CHAPTER - FOUR
METHODOLOGY

4.1 Title: Adjustment problems of nurse and staff of government hospitals at Kolkata

4.2 Aim of the present investigation: Adjustment is state of life when the individual is more or less in harmony with personal, biological, social and psychological needs and with the demands of the physical environment. Sound physical health, psychological comfort, full of occupational and social efficiency and social acceptance are the basic criteria of good adjustment. Adjustment is a perfect relationship with the environment involving the satisfaction of all types of needs of the individual and meeting satisfactorily most of the demands that are put upon them. It is a process which leads us to a happy and contended life; maintains a balance between our needs and the capacity to meet these needs; persuades us to change our way of life according to the demands of the situation and gives us strength and ability to bring desirable changes in the conditions of our environment. The well-adjusted person can have adaptability, capacity for affection, balanced life, ability to profit from experience, frustration tolerance, humor, moderation, objectivity and many others which create a world of interpersonal relations and satisfactions that contribute to the continuous growth of personality, otherwise, develops different types of psychological problems lead to the maladjustment (Deutsch et al., 2000). A person’s environment consists of the sum total of the stimulation which he or she receives from his conception until his death. Environment comprises various types of forces such as physical, intellectual, economic, political, cultural, social, moral and emotional. Environment is the sum total of all the external forces, influences and conditions which affect the life, nature, behavior, growth, development and maturation of living organisms.
In the medical sense, the environment includes the surroundings and conditions that affect an organism (Gifford, 2007). Psychological adjustment is a phrase used to denote positive mental health, refers to an individual's state of mind and overall well-being. The process of conceptualization of psychological adjustment reflects whether an individual is able to cope effectively with the demands of the environmental context as well as with the stress created by these demands. Psychological adjustment is a popular outcome measure in psychological research, and often measures self-esteem, absence of distress, anxiety and depression which are used as indicators of adjustment. Catalano (2006) examined the emotional responses of nurse and staff to patient at a general medicine ward of the hospital. Staff completed self-report measures assessing general psychiatric functioning and symptoms of depression and anxiety. Staffs were less likely to report higher anxiety, less somatic concerns, lower vulnerability and lack of control and also lower levels of impairment at work - all may lead to the adjustment problems in the hospital settings and they are designated as maladjustive. Besides this, there is evidence from mental health care and beyond that working in teams enhances an organization's effectiveness (Kallerberg and Moody, 1994). Research findings have also revealed better patient care both in terms of improving health delivery and staff motivation (Wood et al., 1994) and in superior patient outcomes (Coiera, 2000) that may improve the adjustment pattern of the nursing staff in hospital setting. Healthy adjustment pattern depends on the mental health and healthy self concept, on the contrary, anxiety, feelings of personal inadequacy, helplessness, inferiority, insecurity and worthlessness undermine an adequate self concept that disrupts the mental health and affects the adjustment patterns in nursing staff.
Anxiety is an unpleasant state of mental uneasiness or concern that causes physical and psychological discomfort. Extreme anxiety disrupts and unsettles behaviour by lowering the individual's concentration and affects the muscular control. Any sporting game or contest can give rise to anxiety when one's perceived ability does not measure up to the demands of the task. State anxiety is an unpleasant emotional response while coping with threatening or dangerous situations (Spielberger, 1983), which includes cognitive appraisal of threat as a precursor for its appearance (Lazarus, 1991). In general, states refer to any reliably measured characteristic, but typically, state variables refer to conscious, verbally reportable qualities such as moods (Matthews et al., 2003). The emotional responses of the staff to patient at a general medicine ward of a hospital setting was examined by a group of researchers. According to them, staff were more likely to report higher state anxiety, more somatic concerns, more vulnerability and lack of control and higher levels of impairment at work and were more likely to consider terminating employment (Ryan et al., 2004). Stressful relationships result when nurses were demeaned, belittled, and humiliated by psychiatric patients (Shipton, 2002). On the other hand, trait anxiety refers to stable individual differences is a tendency to respond with an increase in state anxiety while anticipating a threatening situation. Differences in the frequency of trait anxiety among the nursing staff in general medicine department were investigated. Findings revealed two factors: i) structural characteristics of units that affect the amount of role conflict and ambiguity, ii) staff experience and personality characteristics that may attract nurses to specific units. Higher level of trait anxiety was found to have significant effects on job satisfaction and turnover (Pamela, 1991). Another study showed increased threat of cognitive appraisal of aggression, increased state anxiety, reported trait anxiety and decreased positive attitudes toward aggression.
predicted higher levels of state anxiety among psychiatric nurses when patients exhibited verbal and physical aggression rather than just physical aggression (Chen, 1997). Research findings also revealed that inpatient and outpatient psychiatric units have patients with high acuity, high census, and rapid turnover related to safety concerns, and a shortage of available psychiatric nurses because of higher prevalence to develop trait anxiety, depression and other physical and mental health problems (Vanya, 2009).

Depression covers an extremely wide spectrum of experience, from grief and bereavement to apparently inexplicable despondency and melancholy. Predictors of depressive symptoms were identified in a sample of nursing staff of psychiatric department. The nursing staff developed higher level of depression, anxiety, insecurity regarding job performance that detrimental to the physical and psychological health. Reductions in depressive symptoms can advance health and quality of life for the hospital nursing staff. Symptom alleviation or reduction may improve nursing care delivery when distressing symptoms interfere with professional performance among nurses (Welsh, 2009). Besides this, research findings also assessed the relationships between burnout, depression and sense of coherence in a large sample of male and female nurses of psychiatric wards. Analysis showed that sense of coherence in nursing staff was correlated with burnout and depression. In the hospital setting, the intervention by specialized personnel in order to assist nursing staff with burn out may be an appealing option (Hadded et al., 2007).

Personality is the sum total of everything that constitutes a person's mental make-up and refers to the ethical quality of behavior. Charles Ridley (1994) developed interventions that may assist nurses to better deal with interpersonal conflict in the hospital setting and to reduce their stress responses in frequently
encountered difficult interpersonal situations. The study showed that personality trait like Extraversion and Neuroticism in case of nurse and staff in psychiatric ward is negatively related to emotional exhaustion and depersonalization and positively related to personal accomplishment. Altruism, nurturance and caring as opposed to hostility, indifference to others, self-centeredness and noncompliance characterize agreeableness. There is some support for a modest relationship of agreeableness with social support (Watson and Hubbard, 1996). A high score on agreeableness may encompass the stereotype of the ideal nurse and staff. Working in the hospital setting and caring for groups of mentally ill patients requires a nurse to be well organized. The nursing staff of psychiatric ward worked at a higher level of importance on the personality traits of endurance, harm-avoidance, nurturance and lower level of neuroticism, psychoticism, lie factor and also stable condition of extraversion. The nursing staff need to provide consistency in their expectations of the patients to communicate more effectively concerning the importance of personality traits, like neuroticism and extraversion with respect to the competencies to deal with the patient’s suffering (Lavoie et al., 2005).

Environment is the sum total of all surroundings of a living organism including natural forces and other living things which provide conditions for development and growth as well as of danger and damage. Research findings has revealed that the perception of nursing ill people within a general hospital setting was positive and influenced the intellectual and the affective component of the staff and nurses' psychological functioning within their internal environment. It was recommended that staff and nurses' knowledge and skills should be increased and that they should be given emotional support in terms of counseling. Besides this, reported job dissatisfaction among hospital nurses and
The staffs of psychiatric ward is four times greater than the average for all workers in the general medicine ward. Forty percent of nurses and staffs have burnout levels that exceed the standard for health care workers and 20% report that they plan to pursue new employment within a year (Sochalski and Silber, 2002). The cost of nursing turnover can reach as high as 150% of an employee's annual compensation, which not only reduces an hospital's financial health, but also has an impact on efficient operations and potentially the mentally ill patient's perception of quality of care (Contino, 2002). Research suggests that the values and attitudes of nurses and staffs new to the profession may be different than previous generations, resulting in more frequent job and career changes when confronted with obstacles in the work environment (Mills and Blaesing, 2000). Thus, environment takes an important role to adjustment with the settings. Considering the above, the present investigation had the following aims and objectives:

1. To study the adjustment patterns of the nurse and the staff of psychiatry and non-psychiatry (general medicine) department of Government hospitals at Kolkata.
2. To study the state and trait anxiety of the nurse and the staff of psychiatry and non-psychiatry (general medicine) department of Government hospitals at Kolkata.
3. To study the level of depression of the nurse and the staff of psychiatry and non-psychiatry (general medicine) department of Government hospitals at Kolkata.
4. To study the personality dimensions of the nurse and the staff of psychiatry and non-psychiatry (general medicine) department of Government hospitals at Kolkata.
5. To study the environment of the hospital settings as perceived by the nurse and the staff of psychiatry and non-psychiatry (general medicine) department of Government hospitals at Kolkata.

4.3 Concept and operationalization:

4.3.1 General Health: According to World Health Organization (1948) "Health is a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity". This statement has been amplified to include the ability to live in a socially and economically productive life. In a narrow sense, health means – a) there is no obvious evidence of disease that person functions normally, b) the several organs of the body are functioning adequately in themselves and in relation to one another which implies a kind of equilibrium – a condition relatively stable but which may vary as human being adopt to internal or external stimuli. In this investigation, general health questionnaire is used only for screening.

4.3.2 Adjustment - Adjustment is the establishment of a satisfactory relationship between individual and his environment. According to Gates and Jersild (1973), “Adjustment is a continual process by which a person varies his behavior to produce a more harmonious relationship between himself and his environment”. Adjustment is a process which leads us to a happy and contended life; maintains a balance between the needs and the capacity to meet these needs; persuades us to change our way of life according to the demands of the situation; and gives us strength and abilities to bring desirable changes in the conditions of our environment. In other words, adjustment is a condition as state in which one feels that one’s need have been (or will be) fulfilled and
one’s behavior conforms to the requirements of one’s culture and society. Main aspects of adjustment are –

i) **Home adjustment** - Home is the source of greatest satisfaction and security to its members. The relationship among the family members and their ways of behavior play a leading role in the adjustment of an individual.

ii) **Health Adjustment** - One is said to be adjusted to one’s physical development if the physical abilities are in conformity with those of others of same age and there is no difficulty in progressing due to defects or incapability of physical signs.

iii) **Social Adjustment** - How far one is adjusted can be ascertained by one’s social development and adaptability to the social environment. Social adjustment requires the development of social qualities and virtues in an individual. It also requires that one should be social enough to live a harmony with others and feel responsibility and obligations towards his fellow beings, society and country.

iv) **Emotional Adjustment** - An individual is said to be emotionally adjusted if he is able to express his emotions in a proper way at a proper time.

v) **Occupational Adjustment** - Whereas in the adjustment of adults, their occupational or vocational adjustment plays a great role. To be adjusted to one’s occupation or work means to act in such a way that all the essential requirements of the job or progression are fulfilled consistently in an efficient and satisfying manner.
4.3.3 Anxiety - Anxiety is a state of uneasiness, accompanied by dysphoria and somatic signs and symptoms of tension, focused on apprehension of possible failure, misfortune or danger. Anxiety is an emotional state arising in situations of impending danger and manifested in expectation for invaluable events. Unlike fear as a response to specific threat, anxiety represents generalized, diffuse or pointless freight. It is mainly of two points – i) state anxiety and ii) trait anxiety. Anxiety occurs when an individual is interrupted in the course of executing a desired behavior sequence and has not an alternative course of action available. It is an unpleasant emotion that is accompanied by autonomic discharge and subjectivity experienced tension or nervousness. It has been used to refer to at least three different related constructs – a) in an empirical sense it is an unpleasant emotional state characterized by subjective feeling of tension, apprehensions, nervousness and worry, b) in psychological research it is used to denote or describe the complex psycho-physiological process that occurs the reaction eustress, c) it refers to relatively stable individual differences in anxiety process as a personality trait. These are certain symptoms of anxiety like: rapid heartbeat, breathing dizziness, light headed or nauseous, paralyzing fear, chocking accompanied with chest pain, a tingling sensation in the limbs of the body, hot flashes and/or sudden chills, fear of going crazy and fear of going to die.

4.3.4 Depression - Depression is an emotional state of despondency characterized by negative emotional attitude, a change in the motivation sphere, cognitive impressions and generally passive behavior. In the normal individual, a state of despondency characterized by feelings of inadequacy, lowered activity and pessimism about the future is called depression. Generally, in a stressful situation, the individual may experience depression, so it is one of the
effect of stress. The main symptoms of depression are: persistent sad, anxious or empty mood, feeling of hopelessness, pessimism, feeling of guilt, worthlessness, helplessness, loss of interest or pleasure in hobbies and activities that were once enjoyed.

4.3.5 Personality - The word “Personality” originates from the Latin word persona, which means mask. It was a convention employed to represent or typify that character. Personality may also refer to the patterns of thoughts, feelings, and behaviors consistently exhibited by an individual over time that strongly influence our expectations, self-perceptions, values and attitudes and predicts our reactions to people, problems and stress. Personality refers to individual differences in characteristic patterns of thinking, feeling and behaving (Eysenck, 1996). According to him, there are four domains, viz.,

i) Extraversion/Introversion: Extraversion is characterized by being outgoing, talkative, high on positive affect (feeling good), and in need of external stimulation. Introversion, according to Eysenck, is characterized by over-arousal, jittery and therefore need of peace and quiet to bring them up to an optimal level of performance.

ii) Neuroticism/Stability: Neuroticism or emotionality is characterized by high levels of negative affect such as depression and anxiety. Neurotic people who have low activation thresholds and unable to inhibit or control their emotional reactions, experience negative affect (fight-flight) in the face of very minor stressors. They become easily nervous or upset.
iii) **Psychoticism/Socialization:** Psychoticism is associated not only with the liability to have a psychotic episode (or break with reality), but also with aggression. Individuals who are high on this trait tend to have difficulty dealing with reality and may be antisocial, hostile, non-empathetic and manipulative.

iv) **Lie scale:** EPQ has a fourth scale, the Lie (L) scale. This validity scale was developed to detect the individuals how they present themselves in a favourable light. A set of items included in a psychological evaluation to indicate whether or not the respondent has been truthful in other parts of the test.

**4.3.6 Perceived Environment Of Hospital Setting** - Perceived environment of hospital setting means how an individual perceives the environment of the hospital setting in the existing scenario. Physical, psychological and social aspects have been considered in this investigation.

**4.4. Hypotheses:**

**Hypothesis – I(a) :** Nurse of the psychiatry and non-psychiatry (general medicine) department of government hospitals at Kolkata differ significantly in terms of adjustment patterns.

**Hypothesis – I(b) :** Staff of the psychiatry and non-psychiatry (general medicine) department of government hospitals at Kolkata differ significantly in terms of adjustment patterns.

**Hypothesis – II(a) :** Nurse of the psychiatry and non-psychiatry (general medicine) department of government hospitals at Kolkata differ significantly in terms of state and trait anxiety.
Hypothesis – II(b): Staff of the psychiatry and non-psychiatry (general medicine) department of government hospitals at Kolkata differ significantly in terms of state and trait anxiety.

Hypothesis – III(a): Nurse of the psychiatry and non-psychiatry (general medicine) department of government hospitals at Kolkata differ significantly in terms of level of depression.

Hypothesis – III(b): Staff of the psychiatry and non-psychiatry (general medicine) department of government hospitals at Kolkata differ significantly in terms of level of depression.

Hypothesis – IV(a): Nurse of the psychiatry and non-psychiatry (general medicine) department of government hospitals at Kolkata differ significantly in terms of personality dimensions.

Hypothesis – IV(b): Staff of the psychiatry and non-psychiatry (general medicine) department of Government Hospitals at Kolkata differ significantly in terms of personality dimensions.

Hypothesis – V(a): Nurse of the psychiatry and non-psychiatry (general medicine) department of government hospitals at Kolkata differ significantly in terms of perceived environment of hospital setting.

Hypothesis – V(b): Staff of the psychiatry and non-psychiatry (general medicine) department of Government Hospitals at Kolkata differ significantly in terms of perceived environment of hospital setting.
Hypothesis – VI(a): Adjustment patterns of the nurse engaged in psychiatry and also in non-psychiatry (general medicine) department of government hospitals at Kolkata is differentially associated with age difference.

Hypothesis – VI(b): Adjustment patterns of the staff engaged in psychiatry and also in non-psychiatry (general medicine) department of government hospitals at Kolkata is differentially associated with age difference.

Hypothesis – VII(a): State and Trait anxiety of the nurse engaged in psychiatry and also in non-psychiatry (general medicine) department of government hospitals at Kolkata is differentially associated with age difference.

Hypothesis – VII(b): State and Trait anxiety of the staff engaged in psychiatry and also in non-psychiatry (general medicine) department of government hospitals at Kolkata is differentially associated with age difference.

Hypothesis – VIII(a): Level of depression of the nurse engaged in psychiatry and also in non-psychiatry (general medicine) department of government hospitals at Kolkata is differentially associated with age difference.

Hypothesis – VIII(b): Level of depression of the staff engaged in psychiatry and also in non-psychiatry (general medicine) department of government hospitals at Kolkata is differentially associated with age difference.

Hypothesis – IX(a): Personality dimensions of the nurse engaged in psychiatry and also in non-psychiatry (general medicine) department of government hospitals at Kolkata is differentially associated with age difference.
Hypothesis – IX(b): Personality dimensions of the staff engaged in psychiatry and also in non-psychiatry (general medicine) department of government hospitals at Kolkata is differentially associated with age difference.

Hypothesis – X(a): Environmental setting as perceived by the nurse engaged in psychiatry and also in non-psychiatry (general medicine) department of government hospitals at Kolkata is differentially associated with age difference.

Hypothesis – X(b): Environmental setting as perceived by the staff engaged in psychiatry and also in non-psychiatry (general medicine) department of government hospitals at Kolkata is differentially associated with age difference.

4.5 Study area and Sample selection:

In order to put the above mentioned hypotheses in empirical situation, the present study was conducted in two separate phases: Phase I and Phase II. The Phase I was done to develop mainly for the one necessary tool and the Phase II for an adequate understanding regarding the adjustment problems of nurse and staff of government hospitals at Kolkata.

4.5.1 Study area: Kolkata formerly known as Calcutta is the capital of the Indian state of West Bengal, located on the east bank of the Hooghly River. It was the commercial capital of East India. The city proper has 4.5 million residence and the metropoliton area including suburbs, has a population of approximately 14.2 million, making it the third-most populous metropolitan area in India and the thirteenth most populous urban in the world. The Kolkata city is an example of an urban hotbed of the developing nation. The total area of Kolkata is 185 sq.km. Kolkata is also known as most popular educational, economical and cultural hub.
Kolkata’s hospitals are either run by the state government or by private organization. A public hospital or government hospital is a hospital which is owned by a government and receives government funding. This type of hospital provides medical care free of charge, the cost of which is covered by the funding the hospital receives. The health care system in Kolkata consists of 48 government hospitals, mostly under the Department of Health & Family Welfare, Government of West Bengal, and 366 private medical establishments during 2010. The health scenario in Kolkata is better than many other cities in India. For every 10,000 people in the city, there are 61 hospital beds, which is higher than the national average of 9 hospital beds per 10,000. Ten medical colleges are located in the Kolkata metropolitan area which acts as tertiary referral hospitals in the state. Calcutta Medical College, founded in 1835, was the first Asian institution to teach modern medicine. The hospitals in Kolkata are the power houses of health care which can be trusted. The finest hospitals in Kolkata aims at providing the common man with such health care services that would contribute in the physical, social, psychological and spiritual well being of the people and also the community in general. The services and facilities at the hospitals in Kolkata include an array of medical services, OPD services, dispensing pharmacies, diagnostic services, and consultancy services. With superior and latest technology and machines and high rates of clinical success, the famous Kolkata hospitals are there to cater to all our health related problems. To fulfill the purpose of the present investigation two departments, viz, Psychiatry and Non-psychiatry (general medicine) of the following government hospitals at Kolkata are selected as study area for this investigation:
1. Calcutta Medical college & Hospital
2. Nilratan Sarkar Medical college & Hospital
3. R.G.Kar Medical College & Hospital
4. Calcutta National Medical College
5. MR Bangur Hospital, Tollygunge
6. Bagur Institute of Neurology
7. Seth Shukhlal Karnani Memorial (SSKM/P.G.) Hospital
8. Shambhunath Pandit Hospital

4.5.2. Selection of the sample:

In the first phase (Phase – I), to develop the tool – Perceived Environment of Hospital Setting Questionnaire, a group of 50 nurse and 50 staff were selected. Besides this, in order to carry out the present investigation, a group of 200 female nurse (100 from psychiatry department and 100 from general medicine department) and 200 male staff (100 from psychiatry department and 100 from general medicine department) were selected as sample for full scale study in this investigation. The pertinent characteristics of the subject are as follows:

Age: 25-34 years and 35-44 years.

Educational Qualification: At least Higher Secondary.

Duration of Service in the same department: At least 1 Year.

Nurse: nursing superintendent, assistant nursing superintendent, nursing sisters and staff nurses.

Staff: ward boy, ward in charge, store keeper and medical record officer.
Table – A: Distribution of sample (Nurse and Staff)

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<th>Department</th>
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<th>Staff</th>
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<tr>
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<td>50</td>
<td>100</td>
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<tr>
<td>35-44 yrs</td>
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<tr>
<td>Psychiatry</td>
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<td>25-34 yrs</td>
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<tr>
<td>35-44 yrs</td>
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<td>25-34 yrs</td>
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4.6. Tools Used:

4.6.1 General Information Schedule: It consists of items like name, address, age, gender, educational qualification, name of the department and name of the hospital.

4.6.2 General Health Questionnaire (GHQ 28): It is designed by Goldberg and Hiller (1979) for detecting short term changes in mental health among respondents. GHQ containing 28 items was derived from factor analysis of GHQ 60. It consists of sub-scales from somatic symptoms, anxiety, insomnia, social dysfunction and severe depression. Its sensitivity was found to be 0.80 and specially 0.88.

4.6.3 Bell Adjustment Inventory (Bell, 1934): This inventory consists of questions intended to evaluate the subject’s status in respect of home (satisfaction or dissatisfaction with home life); health (extent of illness); social adjustment (extent of shyness, submissiveness, introversion); emotional adjustment (extent of depression, nervousness, case of disturbance); and occupational adjustment (satisfaction with work, associates and conditions). This items are of the usual kind, to be answered as yes, no or ?. Test-retest reliability is 0.75 to 0.97 and odd-even reliability is 0.80-0.89.
4.6.4 State-Trait Anxiety Inventory (Speilberger, 1972): There are two subscales of STAI, the first subscale (Form-X) measures state anxiety, the second subscale (Form-Y) measures trait anxiety. It measures state and trait anxiety and measure the severity of the overall anxiety level. Each subscale contains twenty questions, the range of scores is 20-80, the higher the score indicating greater anxiety.

4.6.5 Beck Depression Inventory (BDI-II, 1998): The Beck Depression Inventory- second edition (BDI-II) 21-item self-report instrument for measuring the severity of depression. For the new revised version (BDI-II), four items (weight loss, body image, change somatic pre-occupation and work differently) were dropped and replaced by four new items. Beck et al (1998) found the item total correlation of BDI-II items for the outpatient sample ranges from 0.39 (loss of interest in sex) to 0.70 (loss of pleasure). The range of item total correlation for the student sample was similar with the lowest correlation 0.27 (loss of interest in sex) and the highest 0.74 (self-dislike).

4.6.6 Eysenck Personality Questionnaire (Eysenck, 1979): This is a questionnaire to assess the personality traits of a person. The EPQ was designed to assess the personality traits of psychoticism, neuroticism, extraversion and lie scale/social desirability. This version has 100 yes/no questions. The Extraversion and Neuroticism scales have demonstrated convergent validity with other self-report personality scales and psychoticism and extraversion scales correlate with theoretically related measures, such as sensation seeking. The internal consistency of each subscale is: Extraversion (alpha = 0.76), Neuroticism (alpha = 0.79), Psychoticism (alpha = 0.80) and Lie (alpha = 0.65).
4.6.7 Perceived Environment of Hospital Setting Questionnaire: It consists of 40 statements considering three domains answerable in a five-point scale, viz., physical environment (item no. 6,7,9,10,11,12,13,14,19,31,39 and 40), relationship with colleagues and supervisors (item no. 1,2,3,4,5,8,15,16,17,18,20,21,22,23,26,27,29,33,34,36 and 38), interaction with the patients (item no. 24,25,28,30,32,35 and 37) from Strongly Agree (SA) to Strongly Disagree (SD) where high score indicates good and congenial environmental condition of the hospital setting and vice versa. Odd-even split-half reliability is 0.83.

4.7. Administration of Tools and Collection of Data: In consultation with the selected nurse and staff engaged in psychiatry and non-psychiatry (general medicine) departments of Kolkata; a tentative program schedule was developed for fixing up the dates and time of test sessions. Following the said schedule, each subject was attended by the present investigator to collect data from the selected subjects. It was observed that average time approximately to 3 hours was taken to complete one data with a minimum time of 2 hours 30 mins to maximum time of 3 hours 30 minutes.

4.8. Scrutiny of Data: The responses to the data given by the subject were carefully scrutinized on the spot by the present investigator just after each test session to avoid any omission of the objects by the subject concerned. In case of such omission the concerned subject was again requested to fill the same.

4.9. Scoring and Tabulation: Scoring and tabulation were done for two categories of subjects viz., nurse and staff engaged in psychiatry and non-psychiatry (medicine) department of different government hospitals at Kolkata. As the General Information Schedule involves mainly qualitative data, the
frequencies of each type of responses were determined after tabulating all the responses in different categories. Thus, two sets of categorical data were obtained for statistical treatment. In case of other five tools, viz, General Health Questionnaire, Bell Adjustment Inventory, State Trait Anxiety Inventory, Beck Depression Inventory, Eysenck Personality Questionnaire and Perceived Environment of Hospital Setting Questionnaire, respective scoring keys were used to score the data. Tabulation was done for each questionnaire and also for each category separately.

4.10. Statistical Analysis of Data:

Study Phase – I: For the development of the tool – Perceived Environment of Hospital Setting Questionnaire, item analysis was done for each item. Reliability coefficients of the questionnaire has been calculated using odd-even split half method also by applying Spearman Brown Formula for the double length and also by Cronbach-alpha Test. The detailed procedure of the development of tool along with adequate statistical treatment has been presented under Result and Interpretation, phase – I.

Study Phase – II: The tabulated scores were classified in qualitative categories for General Information Schedule and quantitative categories for other test data for further statistical analysis.

4.10.1 General Information Schedule: In order to depict the General Information of the nurse and staff engaged in psychiatry and non-psychiatry (medicine) department of different hospitals, descriptive statistics like – frequencies and percentages were calculated separately.
4.10.2 General Health Questionnaire: Scores of this scale were summated separately for nurse and staff engaged in psychiatry and non-psychiatry (general medicine) department of government hospitals at Kolkata and their arithmetic mean and standard deviation were calculated. By applying this questionnaire, it was checked that all the subjects were belonged to non-psychiatric group.

4.10.3. Bell Adjustment Inventory: The score of five adjustment patterns—home, health, social, emotional and occupational were summated separately for nurse engaged in psychiatry and non-psychiatry (general medicine) department and their arithmetic mean and standard deviation were calculated. Comparisons were made by applying t-test. Similar procedure was followed for the staff also.

4.10.4. State-Trait Anxiety Inventory: The score of state and trait anxiety were summated separately for all the nurse engaged in psychiatry and non-psychiatry (general medicine) department and their arithmetic mean and standard deviation were calculated. Comparisons were made by applying t-test. Similar procedure was followed for the staff also.

4.10.5. Beck Depression Inventory: Scores of this test were summated separately for all the nurse engaged in psychiatry and non-psychiatry (general medicine) department and their arithmetic mean and standard deviation were calculated. Comparisons were made by applying t-test. Similar procedure was followed for the staff also.

4.10.6. Eysenck Personality Questionnaire: The score of four personality dimensions—Psychoticism, Neuroticism, Extraversion and Lie factor were summated separately for nurse engaged in psychiatry and non-psychiatry (general medicine) department and their arithmetic mean and standard deviation
were calculated. Comparisons were made by applying t-test. Similar procedure was followed for the staff also.

4.10.7 Perceived Environment of Hospital Setting Questionnaire: The score of three domains (physical environment, relationship with colleagues and supervisors, interaction with the patients) and also overall perceived environment of hospital settings were summated separately for nurse engaged in psychiatry and non-psychiatry (general medicine) department and their arithmetic mean and standard deviation were calculated. Comparisons were made by applying t-test. Similar procedure was followed for the staff also.

In addition to the above mentioned statistical analysis of the data, a few significant figures have been drawn to make a comparative evaluation readily intelligible and more conspicuous. Such figures include Pie Chart and Bar Diagram.