STATISTICAL ANALYSIS OF SOCIO-ECONOMIC AND HEALTH CONDITIONS OF SENIOR CITIZENS OF BELGAUM CITY

EXECUTIVE SUMMARY

MINOR RESEARCH PROJECT

Submitted
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EXECUTIVE SUMMARY

Introduction

The trend of increase in the number of oldage people would uninterruptedly continue in the years to come with the number elderly on the increase, at a late faster than the general population. The graying of India has become more visible than ever. The gradual increase in number of old people in the country is due to better health care system and medical advancement. With the fact of growing elderly citizens of our country we need to address the needs of these people of our population. It would be a mounting and complex challenge to formulate policies aimed at providing the adequate income, housing, healthcare and psychological stability to aging population. The most important aspect of this challenge comprises of socio-economic and health conditions of the elderly. If their social, socio-economic and health condition is properly taken care of, then only we would be achieving remedies for the problems from all aspects. With this perspective, the present study was taken up as an attempt to examine the socioeconomic and health status of the aged of Belgaum city.

Meaning of aged:

Aging is a natural phenomenon that refers to changes that occur during life and result in differences in structure and functions between the younger generation and the older generation. The Indian census has adopted 60 years for classifying a person as old. For the purpose of the present study men and women of 60 years and above have been included in the sample as aged. The aged are also known as elderly or old people. This age group is called as “Geriatric Age Group”.

Reasons for Aging

- Demographic conditions responsible for aging.
- Social and economic implications for aging.
- Chronologically with the passage of time.

The term old is always related to physical incapability, biological deterioration and disabilities and psychological failure. Population aging is rapid among women, 143 female for every 100 male.
**Importance of the aged:**

The aged have a definite place in the community which varies from culture to culture according to their status, age, sex, caste and occupation. The aged are regarded as symbols of the divine and given utmost respect in some families as they are the repositories of wisdom, carriers of traditions and transmitters of experience. They can take up the advisory role admirably and be of immense help in guiding the youth with regard to economic, social and religious matters. They transmit the values of tolerance, co-operation and concern for others as they experienced from their elders (Dr. Pankjam, in Prachi).

**Problems of aged:**

In every stage of life, there are problems to be faced. But the problems faced by people who are old may be more severe. Again the problems faced by people who are in their 60’s may be different from problems faced by people who are in their 80’s. The problems of aged men and women are also different. The aged living in enforced retirement have altogether a different kind of problem when compared to those still working in unorganized sector or having a self employment. Psychological problems are more common in old age which includes cognitive impairment, depression, Anxiety and other health are also common. Some of the aged have economic problems because of that they feel very insecure.

**The following were the objectives of the study**

1) To study the socio-economic and health conditions of senior citizens of Belgaum city.
2) To study the support and security given by the family and Government.
3) To suggest the remedies for the problems faced by senior citizens.

**To explain the above objectives the following hypothesis were formulated.**

1) There is no association between sex and living arrangement, age and living arrangement.
2) Income and sex, Income and literacy, Income and size of the family, Income and expenditure are independent of each other.
3) There is no association between literacy and occupation, literacy and income, occupation and income.
4) Health and age, health condition and sex, health and literacy, health and fitness activities, health and habits are also independent of each other.

**Study Area (Population for study)**

The present study has been carried out in Belgaum city of Belgaum district. Belgaum district has ten taluks. The population of Belgaum district and city as per the 2001 census 4214505 and 423278 respectively. This population is distributed among 58 wards.

**Sampling Design**

The primary purpose of the study is to find out the perspective and problems of the aged. But studying the whole population of aged to arrive at generalization is not that practicable. Here comes the importance of sampling technique in field research. Multistage purposive random sampling is adopted to select sample for the study. The total size of the sample and the size of the sample from different wards (strata) are selected as follows.

The population of Belgaum city is divided among 58 wards. For this study, I have taken 10% of the wards that is 6 wards at random. As per 2001 census, the population of Belgaum city is 423278 and senior citizen population is 31107 which is distributed among 58 wards. Concentration is made for field survey only on the following six wards.

No. of senior citizen in 6 wards = 3218

10% of 3218 = 322 ie sample size is 322.

**Table No. 10: Selection of Sample Size from Selected Wards**

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Ward No.</th>
<th>Name of the ward</th>
<th>Population of ward</th>
<th>Sample size ni=(n/N)Ni</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>Cantonment, Udyambag, Majagoan</td>
<td>N1=6988</td>
<td>n1=43</td>
</tr>
<tr>
<td>2</td>
<td>19</td>
<td>Shahapur</td>
<td>N2=8677</td>
<td>n2=53</td>
</tr>
<tr>
<td>3</td>
<td>29</td>
<td>Fhulbagalli, Bandurgalli.</td>
<td>N3=6325</td>
<td>n3=38</td>
</tr>
<tr>
<td>4</td>
<td>39</td>
<td>Badakalgalli, Kotawalgalli &amp; Jalagar Galli</td>
<td>N4=5445</td>
<td>n4=33</td>
</tr>
<tr>
<td>5</td>
<td>43</td>
<td>Hanuman Nagar, Civil Hospital area.</td>
<td>N5=12656</td>
<td>n5=77</td>
</tr>
<tr>
<td>6</td>
<td>52</td>
<td>Gandhinagar.</td>
<td>N6=12797</td>
<td>n6=78</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td><strong>N=52888</strong></td>
<td><strong>n=322</strong></td>
</tr>
</tbody>
</table>
Where

\[ N = \text{Total population of six randomly selected wards.} \]

\[ N_i = \text{Size of the ward (Size of the strata).} \]

\[ n_i = \text{Size of the sample from ith ward (Stratum sample size) } \]

\[ n = \text{Total Sample Size.} \]

**Collection of Data**

The samples have been taken only from households having elderly people and also from 3 old age homes out of five. The study is mainly based on primary data. Primary data has been collected by an intensive field work of four months. Our questionnaire contains the information of Economic, Health, Social status and Social security etc...

The analysis of the data was carried out by using the following statistical tools.

**Statistical Analysis**

The data collected for the study were both qualitative and quantitative in nature. For the analysis of the data SPSS (Statistical Package for Social Science) software was used and qualitative interpretations were drawn creatively, combining the methods of precision and validity. So the data were presented in tabular form representing through frequencies and simple percentage. The data collected for the study were examined carefully. The data is classified for the purpose of analysis. Both parametric and non-parametric tests were used for the analysis of the data (Students’ t Test, Chi-Square test, Coefficient of correlation and Linear regression and Analysis of Variance). The major finding with implications for developing strategies for the welfare of the aged are presented in the Analysis.

In the present study data was analyzed using the following Statistical tools.

1. Karl Pearson’s Correlation Coefficient was used to measure the relationship between dependent and independent variables by using the formula:

   \[
   r = \frac{n \sum xy - \sum x \sum y}{\sqrt{n \sum x^2 - (\sum x)^2} \sqrt{n \sum y^2 - (\sum y)^2}}
   \]

   \[ r = \text{simple correlation coefficient} \]
x= independent variable  
y= dependent variable  
n= number of pairs of observations  

To test the significance of correlation ‘t’ value was calculated by using the formula:

\[ z = \frac{r(n-2)}{\sqrt{1-r^2}} \] follows t_(n-2)

2. To find out the difference in the level of life satisfaction, social security, social relationships, and loneliness among the respondents in the different categories of the independent variables, ‘t’ value was calculated by using the formula:

\[ t = \frac{\bar{X}_1 - \bar{X}_2}{S^2 \sqrt{\left( \frac{1}{n_1} + \frac{1}{n_2} \right)}} \] follows t'_{n_1+n_2-2}

\[ S^2 = \frac{(n_1-1)s_1^2 + (n_2-1)s_2^2}{n_1 + n_2 - 2} \]

Here our sample size is large (greater than 30) so we proceed with ‘z’ test.

Where,
\[ \bar{X}_1 = \text{mean of the first group} \]
\[ \bar{X}_2 = \text{mean of the second group} \]
\[ n_1 = \text{number of observations in the first group} \]
\[ n_2 = \text{number of observations in the second group} \]
\[ S_1^2 = \text{Variance of first group.} \]
\[ S_2^2 = \text{Variance of second group.} \]
\[ S^2 = \text{Pooled variance.} \]

3. Linear Regression for income and expenditure

\[ Y = a + bX \]

Where b is a regression coefficient of Y on X

\[ b = \frac{\text{Covariance}(X,Y)}{\text{Variance}(X)} = \frac{\sum XY - \sum X \sum Y}{n \sum X^2 - [\sum X]^2} \]

x= independent variable  
y= dependent variable  
b= regression coefficient
4. Application of Chi-square (Test for independence of attributes)

\[ \chi^2 = \frac{N(ad - bc)^2}{(a + b)(c + d)(a + c)(b + d)} \]  

follows \( \chi^2_{\alpha} (c - 1)(r - 1) \)

N= Total frequency

(a+b)…..(b+d) are terminal totals.

Findings:

The present study reveals that more respondents were below the age of 70 years. In Belgaum city and Belgaum District, elderly population that to elderly female population is more when compared to the elderly population of Karnataka and India.

- Gender wise, male and female respondents are almost equal, female are more prone to this problem of aged.
- 73% of the respondents belong to nuclear family.
- More than 60% are Hindus and are belong to GM.
- % of literates is more but illiteracy is more among female.
- 34% of respondents are staying with Son, Spouse and Grand children.
- 33.7% were in service and retired. Almost equal number of male and female respondents were re-employed but 70% are not re-employed.
- 32% are house makers / house wives.
- 20% of female respondents have very good health than male.
- 33% respondents suffering from Diabetes, 25% Astama, 26.3% Hyper tension, 22.8% Eyesight & 10% Arthritis.
- Belgaum people and more aware of their health.
- About 50% respondents are not aware of all the schemes and facilities provided by Government for the benefit of old age people.
- Government is providing many schemes, health care services, old age pension, travelling concession, Annapurna schemes for BPL etc. but 50% are aware of these schemes but all are not reaching to them.

The present study also reveals that all sociological variables vary with age, sex, type of family, living arrangement etc.
- Income and literacy, Income and occupation, Income and expenditure are highly significant.
- A significant positive relationship was noticed between leisure time utilization and social security.
- Social relationship was noticed to be higher among male compare to female.
- Leisure time utilization, social relationship, life satisfaction, loneliness has significant influence on social security.
- Health condition and age, sex, education, health care expenses, fitness activity, habits are highly significant.

Conclusion and suggestions

The sample of the present study is not adequately representative in dimensions as it does not represent all the aged people of Indian society. This limitation of the study makes it difficult to generalize the findings for all the aged people in Indian society. However the sample may be considered as representative in trends and some of the broad trends may be regarded as generally applicable to the Urban Indian society as a whole. On the basis of some striking findings a few conclusions can be drawn and generalized. Further considering that the practical purpose of gerontology, especially the studies of adjustment in old age is to provide information facilitating proper social planning and programming for the welfare of the aged. Some suggestions can be given on the basis of our findings.

In the present study an attempt has been made to show the social situation of the aged persons of Belgaum city belonging to different strata of population viz retired government servants, family pension holders, non-pensioners including house wives, agriculturist, labors, business men etc.

The present investigation shows that old age has started emerging as a social problem in Indian society due to the socio cultural changes brought about by the industrial revolution. The findings clearly indicate that the increasing importance of achieved properties, the changing social structure, especially the family structure, individual values, negative attitudes of the younger generation towards the aged and retirement from the economic activity are the main contributing factors to the emergence of social problems of old age.
In Belgaum city most of the elderly (about 70%) are staying with their children and few are not staying with their children because they are working out of city. But most of the female respondents are living with their children.

Socio-economic status is traditionally measured by education, income, occupation and sometimes additional factors such as home ownership and other assets. Education plays an important role in predicting in socio-economic status.

The data reveals that the respondent’s monthly income, per capita income and adequacy of income which demonstrate their financial status are found to have a significant positive association with the level of adjustment. Where there is mere poverty, thus the aged are suffering a lot. In some of the families aged are going for house hold work, begging and some will be their in the home with only one time food.

In our study a larger section of respondents have good health condition. Only few are suffering from some minor diseases. This is because, most of the respondents were not very old i.e. they are between the age group 60-70 at the time of survey. Since the people of Belgaum city are aware of their health.

Regarding important decisions, the larger section of the respondents have a liberal attitude they said that the children should manage their own affairs. More than 25% expressed the view that the parents’ permission to be taken on such occasions.

Our survey has revealed some interesting facts, that the respondents with the positive attitude towards social changes and non interfering attitudes towards the personnel affairs of grown up children facilitate better adjustment, strong religious beliefs neither facilitate nor inversely affect the level of adjustment. This shows modern attitudes are very necessary for leading satisfying life in the present society. So the old age people are compromising in all cases of their children decisions.

Difference of opinion, liking and disliking (adjustment and non-adjustment) of old parents and family members is there, in all class of people, but it is in different way that goes on individual's attitude and adjustment.

**Suggestions**

Gerontology as a subject must be introduced in medical studies and in university syllabus. There must be separate departments for research and development in the subject. This branch of knowledge will help people to understand the issues of aging in correct perspective.
1. Government has to provide free health treatment, medicine, food, clothes to those who are in need.

2. Separate clinic should be opened for senior citizens and also Government has to provide a mobile medical checkup.

3. Free medical checkup, treatment and medicines need to be provided by the Government.

4. The primary health centers should undertake periodical health check up program for old age people.

5. In hospitals old people should be given preference in all respect.

6. Family members and society should obey elders. Children should be taught the values of respect for elders from the very beginning both at school and home.

7. Family support is needed in all respect. Old age people must be given dignity and honor. The love, affection and importance given to them by family members and the senior citizens can reduce the feeling of loneliness.

8. The old people should be given importance or they should at least be consulted in making the decisions in major issues.

9. They should have some amount of money with them. Savings of the old people should be invested in schemes which can yield maximum interest.

10. Comfortable and better managed old age homes and day care centers with library, canteen, indoor and outdoor games, outing once in a week, entertainment etc...

11. Some authority should be there to listen and need to understand the problems.

12. Work provision must be there, if they are interested in continuing the work in the field of their interest according to their physical and mental fitness.

13. In case of pensioners, especially those who have retired from lower class of service, there should be an increase in the amount of pension to maintain at least minimum standard of living. For non-earners and non-pensioners Government has to give monthly expenses of two square meals every day.

14. Old age pension should be increased as per the market conditions.
15. They need respect in family, security, emotional, mental and family support which is desirable for leading a healthy life.

16. Actual benefit of government schemes and facilities are not reaching up to them. It is necessary that everyone can be benefited by advertising the schemes of Government.

17. A mobile library facility should be provided for the purpose of enlightenment of old persons.

   Old age people should also themselves find out ways and means to fulfill their requirements.