

# Health status of ageing Catholic women in Navelim Goa, India

Nandkumar Sawant

Department of Geography, Smt. Parvatibai Chowgule College of Arts & Science, Gogol Margao, Goa

Population ageing is a contemporary issue which requires due consideration, as it has many socio-economic implications. A notable aspect of the aged population is the higher concentration of females due to their longer life expectancy and the risk factors associated with the male working conditions. In context of Goa, according to the 2001 census, it has around 1,12,273 elderly population, wherein the females exceed the male population. However longer lives do not necessarily imply healthier lives. Thus, in order to study the health condition of elderly women the present study was conducted in Navelim, Goa with a focus on the health status of the elderly women. This in turn would help in good planning, policy making and further quality research to improve the well being of the elderly women.

Keywords: body mass index, premature menopause, support service system, health and nutrition, life expectancy

In most of the countries, population ageing has become a dominant trend, wherein there is concentration of females in the elderly age groups due to their higher life expectancy. India and Goa stand no exception to this. The reasons for higher life expectancy of females relate to both female biology such as hormonal protective factors, and fatal risk factors associated with male working conditions, lifestyles and higher risk of injury (World Health Organization, 2007).

In context of India, according to the 2001 census, it has 76 million people aged 60 years and over (Shaji & Dias, 2006), while in Goa the aged population accounted for about 1,12,273 (Sawant, 2008).

Women are physically weak as they age, as ageing is associated with the decline in physiological effectiveness, which affects us all sooner or later and is an intrinsic part of growing old. Thus in addition to the social, economic and psychological problems, the health issues further aggravate the problem of the elderly women. Since women live longer, they are likely to suffer from more chronic illnesses and disabilities. Women also tend to underplay their health problems for the sole reason of causing inconvenience to the other family members by way of escorting them to the doctor and spending money on consultation fee and medicines. Further if the women are widows, which usually happens as they tend to outlive their husbands (Rao, 2007) then the situation is even worse because the finances then come from children or other family members or relatives for their welfare. Thus, the health needs of the elderly women will become increasingly important for the years to come.

In the Goan context, an increase in the literacy rate and low mortality has led to an increase in the life expectancy of the people. At present, nearly 8.5 per cent of the population is aged population and it is increasing at an average rate of 35 per cent per decade. So also the proportion of women in the older age groups exceeds the male population (Sawant, 2008). This has drawn the attention of the researcher for the choice of the topic. Thus this paper examines the health status of the aged females in Navelim, a small town of Goa.

## *Background of the study region*

The study area 'Navelim' is a small, busy and commercial town of Salcete taluka in the South Goa district of Goa, India. It is an outgrowth of Margao-the commercial capital of Goa, formed as a

result to the ribbon development, along the National Highway NH17. It has basically developed, as a residential area and gained the status of a town in the year 1991 (Census of India, 2001).

According to the 2001 census, Navelim has an area of 5.25 sq km and a population of 11,014 (Draft Regional Plan of Goa, 2021) out of which the males constitutes 52 per cent and females 48 per cent. The average literacy rate is 74 per cent. Though it has the largest concentration of Catholics in Goa, people of other religious faiths are also found here. The Navelim church is located at the centre of Navelim. The Navelim Parish is the largest in Asia, and as such it is often referred as "Mini-Old Goa".

Navelim has advanced in the post demographic transition wherein its elderly population accounts for 9.56 per cent of the total population. This indicates that Navelim has higher proportion of the aged than the State, whose elderly population accounts for 8.33 per cent.

Out of the total elderly population of Navelim, 458 are males and 595 are females (Electoral List of Navelim, 2009). The sex ratio being 1299 females per 1000 males is in favour of females. It is quite apparent that in each of the elderly age groups, females exceed males. This is also true in the case of India where females outnumber the male population in the elderly age group (Nair & Santhosh, 1999). The gender ratio is higher in the elderly age group ranging from 1,135 in the age group of 60 - 64 years to 1,673 in the age group of 80 years and above. Thus the disparity in sex ratio in higher age group is justified from the fact that females are biologically stronger than males and have a higher life expectancy (Rajan, 2006).

As this study focuses on the health related aspects of elderly women, information regarding the health care facilities was gathered, from in and around the study area. There are many clinics and pharmacies in Navelim. The Kudcharkar Nursing Home (hospital), the ESI hospital, the government hospital, Hospicio, T.B Hospital and numerous private hospitals like Apollo Victor, Lawande's Hospital etc. are all in close proximity to Navelim. These hospitals cater to the various health needs of the elderly women. Thus there is easy accessibility of healthcare facilities to the residents of Navelim.

## *Population Ageing an overview: World, India and Goa*

A notable aspect of global ageing process is the progressive demographic ageing of the older population. Since 1950, the

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Correspondence should be sent to Dr. Nandkumar Sawant Associate Professor, Dept. of Geography, Smt. Parvatibai Chowgule College of Arts & Science, Gogol Margao, Goa

proportion of aged persons has been rising steadily from 8% in 1950 to 11% in 2009 and is expected to reach 22% in 2050. This is because the life expectancy at birth has increased globally by 21 years i.e. from 46.6 years in 1950-1955 to 67.6 years in 2005-2010 and is projected to increase by about 8 years to reach 75.5 years in 2045-2050. In fact, Japan has already attained this level wherein its life expectancy is over 82 years. Thus the global aged population which was 205 million persons in 1950 increased three and half times to reach 737 million in 2009 (WPA, 2009).

Globally the population of older people is growing at a rate of 2.6% per year, considerably faster than the population as a whole which is increasing at 1.2% annually. The proportion of the aged is low in case of Less Developed Countries; while More Developed Countries have more aged population. However a notable fact is that elderly population is increasing at a faster rate in the Less Developed Countries than in the Developed world. The growth rate of the population aged 60 years or above is 1.9 per cent in the more developed regions, while it is 3.0 per cent in the Less Developed Countries. (WPA, 2009) Latin America, China and India are experiencing an unprecedented rapid demographic population ageing. Thus, the developing countries will have less time to adjust to the consequences of population ageing.

Europe as a whole has the highest proportion of aged population in the world. North America and Oceania also have relatively high percentages of elderly population. Likewise, many Caribbean nations have high proportions of elderly population relative to their Central American neighbors. South and East Asia is ageing at a faster rate. China followed by India is having the highest number of aged population. (Sawant, 2008).

It is also noteworthy that females outnumber males in the older age groups and thus a gender imbalance is created. In the More Developed Countries in 2005-2010, the females outlive males by 6.9 years on an average, and in the Less Developed Countries it is 3.5 years (Annie, 2010). In Japan, the women have the life expectancy at birth of 86 years, the highest in the world and by 2045-2050 it is expected to reach 91 years (WPA, 2009). In context of India, the female life expectancy at birth is 63 years; according to 2001 census (Chandna, 2009).

India, a sub-continent that carries 15 per cent of the world's population, is gradually undergoing a demographic change. With a decline in fertility and mortality rates accompanied by an improvement in child survival and increased life expectancy, a significant feature of its demographic change, is the progressive increase in the number of elderly persons. The elderly population of India has increased from 5.4% in 1951, to 6.3% in 1981 and is 7.4% in 2001. The 2001 census reveals that India is the second largest country in the world having an aged population of around 76 million. The age group of 60+ years is projected to increase from the current levels of 7% to nearly 10% by the year 2025 (Sawant, 2008).

However India has striking demographic diversity. Substantial differences are visible between states in the achievement of basic demographic indices. These differences stem largely from the socio-economic changes taking place in a particular place. In the context of Goa, its higher literacy rate of over 82%, better health facilities, improved transport linkages and lower infant mortality of around 12 per 1000 (Goa at a glance, 2001), have increased the life expectancy and the proportion of the aged population. Thus a significant proportion of Goa's general population is occupied by its elderly section which can be revealed from the statistical data.

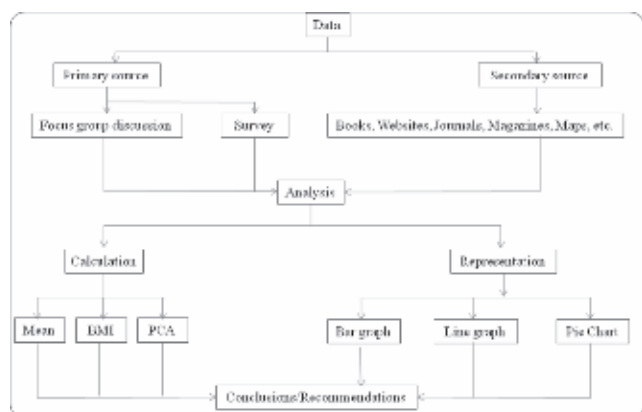
The aged population of Goa became more than double from 1961 to 2001 i.e. within a time span of four decades. The decade 1991-2001 experienced the highest decadal growth rate i.e. 36.07. Both in India as well as in Goa; the females exceed the males in the elderly population. However, since Goa has an advanced demographic transition than India, the life expectancy is slightly higher in Goa i.e. 65 years against the national average of 62 years according to 2001 census. As a result the proportionate aged female population of Goa is higher than that of India in all the age groups.

## Method

### Participants

The following study is cumulative of both primary and secondary data sources. The secondary data is collected from books, journals and electronic media i.e. websites and research articles. This helped the researcher to broaden the horizon of knowledge pertaining to the research study as well as to formulate a framework and to determine the methodology of the research work. Data from the government publications vis-a-vis census data and voters list were also obtained. Census data was referred, so as to gain an insight into the statistics of the population. Voter's list was used to find the proportion of elderly women to the total population.

It is prudent to state that the following research is primarily based from the voters list. The proportion of aged women was collected and accordingly a random sample survey was conducted for 65 aged women respondents of the study area, Navelim. This accounts for just above 10 percent of the total aged women population. The questionnaire focused on women health related issues like status of health and disease, support system, medical expenses and their final perception, related ageing, health and living. Focus group discussions were also conducted for micro-lab analysis, wherein the women expressed their issues and concerns. This added to the quantitative data collected through questionnaires. It was pilot tested and the necessary modifications were made to the questionnaire. After the data tabulation, statistics like Mean, Chi-square, Body Mass Index and Principal Component Analysis were applied and finally the data was interpreted. The following flow chart gives a clear picture of the database and methodology used in this paper.



## Results and Discussions

Ageing is a biological process, which is experienced by mankind in all times. However, the relatively faster increase of women in the elderly population, have raised many health related issues. Menopause is a physiological event that has the potential of precipitating

chronic disorders in women due to hormonal changes (Singh, 2010). Premature menopause is on the rise in India wherein the average age of menopause is 47 years (Srivastava, 2010). So also in the study area, which is evident from the survey, which states that the women attain menopause at an average age of 47.5 years. This premature menopause leads to various health problems in women at a much early age than expected. (<http://www.bellaonline.com/articles/art18499.asp>)

From the study, it is evident that the most common health problem faced by the elderly women is joint pain (77.77 per cent), followed by blood pressure (73.33 per cent), diabetes (48.88 per cent), acidity (44.44), heart ailments (44.44 per cent) and cholesterol (37.77 per cent). Many of these diseases are interrelated.

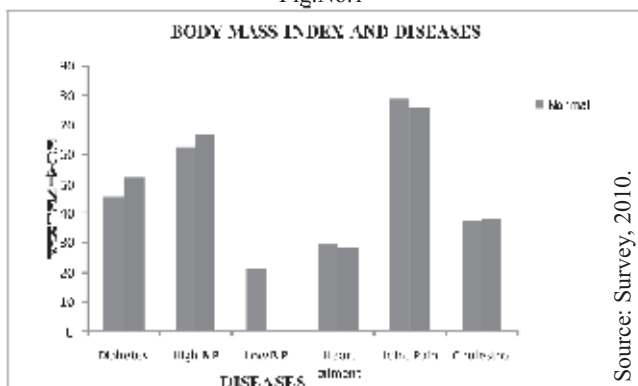
Table No 1: Navelim: Percentage Distribution of diseases among elderly women.

Diseases	Percentage
1. Diabetes	48.88
2. Blood pressure	73.33
High	87.87
Low	12.12
3. Heart ailment	44.44
Chest pain (Angina)	13.33
ECG	24.44
Bypass	6.66
4. Asthma	2.22
5. Sensory impairment	
Eye: Spectacles	100
Cataract	6.66
Nose	2.22
Ear	15.55
6. Joint pain	79.99
7. Urinary Problem	11.11
8. Anemia	2.22
9. Lack of Hemoglobin	6.66
10. Acidity	44.44
11. Insomnia	22.22
12. Cholesterol	37.77
13. Memory problems	42.22

Source: Survey, 2010.

The factors responsible for these ailments include excessive body weight, wrong diet, impaired glucose tolerance, stress, lack of physical exercise etc. Many women also reported to have problems with memory. It was observed that majority of the women suffered from multiple illnesses.

Fig.No.1



An attempt was made to find out the relation between the type of diseases and the marital status of the elderly women by using the chi-

square test. The degree of freedom calculated was 6. However the chi-square statistics (0.52499) was lower than the chi-square distribution table value (12.59) at the significance level of 5 per cent, thus affirming no relationship between the two.

Effort was also made to find out the relation between BMI and health as it is said that overweight or obese people are more likely than those at normal weight to have medical problems such as high blood pressure, high cholesterol, stroke, diabetes, heart disease, certain type of cancers (breast, colon, prostate, kidney and gallbladder), arthritis, skin problems, infertility and breathing problems. The analysis stated that nearly half (46.65 per cent) of the respondents were overweight and obese, and as such it can be considered as one of the risk factors for diabetes, high blood pressure and cholesterol (<http://www.win.middle.nih.gov>) in the study area. However the reasons for joint pain and heart ailments can be attributed to other factors.

The other health related characteristics (refer Table 2) revealed that one-fifth of the surveyed respondents went for a frequent medical checkup. In order to receive the medical treatment, most (93.33 per cent) of them preferred allopathic treatment. This may be due to the fact that it gives quick relief (Nair P.S and Santhosh S, 1999). It was also found out that majority (84.44 per cent) of the respondents had to take daily medicines. Only 7.89 per cent of the respondents reported to have faced the side-effects of medicines. Majority (89 per cent) of the women carried out a blood test on a regular basis as it was considered as one of the parameters for identification of diseases. Though half (51.11 per cent) of the respondents were operated for one or the other reasons, it was surprising to note that not a single respondent had a health insurance policy.

Table No 2: Navelim: Percentage distribution of elderly women by their health related characteristics

Characteristics	Percentage
1. Frequency of medical checkup	
Frequently	20.00
Sometimes	77.77
Never	2.22
2. Frequency of blood test	
Monthly	8.88
Quarterly	24.44
Half yearly	26.66
Once a year	28.88
On recommendation	4.44
Never	6.66
3. Type of medication	
Ayurvedic	4.44
Allopathic	93.33
Homeopathic	2.22
4. Monthly bill on medication (INR)	
0 1000	26.66
1000 2000	42.22
2000 3000	11.11
3000 4000	8.88
4000 5000	2.22
5000 and More	8.88
5. Body Mass Index (BMI)	
Underweight (< 18.50)	0.00
Normal (18.5 24.9)	53.33
Overweight/Pre-Obese (25 29.9)	24.44
Class I Obesity (30 34.9)	13.33
Class II Obesity (35 39.9)	4.44
Class III Obesity (>40)	4.44

Source: Survey, 2010.

Unlike in western countries, in India there is still good support service system which when coupled with healthy life style can contribute to active ageing process. The study revealed (table 3 ) that most of the elderly women are accompanied by their sons to the doctor, followed by daughters, husband and daughter-in-laws. However, many (40 per cent) of them go alone to the doctor. The reason being clinics which are in close proximity. More than half of the respondents use private transport to go to the doctor. Many (53.33 percent) of the women are widows and as such though some women may have savings as their economic security it is usually the sons, daughters and relatives who meet their medical expenses. It is inferred that more than a half (57.77 per cent) of the womens medical expenses are met by their sons and this shows their preference for a male child. Government support is equally important for the senior citizens. Some (37.77 per cent) of the women availed the benefits of the Dayanand Social Security (DSS) Scheme, a government support scheme.

Table No 3: Navelim: Percentage distribution of the supported elderly women

Characteristics	Percentage
1. Visit to the Doctor	
Alone	40
Son	28.88
Daughter	13.33
Daughter in law	8.88
Husband	8.88
2. Mode of Transport	
Public transport	22.22
Private Transport	55.55
Walking	22.22
3. Persons meet medical expenses	
Son	57.77
Daughter	4.44
Husband	22.22
Brother	2.22
Savings	13.33
4. DSS scheme	
Yes	37.77
No	62.22

Source: Survey, 2010.

As far as the question of remaining physically fit is concerned, it was observed that a majority (62.22 per cent) of them did not exercise at all. As Goans are very much social, the women mixed up with people by attending parties, functions, going for outings, movies etc. So also a majority of them were used to eating from hotels.

Majority of women gave a good self health rating and they also affirmed that health problems are a natural part of ageing and stated that planning for old age is necessary (Table 4).

Table No 4: Navelim: Elderly women and their perception/opinions

Perceptions/opinions	Percentage
1. Health	
Very good	0.00
Good	22.22
Normal	57.77
Bad	17.77
Very bad	2.22
2. Age factor for deteriorating health	

Yes	95.55
No	4.44
3. Work stress leads to health problem	
Yes	53.33
No	46.66
4. Cost of medical services in Goa	
High	53.33
Moderate	46.66
Low	0.00
5. Medical treatment in Goa	
Very good	0.00
Good	97.77
Bad	2.22
6. Changing food habits leads to diseases	
Yes	60.00
No	11.11
Cannot state	28.88
7. Routine activities affected by ailments	
Yes	71.11
No	28.88

Source: Survey, 2010.

The technique of Principal Component Analysis was used to determine the most important factor that contributes to good health according to the respondents. The explained variance obtained from the first component was 42.2 per cent which did not give an idea about the Principle Component from the four factors i.e. stable family life, regular exercise, nutritious and healthy diet and genetic factors. Thus the second component was calculated which gave the total explained variance of 67 per cent and this sufficiently gave a value which explained the Principle Component and that is “regular exercise.”

The study also revealed (Table No.4) that the ailments affected the day to day activities of the majority (71.11 per cent) of women. Regarding old age, nearly two third (64.43 per cent) of the respondents agree that old age is a burden, however nobody preferred to live in old age homes as they did not want to be away from their house and family. When asked regarding their views on changing food habits and diseases, majority (60 per cent) of the respondents stated a positive correlation. They stated that eating outside leads to many health issues like being obese, increase in cholesterol level, stomach upset, vomiting etc. Almost all (97.77 per cent) the respondents thought that the medical treatment in Goa is good, however many (53.33 per cent) of them said that the cost is high. During these days of tough economic conditions, a question was posed to the respondents to know their views regarding the uncertainties of future. This was relevant due to their deteriorating health and earning potentials. They revealed that the factors responsible for their worries included loneliness, economic instability, health problems etc. However majority of them were happy with the family support, but they were not satisfied much with the Government support.

### Conclusion

To sum up, population ageing is an universal phenomenon wherein there is addition of population in the elderly age group. Health impairment is a natural consequence of the process of ageing. Elderly women are the growing population in our country and also in the state. And since women have longer life expectancy, they are more likely to suffer from various health problems. Moreover they



suffer from improper support services. An attempt was made to study the same by taking Navelim as the area of interest. It was observed that the elderly population of Navelim occupies a significant proportion i.e. 9.56 per cent of the total population. It has also been found out that the females exceed the males in the elderly population and that the gender ratio was higher in the older age groups. It has been revealed from the study area that the most common problem faced by the elderly women is joint pain, followed by blood pressure, diabetes and also heart diseases, acidity and cholesterol. Various statistical techniques like PCA, Chi-square test etc. were used to analyze the health and health related characteristics and arrive at a conclusion. In short, the analysis highlights the urgent need to cater to the demands of the elderly women so as to make use of this important and experienced human resource.

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