Study of Personality Traits in Women with Early Severe Menstrual Pain

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Abstract: Painful menstrual problems is very common in women of reproductive age causing social, psychological, physical and economic problems. Since emotional and mental factors affects on the perception of pain, this research aims to determine personality traits of women with early severe menstrual pain and compare these traits with those of women compared without severe menstrual pain. This study is a descriptive cross-sectional analysis of 200 female students in Mashhad University of Medical Sciences. The study subject filled an interview form of personal - family information and then responded the menstrual pain and the Eysenck personality questionnaires. The data was analyzed using Chi-Square, Man-Whitney and Fisher exact test via SPSS software. Results showed there was a significant difference between the two groups with and without severe menstrual in terms of introversion (P<0.001) and neuroticism (P<0.001) and psychoticism (P< 0.029). Women with early severe menstrual pain had more introversion, neuroticism and psychoticism compared to women without menstrual pain. Keywords: Personality, Personality Traits, Early Severe Menstrual Pain, Iran.

Key words: Personality · Personality Traits · Early Severe Menstrual Pain · Iran

INTRODUCTION

Dysmenorrhea is a Greek word to describe a painful muscle contraction during menstruation without pelvic disease, the most common problems in women of childbearing age. About 20 to 90 percent of women experience different degrees of painful initial menstrual, 15 percent of them have severe menstrual pain, dysmenorrhea causes absence from school and work and decreases daily activities [1]. There is an annual estimates of 600 million hours of work wasted costing about $ 2 billion in the United States due to the initial painful menstruation [2]. The incidence of painful menstruation increase with increase in production of prostaglandins [3]. Different factors including menstrual cycle, marital status and delivery, lifestyle and emotional factors including mental excitement, anxiety and stress affect the occurrence of painful menstruation [1,4].

For many years, the relationship between primary and painful menstrual character has been discussed [3]. Some people believe that women with painful menstrual period have an unbalanced personality. They are mostly ill, depressed, anxious, traditionally male characteristics, introversion and less independent, witty and positive view [5].

Holmlund in 1983 showed that there is no significant difference in personality traits between women with and without menstrual pain. But he reported a significant difference in personality traits between women with and without severe painful menstruation so that women with severe pain were less confident with more feminist behaviors [6]. Iacono and Roberts reported a significant difference in 16 personality traits between women with and without painful menstruation [7].

Considering the high percentage of young population and the active participation of women in social – economic scenes, promoting the physical and mental health of women is necessary. This research is an analytical study to determine the personality traits of women with severe menstrual pain.

MATERIALS AND METHODS

The present study is a cross-sectional analytical study. In this study, 200 female students aged 18-25 years studying in the disciplines of medicine, dentistry, pharmacy, paramedical and nursing midwifery in Mashhad university of medical sciences in Iran were selected based of stratified sampling method. Then, they were classified into four groups namely no menstrual pain, minor
menstrual pain, average menstrual pain and severe menstrual pain using chohora multidimensional speech criteria. The sample size was calculated according to a pilot study based on the estimation of group means and standard deviations.

The multidimensional speech system criteria [8] and the Eysenck personality questionnaire which contains 90 question (21 questions for introversion, 25 questions for neuroticism, 23 questions for psychotism and 21 questions for lie scale) were used for data gathering.

First the research entry form was completed to see whether the subject was eligible. Then individual characteristics form were filled. After the family interview, the researcher explained how and when to complete the questionnaires. Menstrual pain questionnaire form based on multidimensional speech system criteria (including degree zero, one, two and three) was completed at the time of maximum pain. The Eysenck personality questionnaire was completed in some day between seventh and fourteenth day of menstrual cycle. Data was analyzed using SPSS software according to chi-square test, Mann-Whitney and Fisher exact test. All statistical tests were done at $\alpha=0.05$ level.

RESULTS

The study results showed that among 200 units of study, 100 patients had no menstrual pain, 15 were mild, 55 moderate and 30 severe menstrual pain. Results showed that both groups with and without severe menstrual pain were homogenous in terms of age, father’s occupation, mother’s education, social class, family income, level of enjoyment of social support, birth rank, mean body mass index, weight and height. Frequency distribution showed that 17 subjects (6.56%) of women with severe menstrual pain and 51 (51%) of women without menstrual pain are between 23-21 years of age.

Fisher exact test showed significant differences in relative frequency between the two groups ($P<0.001$). So that 20 people (66.6%) of women with severe menstrual pain were introversion ($10.81 \pm 3.69$) and had a score ranging from 3 to 19 while 12 people (12.0%) of women without severe menstrual pain were introversion ($13.80 \pm 3.07$) and had a scores ranging from 6 to 21 (Table 1).

Fisher exact test showed significant differences in relative frequency between the two groups ($P<0.001$). So that 16 people (53.3%) of women with severe menstrual pain were neuroticism ($13.14 \pm 4.02$) and had a score ranging from 3 to 17 while 10 people (10.0%) of women without severe menstrual pain were neuroticism ($10.79 \pm 3.77$) and had a scores ranging from 2 to 17 (Table 2).

Fisher exact test showed significant differences in relative frequency between the two groups ($P<0.029$). So that 16 people (53.3%) of women with severe menstrual pain were psychotism ($5.60 \pm 2.21$) and had a score ranging from 0 to 9 while 32 people (32.0%) of women without severe menstrual pain were psychotism ($3.96 \pm 1.77$) and had a scores ranging from 1 to 9 (Table 3).

<table>
<thead>
<tr>
<th>Trait</th>
<th>With severe menstrual pain Frequency (percent)</th>
<th>Without severe menstrual pain Frequency (percent)</th>
<th>Total Frequency (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>introversion</td>
<td>20 (65.6)</td>
<td>12 (12.0)</td>
<td>32 (49.2)</td>
</tr>
<tr>
<td>extroversion</td>
<td>10 (33.4)</td>
<td>88 (88.0)</td>
<td>98 (50.8)</td>
</tr>
<tr>
<td>Total</td>
<td>30 (100.0)</td>
<td>100 (100.0)</td>
<td>130 (100.0)</td>
</tr>
<tr>
<td>mean=sd</td>
<td>10.81 ± 3.69</td>
<td>13.80 ± 3.07</td>
<td>12.30 ± 3.70</td>
</tr>
</tbody>
</table>

Fisher's Exact Test: $P<0.001$
Mann-Whitney U: $z = 3.92, P<0.001$

<table>
<thead>
<tr>
<th>Trait</th>
<th>With severe menstrual pain Frequency (percent)</th>
<th>Without severe menstrual pain Frequency (percent)</th>
<th>Total Frequency (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>neuroticism</td>
<td>16 (53.3)</td>
<td>10 (10.0)</td>
<td>26 (33.8)</td>
</tr>
<tr>
<td>Non- neuroticism</td>
<td>14 (46.7)</td>
<td>90 (90.0)</td>
<td>104 (66.2)</td>
</tr>
<tr>
<td>Total</td>
<td>30 (100.0)</td>
<td>100 (100.0)</td>
<td>130 (100.0)</td>
</tr>
<tr>
<td>mean=sd</td>
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<td>10.79 ± 3.77</td>
<td>11.96 ± 4.06</td>
</tr>
</tbody>
</table>

Fisher's Exact Test: $P<0.001$
Mann-Whitney U: $z = 44.3, P<0.001$
DISCUSSION AND CONCLUSIONS

In this Study, the Relationship Between Personality Traits and Menstrual Pain Was Studied: Personality traits and how individual thinks has a negative effect on the physical conditions. Furthermore, mental factors can affect the understanding and perception of pain [9]. A small number of researches is available about the relationship between personality traits and menstrual pain with contradictory results. Iacono [7] and Lawler and Davis [10] research showed that two groups with and without menstrual pain had no significant difference in personality traits while Bloom et al. [5] showed that two groups have significant difference.

As was observed in the present study, students with early severe menstrual pain had a high prevalence of introversion. Bloom [7] showed that the mean introversion score is significantly different between women with and without severe menstrual pain which is consistent with the finding of the present study. Opposit to our study, Iacono and Roberts [7] did not find any significant difference of introversion between two groups. It may be due to difference of social-cultural factors of subjects and the research tools used in two studies. Alonso and Coe [4] in their study as the effect of emotion on menstrual pain in young people showed a strong relationship between depression and anxiety and menstrual pain. Holmlund [6] in a prospective entitled “experience of painful menstruation and its relationship with personality variables” showed that Between the two groups with and without primary severe menstrual pain at age 15, there was a significant difference in feeling guilty and neuroticism. The present study also showed such a significant difference between two groups. Bloom [5] showed that mean neuroticism score in the two groups was which is the same as the present study. Iacono and Roberts [7] showed two groups were not significantly different in terms of psychotism. In the present study, this relationship was not studied. Holmlund [6] showed that two groups with and without primary severe menstrual pain at age 25 were significantly different in aggression and aggressive conflicts. Finding of the present study also showed that the prevalence of neuroticism in severe menstrual pain group was significantly higher than the other group.

According to the results of this study, introversion, psychotism and neuroticism in women with early severe menstrual pain than women without primary is a potential risk to cause depression, obsession, irritability, anger, low self-esteem, feeling guilty, are aggression. Personality traits and how individual thinks can put a positive effect on physical conditions. Psychological factors can affect the perception of pain. Therefore, medical students, midwifery and health care personnel should be taught how to understand the patients’ behavior and guide them through consultation use of methods such as psychotherapy and biofeedback relaxation.

REFERENCES