychosocial health and can increase the optimism and self-confidence of an individual while reducing the level of anxiety and stress, together with an improvement in quality of life.[14] Rather than perceiving stressful situations as a threat, humour can reduce stress by providing a more positive perception.[15] According to the literature, humour has an improving effect in a physical, psychological, social, and cognitive sense.[16] There has been reported to be a positive correlation of happiness and well-being with the two positive humour styles, and a negative correlation with the two negative humour styles.[17] Humour and the subsequent laughter it creates strengthen the immune system by lowering serum stress hormone levels through endomorphines and increasing the happiness hormone production.[18] Laughing causes relaxation of the muscles, which contributes to feeling pain with less severity [16,18]

A positive humour style used by a woman in the premenstrual period, which is considered to be a stressful period by many women, can affect the level of perception of PMS symptoms and the means of coping with them. There are many scientific studies related to PMS and women's health, but no study in the literature has examined the relationship between humour style and PMS.

AIM

Therefore, this study aimed to determine the effect of humour style on PMS.

Research Questions

- What is the prevalence of PMS in university students?
- Does humor style in university students affect PMS?

METHODS

Study Design

This study was designed as a descriptive, cross-sectional research.

Time and Place of the Study

The study was conducted between 01.11.2020 and 30.05.2021 in Yozgat Bozok University in Turkey.

Study Universe and Sample

The study universe was formed of 7573 female undergraduate students at Yozgat Bozok University. Firstly, subgroups in the population (Sports Sciences, Education Sciences, Science-Literature, Theology, Communications, Engineering-Architecture, Health Sciences, Medicine) were identified. Then, to be represented in the universe in proportion to their existing representation, the layered sampling method was used for sample selection (Table 1). The sample size was determined according to the hypothesis that H0 = humour style does not affect PMS. In the simple linear regression analysis model, the Humour Style Questionnaire points were an independent variable with six confounding variables. The sample size was calculated using the G*Power Version 3.1.9.7 software.19 It was necessary to have a sample of at least 132 subjects to provide effect size = 0.10, type 1 error =0.05, and statistical power =0.95.20 For reliability of the research results, the study was completed with 327 female students**.**

The students included in the study were female, received their education at Yozgat Bozok University, experienced menstruation, were able to establish regular communication, and agreed to voluntary participation in the study. Subjects were excluded from the study if they were pregnant, in the postpartum period, had any gynaecological malignant or benign disease, a history of gynaecological surgery, any psychological disorder, or any communication problems**.**

Data Collection Tools

The data were collected using a Personal Information Form, the Humour Styles Questionnaire (HSQ), and the Premenstrual Syndrome Scale (PMSS).

Personal Information Form: The researchers created this 29-item form with reference to the literature to provide sociodemographic information such as age, marital status, and income, body mass index, faculty of study and classroom, living place, education level of mother and father, mother and father's employment status, chronic, gynecological and mental disease status, smoking and alcohol use, coffee and tea drinking routine, eating habits and information related to the menstrual cycle such as age of menarche, cycle duration, dysmenorrhea, duration of dysmenorrhea, and pain level.[21-23]

Humour Styles Questionnaire (HSQ): The HSQ was developed by Martin et al.[24] to measure four separate dimensions of humour associated with personal differences in daily life. The questionnaire was adapted to Turkish by Yerlikaya.[25] The sub-dimensions are named and numbered as 'Affiliative Humour (1, 5, 9, 13, 17, 21, 25, 29)', 'Self-enhancing Humour (2, 6, 10, 14, 18, 22, 26, 30)', 'Aggressive Humour (3, 7, 11, 15, 19, 23, 27, 31)' and 'Self-destructive Humour (4, 8, 12, 16, 20, 24, 28, 32). A seven-point Likert-type rating ranging from 'Strongly Disagree-1' to 'Strongly Agree-7' is used. The sub-dimensions consist of 8 items each, and there are eleven items (1-7-9-15-16-17-22-23-25-29-31) that are scored in the opposite direction. High scores indicate the frequency of use of the related humour style. In the 32-item scale, the Affiliative humour and Self-enhancing humour subscales are evaluated as positive styles, and the Aggressive humour and Self-defeating humour subscales as negative styles. The points for each subscale range from a minimum of 8 to a maximum of 56.25. Cronbach's alpha internal consistency coefficients obtained for each subscale in the adaptation study of the scale into Turkish were calculated as 0.74 for Affiliative Humour, 0.78 for Self-Improving Humour, 0.69 for Aggressive Humour, and 0.67 for Self-Destructive Humour. In this study, Cronbach's alpha coefficients for the subscales were 0.77, 0.70, 0.72, and 0.71, respectively.

Premenstrual Syndrome Scale (PMSS): Gençdoğan[26] developed the PMS to measure the severity of premenstrual symptoms. The scale consists of 44 items with 5-point Likert-type responses (1:never, 2:very little, 3:sometimes, 4:often, 5:always). The PMSS has nine subscales of depressive mood (items 1-7), anxiety (items 8-11), fatigue (items 12, 14, 17, 18, 25, 37), irritability (items 19-23), depressive thoughts (items 24, 26-30, 44), pain (items 31-33), changes in appetite (items 34-36), changes in sleep (items 38-40), and swelling (items 41-43), and the total points of all the subscales provide the PMSS Total Points, in the range of 44 -220. Higher points are evaluated as greater intensity of PMS symptoms. The scale cutoff point has been determined as 133, with total PMSS points of ≥133 indicating PMS. The Cronbach's Alpha coefficient, calculated to determine the internal consistency of the scale, is 0.75.26. In this study, the Cronbach's Alpha reliability (α) coefficient was found to be 0.961.

Application of the Data Collection Tools

To examine the appropriacy, answerability, and comprehensibility of the questions on the data forms, the forms were first applied to 10 subjects. No changes were made to the forms after this pre-application, and the study was continued. The data were collected in face-to-face interviews. The form given in the classroom was filled in by the students under the researcher's supervision. When face-to-face interviews were not possible due to the pandemic, an online data collection method was used. The data collection period for each student lasted approximately 20 minutes.

Data Evaluation

Data obtained in the study were analyzed statistically using IBM SPSS Statistics Standard Concurrent User version 26 software (IBM Corp., Armonk, NY, USA). Descriptive statistics are presented as unit numbers (n), percentages (%), means ± standard deviations (SD), medians, minimums, maximums, and interquartile ranges (IQR) values. The conformity of continuous variables to a normal distribution was assessed with the Shapiro-Wilk test, and variance homogeneity was evaluated with the Levene test. Two groups of numerical variables were compared using the Independent Samples t-test, and the relationships between scale points were assessed using Pearson correlation analysis.

The effect of humour style on PMS was evaluated with logistic regression analysis. Variables with a p-value of less than 0.10 in the univariate analyses were included as confounding factors in the multivariate model. The backward elimination Wald method was employed to determine the effective factors. A value of $P<0.05$ was accepted as statistically significant.

Ethical Considerations

The study protocol was approved by the Clinical Research Ethics Committee of Yozgat Bozok University (Number: 2017-KAEK-189_2020.12.23_05, Date: 23.12.2020). Written permission to conduct the study was obtained from the institution. The students who agreed to participate in the research were informed about the study and assured that they could withdraw from it at any time they wished.

RESULTS

Of the total sample, 76.5% of the students were aged 18-20 years, 71.9% were evaluated as normal weight, and 21.7% were students in the Health Sciences Faculty (Table 1). It was reported by 42.8% of the students that their first menstruation occurred at age ≥14 years, 37% stated that

Table 1. The distribution of descriptive characteristics (n=327)

Variables		*n* (%)
Age (years)	18-20	250 (76.5)
	>21	77 (23.5)
Body Mass Index	Thin	44 (13.4)
	Normal	235 (71.9)
	Overweight/Obese	48 (14.7)
Faculty of Study	Sports Sciences	26 (8.0)
	Education Sciences	67 (20.5)
	Science-Literature	41 (12.5)
	Theology	20 (6.1)
	Communications	22 (6.7)
	Engineering-Architecture	25 (7.6)
	Health Sciences	71 (21.7)
	Medicine	26 (8.0)
	Other	29 (8.9)
Marital Status	Single	254 (77.7)
	Married	73 (22.3)
Income Status	Low	21 (6.4)
	Moderate	205 (62.7)
	High	101 (30.9)
Mother's Education Status	Illiterate	23 (7.0)
	Literate	24 (7.3)
	Primary School	142 (43.5)
	Middle School	67 (20.4)
	High School	44 (13.5)
	University	27 (8.3)
Mother's employment status in an income-generating job	No	288 (88.1)
	Yes	39 (11.9)
Father's Education Status	Illiterate	10 (3.1)
	Literate	23 (7.0)
	Primary School	94 (28.8)
	Middle School	67 (20.5)
	High School	76 (23.2)
	University	57 (17.4)
Father's employment status in an income-generating job	No	62 (19.0)
	Yes	265 (81.0)
Living Place	Dormitory/Guesthouse	234 (71.6)
	Home	93 (28.4)
Smoking status	Never	213 (65.1)
	Sometimes	88 (26.9)
	At least one every day	26 (8.0)
Coffee Drinking	Never	36 (11.0)
	Rarely	204 (62.4)
	Every day	87 (26.6)
Tea Drinking	Never	35 (10.7)
	Rarely	129 (39.5)
	Every day	163 (49.8)
Exercise Status	Never	97 (29.6)
	Occasionally	186 (56.9)
	Regularly	44 (13.5)

they did not have regular menstrual cycles, and 78.9% experienced pain during the menstruation period. The duration of painful menstrual days was stated to be the first 2-3 days by 48.4% of the students, and 48.1% used painkillers for this (Table 2).

Table 2. Distribution of characteristics related to menstruation (n=327)

Variables	*n* (%)
Age at Menarche	
9-13 years	187 (57.2)
≥14 years	140 (42.8)
Regular menstrual cycles	
No	121 (37.0)
Yes	206 (63.0)
Duration of menstruation	
3-7 days	299 (91.4)
8-10 days	28 (8.6)
Presence of dysmenorrhea	
Yes	258 (78.9)
No	69 (21.1)
Level of Pain	
Very mild	20 (7.8)
Mild	30 (11.6)
Moderate	88 (34.1)
Severe	89 (34.5)
Very severe	31 (12.0)
Duration of dysmenorrhea	
Throughtout the menstruating period	8 (3.1)
First day	122 (47.3)
First 2-3 days	128 (49.6)
Use of painkillers	
Yes	124 (48.1)
No	134 (51.9)

A statistically significant negative correlation was found between the Affiliative humour style points and the total PMSS points, as well as the PMSS subscale points for depressive mood, anxiety, depressive thoughts, pain, and sleep changes. A negative correlation was determined between the Self-enhancing humour style points and the PMSS subscale points of anxiety, depressive thoughts, changes in appetite, and sleep changes (Table 3). A positive correlation was found between the Aggressive humour style points and the total PMSS points, as well as the PMSS subscale points for depressive mood, anxiety, irritability, depressive thoughts, pain, sleep changes, and swelling. A positive correlation was also determined between the Self-defeating humour style points and the total PMSS points, as well as the PMSS subscale points for depressive mood, anxiety, fatigue, irritability, depressive thoughts, changes in appetite, sleep changes, and swelling (Table 3).

The Affiliative humour and Self-enhancing humour points were statistically significantly higher in students who did not experience PMS compared to those who did (*P*<.001, *P*=.013). The Aggressive humour and Self-defeating humour points of the students with PMS were statistically significantly higher than those of the students without PMS (*P*<.001, *P*=.001) (Table 4).

Table 3. Correlations of the total and subscale points of the HSQ and PMSS

	Affiliative humour	Self-enhancing humour	Aggressive humour	Self-defeating humour
Depressive mood	*r*=-0.12; ***P=.022***	*r*=-0.07; *P*=.165	*r*=0.14; ***P=.01***	*r*=0.24; ***P<.001***
Anxiety	*r*=-0.33; ***P<.001***	*r*=-0.18; ***P=.001***	*r*=0.38; ***P<.001***	*r*=0.29; ***P<.001***
Fatigue	*r*=-0.08; *P*=.132	*r*=0.08; *P*=.139	*r*=-0.03; *P*=.594	*r*=0.23; ***P<.001***
Irritability	*r*=-0.09; *P*=.105	*r*=-0.07; *P*=.191	*r*=0.11; ***P=.035***	*r*=0.19; ***P<.001***
Depressive thoughts	*r*=-0.25; ***P<.001***	*r*=-0.11; ***P=.043***	*r*=0.24; ***P<.001***	*r*=0.32; ***P<.001***
Pain	*r*=-0.10; ***P=.049***	*r*=-0.07; *P*=.168	*r*=0.13; ***P=.014***	*r*=0.06; *P*=.252
Changes in appetite	*r*=-0.03; *P*=.523	*r*=0.17; ***P=.001***	*r*=0.04; *P*=.399	*r*=0.20; ***P<.001***
Sleep changes	*r*=-0.21; ***P<.001***	*r*=-0.13; ***P=.015***	*r*=0.19; ***P=.001***	*r*=0.15; ***P=.005***
Swelling	*r*=-0.05; *P*=.388	*r*=0.02; *P*=.688	*r*=0.11; ***P=.039***	*r*=0.16; ***P=.003***
PMS Total	*r*=-0.21; ***P<.001***	*r*=-0.07; *P*=.194	*r*=0.21; ***P<.001***	*r*=0.29; ***P<.001***

r; Pearson correlation analysis, HSQ; Humour Styles Questionnaire, PMSS; Premenstrual Syndrome Scale

Table 4. Distribution of mean HSQ points according to the presence of PMS

	PMS		Test Statistics	
	Present (n=221) $\bar{x}$±SD	Absent (n=106) $\bar{x}$±SD	*t* value	*P* value
Affiliative humour	4.68±1.02	5.13±1.06	3.691	***P<.001***
Self-enhancing humour	4.30±0.90	4.61±1.08	2.498	***P=.013***
Aggressive humour	3.05±0.98	2.58±0.97	4.046	***P<.001***
Self-defeating humour	3.64±0.99	3.24±0.99	3.412	***P=.001***

t; Independent Samples t-test, HSQ; Humour Styles Questionnaire, PMS; Premenstrual Syndrome

The Self-enhancing humour points and Self-defeating humour points were found to affect PMS. As the Self-enhancing humour points increased, the probability of PMS decreased by 5.2% (1 – 0.948). Conversely, as the Self-defeating humour points increased, the risk of PMS increased by 1.059-fold (Table 5).

Table 5. The effect of humour style on PMS

	B	Standard error	Wald statistics	*P*	Odds ratio	95% CI for Odds ratio Lower limit	Upper limit
Fixed	1.151	1.362	0.715	.398	3.162		
Self-enhancing humour	-0.053	0.019	7.363	**.007**	0.948	0.912	0.985
Self-defeating humour	0.057	0.019	9.309	**.002**	1.059	1.021	2.098

B; Regression coefficient, CI; confidence interval, PMS; Premenstrual Syndrome
Independent variables included in the model; Affiliative humour, Self-enhancing humour, Aggressive humour, Self-defeating humour.
Confounding variables included in the model; Age, Body Mass Index, Faculty of Study, Place of residence, Paternal education level, Do you have breakfast regularly? Are your menstrual periods regular? Are your menstrual periods painful?
Elimination method; Backward elimination, Wald method.
Hosmer-Lemeshow goodness of fit statistics; χ^2: 7.650; *P*=.468

DISCUSSION

Premenstrual syndrome symptoms have an adverse effect on the quality of life of women, disrupting social life and intrapersonal communication.[2,7,27] PMS is affected by the perception of the condition by the individual and the coping strategies used. Therefore, a positive humour style of the individual also affects the perception of PMS symptoms and the level of coping with these symptoms. The findings of this study, which aimed to determine the relationship between PMS and the humour style of university students, were discussed in the light of the relevant literature.

PMS was determined in 67.6% of the students in this study (Table 4.3), and thus, the rate of PMS can be said to be high. In similar studies, the frequency of PMS has been reported as 36.4%- 84.5%, which supports the current study results.[4,5,28-31]

According to the results obtained in this study, a negative correlation was determined between the Affiliative humour style points and the total PMSS points and the PMSS subscale points of depressive mood, anxiety, depressive thoughts, pain, and sleep changes. As the level of Affiliative humour increased, the PMS symptoms decreased. Affiliative humour can be stated as positive in social relationships as a means of amusing others and making them laugh without damaging oneself, thereby strengthening social relationships.[30,31] It is thought that the lower perception of PMS symptoms by the students with Affiliative humour was due to their positive emotions. Affiliative humour is expected to be positively correlated with positive feelings, self-actualisation, and psychological well-being, and negatively correlated with depression and anger.[24,30]

Self-enhancing humour refers to an individual's humorous perspective on events experienced under challenging conditions, enabling them to think more positively and increase their self-motivation.[24,31] Approaching premenstrual syndrome (PMS), which can be considered a problematic condition, with a humorous perspective can provide a milder perception of symptoms. The current study's results showed a negative correlation between the Self-enhancing humour style points and PMS symptoms, such as anxiety, depressive thoughts, changes in appetite, and sleep disturbances. In other words, as the level of Self-enhancing humour increased, so the PMS symptoms were lighter.

There is a positive correlation between PMS and Aggressive humour style and Self-defeating humour style. The level at which the humour style of the woman is negative, then the level of PMS is also negative to that extent. In a study, a positive correlation was determined between PMSS points and depression, stress, and anxiety.[32] Öztürk et al.[33] examined teachers and determined that PMS affected anger and the condition reflecting anger. Varisoglu and Vural[34] found that the 'depression' levels of students who experienced pain during their menstrual period were higher than those of students who did not experience pain. When previous studies are examined in general, there can be seen to be a positive correlation between negative mood and PMS. When the results reported in literature are taken into consideration, it can be said that in women with a negative humour style and more stress and anger, PMS is correlated with these negative emotions. In contrast, a positive humour style of an individual has a positive effect on a more positive approach to difficult situations and the level of coping. It is also associated with psychological well-being.[24,30] When all these are considered, it can be concluded that a woman's positive or negative humour style can affect the perception of PMS and the severity of symptoms.

The correlation between PMS status and humour style was examined, considering the cutoff point of the PMS scale used in this study (Table 5). The results demonstrated that the Self-enhancing and Self-defeating humour styles affected the PMS status. As the self-enhancing humour level increased, the risk of PMS decreased, and as the self-defeating humour level increased, the risk of PMS also increased. In other words, positive humour reduced the risk of PMS, and negative humour increased the risk of PMS. It has been shown that individuals who show a humorous approach to life events that are physically or mentally challenging cope better with these events.[35] Thus, it can be expected that PMS, which is a physically and

mentally challenging condition, will be seen less in women with a positive humour style.

No other study has examined the relationship between PMS and humour styles using the same scale as this study. In the results of a survey that can be considered similar, a positive correlation was determined between PMS and depression, stress, anxiety, and anger.

Study Limitations

The study data were obtained according to the statements of the students. Therefore, the data only cover the participants in this study and cannot be generalised to all female students.

The results of this study demonstrated that harmful humour style levels were higher in women with premenstrual syndrome (PMS), and positive humour style levels were higher in women without PMS. Self-enhancing and Self-defeating humour styles were seen to affect PMS status. As the Self-enhancing humour level increased, the probability of PMS decreased, and as the Self-defeating humour level increased, the likelihood of PMS also increased.

PMS is a significant problem affecting women's health, and therefore, reducing its impact will improve the quality of life for affected women. It is essential that counselling services are provided and care tailored to the individual is used in managing PMS symptoms. All healthcare professionals, but primarily women's health nurses and midwives, are responsible for this. Students must identify PMS symptoms and know effective coping methods. It is also essential to develop a positive humour style, which has a positive effect on health and health perception. To accomplish this, it is recommended that education about PMS and humour styles be given at regular intervals in universities, and that social and scientific activities to develop a positive humour style be increased. Nevertheless, there is a need for further studies to be conducted with larger and different sample groups to improve the scientific evidence of the relationship between humour style and PMS.

Etik Komite Onayı: Etik kurul onayı Yozgat Bozok Üniversitesi Klinik Araştırmalar Etik Kurulu'ndan (Tarih: 23.12.2020, Sayı: 2017-KAEK-189_2020.12.23_05) alınmıştır.
Bilgilendirilmiş Onam: Araştırmaya katılmayı kabul eden öğrenciler çalışma hakkında ve istedikleri zaman araştırmadan çekilebilecekleri konusunda bilgilendirilmiştir.
Hakem Değerlendirmesi: Dış bağımsız.
Yazar Katkıları: Fikir- SB, FTG; Tasarım- SB, FTG; Denetleme- FTG; Kaynaklar- SB, FTG; Veri Toplanması ve/veya İşlemesi- SB; Analiz ve/veya Yorum- SB, FTG; Literatür Taraması- SB, FTG; Yazıyı Yazan- SB, FTG; Eleştirel İnceleme- FTG.
Çıkar Çatışması: Yazarlar, çıkar çatışması olmadığını beyan etmiştir.
Finansal Destek: Yazarlar, bu çalışma için finansal destek almadığını beyan etmiştir.

Ethics Committee Approval: Ethics committee approval was obtained from Yozgat Bozok University Clinical Research Ethics Committee (Date: 23.12.2020, Number: 2017-KAEK-189_2020.12.23_05)
Informed Consent: The students who agreed to participate in the research were informed about the study and assured that they could withdraw from it at any time they wished.
Peer-review: Externally peer-reviewed.
Author Contributions: Concept - SB, FTG; Design- SB, FTG; Supervision- FTG; Resources- SB, FTG; Data Collection and/or Processing- SB; Analysis and/or Interpretation- SB, FTG; Literature Search- SB, FTG; Writing Manuscript- SB, FTG; Critical Review- FTG.
Conflict of Interest: The authors have no conflicts of interest to declare.
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