

## The Effect of Humor Styles of Pregnant Women on Distress

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### ABSTRACT

**Objectives:** This study was conducted to determine the effect of pregnant women's humor styles on distress. **Methods:** A descriptive study was conducted on pregnant women who have applied to the Maternity Hospital Non-stress Test unit in the city of Erzurum from 1 August 2014 to 31 December 2014. A total of 301 pregnant women who met the inclusion criteria participated in the study. Data were collected using the Tilburg Pregnancy Distress Scale (TPDS) and Humor Styles Questionnaire (HSQ). For statistical analysis, percentages, means, and Pearson, *r* correlation were used. **Results:** There was a negative ( $r = -0.149$ ,  $p = 0.01$ ) relationship between a self-enhancing humor style and distress level. A negative significant correlation was found between the partner involvement sub-dimension and participatory ( $r = -0.270$ ,  $p = 0.000$ ), self-enhancing ( $r = -0.289$ ,  $p = 0.000$ ) and self-destructive humor styles ( $r = -0.156$ ,  $p = 0.007$ ). Furthermore, there was a significant positive correlation between an aggressive humor style and the negative emotion sub-dimension ( $r = 0.136$ ,  $p = 0.018$ ). **Conclusion:** As a result of the study, it was determined that the use of positive humor styles by pregnant women was higher and their distress levels were low. Furthermore, as the use of a positive humor style increased, the level of distress decreased.

**Key words:** Distress; Humor; Midwifery; Pregnant

Pregnancy is a period when biological and psychosocial changes are experienced, and the probability of encountering factors that may cause stress and anxiety, is high [1, 2]. Pregnancy can be a period of stress in women's lives and can often combine with anxiety and depression [3]. Psychological problems in pregnancy may have negative consequences related to pregnancy by affecting the mother's mood and can increase maternal and fetal morbidity and mortality rates in patients who do not receive treatment [3-5]. Humor can be used as an important tool in adapting to changes occurring in pregnancy. Moreover, humor can help to reduce or eliminate the negative consequences of stress [6-12].

Humor alleviates the negative emotion burden and thus reduces the stress level by ensuring a positive perception of stressful situations, instead of as a threat [13]. The Association for Applied and Therapeutic Humor defines

humor as “any attempt that promotes health and wellness through a playful discovery, expression or appreciation of the absurdity or incongruity of the situations in life”. It also states that “humor can be used as a complementary treatment to provide physical, emotional, cognitive, social, or spiritual healing, or coping with them” [14]. Humor ensures that the person distinguishes himself/herself from the situation that causes stress, thus allowing him/her to look at the event from a different perspective. It also helps to get rid of negative thoughts and to create new alternatives of thought and behaviour in a realistic manner. In this way, the person starts developing positive emotions which results in making stress more manageable and ensures to cope up against all the difficulties of life without falling to pieces and can make sense of life [13].

Humor provides for replacing emotions that create stress with pleasant, desired emotions [15]. Studies

indicated that humor could be an effective tool in alleviating the effects of stress [16-18], and also that humor could be successfully incorporated into persuasive health messages [19-21]. Boyle and Joss-Reid stated that humor positively affected physical health, created a positive mood, contributed significantly to mental health and was an effective method to cope with the adverse effects of stress [22].

As the power of humor in reducing the stress of patients was understood, it was started to be used by midwives/nurses for therapeutic purposes and to be investigated. It was stated that humor was used by Coser for the first time in order to promote health in sick individuals and is now a part of care [23]. Midwives and nurses should be encouraged to use humor as a therapeutic tool to cope with psychological problems that may occur in women during the perinatal period. Thus, a pregnant woman with a developed sense of humor can cope with the problems she encounters more easily. This study was conducted to determine the effect of pregnant women's humor styles on distress.

## METHODS

The study was conducted in a Maternity Hospital Non-stress Test (NST) unit eastern Turkey from 1 August 2014 to 31 December 2014. The Maternity Hospital where the study was carried out is a hospital that is affiliated to the Provincial Health Directorate. This hospital was chosen since it is a regional hospital and the number of patients is high. The hospital provides service to women from all socio-economic statuses. Ethical consent was obtained from the Ethics Committee. For study data collection, written permission was acquired from the Provincial Health Directorate, and verbal consents were acquired from the participants.

The population of the study consisted of all pregnant women who have applied to the relevant unit between the dates indicated. As per the inclusion criteria it was necessary to take minimum 265 pregnant women in order to get 0.90 power {at the low effect size (0.2) in the confidence interval of 95% and at the significance level of 0.05}. Total 301 pregnant women, who met the criteria for inclusion in the study and accepted to participate in the study, constituted the research sample. It was found out that the posthoc power of the study for the Pearson

correlation model at the significance level of 0.05 and in the confidence interval of 95%, was 0.99 [24].

Criteria for inclusion in the study were being in gestational week 12 and above, not having a risky pregnancy, not being diagnosed with mental illness. Personal information was prepared by the researchers for the purpose of determining the demographic and obstetric characteristics of pregnant women. It consists of 12 questions. The Humor Styles Questionnaire (HSQ) which we used in this study was developed in English language by Martin et al. [25]. The validity and reliability studies in the Turkish language, were conducted by Yerlikaya [26]. The scale distinguishes humor into types by classifying humor styles in four sub-dimensions (Self-Enhancing Humor, Affiliative Humor, Self-Defeating Humor, and Aggressive Humor). These four dimensions are grouped as compatible-positive humor (Self-Enhancing and Affiliative Humor) and incompatible-negative humor (Self-Defeating and Aggressive Humor). The HSQ is a validated 32-item questionnaire, with scores ranging from "Certainly Disagree" (1) to "Completely Agree" (7). Each of the sub-dimensions consists of 8 items, and the scale has eleven items (1-7-9-15-16-17-22-23-25-29-31) that are reversely scored. Thus, the lowest and highest scores that can be obtained from each subscale vary between 8 and 56. The elevation of the scores obtained from the subscales indicates the frequency of use of the humor style. Cronbach's alpha coefficient of the scale is 0.81 [26].

Tilburg Pregnancy Distress Scale (TPDS) was developed in the Netherlands by Pop et al. to diagnose distress in pregnancy [27]. The validity and reliability studies in the Turkish language were conducted by Çapık and Pasinlioğlu [28]. Cronbach's alpha coefficient of the scale is 0.83. Each item of the scale is graded on a 4-point Likert-type scale that ranges from 'very often' (0 points), 'highly often' (1 point), 'occasionally' (2 points), 'rarely or never' (3 points). While the lowest score to be acquired from the overall scale is 0, the highest score is 48. The scale includes 16 items, and it has two subscales – 'negative affect (NA)' and 'partner involvement (PI).' NA had 11 items where the lowest score is 0 & the highest score is 33 while the PI had 5 items where, lowest score= 0, highest score =15 [28].

The scale is applied to pregnant women in their 12th gestational week and above and has a defined cut-off

point. The cut-off point of the scale is  $>28$ . In case the score acquired from the scale exceeds the cut-off point, this enables identification of those pregnant women who are at distress [28]. The data were collected using the face-to-face interview technique. The data collection period lasted for 10-15 min on average. SPSS 18.0 software packages were used for statistical analysis in the computerized environment. For statistical analysis, percentages, means, and Pearson r correlation were used.

## RESULTS

The average age of the pregnant women was  $26.36 \pm 5.38$  years, among the total number of women 46.2% were primary school graduates, and 94.4% of them were housewives. Among the pregnant women, 34.6% of their partners were high school graduates, and 45.5% of them were employed as workers. Total 61.1% of the pregnant women had a nuclear family, it was the first pregnancy for 38.9%, 42.5% of them had no children, and 87.7% of them wanted their pregnancy (Table 1).

The pregnant women's mean scores of humor styles were determined to be  $38.41 \pm 10.23$  for an affiliative humor style,  $27.85 \pm 10.23$  for a self-enhancing humor style,  $16.86 \pm 5.47$  for an aggressive humor style, and  $21.91 \pm 7.32$  for a self-defeating humor style. The mean total distress score of the pregnant women was  $17.58 \pm 7.92$ , the score of the partner involvement subscale was  $4.23 \pm 3.54$ , and the score of the negative affect subscale was  $13.34 \pm 7.00$ . Upon evaluating the scale according to the cut-off point, it was determined that 11% of the pregnant women were in distress (Table 2).

Upon examining the relationship between humor styles and distress, it was found out that there was a negative ( $r = -0.149$ ,  $p = 0.01$ ) relationship between a self-enhancing humor style and distress level. A negative significant correlation was found between the partner involvement subscale and affiliative ( $r = -0.270$ ,  $p = 0.000$ ), self-enhancing ( $r = -0.289$ ,  $p = 0.000$ ), and self-defeating humor styles ( $r = -0.156$ ,  $p = 0.007$ ). Furthermore, there was a positive significant correlation between an aggressive humor style and the negative affect sub-dimension ( $r = 0.136$ ,  $p = 0.018$ ) (Table 3).

**Table-1. Participants' characteristics**

Characteristics (n:301)	Min-Max	$\bar{X} \pm SD$
Age	17-43	26.36±5.38
Income	0-7000 Turkish Lira	1478.73±993.64
	<b>n</b>	<b>%</b>
<b>Education level</b>		
Primary school	139	46.2
Middle school	81	26.9
High school	55	18.3
University	26	8.6
<b>Profession</b>		
Housewife	284	94.4
Officer	13	4.3
Worker	4	1.3
<b>Education level of the spouse</b>		
Primary school	67	22.3
Middle school	67	22.3
High school	104	34.6
University	63	20.8
<b>Profession of the spouse</b>		
Unemployed	22	7.3
Officer	43	14.3
Worker	137	45.5
Other	99	32.9
<b>Family type</b>		
Nuclear family	184	61.1
Extended family	117	38.9
<b>Number of children</b>		
No	128	42.5
1	92	30.6
2	52	17.3
3 and above	29	9.6
<b>Pregnancy status</b>		
Wanted	264	87.7
Unwanted	37	12.3

**Table-2. Mean distress scores and distress status of the participants**

Tilburg Pregnancy Distress Scale (TPDS)	$\bar{X} \pm SD$
Partner Involvement	4.23±3.54
Negative Affect	13.34±7.00
Total	17.58±7.92
<b>Distress</b>	<b>n (%)</b>
Yes	33 (%11)
No	268 (%89)

**Table 3 - The relationship between humor styles and distress of the participants**

	Affiliative Humor		Self-Enhancing Humor		Aggressive Humor		Self-Defeating Humor	
	corelation	P value	corelation	P value	corelation	P value	corelation	P value
TPDS								
Partner Involvement	-0.270	0.000	-0.289	0.000	-0.073	0.205	-0.156	0.007
Negative Affect	0.97	0.92	-0.022	0.703	0.136	0.018	0.085	0.143
Distress Total	-0.035	0.548	-0.149	0.010	0.087	0.131	0.005	0.931

## DISCUSSION

It is a known fact that humor is beneficial to psychological health and reduces tension. The use of humor is essential in reducing distress especially experienced during pregnancy. According to the research findings, pregnant women's self-enhancing and affiliative humor scores were higher. This finding means that pregnant women use a positive humor style more widely. An affiliative humor style helps to develop positive interpersonal relationships. A self-enhancing humor style refers to making efforts by individuals to develop effective strategies for coping with stress, taking into account the needs of themselves and others [25]. In this context, the high positive humor score in pregnant women is a pleasing situation.

According to the results of the study, it was observed that the mean distress scores of the pregnant women were low (mean score  $17.58 \pm 7.92$ ) and distress was found in 11% of the pregnant women. While the rate of distress in pregnancy varies between 10% and 41%, the harmful health effects of this condition are accepted as a worldwide public health problem [29]. In the study conducted by Çapık et al. on the subject, the rate of distress in pregnant women was determined to be 11.9% [30]. Pop et al. also found out in their study that 13.8% of pregnant women had distress [27].

Upon examining the relationship between the pregnant women's humor styles and distress, it was observed that distress level was lower in pregnant women who used self-enhancing humor. Furthermore, it was determined that the distress levels related to the PI of the pregnant women, who used positive humor (affiliative and self-enhancing), were lower. In pregnant women who used aggressive humor, the rate of negative affect distress was higher. Upon examining the relevant studies, it was observed that Besser et al. stated that positive humor types decreased

interpersonal conflict and distress [6]. Freeman and Ventis associated self-enhancing humor with a higher general health level [8]. Kuiper and McHale stated that affiliative humor strengthened welfare, improved social support networks; also, self-enhancing humor type was negatively correlated with anxiety and depression [9]. Individuals who use aggressive humor only resort to this path in order to meet their requirements concerning their sense of superiority and pleasure [9].

As a striking result of the study, it was determined that as the use of a self-defeating humor style increased, distress related to PI decreased. Self-defeating humor involves a person's disparagement of himself/herself continuously through humor. Individuals with a self-destructive humor style can act as if they are happy by refusing their own feelings, even when they are sad or unhappy [9]. The increase in distress related to PI indicates that the partner support of the pregnant woman is inadequate. Pregnant women who could not get enough support from their partners may have used self-defeating humor as a defense mechanism. In this way, they could try to show themselves look happy. Many of us think that amusing people, who continuously smile and shine out around, are carefree. However, when we get a chance to know them a little bit more, we see that their lives are not so much powder pink. This situation may have been effective in the emergence of this finding as a result of the study.

The study was limited with the pregnant women who applied to the related unit between the data collection dates. Not including first-trimester pregnant women in the study is another limitation. As a result of the study, it was determined that the use of positive humor styles by pregnant women was higher and their distress levels were low. Furthermore, as the use of a positive humor style increased, the level of distress decreased. More studies which use humor as a variable in health-related areas are

needed. Especially if it is considered that the closest health professionals to pregnant women are midwives/nurses, the importance of the use of humor by individuals of this profession for therapeutic purposes will be revealed.

## CONCLUSION

The difficulties of daily life, the individual's own personality traits, and the burden of pregnancy can lead to an increase in the level of distress in women. It is an important method when midwives/nurses teach the use of humor in coping with stress, anxiety, and depression to pregnant women. Therefore, it is considered that increasing midwives'/nurses' awareness of the use of humor and organizing training in this direction are important issues to be addressed.

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