CHAPTER - VII

SUMMARY AND CONCLUSION
Nursing is one of the single largest professions open to women. Nursing is universal. Inherent in it is respect for life, dignity and rights of man. It bounds no considerations for nationality, race, creed, colour, age, sex, political and social status. Nurses render health services to the individual, the family and the community. The fundamental responsibility of the nurse is to promote health, prevent illness, restore health and alleviate suffering.

Nurses are employed in at least four major fields, one of the largest fields being hospital nursing. She may be hired by Government agencies such as the city health department or by voluntary agencies. Her duty is to plan and give expert nursing care. She also works with doctors, social workers and other community leaders in conducting health educational programmes.

In earlier days nursing used to be taken up as a profession by women belonging to low socio-economic profile or the destitutes, i.e. divorcees, widows, unique social groups etc. In the modern nursing system the trend has changed dramatically. Now a person wishing to become a nurse has to undertake a diploma programme in the school of nursing for a period of three years. They are called 'student nurses'. In the course of the study they have to undertake classroom work-schedules with supervised training in various kinds of nursing care followed by clinical practicals in hospital wards.

Apart from the educational qualities of a nurse her personal qualities in providing patient care are very important. Some of these
qualities may be categorised as: a nurse is a person (i) who loves; (ii) who cares; (iii) who thinks; (iv) who is patient; (v) who is poised etc. It means that in actual practice the nurse will: (a) handle a patient gently even when she feels angry or irritable; (b) speak to the patient with respect and courtesy; (c) cooperate with other personnel to provide good nursing care etc. In other words, her affective states over different times of day, play effective role in delivering productive health care services. The present investigation has been designed to ascertain whether level of performance sustains as the day wears on especially in certain affective states and tasks that are relevant to nursing care.

This study was carried out on staff nurses (N = 100) and student nurses (N = 70). The staff nurses were spread over three wards: Heavy ward (N = 59); Moderate ward (N = 24); and Light ward (N = 17). In each ward the nurses were studied in three shifts: morning shift (0800-1500 h); evening shift (1300-2000 h); and night shift (2000-0800 h), thus covering a 2400 h work-cycle. Likewise, each nurse was included for a total of two 2400 h work-cycles. The data was collected at two-hour interval. The parameters studied were: physiological measures (oral temperature and pulse rate); affective states with visual analogue scales and morning-evening types. In the morningness-eveningness scale most of the subjects were found to be of the morning type.

The student nurses were randomly divided into 7 groups of 10 each and studied in a 7x7 cyclic latin square design so that each nurse encountered a different time of day for testing sessions from
0800-2000 h. A battery of Psychological tests and affective states were administered.

Also collected were the subjects' sleep habit, dieting habit and menstrual cycle during the study period.

The results showed that the dieting habit and duration of sleep per day of the subjects were more or less same. The onset of menstrual cycle precluded the subjects to be included in the study.

**Staff Nurses**

Oral temperature of the staff nurses gradually rose from 0800 h, reached the peak during late evening and dropped thereafter.

Pulse rate showed more or less a similar trend, i.e. started rising from 0800 h, reached its peak during late evening and started falling off gradually thereafter. Both oral temperature and pulse rate were very low during 0200-0400 h.

Mental tension was high at the beginning of each shift which gradually lessened as the patients' needs were fulfilled.

Alertness was high at the beginning of each shift but declined as the day progressed.

Anxiety of the subjects was found to increase soon after resuming their duties which continued for sometime. However, it depended on specific times in each ward.

The subjects' wakefulness decreased as the day prolonged. It showed good correlation with the physiological measures.
Cheerfulness also decreased during noon time and even thereafter compared to the early morning hours. In the evening and night shifts also cheerfulness showed gradual decline a couple of hours after their joining duties.

Mental depression, forgetfulness, irritability and headache states of the subjects did not show any appreciable change over different times of day in any of the wards. Similar results were also observable for physical health status of the subjects.

Physical freshness of the subjects diminished gradually during noon and after noon in the morning shift, over to the extended day in the evening shift and to the maximum extent during the night shift.

Mental freshness also degraded during noon and after noon in the morning shift, late evening in the evening shift. In the beginning of the night shift the subjects were at high level of mental freshness which diminished as the night shift prolonged.

Oral temperature had significant correlation with pulse rate. Significant negative correlation coefficient was obtained between oral temperature and alertness, wakefulness, cheerfulness, physical freshness and mental freshness during night shift of each ward, whereas similar results were obtained for mental tension and anxiety for morning and evening shifts of each ward.

Correlations between pulse rate and affective states were more or less similar to those obtained between oral temperature and the latter.
Student Nurse

In the student nurses oral temperature increased as the day prolonged with its maximum being during late evening and gradually reaching lower values.

Pulse rate also increased with the passage of time of day reaching its peak during 1800-2000 h and gradually falling off thereafter.

Speed of performance in reasoning ability test followed a more or less similar trend as that of oral temperature and pulse rate. The accuracy profile revealed early morning, noon and early evening superiority. Performance efficiency improved considerably as the body temperature increased.

Speed of performance in letter cancellation was significantly higher at 1000 h through 2000 h compared to 0800 h.

In associative recall test each morning noon and early evening superiority was observable.

Performance in name and number checking test was influenced by the order of time of day or by the interaction between order of time of day and time of day. Alertness of the subjects increased during early morning, noon and early evening hours.

Wakefulness of the subjects was higher at 1000, 1200 and 1600 h compared to 0800, 1400 and 2000 h.

Mental freshness was appreciably high at 1000, 1600 and 1800 h compared to 0800, 1200 and 1400 h.
Anxiety and physical freshness of the subjects were influenced by the order of times of day and time of day.

Significantly high positive correlation coefficient was observable between oral temperature and pulse rate.

Oral temperature was also associated in the positive direction with reasoning ability in respect of speed of performance at 1600 and 1000 h, in respect of accuracy at 1800 h and in respect of efficiency at 1600 and 2000 h. Similar results were also obtained for letter cancellation and associative recall. Significant negative correlation coefficient of oral temperature were also obtained with alertness, wakefulness and mental freshness during different hours of day.

More or less similar correlation coefficients were obtained with pulse rate.

Alertness was associated with other measures in the negative direction. Correlation coefficient of alertness with wakefulness and mental freshness were positive and significant at 1200 h in the former and at 1800 h in the latter.

Thus, it may be concluded that favourable performance in cognitive tasks would be available during morning or evening hours depending on the task content and the 'measures' considered. Speed of performance will be superior for late morning over the extended day to late evening in line with the increase in body temperature. The accuracy of performance in intellectual tasks would be superior either in early morning, noon or early evening hours. However, the
speed and accuracy of performance should be studied exhaustively to establish more conclusively the findings of the present investigation.