METHODOLOGY

The present study was conducted in Chandigarh city. Before discussing the universe and sample, it is relevant to mention some characteristics of the "City Beautiful". This newly-built and planned city was inaugurated by Dr. Rajendra Prasad, first President of India, on October 7, 1953. The entire community is composed of immigrants. The main object of planning Chandigarh was to rehabilitate the displaced persons from West Punjab and to have a capital for East Punjab as Lahore, which was the capital of undivided Punjab, went to Pakistan. Besides the displaced persons, people migrated from other States are also staying here due to various reasons. Originally Chandigarh was designated as the capital of the erstwhile Punjab. After the division of the old Punjab State into two States of Haryana and Punjab, Chandigarh became a Centrally-administered Union Territory. It continues to be the capital of both the States, i.e. Punjab and Haryana, besides being the capital of the Union Territory. So, a large number of Government offices are located here. Thus, Chandigarh is mainly an administrative city having 715 Government or quasi-Government establishments (Census of India, 1971:41). An overwhelming majority (70.2%) of the total workers are employed in
Government or semi-Government establishments as shown in the study of the social structure of Chandigarh city (D'Souza, 1968:69). A large number of the private residential houses are owned either by the retired or the serving Government employees. The facilities provided by the Government to purchase plots and construct houses, systematic character, beauty and cleanliness of the city have attracted people, retired from Chandigarh as well as from other places, to settle down here. The population of Chandigarh in 1971 was 2,18,743 (District Census Handbook, Chandigarh, 1971, Series -25, Part X-B, P.32). Owing to its peculiar origin changes in the traditional social norms and values are discernible here. It may be regarded as a representative of the Indian urban communities in the context of changing social structure. For instance, the number of joint families are very less (4.10 per cent) and the average size of the family is very small (3.91 persons) in this city (D'Souza, 1968:47,25). Chandigarh ranks first in the country in literacy (District Census Handbook, Chandigarh, 1971, Series-25, Part X-B, PP.25-26).

There are two reasons for selecting Chandigarh as the field of this study. Firstly, the social structure, as cited above, clearly bears the impact of industrialization, modernization and urbanization. As such the consequences
of changing social structure, creating the social problem of old age will be discernible here. Secondly, a large number of retired people have settled here due to many reasons. So it is easier to get a sampling frame for the present study because of the availability of the addresses of the retired Government employees in the local Treasury offices.

The retired people have been selected for the investigation because compulsory retirement, as a major consequence of industrialization and modernization of society, brings most of the problems of old age earlier and rather suddenly in the life of the Government employees. Therefore, the problems of the retired people may be expected to be more serious in nature creating more 'social problem cases' among them than the self-employed aged people who can keep themselves away from at least some of the problems as long as they wish. For the purpose of the study, all the retired Government employees have been treated as aged people because, in the social sense, old age begins in an individual's life at a point where he ceases to perform the duties and enjoy the rights of middle age (Burgess, 1960:204). In the census report also people above the lowest age of retirement in most of the Government services, that is above 55 years, are classified as elderly people.
Universe and Sample:

The universe of this study is the entire number of male retired Central and State Government employees drawing their pension from the local Treasury offices and staying in Chandigarh. The names and addresses of the retired people, included in the universe, were recorded from the Treasury offices in March 1973. For the sake of lowering the mortality rate of the sample and convenience of interviewing, only those people have been included in the universe who have drawn their last pension during the six months prior to drawing the sample. Women employees are not included in the universe because their number is insignificant*. The number of the male retirees included in the universe are 936. By adopting the random sampling method, only 300 retirees have been drawn from the universe as sample. The sample has been drawn with the help of tables of random numbers. While deciding the adequacy of

* This fact can be understood by keeping in view the lack of tradition among women of this region to work. Though the situation regarding the female employment is improving now, the number of working women are still very less. As it was reported in the newspaper "The Tribune" (Dated 9th May, 1976, Page 3, Column 1) on the basis of a study conducted by the Punjabi University centre for research in economic change in 1971, the percentage of the working women in 1971 in India was 13.18 and in Punjab it was the lowest i.e. 1.67 per cent. In the Government services only 17 per cent of the employees were women in Punjab, according to this report. In the study of Chandigarh city, it was found that in the 94.5 per cent of the households taken into consideration there was no female earner (D'Souza, 1968 :195).
the number of units for sample to be studied, it has been borne in mind that the sample should be sufficiently large to enable us to arrive at satisfactory and significant conclusions and, at the same time, it should be sufficiently small to be manageable by a single researcher. In conformity to these requirements the selection of the sample of 300 retirees as the units of the study has been considered appropriate to draw valid conclusions.

Procedures of Data Collection:

A presentation of the procedures of data collection by the researcher is useful to make sure that the data have been collected by fairly well-established standards (Hyman, 1960: 142). The nature of the present study is such that only personal interviews with respondents can be expected to yield fruitful and reliable information. Because it is only through the interview method that the investigator can read the subliminal clues of the respondents besides their replies to the questions. Moreover, to get reliable information about the personal details of individuals it is necessary to establish a good rapport with the respondents. So for collecting the data of the present study an interview schedule has been prepared, pre-tested and modified before starting the actual field work. The interview schedule includes a large number of questions regarding the
background characteristics, situational factors showing the social, financial and physical situation of the retirees, attitudinal factors showing their attitudes towards various social changes, non-interference in the personal affairs of grown-children and popular religious beliefs, and the behavioural factors showing their routine activities, relationship and interaction with the family members and relationship and interaction with friends, relatives, neighbours and members of voluntary organizations, etc. It also includes 30 statements which constitute the index of adjustment on the basis of the respondents' feelings of happiness and satisfaction with the present life*. All the information has been collected by interviewing the respondents at their residences with the help of the interview schedule by the researcher. In the interview schedule many personal questions about various aspects of the retired life have been included which people generally do not discuss with a stranger. Therefore, before starting the interview the respondents have been assured that all the information would be kept confidential and used for research purpose only. On the whole, the response of the retired people has been quite satisfactory. The reason for the good response may be that almost all the

* Interview schedule has been given in the appendix C.
respondents are at least matriculates and able to understand the purpose of this type of study. Only 28 retired persons of the sample could not be interviewed because of untraceability, non-availability, refusal to give the required information and death. Thus the total number of the respondents has come down to 272. Besides the interview, careful observation of the respondents' situation in the family and their standard of living has also helped in getting the reliable information. Each interview has lasted from one hour to two hours because mostly the aged people like to talk about their past events. The field work was completed in eight months.

Index of Adjustment:

The present study is aimed at knowing the correlates of 'good adjustment' in old age. Therefore, adjustment is the important and the main variable of this investigation. With a view to judging the levels of adjustment of the respondents, an index of adjustment has been prepared*. Since it is the major index used in the study, it needs a detailed discussion. The term 'adjustment' in the study refers to the state of harmonious living and it has been

* Categorization of various levels of adjustment and the distribution of the respondents into different levels are given in chapter II.
defined operationally as the state of respondents' personal happiness and satisfaction with the present life.

After a careful consideration of several measuring indices of life satisfaction, used by gerontologists in this field, it has been decided to develop a pilot measuring device for this investigation. Thus, a total of 30 items have been designed to measure the satisfaction or happiness of the retired people. These statements have been prepared on the basis of five components of the life satisfaction indices suggested by Havighurst (1963:299-320) to measure successful aging. These components of life satisfaction are: resolution and fortitude, goodness of fit, positive self-concept, mood tone and zest for living. Happiness of the individuals is influenced by the cultural background of society. Therefore, most of the statements of the existing indices of successful aging have been modified or replaced keeping in view the social structure and culture of Indian society. The Likert type of scaling method is used in the construction of the life satisfaction index. Each component consists of three positive and three negative statements. All the statements regarding the five components of life satisfaction have been mixed up and arranged in the index to get reliable information. Each
item has five point response categories, ranging from strongly agree to strongly disagree. The score of each item ranges from one to five in negative statements and five to one in positive statements. In this way the total scores of all the 30 items of index add to 150.

It is now in order to discuss briefly the five components of life satisfaction to know how the scoring has been done and how they indicate the inner happiness and higher morale of a person in old age. All the components of life satisfaction represent almost overlapping themes and it is difficult to keep these items distinctively separate but some effort has been made to differentiate one from the other.

Resolution and Fortitude:

A person may be called satisfied and gets higher score if he thinks that old age and its consequences are inevitable and accepts them sportingly, thinks that his life is meaningful, believes in trying again and again to achieve something, faces the problems with courage and confidence and is not afraid of death.

Goodness of Fit:

Here it has to be seen to what extent the respondent
feels that he has achieved his goals and fulfilled his ambitions. Higher scores have been given to those who feel that whatever is important for them and they desire to get in this period of life they are getting and who think that they have managed to fulfill their responsibilities and get rid of their liabilities of life to a greater extent.

Positive Self-concept:

We are concerned here with the respondent's image of his own physical and psychological attributes. High scores have been given to those who have positive image about their younger appearance, wisdom, mellowness, accomplishment and importance for others.

Mood Tone:

The retired people, who have expressed happy and optimistic attitudes and mood, used spontaneous and positively toned affective terms for people and things and expressed pleasure in life, have been given higher score on this component.

Zest for Living:

The respondents who have enthusiastic and optimistic attitudes towards life, have some future plans, interest in various activities, persons and ideas have been rated higher on all the statements regarding this component.
Item Analysis:

After completing the field study work, 100 interview schedules out of 272 have been randomly selected and the upper and lower quartiles for each item score have been worked out. Both the quartiles consist of 25 interview schedules. It is assumed that these two groups provide the criteria groups in terms of which each statement of an index can be evaluated by deriving its 't' ratio. As Edward (1969) has written, the value of 't' measures the extent to which a given statement differentiates between the high and low groups. Further, he has said that as a crude and approximate rule of thumb, any 't' value equal to or greater than 1.75 may be regarded as indicating that the average response of the high and low groups to a statement differs significantly, provided 25 or more subjects have been kept in both the groups. In the present study also, with the help of 't' ratio, the difference between the mean response of each statement in the upper and lower quartiles has been tested for significance. Any statement having a 't' ratio less than 1.75 is required to be removed while preparing the final index. But the average response of the high and low groups to all the 30 statements of the life satisfaction index differs significantly. Therefore, no item has been rejected after its analysis.

* Item analysis is shown in appendix II.
Processing of Data:

All the relevant information received on the interview schedule has been meaningfully coded and transferred on the cards. With the help of these coding cards frequency tables have been prepared and after applying the test of association, wherever required, the data have been analysed.

Test of Association:

In the present investigation an attempt is made mainly to examine the association that exists between various factors on the one hand and the level of adjustment on the other. Since we have the ordinal level of data, Goodman's and Kruskal's Gamma ($r$) test of association has been applied for examining the association between any two variables. Since $r$ measures the degree of agreement or association between any two ordinal level variables, the value of $r$ shows the percentage or error which gets reduced in the mutual predictability of those two variables (Champion, 1970: 219-224). Further, the value of $r$ has been converted into the value of $\tilde{z}$ to find out its statistical significance by applying the conservative asymptotic test suggested by Goodman and Kruskal (1963: 310-364). The $\tilde{z}$ values equal to 1.92 and 2.33 are considered statistically significant at .05 and .01 levels.
respectively. Owing to the qualitative nature of the data, .05 level has been set to test the statistical significance of association between any two variables in the present study.

Since the nature of the variables concerned is largely qualitative, a multiple correlational analysis could not be adopted and the researcher has to content with only a single factor association between any two variables.