

## Assessment of Personality Traits in Dysmenorrheic Young Women

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**Abstract:** The recently developed Tridimensional Personality Questionnaire (TPQ) was used to examine personality traits correlates in dysmenorrheic women. In the present study our aim was to investigate the frequency of personality traits and its relationship with dysmenorrhea. A total of 200 nonmarried students, in age range, 21-23 years (from Mashad University of Medical Sciences) were included. Subjects divided into dysmenorrheic/non-dysmenorrheic as study group (n = 100) and control group (n = 100), respectively. Personality scores derived from Tridimensional personality Questionnaire (TPQ) and analyzed by SPSS soft ware version 9.0. The frequency of personality traits and its relationship with dysmenorrhea compared in both groups. Results illustrated that frequency of introversion, neuroticism and psychasthenia were (67 vs 32%), (52 vs 10%) and (72vs 32%) in the dysmenorrheic/non-dysmenorrheic subjects, respectively. Current evidence strongly suggests that personality traits were found to be significantly related to the presence of dysmenorrhea in this age of girls.

**Key words:** Dysmenorrhea, personality traits, young women

### INTRODUCTION

Dysmenorrhea occurs in about 15-50% of young women and is the leading cause of school and work absence in this age group (Granot *et al.*, 2001). The pathogenesis of dysmenorrhea has been associated with elevated levels of prostaglandin (Berek *et al.*, 2002). Mental health problems are another potentially modifiable risk factor (Alonso and Coe, 2001). In addition to the physiological perspective, various psychological theories have also been proposed, emphasizing the role of personality factors (Goldstein-Ferber and Granot, 2006). As there are not any studies in Iran that show frequency of personality traits in this age of dysmenorrheal subjects, we conducted this research. This study was designed to evaluate the frequency of personality traits in dysmenorrheal women, also assessed relationship between dysmenorrhea with personality traits.

### MATERIALS AND METHODS

Two hundred thirty nonmarried students, 21-23 years old, with regular menstrual period from Mashad University of medical sciences comprised the sample population. Exclusion criteria included mental, gynecological disorder, professional athletes and physical deficits. The presence of dysmenorrhea was defined by questionnaire regarding the dysmenorrhea on the end

of day 3 of menstruation. Among subjects a group of 100 subjects (study group) who were experiencing dysmenorrhea were match by body mass index, weight and height with a group of 100 subjects (control group) who had no dysmenorrhea symptoms. All of subjects were completed Tridimensional Personality Questionnaire (TPQ), an Eysenck Personality Inventory. TPQ scores and data was collected from TPQ and analyzed by using the SPSS soft ware version 9.0. The frequency of personality traits and its association with dysmenorrhea were evaluated in subjects by statistical method Fisher's exact test. Probability values lower than 0.05 were considered significant.

### RESULTS

Findings are presented as mean±SE TPQ score in both groups in Table 1.

The mean TPQ score regarding the introversion and extroversion in subjects with dysmenorrhea was found to be significantly lower than for those in subjects without dysmenorrhea ( $p < 0.001$ ) by Fisher's exact test. The mean TPQ score regarding the with/without neuroticism and psychasthenia were significantly higher for dysmenorrheic subjects compared with non-dysmenorrheic subjects ( $p < 0.001$ ) by Fisher's exact test. The distribution of important personality traits in both dysmenorrheic and non-dysmenorrheic subjects were showed in Fig. 1-3.

Table 1: Mean±SE of TPQ score of subjects

Variable	Dysmenorrheic	Non-dysmenorrheic	p
Introversion	10.81±3.69	13.80±3.07	0<0.001
Neuroticism	13.14±4.02	10.79±3.77	0<0.001
Psychasthenia	5.6±3.21	3.96±1.77	0<0.001

The prevalence of introversion, neuroticism and psychasthenia were 67, 52 and 72% in the study group, respectively. Difference in the frequency of personality traits revealed between groups ( $p<0.001$ ).

### DISCUSSION

There are limited reports about this object. Traditionally, the literature discussing the etiology and management of this entity has given greater weight to psychologic than to physiologic factors. However, four previous studies addressing psychosocial variables failed to show a relationship to dysmenorrhea. In Lawlors' study, personality factors were not found to be significantly related to the presence of dysmenorrhea (Lawlor and Davis, 1981). Regarding the role of personality traits in dysmenorrhea, there are conflicting results. Several researchers reported that dysmenorrheic women tend to be more preoccupied with bodily sensations, tend to express greater negative attitudes toward illness and have more negative affect toward menstruation than do nondysmenorrheic women (Jones *et al.*, 1981; Sigmon *et al.*, 2000). In contrast, others did not find any personality differences in dysmenorrheic women as compared with nondysmenorrheic subjects (Bloom *et al.*, 1978; Coppen and Kessel, 1963).

In this approach frequency of introversion was higher in dysmenorrheic subjects compared with non-dysmenorrheic subjects (67 vs 12%). The significant differences between the groups were obtained on the introversion scores ( $p=0.001$ ). Inspection of the means suggested that women who experience dysmenorrhea were greater introversion than women who do not experience dysmenorrhea. In study reported by Bloom *et al.* (1978) significant differences were obtained on the introversion scores ( $p = 0.025$ ). This is similar to our results. In another report by Iacono there was not difference between dysmenorrheic and non-dysmenorrheic subjects regarding the introversion. Their results are not consistent with ours (Iacono and Roberts, 1983). Some investigators have theorized that primary dysmenorrhea (having no known organic cause) is due to personality maladjustment. In brief, these data suggest that dysmenorrhea sufferers have a history of maladjustment four times greater than nonsufferers and are higher on indices of neuroticism than nonsufferers (Bloom *et al.*, 1978). The results of this analyses showed that frequency of neuroticism was (52 vs 10%) in dysmenorrhea and non-dysmenorrhea. The significant differences between the groups were revealed on the neuroticism scores ( $p<0.001$ ). Inspection of the means suggested that women who experience dysmenorrhea

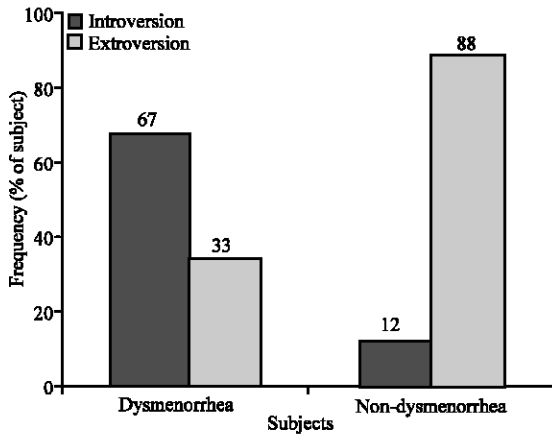


Fig. 1: The distribution of introversion in subjects

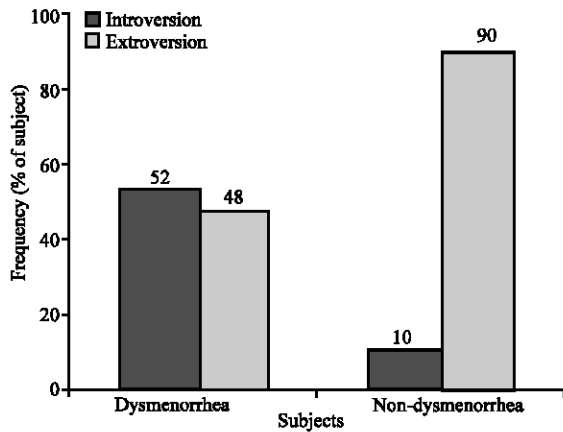


Fig. 2: The distribution of neuroticism in subjects

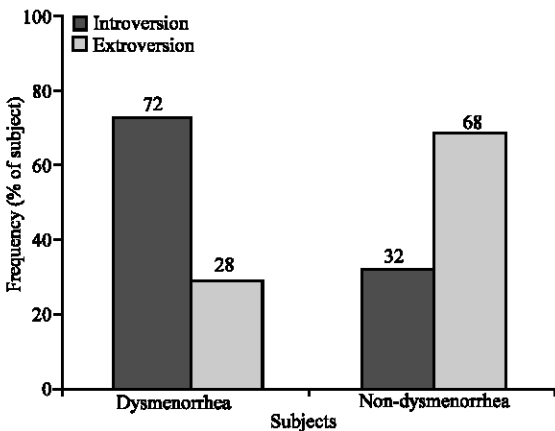


Fig. 3: The distribution of psychasthenia in subjects

were greater neuroticism than women who do not experience dysmenorrhea. In Iacono study there was no significant difference on the frequency of neuroticism in both groups (Iacono and Roberts, 1983). Like our results Bloom reported that dysmenorrheal sufferers were significantly more depressed, anxious, and similar to a neurotic population (Bloom *et al.*, 1978). Based on Our findings frequency of psychasthenia was (72 vs 32%) in dysmenorrhea and non-dysmenorrhea. Inspection of the means suggested that women who experience dysmenorrhea were greater psychasthenia than women who do not experience dysmenorrhea. Psychogenic factors have been discussed throughout the years in association with dysmenorrhea. Several other studies indicate that dysmenorrheic women are not different from non-dysmenorrheic women in their personality make-up, or that differences are too small to have any clinical significance (Holmlund, 1990). It seems to be because of various cultural and social in population.

#### CONCLUSION

In sum, the results of the present study reveal that personality traits related to dysmenorrhea.

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