CHAPTER III

RESEARCH METHODOLOGY

INTRODUCTION

Research methodology is the philosophical framework, or the fundamental assumptions and characteristics of a particular research perspective. Methodology has been variously described as a plan of action, an overall strategy, and a guide to meet overall outcomes or goals of any particular project (Crotty, 1998). A quantitative descriptive method with an exploratory approach has been used to guide this research project.

STUDY DESIGN

Cross sectional study as involves observation of subset of a population of items all at the same time. Cross-sectional studies can provide "snapshot" of the frequency and characteristics of an aggression and violence in a psychiatric inpatient population at a particular point in time.

STUDY POPULATION

The study carried out at Dr.Ram Manohar Lohia Hospital. Dr.Ram Manohar Lohia Hospital has bed strength of 937 and caters to the population of New Delhi and Central districts apart form many patients from other areas and even outside

Delhi. This is the only Govt. hospital having a nursing home for the CGHS beneficiaries it has also been designated as a finitive care centre for the treatment of Ex-Prime Ministers of India. Due to its strategic location (near to the Parliament House, Rashtrapati Bhawan, VIP colonies, Railway Station etc). It has out patient department, emergency and liaison psychiatry, psychotherapy, ECT therapy and also ward.

SAMPLE SIZE

The appropriate sample size for a population-based survey is determined largely by three factors:

- estimated prevalence of the variable of interest
- desired level of confidence
- acceptable margin of error.

For a survey design based on a simple random sample, the sample size required can be calculated according to the following formula.

Formula:

$$n = \frac{\alpha^2 \times p(q)}{d^2}$$

Description:

n = required sample size

α = confidence level at 95% (standard value of 1.96)

p = estimated prevalence of aggression and violence in the project area

d = margin of error at 5% (standard value of 0.05)

Calculation:

$$n = \frac{\alpha^2 \times p(q)}{d^2}$$

$$= \frac{\alpha^2 \times p(1-p)}{d^2}$$

$$n = \frac{[1.96 \times 1.96] \times 0.20[1-0.20]}{0.05 \times 0.05} \quad \text{[p is 0.20 as upto 20\% exhibit violence in inpts.]}$$

$$n = \frac{3.8416 \times 0.1600}{0.0025}$$

$$n = \frac{0.6156}{0.0025}$$

$$n = 246$$

METHODOLOGY

The study was carried out at 40 bed psychiatric unit of Dr Ram Manohar Lohia Hospital New Delhi which provides round the clock mental health care. Patients below 18 years and over 65 years were excluded. There were two wards, one for male and other for female patients. 5 psychiatrists, 1 psychologist, 18-20 nursing staff and upto 5 interns at a time. Family members actively participate in the assessment and management of their relative. Around 350 outpatients are seen daily by 10-15 doctors. The department serves a catchment area that covers large parts of the state, but people with acute psychiatric emergencies are largely referred by general practitioners or acquaintances from the neighboring towns and villages, or from emergency services of this and other hospitals. Patients are mostly brought in by family members, who stay with them in the emergency room until discharge (around 50% are discharged in four hours). Treatment is provided on a voluntary basis but non-consenting patients are admitted under provisions of the Mental Health Act, 1987. Diagnosis was based on DSM-IV criteria. Performa was filled using past records of 2 years where information collected by psychiatrists, nurses and junior doctors. Factors commonly associated with inpatient violence were examined which includes

- Age
- Gender
- Diagnosis
- Income
- alcohol and substance abuse
- length of admission
- Marital status.

- Suicide risk

5 types of aggression were studied:

- verbal aggression

- Physical harm to staff

- Physical harm to other patients

- Physical harm to visitors

- Destruction of property.

- Education

- Employment status

- Residence

Social class was rated by assessing five different categories:

- the years of education

- the employment status of the patient

- employment status of the head of his/her family

- Residence of the patient

- Monthly income

Suicidal risk was assessed by a questionnaire including 5 yes/no answers and questions were h/o suicide attempts, family h/o suicides, h/o self harm, hopelessness. At least two yes answers were considered to be necessary to define the suicidal risk present. The χ_2 test was used to analyze categorical variables and statistical significance was set at $p < 0.05$.

RECRUITMENT OF PARTICIPANTS

Inclusion criteria: All psychiatric ward patients between age group 18 to 60 years and for exclusion criteria: Patients below 18 years and above 60 years of age. Patients with mental retardation and neurological disorders were also excluded from the study.