EFFECT OF SELECTED EXTRROCEPTIVE STIMULUS (NOISE),
ANXIETY AND DEPRESSION ON MENSTRUAL PATTERNS

ABSTRACT

The present study was designed to investigate the effect of noise, anxiety and depression on menstrual patterns, namely, menstrual cycle length, menstrual duration and feeling of menstrual discomfort. It also takes into account the effect of age at menarche, age of the subject and menstrual irregularity on the same three aspects of menstrual patterns. More precisely, it was intended to study the influence of external variable (noise) and personality aspects (anxiety and depression) on menstrual patterns. Such studies have not been conducted in our country though they are immensely needed to help women in their adjustment to various spheres of life.

An exploratory study was conducted to determine the influence of noise on the three aspects of menstrual pattern. Within the constraints that existed (the noise intensity had to be kept well below tolerance limit; the duration could not be allowed to exceed beyond 30 minutes), it was inferred that noise cannot be taken as an independent variable to study menstrual pattern.

The other independent variables were anxiety, depression,
age of menarche, age of subjects and irregularity of occurrence of menstruation. Menstrual cycle length, menstrual duration and feeling of discomfort were the dependent variables.

The sample consisted of 275 undergraduate and postgraduate women students of Aligarh Muslim University, Aligarh. The mean age of the subjects was 21.26 years.

**Design of the study**

The present study, as stated earlier, was conducted to investigate the influence of independent variables (anxiety, depression, age of menarche, age of subjects, and menstrual irregularity) on the three aspects of menstrual patterns. Each independent variable was dichotomised to make it amenable to factorial design so as to obtain F ratio.

The hypotheses to be tested were as follows:

1. Anxiety and depression would influence menstrual cycle length, duration and feeling of discomfort.
2. The interaction of the independent variables would significantly influence each of the dependent variables.
3. Anxiety, depression and age of menarche would influence menstrual cycle length, duration and feeling of discomfort.
4. The interaction of the independent variables would significantly influence each of the dependent variables.
(5) Anxiety, depression, and age of the subject would influence menstrual cycle length, duration and feeling of discomfort.

(6) The interaction of the independent variables would significantly influence each of the dependent variables.

(7) Anxiety, depression and irregularity and influence menstrual cycle length, duration and feeling of discomfort.

(8) The interaction of the independent variables would significantly influence each of the dependent variables.

Analysis of variance was computed in order to determine the significant differences, and where the results were found to be significant, t-test was used. It was found that:

(1) Anxiety and depression did not influence menstrual cycle length. Depression influenced menstrual duration and feeling of discomfort.

(2) The interaction of anxiety and depression significantly influenced the menstrual duration and feeling of discomfort. Interaction of anxiety and depression did not influence menstrual cycle length.

(3) Anxiety, depression and age of menarche did not influence menstrual cycle length. Depression influenced menstrual duration, while anxiety and age of menarche did not influence the duration.

(4) Interaction of anxiety x depression affected menstrual
duration, but it did not effect the feeling of discomfort.

(5) Anxiety, depression and age of subject did not influence menstrual cycle length. Depression effected menstrual duration and feeling of discomfort.

(6) The interaction of depression and age of the subject affected the duration. No interaction effect was observed in the feeling of discomfort.

(7) Anxiety, depression and irregularity did not influence menstrual cycle length, duration and feeling of discomfort.

(8) The interaction of the anxiety, depression and irregularity did not significantly influence menstrual cycle, duration and feeling of discomfort.

Major Findings and Suggestions

Depression emerged as the most important variable that influenced menstrual duration and feeling of discomfort:

(1) An in-depth study of factors responsible for shortening menstrual duration needs to be conducted, both at the psychological level and at physiological level.

(2) The girls should be imparted education related to the process of menstruation before they attain the age at which the menstruation may start. Lack of proper information may pose various adjustment problems for them.

(3) Strategies have to be evolved to lessen depression among women and to educate them. Psychological
techniques of behaviour modification may be used. Yogic exercises may be useful for reducing the feeling of discomfort. Women should understand the changes which take place during different phases of the cycle, so that they can evolve their own strategies to reduce the feeling of depression.

(4) Psychologists should not solely depend on the classification and concepts commonly used by gynecologists to study the impact of menstruation on behaviour. More intensive studies are needed to properly understand the behavioural aspects related to menstruation.