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Contents

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The Study of Subjective Well-Being and Hope Among Elderly People

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ABSTRACT

The purpose of this study was to find out the relationship between subjective well-being and hope and to compare the level of subjective well-being and hope among institutionalized and non-institutionalized elderly. 151 elderly persons, age varying from 60 years and above, residing in old age homes (N=79) and with family (N=72) were randomly selected from Kanpur city (U.P.), These elderly persons were administered individually the Subjective Well-being Inventory (1992) and Adult Hope Scale (1991). The findings of the study revealed that institutionalized elderly had more of overall subjective well-being and non-institutionalized had more of ill-being status. Institutionalized elderly scored more hope than non-institutionalized elderly. Among various age groups of elderlies, no significant difference was found in subjective well-being in both populations but institutionalized elderly showed significant difference among various age group in hope. Finding disclosed that significant difference found in subjective well-being and hope between institutionalized and non-institutionalized elderly and there was positive correlation found between subjective well-being and hope.

Keywords: Institutionalized elderly, Family setting, Subjective well-being, Hope.

It's really hard to achieve our identity in this materialistic world where every person has his own specific value. Sometimes it becomes very difficult when your family members are not supporting you. Old age is a stage of our life cycle where one has to face physical and mental challenges. Old age could be described as a period in the life of a man when he cannot adapt properly to what he had previously adapted to (Toner *et al.,* 2003). India is placed as the largest country of the youngster and the second largest population of elderlies. Where youngsters are busy in their hectic life and want to get the zenith of success, on the other hand, elderlies need only social and family support. It is really challenging for society to take care of elderlies. According to the Census 2011 data, almost 15 million elderly Indians live all alone and close to three-fourths of them are women. Most of the elderlies live with their family members in India but a huge generation gap exists among them. India's Census 2011 also discloses that one in every seven elderly persons in India lives in a household where there is nobody below the age of 60. On the one hand elderlies feel loneliness among their family members and on the other old age home is believed to be a place for those elderlies who are deprived of their family love and care. Usually most of the family members are busy with their private assignments but the old age homes work only for the betterment of Elderlies.

Old age homes are places where many of the elderlies breathe together. Disregard by family members, lack of resources for maintenance for themselves, absence of anybody to look after them and other such reasons force most of the elderlies to live in old age homes (run by government or by some philanthropic organisation). Such persons feel loneliness. Most important outcome of loneliness are depression, suicide and abuse. These negative effects of loneliness also negatively influence the quality of life and well-being (Arslantaº, *et al.,* 2015).

Subjective well-being is one's evaluation or judgment about own life, it may be positive or may be negative. Diener (1984) defined subjective well-being as "a person's cognitive and affective evaluation of his or her life". This evaluation includes an emotional reaction to events and fulfilment. Elderly has to maintain his significance in society and family. It is very important for the elderly to sustain his positive attitude towards the upcoming future. Hope plays an

important role in the development of an optimistic thought process in the elderly. Snyder, *et al.,* (1991b) have defined hope as "a positive motivational state that is based on an interactively derived sense of successful (a) agency (goal-directed energy) and (b) pathways (planning to meet goals)". Older people, although less healthy and less productive in general, may be more satisfied with their lives, and may experience less stress, worry, and anger than middle-aged people. It is very important to do study of subjective well-being and hope in institutionalized and non-institutionalized elderly because elderlies are not our liabilities but they are our assets and our moral duty to serve them.

Operational Definitions

Subjective well-being refers to a person's judgment or evaluation of his or her life-in term of his/her life satisfaction.

Hope-refers to an optimistic attitude of mind that is based on an expectation of positive outcomes related to events and circumstances in one's life.

Institutionalized elderly-elderly aged 60 years or above residing in old age home from a minimum of six months.

Non-institutionalized elderly-elderly aged 60 years or above living with family members or relatives or alone in own house.

Objective of the Study

1. To study the subjective well-being and hope among elderly people.
2. To find out the relationship in subjective well-being and hope between institutionalized and non-institutionalized elderly.
3. To study the relationship between hope and subjective well-being.

Hypotheses

To obtain the objectives of the research following hypotheses were formulated.

1. There would be a significant difference in subjective well-being between institutionalized and non-institutionalized elderly.

2.   There would be a significant difference in subjective well-being in different age groups of the institutionalized and non-institutionalized elderly population.

3.   There would be a significant difference in hope between institutionalized and non-institutionalized elderly.

4.   There would be a significant difference in hope in different age groups of the institutionalized and non-institutionalized elderly population.

5.   There would be a positive correlation between subjective well-being and hope.

Sample

The sample comprised of 151 elderly in the age ranging from 60 to 80 years (Mean age 70.83). 79 elderly for this study were randomly selected from two old age homes of Kanpur city, i.e. 'Vridhaashram', Kidwai Nagar, Kanpur, and Mahila Vridhaaashram, Shyam Nagar, Kanpur and 72 elderly, who were living with their families were also randomly selected.

Tools Used

1.   *The Subjective Well-being Inventory (1992)* was prepared by Sell, H. and R Nagpal. It is intended to measure feeling of well-being or ill-being as experienced by an individual or a group of individuals in numerous day-to-day life concerns. It comprises of 40 items, 19 items elicit positive effects which come under the dimensions of well-being (General well-being-Positive Affect, Expectation-Achievement Congruence, Confidence in Coping, Transcendence, Family Group Support and Social support) and 21 items elicit negative affects about individual life concerns which belong to dimensions of well-being (Primary Group Concern, Inadequate Mental Mastery, Perceived Ill-Health, Deficiency in Social Contact and General Well-Being Negative Affect). The test-retest reliability of the inventory is 0.79 and the validity is 0.8686.

2.   *Adult Hope Scale (1991a)* developed by Snyder, *et al*., is a 12-item measure of a respondent's level of hope. In specific, the scale is divided into two subscales that comprise Snyder's cognitive

model of hope: (1) Agency and (2) Pathways. Of the 12 items, 4 make up the Agency subscale and 4 make up the Pathways subscale. The remaining 4 items are fillers. Each item is answered using an 8-point Likert-type scale ranging from Definitely False to Definitely True. Snyder *et al.*, (1991a) reported that the scale is internally consistent (alphas in the range of .80 for some studies).

The data was analysed with the help of statistical techniques such as mean, standard deviation, t-test, Anova, and Pearson product moment correlation method.

Result and Discussion

Table 1
Status of Subjective Well-being Including Components among Institutionalized and Non-institutionalized Elderly

Variable	Institutionalized Elderly			Non-institutionalized elderly			t-value
	N	Mean	SD	N	Mean	SD	
Well-Being	79	33.94	8.11	72	44.12	8.80	8.124**
Ill-Being		42.89	6.63		50.06	6.80	6.556**
Overall Subjective Well-Being		77.10	11.97		93.97	12.76	8.381**

(** Statistically significant at P < 0.01)

Table 1 showing status of well-being, ill-being and overall subjective well-being of institutionalized and non-institutionalized elderly. Non-institutionalized elderly showed more well-being (44.12) than institutionalized elderly (33.94). The 't' value of 8.124 indicates the extremely significant difference between them, whereas the mean value of ill-being status of non-institutionalized elderly (50.06) was found to be more than that for institutionalized elderly (42.89). It indicates that, non-institutionalized elderly stated more ill-being status than institutionalized elderly and highly significant difference was observed between them (t = 6.556). It may be due to the lack of family and social support. Non-institutionalized elderlies have very limited opportunities for sharing their emotions and thoughts in a modern family system. They are also worried about the relationship with their children. The study found that the elderly living in a nuclear family system were more prone to psychological disorders and poorer health

status than those living in a joint family (Taqui *et al.*,2007). Non-Institutionalized elderly reported higher overall subjective well-being (93.97) than subjective well-being showed by institutionalized elderly (77.10). It means that our family system and Indian cultural values help elderlies to enhance their confidence and satisfaction in life. They have good interpersonal relations and also have better standard of living. On the other hand, institutionalized elderlies are deprived of family and social support. They have very limited facilities and more restrictions in an old age home. Due to this, institutionalized elderly keep a sense of insecurity towards the future, which hampers their psychological health. Loneliness can lead to various psychiatric disorders like depression, alcohol abuse, and child abuse, sleep problems, personality disorders and Alzheimer's disease (Mushtaq *et al.*, 2014).

Table 2

Status of subjective well-being in different age groups among institutionalized and non-institutionalized elderly.

Age Groups (Years)	Institutionalized Elderly				Non-Institutionalized Elderly			
	N (79)	Mean	SD	F Value	N (72)	Mean	SD	F Value
60–64	4(5)	75.75	18.554		5(7)	82.2	10.6395	
65–69	32(40)	75.3125	9.289		31(43)	95.8065	11.666	
70–74	22(28)	79.4545	12.9163	0.5413	23(32)	94.4783	13.5743	1.7069
75+	21(27)	77.619	13.6765		13(18)	93.2308	13.4484	

Table 2 represents subjective well-being in diffident age groups and it indicates that 5 per cent institutionalized elderly derived under 60–64 age group with mean value 75.75. Age group 65–69 covered approx. 68 per cent institutionalized elderly and 75 per cent non-institutionalized population with a mean score of 75.31 and 79.45 whereas 27 per cent institutionalized elderly came under the category of 75 + age group with a mean value of 77.61. Age group 70–74 scored high mean value 79.45 but a significant difference was not observed among all age groups. The institutionalized elderly was analyzed which found that in the age group 60–64, only 8 per cent of the elderly came, whose mean was score 82.20. Mean value 95.80 and 94.47 of

subjective well-being were found in the 65–69 and 70–74 age groups, which was about 75 per cent representing the non-institutionalized elderly. 18 per cent approximately. Elderly under the category of age group 75+ scored mean 93.23. But in non-institutionalized also, a significant difference in the subjective well-being was not found in different age groups. It shows that subjective well-being is stable in the elderly of different age groups. It reveals that the second hypothesis 'significant difference in subjective well-being in different age groups of an institutionalized and non-institutionalized elderly population' was rejected. While on the one hand, the subjective well-being of moderate level was found in all age groups of institutionalized elderly. On the other hand, high-quality subjective well-being was found in different ages of non-institutionalized elderly.

Table 3

Hope in different age group among institutionalized and non-institutionalized elderly.

Variable	Institutionalized Elderly			Non-Institutionalized Elderly			T-Value
	N	Mean	SD	N	Mean	SD	
Agency	79	23.55	3.85	72	26.61	3.21	5.276**
Pathway		22.59	3.57		24.94	3.15	4.271**
Overall Hope		46.03	6.61		51.47	5.45	5.487**

(** Statistically significant at $P < 0.01$)

Table 3 indicates that the average of an agency for the elderly who live with family, which was 26.61, was more than those of the elderly who lived in the old age home and mean value was 23.55 and found the mean difference significant at the level of 0.01 between institutionalized and non-institutionalized elderly. It showed that elderly from family setting were more focused about their day to day life goals and able to accomplish their work more effectively in comparison to institutionalized elderly. The pathway is a major component in hope. Institutionalized elderly reported less mean (22.59) pathway. It denotes that they have very limited options to achieve their goals. They are incompetent to generate many paths to short out the problems and challenges. The mean difference between both groups in pathways also found Significant at 0.01 level. The overall hope was

registered higher in the non-institutionalized group than the institutionalized group and overall hope mean value difference between both groups was found significant at p < 0.01. Hypothesis 2 'significant difference in hope between institutionalized and non-institutionalized elderly' was accepted. It reveals that non-institutionalized have a better understanding to generate various routes from the present to the desired future in comparison to institutionalized elderly. They have also confidence and ability to follow those various pathways towards the desired future. It may be due to the availability of good medical facilities and support from society as well as family.

Table 4

*Hope including components between institutionalized and
non-institutionalized elderly.*

Age Groups (Years)	Institutionalized Elderly (I.E.)				Non- Institutionalized Elderly (N.I.E.)			
	N (79)	Mean	Sd	F Value	N (72)	Mean	Sd	F Value
60–64	4(5)	52.75	7.2744		5(7)	48.4	6.3875	
65–69	32(40)	43.2813	5.9635	2.9392*	31(43)	52.4194	4.8012	1.1009
70–74	22(28)	43.5	6.3227		23(32)	50.5652	5.0347	
75+	21(27)	45	6.3953		13(18)	52	7.0475	

(* Statistically significant at P < 0.05)

Table 4 reveals the analysis of hope in institutionalized and non-institutionalized elderly among four age group. In the age group of 60–64 institutionalized elderly showed higher hope than elderly from family settings. It is because of the reason that the elderly who were not getting any support from family and society. For all of them, old age homes are like a ray of hope, where they could get the opportunity to live happily with their many destitute old people like themselves. In the age group 65–69, whereas the average hope of institutionalized elderly was 43.28, on the other hand, it was 52.41 in the elderly living in the family. In the 65–69, 70–74 and 75+ age groups, the mean value of the institutionalized elderly was 43.28, 43.50 and 45 respectively, the same non-institutional elderly had 52.41, 50.56 and 52 groups of all age groups. It shows that old people are emotionally unbalanced but they develop hope when they feel the presence of their

relatives around them. In the institutionalized elderly, a significant difference was found between the mean values of different age groups but not found in non-institutionalized elderly. Hence hypothesis 'significant difference in hope in different age groups of the institutionalized and non-institutionalized elderly population.' Partially true for institutionalized elderly but not true for non-institutionalized elderly.

Table 5

Relationship between Subjective well-being and Hope in institutionalized and non-institutionalized elderlies.

Variable	Group	N	Value of 'r'
Subjective well-being and Hope	Institutionalized elderly	79	0.21
Subjective well-being and Hope	Non-Institutionalized elderly	72	0.35**

(** Statistically significant at P < 0.01)

(Table 5) Positive correlation found between subjective well-being and hope in institutionalized elderly and non-institutionalized elderly population. Institutionalized elderly showed 0.21 correlation between subjective well-being and hope but it was not found significant. On the other hand non-institutionalized elderly revealed 0.35 positive significant correlation between subjective well-being and hope at 0.01 level. The hypothesis 'positive correlation between subjective well-being and hope' was accepted and Result indicated that subjective well-being playing an important role in creating optimistic thinking about the future. Vice-versa hope plays a very prominent role to develop well-being. (Kirmani *et al.*, 2015) showed hope, optimism and happiness as correlates of subjective well-being found that hope emerged as one of the predictors of subjective well-being implying that hope and subjective well-being are associated with each other. Researchers found that low hope is associated with negative outcomes including a reduction in well-being (Diener, 1984). The theory of dispositional optimism states that one's thoughts about one's future affect one's circumstances because by expecting to do well, one will work more effectively and persist more for the goals set, therefore being more likely to achieve those goals and consequently achieve a greater sense of Subjective Well-being (Scheier & Carver, 1985).

Conclusion

The study revealed that subjective well-being was relatively unchanged among various age groups. No age wise significant difference was noticed in both the groups of respondents. Non-Institutionalized revealed higher overall subjective well-being than elderly residing in old age home. Non-institutionalized elderly reported a better level of agency and pathway than institutionalized elderly. Explaining the hope, it was discovered that there was a significant difference in the values of hope at different levels of age in the elderly of the old age homes. Non-institutionalized elderly were significantly different from institutionalized elderly in hope. Positive correlation was found in Non-institutionalized and institutionalized elderly. One more important thing was noted during this study that the facility and care provided by the old age home was insufficient . It should be improved by society and government. If we look into our culture, it has been clearly stated that to serve our elderly or parents is a true service to God.

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Death Anxiety among Elderly People: Role of Gender, Spirituality and Mental Health

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ABSTRACT

The present study was planned to examine the relationship of spirituality and mental health with death anxiety. The research sample consisted of 160 elderly people (87 males and 73 females), age varying from 65 to 80 years, were selected using purposive sampling technique. All the participants were assessed individually with the Daily Spiritual Experience Scale, General Health Questionnaire 28 (GHQ–28), and Thakur Death Anxiety Scale. Results revealed that spiritual belief and good mental health were associated with low level of death anxiety. Further, the results of hierarchical regression analysis showed that mental health and spirituality emerged as significant predictors accounting for 10.2 per cent and 8.6 per cent of the variance respectively in death anxiety among elderly participants. Present findings can be implicated in clinical settings especially during therapeutic intervention of elderly people who experienced a high level of death anxiety. It is suggested that mental health professionals may work toward promoting spirituality for reducing the level of death anxiety.

Keywords: Elderly, Spirituality, Mental Health, Death Anxiety.

Elderly people encounter various challenges in their day to day life especially due to, inescapable and unavoidable process of

age-related decline. Since, elderly people experience the inevitability of death approaching, the death anxiety is one of the most discussed issues among them (Taghiabadi *et al.,* 2017).

Death anxiety refers to "the state in which an individual experiences apprehension, worry, or fear related to death and dying" (Carpenito-Moyet, 2008) and this term is used interchangeably with fear of death (Greenberg, *et al.,* 1994). There are various factors that could influence the extent to which a person experiences death anxiety such as age, gender, religious and spiritual beliefs, living arrangements, locus of control, health and social support (Jo, & Song, 2012). Literature entails that gender is one influential factor that affects death anxiety. As indicated by literature review, there have been contradictory results on gender differences in death anxiety. For instance, De Paola*, et al.,* (2003) reported that elderly women have high level of death anxiety in comparison to elderly men. Similar findings have been also reported on the elderly population of Indian subcontinent by Saini, *et al.,* (2016) and, Madnawat and Kachhawa (2007). Contrary to this Fortner and Neimeyer (1999) reviewed 49 studies on death anxiety in older adults and reported that gender does not seem to predict death anxiety in elderly people. Similar pattern of results was also reported by other researchers such as Assari and Lankarani (2016), and Suhail and Akram (2002). Therefore, more studies are required to clarify this relationship.

Spirituality refers to human inclinations for exploring the concept of life with a need for connecting with something beyond self or by developing one's self. Spirituality is an inner strength which helps the individual to move beyond self-interest and make meaning of both lived and transcendental experiences (Shaton, *et al.*, 2001). Elderly people either exhibit emotional avoidance approach or try to indulge themselves in philosophical and spiritual thoughts to handle these unmanageable death approaching situations. It helps the ageing person with additional resources for finding sense in the phase of physical and emotional distress that often come along with the ageing and dying process (Budhiraja, & Midha, 2017).

Spirituality have been found to be related with enhanced psychological well-being (Tiwari*, et al.*, 2016), improved quality of life (González-Celis, & Gómez-Benito, 2013), greater physical,

psychological and mental health (Meisenhelder, & Chandler, 2002) and increased life satisfaction (Taghiabadi, *et al.,* 2017). Numerous studies have reported that spirituality is negatively associated with death anxiety in elderlies (Suhail, & Akram, 2002;Henrie, & Patrick, 2014;). Spiritual experience helps people to cope with their own ageing process and play a vital role in healing them during the time of personal distress and suffering. An extensive literature shows that spirituality is a significant predictor of death anxiety among elderly peoples.

Relationship between gender and spirituality is an area of interest for many researchers. A recent longitudinal study (Bailly *et al.*, 2018), found that older women reported higher levels of spirituality than older men. Finding of (Brown, *et al.,* 2013; Rodrigues *et al,* 2017) offer similar insight. On the other hand, some studies have had contra-dictory results. A recent study conducted on Indian sample by Princy & Kang (2011), reported that level of spirituality was similar in males and females. Studies conducted in Mexican setting have reported similar results (González-Celis, & Gómez-Benito, 2013). Thus, the previous literature reported mixed findings on gender and spirituality, and requires more researches to be conducted to clarify this relationship.

Mental Health has also been considered as an important factor in predicting death anxiety among elderly people. People who do not perceive themselves to be healthy are more conscious of the certainty of death and in turn, they are more inclined to experience anxiety about death and dying issues (Geurtsen, 2010). A significant negative relationship was noted between death anxiety and healthy elderly sample (Tate, 1982). White and Handal (1991), in their study, found that high death anxious females were statistically and clinically more distressed than low anxious females. Another study reported similar results, that individual with physical and mental problems are more sensitive to death and dying issues (De Paola, *et al*., 2003). The relationship is also established in previous research, where poor health is associated with a high levels of death anxiety (Moreno, *et al.,* 2008) and mental well-being is also related with low level of death anxiety (Fortner, & Neimeyer, 1999;Tang, *et al.,* 2002). Elderly people perceive death as more salient and menacing due to their deteriorating

mental health, as a result, those people who perceive themselves in poor health have a high level of death anxiety particularly.

Women have shown significantly higher levels of health problems and greater psychological distress (as measured by GHQ) than men (Gronning, *et al.,* 2018; Matud & Garcia, 2019;). On the other hand, Rueda and Artazcoz (2009), reported that, there is no significant difference in elderly men and women in terms of their health. Findings of (Venkatesan & Ravindranath, 2011; Assari & Lankarani, 2016) offer similar insight. Thus, the existence of a possible gender difference is yet to be fully elucidated.

On the basis of review of literature that most of the research have been conducted in the western culture and society. In Indian culture, death is viewed differently as in western countries. A very little attempt has been made to understand the relationship between spirituality, mental health and death anxiety with respect to Indian elderly population where majority of people believe in the concept of an afterlife, moksha, karma, and have a religious lifestyle, which is very different from the western culture. Therefore, there is a need to examine the role of spirituality, and mental health in death anxiety of Indian elderly population. Additionally, for precise prediction and prevention of issues related to death and dying (death anxiety), it is essential to identify factors associated with death anxiety among elderly population.

Objectives

The prime objective of the present study was to examine the relationship between spirituality, mental health and death anxiety in elderly people. Further, the study also intended to identify the significant predictors of death anxiety in elderly, such as spirituality and mental health. The study also aimed to explore gender difference in death anxiety, spirituality, and mental health of elderly population.

Methodology

Design and Sample

A correlational research design was used to investigate the relationship among spirituality, mental health and death anxiety of

elderly people. The sample consisted of total 160 elderly participants, among them 87 were males and 73 were females. The data was collected from Delhi region from the period of February 2018 to May 2018. All the participants were in the age range of 65–80 years, and were in communicable state. Elderly who were living alone and were suffering from any known disabling chronic/severe physical disabling or mental disorder were excluded from the study. Further, participants who scored less than 23 on MMSE were also excluded from the study. The mean age of the participants was 71.36 years (SD = 4.41). Of the total number of participants, 99 (61.09%) participants were married and 61(38.01%) were widow/widower.

Measures

Three measures : a) Daily Spiritual experience scale, b) General Health Questionnaire 28 (GHQ–28) and Thakur Death Anxiety Scale were used in the data collection.

1. *Daily Spiritual experience scale* was originally developed by Underwood, and Teresi, (2002) and was adapted in Hindi by Tripathi, Asthana and Asthana (2017). The scale measures people's perceptions of a superior force in daily life, interaction with this beyond-the-universe force, feeling of deep inner peace, and cooperation with the public. It is a 16-item scale and response lies on six-point Likert scale ranging from 1 = never, to 6 = many times a day. The scale has adequate internal consistency (Cronbach's 0.94) and construct validity.

2. *General Health Questionnaire 28 (GHQ–28)* –The scale was originally constructed by Goldberg and Blackwell (1970), adapted in Hindi by Singh (2000). It was used to assess mental health of the participants. It is a 4-point scale and response ranges from 1 = Not at all, to 4 = Much more than usual. The overall score ranges from 28 to 112 with higher scores indicating poor mental health. The alpha coefficient of the questionnaire ranges from 0.75 to 0.84 and split-half reliability is 0.97. The sensitivity and specificity are 1 and 0.88 respectively.

3. *Thakur Death Anxiety Scale:* It was developed and standardized by Thakur and Thakur (1985), and used to assess death anxiety. It is a

16-item scale and has five-point Likert type scale ranging from 1 = absolutely wrong to 5 = absolutely right. The score ranges from 16–80, and high obtained score indicates more death anxiety. The internal consistency and test-retest reliability of the scale is 0.78 and 0.86 respectively and convergent validity of the scale is 0.75.

A questionnaire containing demographic details such as age, gender, educational qualifications, and marital status occupation/past occupation, source of income, etc. was also administered to the each participant. This information was utilised at the time of the analysis of data.

Procedure

All the participants were contacted individually by the researcher. Initially, participants were screened according to inclusion and exclusion criteria, after that purpose of the study was explained. Firstly, informed consent was obtained from each participant then participants were asked to complete questionnaire such as Sociodemographic Datasheet, Daily Spiritual Experience Scale, GHQ–28, and Thakur Death Anxiety Scale. After the test administration, all the tools of measurement were scored and analysed using standard scoring procedure. Lastly, obtained responses were statistically analysed using Pearson's Product moment method of correlation. Further, regression analysis was carried out to assess to what extent spirituality and mental health predict death anxiety. Independent sample t-test was also carried out to measure gender differences in terms of spirituality, mental health, and death anxiety.

Results

Pearson's product-moment correlation coefficient was calculated in order to determine the strength of the relationship among spirituality, mental health and death anxiety. The correlation coefficient is presented in Table 1.

Table 1

Correlation analysis of spirituality, mental health, and death anxiety

Measure	Spirituality	Mental Health (GHQ–28)	Death Anxiety
Spirituality	1.00		
Mental Health (GHQ–28)	–.39**	1.00	
Death Anxiety	–.31**	.49**	1.00

** p < .01.

Table 1 reveals that spirituality was significantly negatively correlated to death anxiety (r = –0.31, p= .01). It suggests that elderly people who have high spiritual thinking experience low level of death anxiety. Scores of GHQ–28 were significantly positively correlated to Death anxiety (r = 0.49, p= .01). Results imply that poor mental health is associated with higher level of death anxiety, as high scores on GHQ indicates poor mental health and high score on death anxiety scale indicates high level of death anxiety.

Moreover, scores of spirituality was significantly negatively correlated with the scores of GHQ–28 (r = –0.39, p= .01), as high scores on GHQ indicates poor mental health and high score on spirituality scale indicates high level of spirituality. The findings further indicate that elderly who have spiritual thinking also have good mental health.

Table 2 presents the regression analysis for all the participants when Death anxiety was treated as the dependent variable. In the first model, the sociodemographic variables including gender, age, educational qualification, and marital status were entered. In the second model, in addition to the demographic variables, spirituality was added to the regression. Gender and educational qualification remained significant predictor of death anxiety. Finally, in the third model, mental health was also added to the regression, after entering the sociodemographic variables and spirituality. In the final model, educational qualification, spirituality, and mental health were all found to be significant predictors of death anxiety. Elderly who reported high level of spirituality also reported low level of death anxiety. Finally, better mental health was significant in predicting lower death anxiety. Among the predictors, the sociodemographic variables explained the largest portion (13.3%) of variance, followed

by mental health and spirituality, explaining 10.2 per cent of variance and 8.6 per cent of variance respectively in predicting death anxiety. The total proportion of variance explained by these three types of variables was only 31 per cent. Among all the significant predictors in the final model, sociodemographic variable such as education was the most influential predictor, with the largest standardized regression coefficient in predicting death anxiety.

Table 2

Summary of hierarchical regression analysis for Spirituality and Mental Health as Predictor and Death anxiety as criterion (N=160).

	Model 1 β	Model 2 β	Model 3 β
Gender	.169*	.165*	.098
Age	–.008	.059	.038
Education	–.296**	–.274**	–.207**
Marital Status	–.016	–.072	–.053
Spirituality	–	–.306**	–.165*
Mental Health	–	–	.365**
R2	.133	.219	.321
R2 change	.133	.086	.102
Adjusted R2	.111	.194	.294
F ratio	5.955**	16.905**	22.929**

*p < .05, **p < .01

Table 3

Mean, SD and t-value of males and females on the measures of spirituality, mental health (GHQ–28) and death anxiety among Elderly people.

Variables		N	Mean (SD)	t
Spirituality	Males	84	59.09 (7.64)	–
	Females	76	58.09 (9.96)	.716
Mental Health	Males	84	48.21 (8.63)	–
	Females	76	52.60 (10.09)	.965**
Death Anxiety	Males	84	36.23 (6.62)	–
	Females	76	39.19 (6.53)	2.840**

***P < .001

Table 3 presents the group comparison by gender for all measures. Results of independent sample t-test indicate that women scored significantly higher (39.19) than men (36.23) on death anxiety. Further, women also scored significantly higher (52.60) than men (48.21) on total general mental health. In addition, no gender difference was found for spirituality score.

Discussion

The aim of the present research was to assess the relationship of spirituality and mental health, to death anxiety in elderly Indian population. Findings of the present study revealed that spirituality was negatively correlated with death anxiety. It suggests that individuals with high spirituality have shown low level of death anxiety. Similar relationship has been reported in other studies in which HIV patients (Kaldjian, *et al.,* 1998) and haemodialysis patients (Mahboub, *et al.,* 2014), who were spiritually high, had less fear of death. Spirituality has been related with positive mental, emotional and physical health (Fisher, 2011; Scott, 2018), it enhances overall wellbeing (Saleem, & Khan, 2015) and reduces death anxiety as well (Shukla, & Rishi, 2014; MacLeod, *et al.,* 2017; Budhiraja, & Midha, 2017; Taghiabadi, *et al.,* 2017). The probable reason behind the result could be the interdependence of the two factors, death anxiety, and spirituality. The awareness that death is inevitable often brings renewed urgency to the spiritual quest (Wattis, & Curran, 2016). Spiritual resources help elderly to face challenges of ageing, including the challenges of ill-health and even the existential threats of impending death.

Further, the present finding suggests that mental health is also negatively associated with death anxiety. It means that higher level of mental health is associated with lower level of death anxiety, and is corroborated by other researches (White, & Handal, 1991; Moreno, *et al.,* 2009; Geurtsen, 2010;). Individual with physical and mental problems are more sensitive to death and dying issues (De Paola, *et al.*, 2003). The better the cognitive status and mental health of the elderly, the lower their death anxiety (Musaiger, 2009). This is because, they experience more control over their life and have more resistance against mental health problems and fear of death (Lockhart *et al.*, 2001).

One of the important findings of the present study is that elderly with high spirituality have shown good mental health. Spiritual growth improves mental health among elderly (Akbari, & Hossaini, 2018). The probable explanation for interaction between spirituality and health appraisal could be health optimism (George, *et al*., 2000), i.e., reporting of good health despite contrary physical evidence Elders with high spiritual experience might share characteristics with health optimists, who tend to use a health-transcendent approach to appraise their health and attribute their symptoms (Borawski, *et al.,* 1996), as a result they incorporate a broader, more inclusive view of health. Results of meta-analytical studies (Seybold & Hill, 2001; Ashouri, *et al.,* 2016) also revealed that spiritual well-being is more effective on mental health than physical health. Apart from psychological, social and behavioural fields, spirituality has a significant relationship with specifics, such as hope, optimism, goal-orientation, willpower, sense of control, and adaptation (Zimmer, *et al.,* 2016).

Mental health and spirituality have been found to be significant predictors of death anxiety among elderly people. Death anxiety, or the feeling of apprehension associated with thinking of one's own or others' death (Firestone, & Catlett, 2009) can affect both physical (Fortner *et al.*, 1999), mental health (Farsham, & Namdari, 2012) and overall general health (Salimi, *et al.,* 2014). So, it can be concluded that as spirituality increases the person's experience of better mental health and consequently death anxiety decreases (Shukla, & Rishi, 2014). It is likely that people who are more spiritual, may be open-minded, where the role of mindfulness and meditational approaches to life, may enable people to cope with the prospect of or when faced with death.

With respect to gender, the present findings suggest that elderly women have shown higher level of death anxiety in comparison to men. The findings of this study are supported by other researches also (De Paola, *et al*., 2003; Madnawat and Kachhawa, 2007; and Saini, *et al.,* 2016). Further, a significant difference in general mental health status of elderly men and women was also noticed. Women reported poorer mental health in comparison to men. The results are in line with previous studies (Gronning *et al*., 2018;Matud *et al.*, 2019;)

Conclusion

On the basis of present findings it may be concluded that spirituality and mental health are significant predictors of death anxiety. Conclusions of this study have high implications in clinical settings for mental health care of elderly people who experience a high level of death anxiety. Health professional may work towards promoting or reducing them respectively.

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Death Anxiety and Psychological Wellbeing of Institutionalized Elderly: Relationship, Association, and Influences of Demography

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ABSTRACT

The purpose of this study was to findpot the relationship, associ-ation and influences of Demography in Death anxiety and Psychological Wellbeing among Institutionalized Elderly. The non-experimental descriptive research design was used to assess the level of death anxiety and psychological wellbeing of 50 elderly subjects aged 60 years and above living in Trichy district of Tamilnadu state. These Subjects were selected by using purposive sampling method. The Psychological Well Being Scale (Bhogle and Prakash 1995) and Death Anxiety Scale (Templer, 1970) were administered individually to all the elderly persons of the sample. Mann-Whitney U test, Kruskal Wallis test and X^2 test were used to analyse the data. The findings revealed that death anxiety and psychological wellbeing were significantly negatively correlated among elderly. Marital status, family type, number of children and income were found associated with death anxiety. Elderly living single, having no children and more than 5 years of illness were found to have more death anxiety. Further elderly with 12th std. education and single were found to have more psychological wellbeing.

Keywords: Death Anxiety, Psychological Wellbeing, Elderly.

India has multifaceted family system which gratifies the needs of the heterogeneous groups of elderly. At the same time due to disintegration of age old family system, urbanization and materialistic attitude formal institutions that give shelter and care have become necessary for elderly. The term and idea of institutionalization was borrowed from western countries and is familiar in Asian countries nowadays (Devi and Roopa, 2013). In India these institutions are run by the state government, central government and private sectors both in urban and rural areas. Among them the executive level of institutions are run by economically prosperous individuals. They are characterized by various standards, which may be distinguished by number of indicators, like environment, living arrangement, recreation, spiritual activities, policies of administrations, etc. However many a time the elderly are found not so good in wellbeing. In this circumstance, demographic factors have been found to play a vital role in understanding the wellbeing of the elderly.

Death Anxiety

Death anxiety is an important factor that is experienced with different intensity during one's life and is also influenced by different factors, such as environmental events, age, and sex. Death anxiety is an attitude that an individual feels towards death. It is explained as a negative and perceptive feeling that one has when thinking about death and dying and is used interchangeably with fear of death or fear of dead. According to Richardson, *et al*., (1983) perception of death was significantly related to religion. Also they explained it as a negative feeling about death and dying. Much research tried to explain death anxiety in different ways. According to Jung, "a fear of life" underlies death anxiety. Generally death anxiety has been studied in relation to variables of age, sex, socio-economic level, religious belief, occupation and health problems, etc.

Nal, *et al*., (2016) have concluded that elderly people were found to have more death anxiety compared with young people due to loneliness, lack of care, spousal death, feeling anxious about disease and cost of treatment. Further, elderly with chronic obstructive pulmonary disease were found to have more death anxiety and state-trait anxiety.

Nowadays urban family members are also more prone to send the elderly people in the institutions due to poor socioeconomic status. Chokkanathen and Lee (2006) reported that elderly people suffer by mistreatment from family members and the consequent feeling that they are burden on society and community. Meanwhile studies revealed that institutionalized elderly have more death anxiety and less quality of life compared to non-institutionalized elderly. Ron (2004) stated that instionalised elderly people are hardly in a position to define their own life and also they find it difficult to make the decision regarding daily activities due to hopelessness, helplessness and depression.

Psychological Wellbeing

In India the psychological well being of elderly is related to number of factors like health conditions, job, family environment, and economical position. For example, higher levels of well-being are linked with reduced risk of disease, illness, and injury to promote better immune functioning and speedier recovery. Meantime living area plays an important role for elderly well being. Singh and Kiran (2013) stated that living arrangement is associated with elderly wellbeing, indicating higher psychological wellbeing of elderly due to living with family members compared to staying in institutions.

Mani, *et al*., (2014) stated that 60 per cent had moderate stress and 18 per cent of elders had high stress level. Further, gender and co-living status with spouse was considerably connected with stress. Tejal (2010) found that institutionalized elderly experience poor sense of psychological wellbeing than the non institutionalized elderly. Results revealed that males with higher age had lower psychological wellbeing than females and lower age group. Narkhede, *et al*., (2012 found that elderly living with their spouses in institution had better psychological well-being.

Yoon and Lee (2007) investigated psychological wellbeing among rural elderly. They revealed that social support is significantly associated with psychological wellbeing. Wong, Yoo and Stewart (2007) reported that more social support was found significantly contributing to overall psychological wellbeing of the elderly.

Objective

C To study the Relationship, Association, and Influences of Demography in Death Anxiety and Psychological Wellbeing among Institutionalized Elderly.

Hypotheses

H_01:	Death anxiety and psychological well-being are not correlated among Elderly.
H_02:	Demographic variables and levels of death anxiety of the elderly are not significantly associated.
H_03:	Demographic variables and levels of psychological well-being of the elderly are not significantly associated.
H_04:	Demography of the elderly does not make significant difference in death anxiety.
H_05:	Demography of the elderly does not make significant difference in Psychological wellbeing.

Method

Sample

The non experimental descriptive associational research design was used to conduct this study. Fifty elderly people from old age homes at Trichy city, Tamilnadu were approached through purposive sampling. The age ranged from 60 to 80+. The sample consisted predominantly of male, 10th std. studied, single, and nuclear family elderly.

Measures

1. *Personal Data Sheet:* Personal data sheet developed by the investigator was used to collect the demographic information consisting of age, sex, education, marital status, family type, number of children, home care, income, illness and duration of illness.

2. *Death Anxiety Scale (DAS):* Death anxiety scale was developed by Templer (1970). It is a self-reporting scale. It consists of 15 items, which explains different cognitive and emotional responses toward issues related to death. It has positive and negative questions. Every 'true' responses awarded '1'score and 'false' responses awarded '0'score for positive questions (1,4,8,9,10,11,12,13,14) vice versa and every 'false' response

awarded '1' score and 'true' response awarded '0' score for negative questions (2,3,5,6,7,15). Cronbach alpha was found to be 0.83. The 'r' for fear of death scale was 0.74.

3. *Psychological wellbeing scale (PWB):* It was developed by Bhogle and Prakash (1995). It consists of 28 items spread in 12 dimensions with positive and negative items. In positive questions '1' score was awarded for every 'yes' response and '0'score was awarded for every 'no' response. In negative questions '0' score was awarded for every 'yes' response and '1'score was awarded for every 'no' response. The author reported Internal consistency coefficient of this scale as 0.84 and split half coefficient as 0.91. The 'r' for subjective well being was 0.62 and 'r' for general wellbeing was 0.48.

Statistical Analysis

As it was purposive sampling with non parametric assumptions Mann-Whitney U test was used to find out the significant differences between two groups; Kruskal Wallis test was used to find out the significant differences for more than two groups; X^2 test was used to measure the association between demographic variables and psychological well being.

Results

$H_0$1: *Death anxiety and psychological well-being are not correlated among elderly.*

Table 1
Correlation between Death anxiety and Psychological Wellbeing among elderly

Variables	N	M	SD	R
Death anxiety	50	8.42	3.36	–.243*
Psychological well-being	50	13.68	7.22	

Note: *p < 0.05.

It can be seen from Table 1 that death anxiety and psychological wellbeing are significantly negatively correlated among elderly (r =-.243) at 0.05 level. Hence, the hypothesis was not accepted.

H$_0$2: *Demographic variables and levels of Death Anxiety of the elderly are not significantly associated*

Table 2
Association between Demographic variables and Death Anxiety

Dmghc. Variables	Sub groups	N=50	X^2
Age	60–70	29	
	71–80	16	5.78^{NS}
	81+	5	
Sex	Male	27	
	Female	23	0.18^{NS}
Education	Up to 10th	30	
	Up to 12th	5	
	Degree	2	3.30^{NS}
	Nil	13	
Marital status	Single	43	
	Married	6	8.83*
	Widowed	1	
Family type	Joint	14	
	Nuclear	36	3.77*
No. of children	Up to 3	25	
	More than 3	6	9.71*
	Nil	19	
Home care	Independent	30	
	Dependent	20	1.75^{NS}
Income	Below 10,000	12	
	Above 10,000	5	5.85*
	Nil	33	
Illness	Diabetic	3	
	Bp	3	
	Others	30	5.77^{NS}
	Nil	14	
Duration of illness	Up to 5 yrs	28	
	More than 5 yrs	8	3.57^{NS}
	Nil	14	

Note: *p < 0.05; NS = Not Significant.

It can be observed from Table 2 that there exist association between demographic variables and the death anxiety among elderly in marital status, family type, number of children and income at 0.05 level.

It can be interpreted that marital status, family type, number of children and income are significantly associated with death anxiety. Azeem and Naz (2015) found that institutionalised elderly had more death anxiety and depression symptoms compared with non institutionalised ones because of loneliness and separation from the family members.

H$_0$3: *Demographic variables and levels of psychological well-being of the elderly are not significantly associated.*

Table 3

Association between Demographic variable and Psychological well being

Dmghc. Variables	Sub groups	N=50	X^2
Age	60–70	29	
	71–80	16	2.35^{NS}
	81+	5	
Sex	Male	27	0.14^{NS}
	Female	23	
Education	Up to 10th	30	
	Up to 12th	5	4.81^{NS}
	Degree	2	
	Nil	13	
Marital status	Single	43	
	Married	6	1.64^{NS}
	Widowed	1	
Family type	Joint	14	0.00^{NS}
	Nuclear	36	
No. of children	Up to 3	25	
	More than 3	6	1.37^{NS}
	Nil	19	
Home care	Independent	30	0.05^{NS}
	Dependent	20	
Income	Below 10,000	12	
	Above 10,000	5	1.41^{NS}
	Nil	33	
Illness	Diabetic	3	
	Bp	3	5.47^{NS}
	Others	30	
	Nil	14	
Duration of illness	Up to 5 yrs	28	0.51^{NS}
	More than 5 yrs	8	

Note: NS = Not Significant.

It can be seen from Table 3 that demographic variables and psychological wellbeing among elderly are not associated at 0.05 level. Further it is noted that not even a single demographic variable is significantly associated with the psychological wellbeing. Hence, the hypothesis stating that Demographic variables and levels of psychological well-being of the elderly are not significantly associated is completely accepted. In contrast some of the studies expressed the relationship between demographic profile and psychological wellbeing. Elderly living in the community and non living community significantly differed in wellbeing of the elderly (Paliwal & Singh, 2017). Male and female elders significantly differed in wellbeing. Because of the male elders still continuing their successful and happy life (Chamugh & Sankar, 2017).

H_0**4:** *Demography of the elderly does not make significant difference in Death Anxiety.*

Table 4
Demography of the elderly in Death Anxiety

Dmghc. Variables	Sub groups	N=50	Mean Rank	U/X^2
Age	60–70	29	23.26	
	71–80	16	28.53	1.65^{NS}
	81+	5	28.80	
Sex	Male	27	27.13	266.5^{NS}
	Female	23	23.59	
Education	Up to 10th	30	21.97	
	Up to 12th	5	27.50	5.40^{NS}
	Degree	2	24.50	
	Nil	13	33.04	
Marital status	Single	43	27.39	
	Married	6	13.83	7.48*
	Widowed	1	2.00	
Family type	Joint	14	21.39	194.5^{NS}
	Nuclear	36	27.10	
No. of children	Up to 3	25	20.10	
	More than 3	6	27.10	7.33*
	Nil	19	31.92	

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Home care	Independent	30	24.72	276.5^{NS}
	Dependent	20	26.68	
Income	Below 10,000	12	20.13	2.28^{NS}
	Above 10,000	5	25.20	
	Nil	33	27.50	
Illness	Diabetic	3	12.83	5.23^{NS}
	Bp	3	27.67	
	Others	30	23.73	
	Nil	14	31.54	
Duration of illness	Up to 5 yrs	28	20.71	6.94*
	More than 5 yrs	8	31.69	
	Nil	14	31.54	

Note: *p < 0.05; NS = Not Significant.

It can be observed from Table 4 that marital status, number of children and duration of illness have made significant differences in death anxiety of the elderly at 0.05 level. Single elderly were found to have more death anxiety than the other. Elderly people with more than 5 years of illness have more death anxiety than other groups. Nal, *et al.*, (2016) concluded that widowed elderly and long term diseased elderly had more death anxiety due to lack of care and unaffordable treatments. Single elders had more death depression and suicidal ideation than elderly couple (Swathi, 2014).

H₀5: *Demography of the elderly does not make significant difference in Psychological wellbeing.*

Table 5
Demography of the elderly in Psychological well being

Dmghc. Variables	Sub groups	N = 50	Mean Rank	U/X^2
Age	60–70	29	21.88	4.69^{NS}
	71–80	16	29.34	
	81+	5	34.20	
Sex	Male	27	26.04	296.0^{NS}
	Female	23	24.87	

Cont'd...

Education	Up to 10th	30	21.22	8.21*
	Up to 12th	5	34.40	
	Degree	2	19.25	
	Nil	13	32.92	
Marital status	Single	43	27.84	8.12*
	Married	6	12.17	
	Widowed	1	5.00	
Family type	Joint	14	28.29	213.0^{NS}
	Nuclear	36	24.42	
No. of children	Up to 3	25	23.34	3.38^{NS}
	More than 3	6	19.83	
	Nil	19	30.13	
Home care	Independent	30	26.50	270.0^{NS}
	Dependent	20	24.00	
Income	Below 10,000	12	18.88	4.52^{NS}
	Above 10,000	5	20.80	
	Nil	33	28.62	
Illness	Diabetic	3	28.83	0.66^{NS}
	Bp	3	29.17	
	Others	30	25.80	
	Nil	14	23.36	
Duration of illness	Up to 5 yrs	28	26.50	0.43^{NS}
	More than 5 yrs	8	25.75	
	Nil	14	23.36	

Note: *$p < 0.05$; NS = Not Significant.

It can be observed from Table 5 that education and marital status have made significant differences in psychological wellbeing of the elderly at 0.05 level. Elderly people with 12th std. education were found to have more psychological wellbeing than the other. Interestingly, single elderly were found to have more psychological wellbeing than the other (married and widowed). Ashish and Ghufran (2016) found female elderly people had low psychological wellbeing due to poor education and contribution of entire life to the family.

Discussion

The aim of the study was to find out the Relationship, Association, and Influences of Demography in Death anxiety and Psychological Wellbeing among Institutionalized Elderly. The study has revealed varying degrees of relationship, association and influences in death anxiety and psychological wellbeing (27.48) among them.

Death anxiety and psychological wellbeing were significantly negatively correlated. It is a common understanding that high distress and wellbeing go in opposite direction.

Marital status, family type, number of children and income are significantly associated with death anxiety. This mimics the classical findings of empirical research that these four variables always are associated with anxiety in varying degree. Age, Sex, Education, Marital status, Family type, Number of children, Home care, Income, Illness, and Duration of illness were not significantly associated with the psychological wellbeing.

Single elderly people were found to have more death anxiety than the other others. Having no children and more than 5 years of illness found to have more death anxiety than the others.

Elderly people with 12th std. education were found to have more psychological wellbeing than the other and single elderly were found to have more psychological wellbeing than the other.

Conclusion

It can be concluded from the study that there exist varying degrees of relationship, association, and influences of demography in death anxiety and psychological wellbeing among institutionalized elderly. further from the psychological perspectives, elderly need family support, social support and recreational opportunities to promote their well being. Finally the study indicates that government and NGO can contribute and provide better standards of institution which would promote the quality of life of the elderly. Certain intervention and recreational activities would also enhance their wellbeing.

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The Quality of Retired Life: The Way Elder People Perceive it

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ABSTRACT

Increase in life expectancy, nuclear family structure and financial constraints of the family play significant role in providing quality services to retired persons. The aim of this study was to findout living status of retired people, their dependency in carrying out daily activities and at the time of ill health and factors affecting the quality of life in retired age. 40 retired persons (26 male and 14 female) age varying from 60 years to above, were selected by convenience sampling procedure from rural (N=8) and urban areas (N=8) of Kolkata city. A questionnaire containg 14 questions and personal informations was administered to them individually. The data was analysed statistically. The research findings suggest that it is difficult for retired people to pass their time. To overcome this boredom caused due to to lonliness they take refuge in religious activities. They face another challenge regarding their care or who will look after them when they will not be not capable to do activities of daily living. When nobody is around to take care, old age home could be a best alternative to live. Economic hardship may create another constraint to lead a peaceful life. All the elder people were constantly infear of their impending ill health and cost of hospital ization.

Key words: Financial constraints, Health, Quality of life, Religion

Retirement is one of the realities of normal life. The problems a retired person generally faces range from loss of monthly salary, lack of future employment, deterioration of health and anxiety of running the family if there is no other financial support from spouse/son/daughter or a support of substantial pension amount. Majority of people in India work in unorganized sectors or they are self employed. They retire from their gainful employment without any financial security like pension and other post-retirement benefits. This group of people in Indian society are very much worried about uncertainly of a comfortable life after their retirement. They try to save as much as possible during their working years for this barren period of life. On the contrary, those who work in Government sectors, have pension and other welfare benefits after their retirement. For them pension varies according to their position of employment.

Indian family structure has changed dramatically from joint family to nuclear family in recent era. In Indian tradition, son used to take care of his elder parents with the help of his wife. But the traditional role of taking care of elderly parents by the daughter in-law is eroding very rapidly in the society. Nowadays educated and employed daughter in-law is not willing to play the typical house-wife's role as before. Women are coming out in large number as a workforce to substitute the family income to lead a better and comfortable life and to be economically independent.

Son, after his education, may move out from his own state to another state or to a foreign country for better job opportunities. If a son is placed in a reasonably responsible position, financial help may come to elderly parents in regular intervals, but it cannot be guaranteed in modern scenario. The reciprocal theory (parents educated the child and child in turn looks after his parents) may not work and is also not universally accepted (Saha & Dey 2013). In Indian tradition, daughter after her marriage becomes primarily part of the groom's family and living with her own parents is less desirable socially and culturally. It may not be possible for her to look after her parents due to her responsibilities in her spouse's family. As long as both parents are in good health, they can take care of themselves. The question arises who is going to look after them when they won't be able to look after themselves, specially when either male (father) or

female partner (mother) is alive and he/she cannot take care of him self or her self? Old-age home could be an option for this group of elderly people.

Socialization is natural phenomenon for all human beings regardless of their age but seniors can be more susceptible to isolation after their active life in working situation. It is difficult in old-age to increase social activities and socialization in the community where he or she lives. Some people take refuge to religion where they try to get some peace in mind.

Maintenance cost in old-age increases considerably. If a person does not have any health insurance, he or she will have to face a great financial difficulty during serious illness. It creates problems not only for him; it may create problems for the whole family or care givers. Economic insecurity leads to the feeling of marginalization in the family and and in the society at large.

To provide the quality of service to retired people is a big challenge to the family, community and overall to the country. India is not a welfare country. Central as well as state government is providing negligible help to this group of people. In India, only 17 per cent of the population is covered by health insurance (Bloom, *et al.,* 2010). In the absence of health insurance and quality health care infra-structure, catastrophic health care expenditures can easily push somebody into poverty. The increasing number of older people is also creating pressure on health care system in the country.

Objectives of Study

1. to find out the living status of retired people
2. to study the level of dependency in carrying out daily activities and at the time of ill health
3. To find out those factors which affect the quality of life in retired age

Methodology

The sample consisted of 40 retired persons (26 male and 14 female) Convenience sampling procedure was used to collect the data. The questionnaire used in present research consisted of two parts: the first part enclosed questions regarding the socio-biographical variables

of the respondents and the second part of the questionnaire contained 14 questions which were used to find out the factors which affect the quality of life of the retired people. Five point likert-scale was used with anchors using strongly agree, fairly agree, not sure, fairly disagree and strongly disagree. The statistical package SPSS (version 17) was used to analyse the data. To find out the problems and prospects they face to lead a comfortable life, Factor analysis was carried out. The form of factor analysis used was principle component analysis with Varimax rotation. To justify the factor analysis, Kaiser-Meyer-Olkin (KMO) test for sampling adequacy and Bartlett's test of Sphericity were used (Malhotra, 2007).

Social demographic Characteristics of the respondents

The sample consisted of 40 peoples. Among them 65 per cent and 35 per cent were male and female respectively. More than 60 per cent $(25 + 37.5 = 62.5)$ were between the age group of 60 to 65 years of age. While, 20 per cent were in the age group of 65 to 75 years and around 18 per cent were above 70 years old.

Among the respondents 80 per cent were married, while around 12 per cent remained single and eight per cent became widow in course of their life. 80 per cent of the respondents live in urban areas whereas only 20 per cent live in rural areas. These characteristics of the respondents are presented in Table 1. Only around one third of the respondents had Government job while around two thirds of the respondents had job in private company or they were self employed. The sources of present income of the majority of retired people (50%) are mainly pension and the interest they get on their savings. Around 13 per cent of the respondent's incomes come from their savings only. More than one third of the people are still employed to run the family.

Table 1
Respondents' Biographical characteristics

Biographical variables	Respondent	Frequency	Per cent
Gender	Male	26	65
	Female	14	35
Age (years)	60	10	25
	61–65	15	37.5

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	66–70	8	20
	71–75	5	12.5
	>76	2	5
Marital Status	Married	32	80
	Single	5	12.5
	Widow	3	7.5
	Divorce	–	–
Family Member	2	10	25
	3	8	20
	4	10	25
	> 4	12	30
Residence	Urban	32	80
	Rural	8	20
Job History	Govt. Job	13	32.5
	Private Job	14	35
	Self Employed	13	32.5
Source of Present Income	Pension & Interest on Savings	20	50
	Interest on Savings only	5	12.5
	Still Employed	15	37.5

Present Living Status & dependency in carrying out daily routine activities

Nowadays, nuclear family is the norm in the society with few exceptions. Even son or daughter may live in other state or foreign country due to job opportunities leaving behind their parents. In our sample, 20 per cent of the respondents live alone while 40 per cent live with spouse. Around 38 per cent live with spouse and son or spouse and daughter. Only around three per cent live with spouse along with son and daughter.

Table 2
Living Status, Dependency in Daily Routine Activities & Time of Ill Health

	Frequency	Percentage
Living Status		
Alone	8	20
With spouse	16	40
Spouse & son	13	32.50
Spouse & daughter	2	5
Spouse, son & daughter	1	2.50
Dependency on carrying out daily routine activities		
Spouse	26	65
Daughter-in-law	1	2.50
Daughter & Son-in-law	2	5
Domestic help	11	27.50
Dependency at the time of ill Health		
Son(s)	8	20
Spouse	22	55
Daughter	3	7.50
Relatives	4	10
Domestic Help	3	7.5

65 per cent of the retired people take help from their spouse for daily routine activities. Around 28 per cent of the old people hire domestic help to cope with the daily activities. Only around three per cent of the respondents take help from daughter-in-law while five per cent take help from daughter and son-in-law. Due to nuclear family structure, if daughter is the only child of the parent, generally she takes the responsibility of her parents with the help of her husband.

During ill health, 55 per cent of the respondents depend on their spouse. They became comrade after living together for a long time. They have lived a life with ups & down in the way of life. They have built their nest together, brought up their off-spring educated and protected them all the way to adulthood. Only 20 per cent of the respondents receive help from their son and around eight per cent get help from daughter. Only 10 per cent of the retiree take helps from their relatives during their major illness when spouse, son and

daughter could not handle it themselves. Around eight per cent depend on domestic help during their illness.

Factors Affect Quality of Life (Rotated component matrix)

To find out the factors that affect the quality of life of retired people, 14 statements on five point likert scale ranging from strongly agree to strongly disagree were considered. The participants were requested to click where their opinions were appropriate. To find out factors/components which influenced them more, Factor analysis was carried out. Bartlett's test of sphericity was significant (ë2 = 182.031, p < 0.000) and Kaiser-Meyer-Olkin (KMO) test was 0.519 which justify the Factor analysis (Malhotra, 2007). Factor analysis produced six components (Factors) from fourteen variables which were capable of explaining the observed variance. The Eigen value of all the components, the variance explained by each components and the cumulative variance were calculated by SPSS (Version 17). The results were presented in Table 3. To determine how many components to retain, several procedures have been suggested to consider such as Eigen value, Scree plot, Percentage of variance (ibid.). The Eigen value approach suggests that only components with Eigen value greater than one are retained. The present study indicates that only six components have Eigen value greater than one and together they contribute 75.828 per cent of total variance. All other remaining components are not significant. The first component accounts for 21.857 per cent of variance, while the second, third, fourth, fifth and sixth components interpret 14.682, 12.944, 9.646, 9.278 and 7.421 per cent of variance respectively. All the remaining factors are not significant (Table 3).

Table 3

Factors affect the quality of life in retired age (Rotated Component matrix)

	Statements	*Components*					
		1	*2*	*3*	*4*	*5*	*6*
1.	The interest I get on my deposits, it hardly met my end demands						0.910
2.	Any financial transaction, I am dependent on my son/daughter/spouse			0.624			

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#		C1	C2	C3	C4	C5	C6
3.	As a retired person, it is very difficult to pass the time	0.854					
4.	I have taken refuge to religion after my retirement & it gives me a great pleasure when I read religious books		0.821				
5.	I visit temples/religious places very often and it gives me mental piece & happiness		0.904				
6.	I do not consider myself as a religious person			0.603			
7.	I do not have any health insurance, I am afraid of any major illness			0.80			
8.	I am not ignored & abused by the family members due to my economic independence	0.641					
9.	Economic dependency is the main cause of abuse	0.632					
10.	Dependence for care in old age is the main cause of abuse				0.850		
11.	Emotional support is very much needed in old age					0.625	
12.	Old age home could be the best alternative to live, when nobody is there to take care of					–0.711	
13.	I do not agree old age home is getting popularity in the state				0.621	0.517	
14.	Human relation is very complex & money plays an important role to maintain it				0.849		
	Eigen values	3.060	2.055	1.812	1.350	1.299	1.039
	% of Variance	21.857	14.682	12.944	9.646	9.278	7.421
	% of Cumulative Variance	21.857	36.539	44.483	59.129	68.407	75.828

Component–1: As a retired person, it is very difficult to pass the time

Component–2: I have taken refuse to religion after retirement & visit religious places very often. It gives me mental piece & happiness

Component–3: I do not have any health insurance, I am afraid of any major illness

Component–4: Dependence for care in old age is the main cause of abuse & money plays an important role to maintain human relations

Component–5: when nobody is present to take care at old age, old age home could be the best alternative to live

Component–6: Interest on deposits, hardly met my end demands

Note: Extraction method, Principle component analysis

In the present study, variables three, eight and nine co-relate and combine with component one after rotation, because of their common nature and may be named as 'it is very difficult to pass the time as a retired person'. In retirement, the final phase of life, that has been distant for so long, has begun to come more clearly into view with reality. The realization that their meaningful life is approaching to an end create frustration and anxiety in their life (Kim & Moeny, 2002). In India, where unemployment rate is very high, it is difficult to be engaged in another job with the same status and prestige. Some organizations offer extension and they value their experiences. But there is some resistance among the other employees who are looking for promotion and greater opportunities in their career. The employee union of Kolkata Municipality is urging the retiree not to go for extension or further employment and requesting them to enjoy their retried life with good health. But with advancing age it is difficult for a person to maintain all the social networks which he built earlier. In America, for the elderly, the religious community is the largest source of social support outside the family. Nowadays, smart phone plays significant role in retired people's life. It is their best friend, best companion and best advisor in all aspects of their life and they feel they cannot go without it. It helps them to keep in touch with their beloved son or daughter who is living abroad.

Component two is related with variables four and five and may be named as 'taken refuge to religion after retirement and visit religious places very often to get mental peace and happiness'. In old age, when people deteriorate both physically and mentally, majority of them turn to religion as a positive resource to cope with helplessness and powerlessness of their life. As people approach to the end of their meaningful life, religion might become increasingly important to them. This phenomenon is observed throughout the world.

Component three is associated with variable two, six, seven and thirteen and may be labelled as 'do not have any health insurance; I am afraid of any major illnesses'. Health insurance provides an important safety net by reducing emergency health care expenditure. Health related debt in India has pushed many low and middle-income households in poverty. Research findings suggest that it pushes between 32 million to 39 million Indians into poverty every year (Van

Doors *et al.,* 2007). In one recent study on patient's attitudes towards public health care services in Kolkata, (West Bengal) revealed that generally poor and middle class families in the state avail the public hospital facilities due to high cost in private hospital. It also revealed that to get admission for treatment, one needs political link or doctor's recommendation or third party's help (Saha & Daw, 2016). Medicines, especially life-saving medicines are either scarce or unavailable in healthcare pharmacies.

Component four is related with variable 10 and 14 and may be named as 'dependence for care in old age is the main cause of abuse and money plays an important role to maintain human relations'. Generally, elder people in India live with their family. Nowadays, due to nuclear family structure, many senior people live with spouse or alone and children come to visit them time to time from their working town or state or from a foreign country. They keep in touch with their parents through Skype or phone. Research studies conducted in Europe, Asia and Africa suggest that financial dependence of elders is the main cause of abuse and neglect (Lachs & Pillemer, 2004; Olofoson, *et al.,* 2012; Pot, *et al.,* 1996). World Health Organization (WHO, 2011) estimated that around four to six per cent of elderly had experienced some form of maltreatment at home. Incidences of parent's abuse by the hand of son/son and daughter in-law/daughter and son in-law are coming out very frequently in daily news papers. Family conflicts are developed due to financial constraint. Without a job, a son cannot live a normal life and cannot take responsibility of parents. On the contrary, he will be dependent on them.

Component five is associated with variables 11, 12 and 13 and may be labelled as 'when nobody is present to take care at old age, old age home could be the best alternative to live'. There are significant numbers of families in India who live by themselves and their children live in USA or foreign countries. They do not intend to come back and take care of their elder parents. They are not willing to sacrifice their promising career for their filial responsibilities (Saha & Dey, 2013). Retired people may hire a helping hand but there is no mutual trust and reliability of their services. Due to this short-coming of hired people's help, old-age home is coming out all around the city of

Kolkata with different amenities and conveniences. It will take some time to change the conservative mind set of elderly people in India.

Component six is related with variable one only and it may be named as 'interest on deposits hardly met my end demands'. The people, who have retired from private organization, have no pension. They shall have to live their life by the interest they get on their deposits. They depend highly on sons' or daughters' financial help, if they have a good job. On the contrary, retirees from Government jobs are entitled to get a pension and other social benefits. The amount will vary according to the position of employment. India is not a welfare state. So, it is the responsibility of an individual to make a retirement plan before he retires from a job.

Conclusion

Life span of people has increased considerably all over the world. India is not an exception. This has profound implications on society. Government and policymakers of the country have to think how this segment of society can live with dignity, remain productive and are cared when they need it. Government may reconsider retirement age, bolstering social security or reorienting taxation and healthcare.

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Feminization of Ageing in India: Empirical Evidences and Challenges

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ABSTRACT

Continuous rise in longevity which in turn leads to the ageing has been inevitable and desirable phenomena in the developmental history of demography of mankind and notable endeavour towards development. The ageing process brings the challenges and opportunities for any society and it stands fairly applicable for the rapidly developing society like ours. Around 12 per cent of the global population against 10 per cent in India is above 60 years. At the older age cohorts the female population surpasses the male population in almost all the countries. Due to biological and many other factors women survive longer and report higher longevity than their male counterparts, so females form the majority of the grey population. In India higher economic dependency over others among females, higher widowhood rates, etc. make their life vulnerable at the senile ages. Hence a complete revamp of policies and programmes is imperative where due attention must be given to them.

Key words: Feminization, Ageing, Older Population, Life expectancy, India.

Continuous upward shift in longevity has been one of the greatest achievements of all the human endeavours and it is a triumph

of development (UNFPA and HelpAge International, 2012), which in-turn has led to an unprecedented growth in the aged population. Usually, rising share of older age cohorts, (60 years and above), to total population is known as ageing of the population. Demographically, ageing refers to the structural changes in the age structure of the population which move towards older ages. It occurs due to fall in the population dynamics, namely fertility and mortality (Rabindranathan, 2006). Due to notable improvement in mortality, substantial decrease in the fertility, significant increase in the longevity the proportion of children population decreases and older persons increases in the total population. This process of increase in the proportion of later and decrease in the proportion of former is known as '*Ageing*' of the population (Karkal, 1999 and Rabindranathan, 2006). Population ageing is the product of three factors, viz, declining fertility rates, lower infant mortality and increasing survival at older ages (UNFPA and Help Age International, 2012).

Up to the recent past the ageing was considered as a demographic maturity of the economically developed societies of the globe but in the recent time it has entered in all the societies of the globe. So, the mechanism of ageing is occurring in all the countries of the world and also, India is not immune to this demographic shift. It is revealed by almost all the countries of the globe that females survive more than their male counterparts. Higher mortality among males than females, higher prevalence of cancer, cardiac disorders, smoking habits, etc. related morbidities among former than later are very common (Waldron, 1976). Biological and demographic factors also contribute in this inequality (Zarulli, *et al.,* 2018). The rising share of the female elderly than their male counterparts in the older age cohorts and associated challenges posed by this rising share of elderly women, etc. are attempted to analyze in this research paper.

Global Scenario of Feminization of Ageing

Table 1 gives the differentials about the life expectancy at birth vis-à-vis at 60 years for male and female population for 2015 and the same are projected for 2050. The survival rate is more among females than their male counterparts and it also stands true for the projected figures of 2050. It results that there are more female elderly on the globe than male elderly.

Table 1

Global life expectancies and sex ratios, 2015–2050

Life expectancy at birth and at 60 years/healthy life expectancy/sex ratio	Life expectancy in years			
	2015		2050[2]	
	Female	Male	Female	Male
Life expectancy at birth	73.1	68.6	78.0	73.3
Life expectancy at the age 60	21.6	18.8	24.4	21.9
Healthy life expectancy at birth (2013)	64	60		
Sex ratio[1] of population 60 years and above	84			
Sex ratio[1] of population 80 years and above	61			

Source: 1. United Nations Population Fund (UNFPA) & HelpAge International. (2012). *Ageing in Twenty-First Century: A Celebration and a Challenge.*
    2. United Nations. (2015). World Population Ageing. Department of Economic and Social Affairs/Population Division.
    [1] number of males per thousand females of year 2013 population.
    [2] Projected figures.

Table 1 also depicts that there is a big difference of four years in the healthy life expectancy at birth among males and females, where former live less by 4 year than later. In the global demography older women outnumber older men and hence they form the majority of the older age cohorts. Also, their share increases very rapidly with
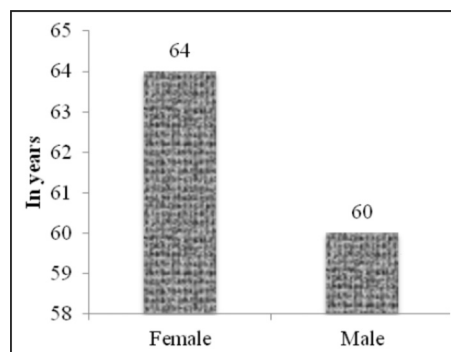
Figure 1	**Figure 2**
Healthy Life Expectancy at birth 2013	*Sex Ratio, 2013 (Number of male per 100 females of older population)*
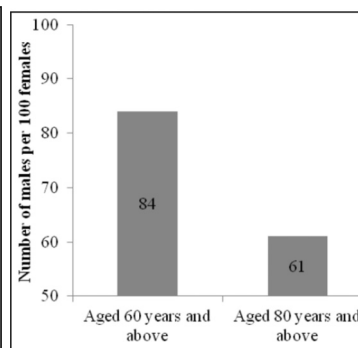
increasing of the age. In 2015 there are 84 men aged 60 years and above for every 100 women aged 60 years and above. More serious concern is that in the same year there are only 61 men aged 80 years and above for every 100 women aged 80 years and above.

Hence it strengthens rising emergences of feminization of ageing in the global demography where men and women experience the ageing differently.

Feminization of Ageing in India: Feminization of ageing in India is a noticeable momentum in the aged demography of the country. Biologically and universally the gender dimensions of ageing are that women are prone to live longer than their male counterparts. Thus, share of women at the older ages is found higher than men which in turn realizes the continuous expending dimension of feminization of ageing at the grey ages. It holds true for almost all the demographies of the world hence India is also not immune to this demographic momentum.

Table 2

Distribution of aged population to total population in India by sex,
1901–2026

Years	Persons		Males (%)	Females (%)
	Number (in millions)	*Per cent*		
1901	12.06	5.06	4.55	5.59
1911	13.17	5.22	4.81	5.65
1921	13.48	5.37	5.04	5.7
1931	14.21	5.09	4.86	5.35
1941	18.04	5.66	5.43	5.91
1951	19.61	5.43	5.21	5.66
1961	24.71	5.63	5.46	5.8
1971	32.7	5.97	5.94	5.99
1981	43.98	6.42	6.35	6.5
1991	55.3	6.55	6.45	6.66
2001	75.93	7.7	7.55	7.86
2011	103.5	8.5	8.17	8.98
2021*	143.24	10.7	10.17	11.25
2026*	173.18	12.4	11.66	13.12

Source: Compiled by the author from various census of India reports.

[*] Projected figures given by Registrar General and Census Commissioner of India (2006).

The Indian aged population is currently second largest in the world after China. Table 2 shows volume and magnitude of aged person by gender since 1901. There had been steady increase in absolute as well as in relative size of the elderly population over the decades and it stands true across the gender. The absolute number has increased from 12 million in 1901 to more than 103 million in latest census of 2011 and is expected to rise a little more than 173 million in 2026. The relative share has increased from about five per cent in 1901 to 8.5 per cent in 2011 and it is expected to touch more than 12 per cent in 2026 (Table 2). The growth is more among female elderly than their male counterparts (Yadav, 2018). Since 1951 the growth had been moderate for males but steep for females. Probably it is due to higher longevity among females than their male counterparts.

The long term estimations suggest that in 2050 and 2100 the percentage of aged population to total population will touch 20 per cent and 34 per cent respectively (United Nations, 2015). Demographers unarguably agree that both the absolute and relative size of aged population (60 years and above) will increase very rapidly in the near future. Moreover female elderly will report higher growth than of the aged population of males. Furthermore the demography of the nation will have a significantly greater component of olders in general and of female elderly in particular. Therefore the issues and problems concerning the aged cohorts in general and female elderly in particular are of greater significance. Table 3 highlights the details about the state wise differentials in the longevity at aged 60 years and female to male ratios of life expectancy at age 60 and above.

Table 3

*State wise life expectancy and male to female ratio
(60 years and above) of major states, 2015*

State	Life Expectancy at aged 60		Female to male ratio of life expectancy at age 60 and above
	Female	*Male*	
Andhra Pradesh	19.4	17.3	112.14
Assam	17.3	15.6	110.90
Bihar	17	17.4	97.70
Chhatishgarh	16.8	14.3	117.48

Cont'd...

Cont'd...

NCT of Delhi	21.1	19.6	107.65
Gujarat	20.4	17.5	116.57
Haryana	20.5	17.7	115.82
Himachal Pradesh	22.1	18.3	120.77
Jammu & Kashmir	24.1	20	120.50
Jharkhand	17.1	16.8	101.79
Karnataka	18.5	16.7	110.78
Kerala	22.1	18.2	121.43
Madhya Pradesh	17.8	15.6	114.11
Maharashtra	19.7	18.3	107.65
Odisha	18.7	17.3	108.09
Punjab	21.4	19.4	110.31
Rajasthan	20.5	16.8	122.02
Tamil Nadu	19.3	17.5	110.29
Uttar Pradesh	17.5	15.8	110.76
Uttarakhand	22.3	18.6	119.89
West Bengal	18.7	17.3	108.10
India	18.9	17.1	110.53

Source: Census of India, 2011–2015. Abridged life tables 2011–15.

There are sizeable differentials in the life expectancy at the age of 60 years by sex (Table 3). Almost in all the states females reported

Figure 3
Survivalship of femals across major states in India, 2016
(If male survivalship is one hundred)
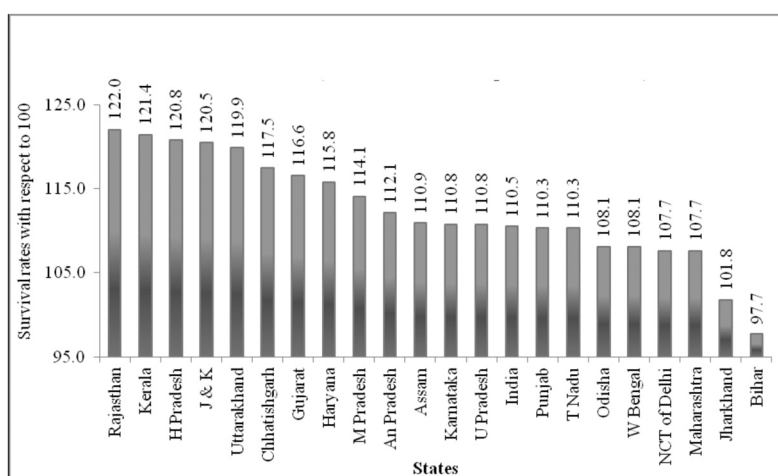
higher expectancy than their male counterparts except Bihar where reverse stands true marginally. Females reported highest and lowest life expectancy in Jammu & Kashmir (24.1 years) and Chhatishgarh (16.8 years) respectively and the same trends also exist across the male life expectancy.

State wise female to male ratios of the life expectancies at the age of 60 are also given in Table 3. Highest ratio is reported by Rajasthan (122.02%) against lowest of Bihar (97.7%). It is evident that feminization of ageing has been continuously increasing in India. "Per annum average increase (during the period 1970–2015) in life expectancy for females is higher in comparison to that for males in all the bigger States/UTs and India" (Census of India, 2011–2015). In order to deal the various challenges put forwarded by feminization of ageing, the complete relook and revamp of policies and programmes are required where the due attention to female aged must be given at their golden days.

Sex Ratio

In India sex ratio is defined as number of females per unit of male population (conventionally 1,000). Continuous ups and downs may be observed in the sex ratio of the general population but it had never been favourable to the female population. Moreover, the future estimates show that it will further decline from 943 females per 1,000 males (latest census of 2011) to 930 females per thousand males in 2026. Reverse trend stands true for the aged population 60 years and above.

Table 4
Sex ratios of total population and aged 60 years and
above in India, 1951–2026

Population Census	Sex ratios1 of	
	Total Population	*Aged 60 years and above*
1951	946	1028
1961	941	1,000
1971	930	938

Cont'd...

Cont'd...

1981	934	960
1991	927	930
2001	933	972
2011	943	1,033
2016*	931	1,032
2021*	930	1,030
2026*	930	1,048

Source: Compiled by author from various census of India rounds.

* Author's calculations from Registrar General and Census Commissioner of India (2006).

[1] Observed as number of females per thousand males.

Table 4 and Figure 4 reflect the feminization of ageing and higher life expectancy of females than males, in the country.

Figure 4
Sex Ratio in India, 1951–2026
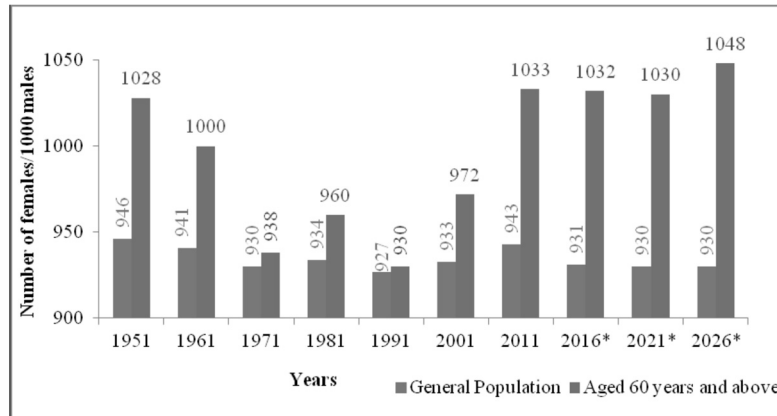
Grey population puts the significant different picture than general population. Since independence Sex ratio of aged population had always been favourable to women except 1971 to 2001. Furthermore, post 2001 population estimations show that sex ratio of the aged population will further surge (in favour of females) from 1033 in 2011 to 1048 in 2026. Continuous rising sex ratio in favour of

females requires priority attention towards women by the policy makers. Continuous declining sex ratio of general population and increasing sex ratio of aged population put the serious signs of concern for care before every stake holder of the society.

Marital Status: Marital status depicts the social well being of an individual and it stands more logical at the grey ages. In most of the societies of the globe a sizeable percentage of women depend over their spouses for their financial requirements. And formal work participation rate of females is lower than in the informal sector of the economy, where the informal sector neither gives the regular income nor the assurance for financial security during older days. Loss of the spouse at the senile ages makes their life more miserable and fragile.

Table 5
Marital status of aged 60 years and above in India, 2001–2011

Marital Status	2001		2011	
	Male	*Female*	*Male*	*Female*
Currently Married	82.1	47.3	82.1	49.6
Widowed	15	50.7	14.6	47.8
Other	2.9	2	3.3	2.6

Source: Subaiya, K., & Bansod, D. W. (2011). *Demographic ageing in India*. BKPAI Working paper No. 1, United Nations Population Fund (UNFPA), New Delhi.

Table 5 gives details about the marital status of the aged population 60 years and above for 2001 and 2011 censuses by sex. Less than half of the women are currently married as against more than four fifth of their male counterparts. The widowed rate is more than three times among females than males. It had also been revealed by various studies that widowed rate sharply increases with advancing of the age (United Nations Population Fund (UNFPA) & HelpAge International, 2012; Lichtenberg, 2017). Usually in India, men get married with the younger women than their age. Hence, women report higher widowhood prevalence than their male counterparts.

Lose of husband at the senile ages makes life of a woman more vulnerable. Societal perception takes the u-turn with respect to the widowhood status of the woman and woman gradually loses the control over financial resources of the family. Hence, such women are bound to live in the gloomy environment where economic and social marginalization are very common. The trends of feminization of ageing put specific challenges regarding the vulnerability of higher widowhood rate among senior ladies.

Conclusion

Ageing is an inevitable and expected phenomena in any society and India is no immune towards this demographic momentum of ageing. The cohorts of older ages are continuously expanding at the faster rate than ever before in the demographic history of mankind. All the developed societies have observed this shift very swiftly and took time more than a century for the preparedness for the ageing requirements but developing societies including India are observing the same shift very rapidly and are forced to get ready within half of the time taken by their developed counterparts. The added concern of the ageing is the increasing feminization of the ageing at the older ages which in turn requires the priority attention. Lack of social security and economic independency, high widowhood rate, etc. make them vulnerable at the older ages.

Our existing health care infrastructural facilities are not coterminous with the needs and requirements of the female geriatric population. Hence, there is need to synchronize the health infrastructure facilities with needs and requirements of female aged.

In the Indian familial system mostly economic decisions are controlled by the males where not only aged women but non-aged women also lack the access to economic decision. The representation of the women in the formal sector of the economy is meagre. So, at the older ages social security for the aged women becomes more pertinent. Higher widowhood rate among females makes them prone towards loneliness, mental disorder, improper social security induced financial dependency over others, etc. which in turn make their life gloomy at

the older days. Hence, in order to deal with all the said negative aspects of ageing familial and societal support, public funded social security schemes, policy intervention, etc. are imperative on priority basis. In such given socio-economic milieu like ours, social security schemes are required a complete revamp where priority attention to aged women is very imperative.

Recently launched APY (*Atal Pension Yojana*) is a very good initiative by the Union government. There is further need to float more government controlled pension plans, particularly for young women who are engaged in the informal sector of the economy and they must be lured towards these plans in their young ages. This will provide them the fair sense of economic security in their grey ages. And there is an unavoidable need to increase the old age pension amount at least four to five times.

Higher economic insecurity, higher widowhood rate, inappropriate social security system, etc. of the aged women are the issues of greater importance which require essential and priority attention. Otherwise, the grey ages of more than 60 million women elderly will become the gloomy ages.

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Prevalence of Depression In Hospitalized Geriatric Patients

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ABSTRACT

Depression is common in elderly people and the indicators of depression are observed substantially high during their hospitalization. The depression in the geriatric population is commonly overlooked and ignored stating it as ageing process. This study aimed to determine the prevalence of depression among hospitalized elderly. 50 elderly participants (male = 31 and female = 19), age varying from 60 years and above, and who were hospitalized were selected by using inclusion and exclusion criteria. The subjects were asked to fill the Patient Health Questionnaire (PHQ 9). The findings revealed that 56 per cent elderly subjects of this study were having depression and more depression was seen in those participants who were widows, not working and financially dependent.

Key words : Hospitalised elderly, Depression, Memtal health disorders, Patient health questionnaire

The rapid urbanization and modernization of the society have brought in its wake a breakdown in family values and the framework of family support, social isolation, economic insecurity and elder abuse leading to a host of psychological illnesses (Jamuna and Reddy,

1997) The socio-economic problems of the elderly are aggravated by factors such as inadequate facilities for health care, rehabilitation, and recreation. Geriatric mental health is emerging as the main public health concern. With the negligence in today's time the geriatric people face many issues, but the main problem is with mental health (Sinha *et al.*, 2013).

Depression, along with other mental health disorders, has long been isolated and neglected. The elderly age group is considered as a particularly vulnerable group as they often have multiple co-existing medical and psychological problems. Most common problems in elderly populations are cardiovascular diseases, respiratory disorders, hearing, and visual impairments, infections such as tuberculosis and the worst due to all diseases are aloofness and depression (Raja, *et al.*, 2010). At present, depression is a very important issue to be solved as a public health challenge for developing countries. In 1990, the World Health Organization (WHO) illustrated depression as a major, worldwide cause of disability. Mental and behavioral disorders are approximated to account for 12 per cent of the global burden of disease which influences approximately 450 million people (Pilania, *et al.*, 2013). Depression is the most common psychiatric disorder and the commonest cause of disability in the elderly (Satcher, 2000; Radhakrishnan and Nayeem, 2013). In a systematic review of community-based studies for mental health surveys on geriatric depressive disorders in those aged 60 years and above in Indian population, pooled prevalence of depression among elderly was found to differ between 8.9–62.16 per cent and for that of hospitalized elderly patients are in the range of 9–81per cent compared to the general population (Grover and malhotra, 2015; Haines *et al.*, 2015).

Depression is most common in older people and symptoms of depression are known to significantly increase during hospitalization. It is well understood that the risk of experiencing symptoms of depression is increased by cognitive impairment, illness and limited access to friends and family support networks. Most of the people get depressed on account of their dependence on other persons, limited daily activities, change in their surroundings and their daily routine. It is not surprising then that symptoms of depression have been shown to increase in frequency and severity during times of hospitalization.

Recent research has found that over two-thirds of older people undertaking inpatient rehabilitation had some form of clinically significant psychiatric co-morbidity upon admission and over one third displayed significant symptoms of depression at discharge (Papersack, *et al.*, 2006; Haines *et al*., 2015; Grover and Malhotra, 2015).

Need for the Study

Depression is the extremely common problem faced by this enormous population, which causes greater impact on every individual. But the depression amongst the elderly is always misjudged as an ageing process and is mostly under diagnosed in the hospitalized geriatric patients. It causes enormous impact on physical, psychological and social wellbeing of affected individuals and also decreases the self confidence in many geriatric patients. A limited study to assess the depression among the elderly population has been done in a rural community, so the present study would enlighten about the prevalence of depression among hospitalized geriatric patients.

Materials and Methods

The Observational study was done in Pravara Rural Hospital. 50 elderly participants (male = 31 and female = 19) of age varying 60yrs. and above, were selected on the basis of the inclusion and exclusion criteria. The elderly patients who were having any severe cognitive dysfunction, acute psychosis, bipolar disorder, schizophrenia, language barrier, aphasia, hearing impairment, reduced level of consciousness, or with unstable medical illnesses were excluded. The subjects who previously participated in the patient education programme or were too ill to provide any information about their health were also not included in this study. The consent from hospital staff regarding the study was taken. The patients' health condition was also sought from the hospital staff.

Tool of the Study

Brief screening questionnaires have been advocated to improve the recognition of depression in various clinical settings. One of the most common screening methods is the Patient Health Questionnaire (PHQ–9). The diagnostic accuracy for the PHQ–9 screening method for depression among patients with chronic medical conditions was

more accurate (sensitivity = 84%; specificity = 88%) than other screening tools that were evaluated in a systematic review. (Alamri 2017). Therefore, Patient Health Questionnaire (PHQ – 9) was used in data collection. The Patient Health Questionnaire (PHQ) is a self-administered version of the PRIME-MD diagnostic instrument for common mental disorders. The PHQ–9 is the depression module, which scores each of the 9 DSM-IV criteria as "0" (not at all), to + 1(several days) + 2(more than half the days) and "3" (nearly every day). The highest score may be 27.

The data was analyzed statistically.

Findings and Discussion

1. Demographic profile of study population

| | Gender | | |
Age Group	Male	Female	Total
60–75 year	14 (28%)	9 (18%)	23 (46%)
76 – 84 year	11 (22%)	6 (12%)	17 (34%)
85 yrs.& Above	6 (12%)	4 (8%)	10 (20%)
Total	31 (62%)	19 (38%)	50 (100%)
Marital Status			
Married	18 (36%)	7 (14%)	25 (50%)
Widow	13 (26%)	12 (24%)	25 (50%)
Total	31 (62%)	19 (38%)	50 (100%)
Educational			
Literate	31 (62%)	19 (38%)	50 (100%)
Illiterate	0	0	0
Total	31 (62%)	19 (38%)	50 (100%)
Current Occupation			
Working	13 (26%)	4 (8%)	17 (34%)
Not Working	18 (36%)	15 (30%)	33 (66%)
Total	31 (62%)	19 (38%)	50 (100%)
Socio-economic Status			
Upper Middle (II)	5 (10%)	2 (4%)	7 (14%)
Lower Middle (III)	11 (22%)	5 (10%)	16 (32%)

Cont'd...

Upper Lower (IV)	15 (30%)	12 (24%)	27 (54%)
Total	31 (62%)	19 (38%)	50 (100%)
Financial Dependency			
Independent	15 (30%)	7 (14%)	22 (44%)
Dependent	12 (24%)	16 (32%)	28 (56%)
Total	27 (54%)	23 (46%)	50 (100%)

The Subjects of the present study were 50 elderly patients who were hospitalized. Out of these 31 (62%) were male and 19 were female (38%). The Table 1 shows demographic distribution of the sample selected for the study. The majority of the respondents were in the age group of 60–75yrs (23%), 33 per cent of the respondents were not working (not having any occupation) and 28 per cent elderly were dependent on family for their financial needs. 54 per cent respondents belonged to upper lower class, 32 per cent belonged to lower middle and 14 per cent belonged to upper middle class.

2. Grading of depression in elderly according to Patient Health Questionnaire (PHQ–9)

Grading of Depression	Frequency N=50
Minimal (0–4)	1 (2%)5th rank
Mild (5–9)	8 (16%)4th rank
Moderate (10–14)	13 (26%)2nd rank
Moderately Severe (15–19)	18 (36%) 1st rank
Severe (>20)	10 (20%)3rd rank
Total	50 (100%)

Table 2 shows the grading of depression of the respondents on the basis of their scores in the test-Patient Health Questionnaire (PHQ–9), which measures levels of depression. 2 per cent of respondents had minimal depression while 16 per cent were having mild depression. 26 per cent of respondents were in the grade of moderate depression, 36 per cent may be classified as moderately severe and 20 per cent were having severe depression.

3. Grading of depression and demographic variables.

Relationship between demographics and depression					
Depression and age group	*Minimal (0–4)*	*Mild (5–9)*	*Moderate (10–14)*	*Moderately Severe (15–19)*	*Severe (> 20)*	*Total*
60–75 year	1 (2%)	6 (12%)	9 (18%)	7 (14%)	0	23 (46%)
76–84 year	0	2 (4%)	4 (8%)	7 (14%)	4 (8%)	17 (34%)
85 yrs. and Above	0	0	0	4 (8%)	6 (12%)	10 (20%)
Total	1 (2%)	8 (16%)	13 (26%)	18 (36%)	10 (20%)	50 (100%)
Depression and Gender						
Male	1 (2%)	7 (14%)	8 (16%)	10 (20%)	5 (10%)	31 (62%)
Female	0	1 (2%)	5 (10%)	8 (16%)	5 (10%)	19 (38%)
Depression and Marital Status						
Married	0	7 (14%)	10 (20%)	7 (14%)	1 (2%)	25 (50%)
Widow	1 (2%)	1 (2%)	3 (6%)	11 (22%)	9 (18%)	25 (50%)
Total	1 (2%)	8 (16%)	13 (26%)	18 (36%)	10 (20%)	50 (100%)
Depression and Educational						
Literate	1 (2%)	8 (16%)	13 (26%)	18 (36%)	10 (20%)	50 (100%)
Illiterate	0	0	0	0	0	0
Total	1 (2%)	8 (16%)	13 (26%)	18 (36%)	10 (20%)	50 (100%)
Depression and Current Occupation						
Working	0	7 (14%)	3 (6%)	7 (14%)	0	17 (34%)
Not Working	1 (2%)	1 (2%)	10 (20%)	11 (22%)	10 (20%)	33 (66%)
Total	1 (2%)	8 (16%)	13 (26%)	18 (36%)	10 (20%)	50 (100%)
Depression and Socio-economic Status						
Upper Middle (II)	0	3 (6%)	1 (2%)	2 (4%)	1 (2%)	7 (14%)
Lower Middle (III)	1 (2%)	4 (8%)	5 (10%)	4 (8%)	2 (4%)	16 (32%)
Upper Lower (IV)	0	1 (2%)	7 (14%)	12 (24%)	7 (14%)	27 (54%)
Total	1 (2%)	8 (16%)	13 (26%)	18 (36%)	10 (20%)	50 (100%)
Depression and Financial Dependency						
Independent	1 (2%)	8 (16%)	5 (10%)	8 (16%)	0	22 (44%)
Dependent	0	0	8 (16%)	10 (20%)	10 (20%)	28 (56%)
Total	1 (2%)	8 (16%)	13 (26%)	18 (36%)	10 (20%)	50 (100%)

Table 3 illustrates about the relationship between various demographic variables and depression. More depression was seen in the age group of 60–75 yrs i.e. 46 per cent of the respondents were having some level of depression (14% severe, 18% moderate, 12% mild and 2% minimal). It may be due to the reason that majority of the respondents belonged to the age group of 60–75yrs. (N=23). 34 per cent elderly patients of age group 76–84 yrs. were having severe (8%), moderately severe (14%), moderate (8%) and mild depression level (4%). The respondents, old-old group (85 yrs and above) were having moderately severe (8%) and severe depression level (8%). It means elderly patients of age group 85 and above showed higher grade of depression when they were hospitalised.

20 per cent of male and 16 per cent of female respondents were having moderately severe depression. While 10 per cent of them were having severe depression in both the gender. 22 per cent were widows were having moderately severe depression while 18 per cent were having severe depression. 20 per cent in severe and 36 per cent in moderately severe were literate. In Upper Lower class 24 per cent were having moderately severe depression and 14 per cent were having severe depression. And total of 20 per cent, who were dependent on their family for financial support, were having severe depression while 16 per cent in the independent group were having moderately severe depression.

Discussion

In this present study 56 per cent geriatric patients of total sample were having moderately severe to severe depression. The result of this study showed that depression in this sample is much higher than the other studies. According to a study by Chen *et al.*,(2014) there are four major issues associated with baseline depressive symptoms: social support, cognitive status, functional dependence and nutritional status. They predicted the symptomatology over the hospitalization time. Poor physical health is an important predictor of the incidence of depression (Ibid). Here as the participants were hospitalized they lacked the social support and mostly felt they were totally dependent on their family for their daily activities. As reported by Sinha *et al.,* (2013) that those who were single (divorced, separated, widow, unmarried) were found to be more susceptible for depression. These findings corre-lates with the present study as 40 per cent of subjects of this study were

having moderately severe to severe depression in the patients who were widows. It may probably be owing to widowhood which is related with increased financial strain, the supposition of new tasks in household management, and disruption in social relationships, all of which may exacerbate or mitigate psychological distress and there is always a feeling of loneliness (Jain and Aras, 2007; and Sinha *et al.,* 2013).

This high prevalence indicates an urgent need both for awareness of depression among community members and to ensure availability and accessibility of appropriate health services to manage it. It also signifies the importance of creating networks for better geriatric care. The primary limitation of this study was the moderate size of certain subgroups within our sample population. This study could also be done in general geriatric population. Future studies may include larger sample sizes stratified by diagnosis, in order to precisely estimate the prevalence of depression and its correlates within each stratum.

In summary, depression was prevalent among the hospitalized elderly, especially among patients who were dependent, had low financial status, widowed, and without any occupation or non working. Depressive symptoms were more common in males, widows and in patients with more chronic illness as they feel distressed if they were dependent for financial reasons but now they are more depressed due to their health issues and for basic necessities.

Conclusion

Depression in older adults is a substantial problem in the geriatric population, particularly among widowed, financially dependent and non working elderly respondents. These findings could guide community-based programme managers to devise and implement effective and timely mental health interventions for older adults, in order to prevent geriatric depression and develop a comprehensive strategy for its early diagnosis.

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Narrative Evidence Review of Cognitive Behavioural Therapy for Anxiety in Later Life

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ABSTRACT

Anxiety disorders are common among older people. The study uses narrative evidence approach and reviews the findings from empirical studies to understand the effectiveness of Cognitive Behaviour Therapy (CBT) for Anxiety in old age. The findings reveal that the executive function affects the CBT outcomes. Some older people with poor executive functions responded positively to CBT. CBT was found to be most effective among older people with lower scores on depression scale and higher scores on executive skills. The results also indicated that home-delivered CBT for depression might be used for reducing anxiety among the hard-to-reach older people.

Keywords: Cognitive Behaviour Therapy, Anxiety, Old age, Depression

Anxiety symptoms and disorders are commonly found among older adults (Bryant *et al*., 2008; Chou, 2009). A study by Regier *et al.,*(1988, cited in Mohlman, 2013) demonstrated it to be more prevalent than depression or dementia among the older people. Excessive anxiety can deteriorate the older people's psycho-physical

health, activities of daily living and subjective well-being. It is not a part of normal ageing. Anxiety disorders are often not diagnosed among the geriatric population due to co-morbidity, cognitive decline, the pattern of reporting of symptoms by the older people in a way that makes it challenging to diagnose and therefore they remain untreated. Two to 19 per cent of the older people meet the diagnostic criteria for anxiety disorders; while a greater percentage of the older people have clinically significant symptoms of anxiety which affects their functioning (Flint, 1994 cited in Ayers *et al*., 2007; Palazzolo, 2015). Some evidence suggests that as many as 20 per cent of older persons experience clinically significant anxiety symptoms that do not necessarily meet criteria for a specific anxiety disorder (Himmelfarb *et al*., 1984 cited in Ayers *et al*., 2007). Medically ill older people have a higher prevalence of anxiety disorders (Tolin *et al*., 2005). Phobias and generalized anxiety disorder (GAD) are the most prevalent anxiety disorders among the older people (Palazzolo, 2015) and their prevalence rates are estimated to be approximately 10 per cent (Flint, 1994; Beekman *et al*., 1998; Kessler *et al.,* 2005 cited in Ayers *et al*., 2007).

The aim of the study was to understand the effectiveness of Cognitive Behaviour Therapy (CBT) on anxious older people. Articles were selected through literature search in order to assess the evidence for/against CBT on anxiety disorders among the older people.

Literature Search Method

Electronic search engines of the following bibliographic databases PubMed Central, AgeInfo, PsycINFO, CINAHL and ICHOM were used to identify relevant articles. The search terms and their synonyms belonged to three categories. The terms 'ageing', 'aging', 'aged', 'older adult', 'old age', 'geriatric', 'elderly', 'older people', 'senior' [category 1] were combined with the words 'anxiety', 'anxiety disorder', 'generalized anxiety disorder', 'generalised anxiety disorder', 'GAD' [category 2] along with 'cognitive behaviour therapy', 'cognitive behavior therapy', 'cognitive behavioural therapy', cognitive behavioral therapy', 'CBT' [category 3]. Permutations of terms from each category were used across the seven search engines and forty-eight search results were obtained in total with evidence from various countries. The reference sections of the obtained results were reviewed

to find any relevant articles which might not have been produced by the electronic search engines, and thus three more articles were identified. From the forty-eight electronic search results, the articles on meta-analyses, systematic reviews, literature reviews, narrative reviews, empirical reviews, opinions, editorials, books, book chapters, study/project proposals were excluded, and thus the total number of articles reduced to nineteen. However, all the articles were read by the authors for understanding and adding to the existing literature, e.g. –

Figure 1
Flow Chart of literature search method

48 search results were identified through database

3 additional relevant articles were identified through the review of the reference section of the search results

51 records were screened

articles on meta-analyses, systematic reviews, literature reviews, narrative reviews, empirical reviews, opinions, editorials, books, book chapters, study/project proposals were removed (n=32)

19 articles were obtained

Duplicate studies, articles without full-text and the articles which did not have words from each of the three categories in either the title or keyword section were removed (n=25)

7 articles retained

Records without abstracts, letters, and article without statistical inference were excluded
Articles not published in the English language, articles not published in peer-reviewed or refereed journals, articles not published between 2005 to 2017, articles with less than 30 participants, articles with participants aged less than 60 years and articles without experimental designs were not retained (n=3)

3 articles remained

3 articles retained for final analysis

the meta-analysis and systematic reviews by Hendriks *et al.*, 2008 and Hall *et al.*, 2016 as well as randomized control trails by Gorenstein *et al.*, 2005 and Stanley *et al.*, 2009. Duplicate articles and articles without full text were removed along with the articles which did not have words from each of the three categories in either the title or keyword section, and thus seven articles were retained. Search engine results without an abstract – including letters to the editor – and those lacking statistical inferences were excluded. Only articles published in the English language in peer-reviewed or refereed journals, between 2005 to 2017, with a minimum of 30 human participants – till the end of the study – aged 60 or older were included. The inclusion criteria also required the articles to have experimental designs so that the data from a control group can be obtained in order to understand the effect of the CBT. Based on these criteria three articles were retained for final analysis. Among the three selected articles one article deals with the anxiety and phobic anxiety subscales of the Symptom Checklist–90-Revised (SCL–90-R) by DiNapoli *et al.*, 2017 and the other two articles deal with GAD by Mohlman 2013 and Mohlman & Gorman 2005. The consensus of a subject expert was also obtained about the appropriateness of the three articles selected for the study. Thus the three articles assessing the impact of CBT on anxious older people with empirical evidence were identified and explored.

Theoretical Background of the Treatment Chosen

Beck *et al.,* (1979 cited in Satre *et al*., 2006) described CBT as a learning-based treatment model which includes both behavioral and cognitive interventions. The theoretical basis of CBT assumes that maladaptive behaviors are the consequences of prior learning which are inappropriate in the present situation. Based on this assumption, CBT aims to reduce unwanted/maladaptive behaviour – like excessive anxiety, by unlearning through new/more adaptive learning (Brewin, 1996). There are various CBT models and therefore it is referred as an umbrella term that encompasses distinct therapy models (Herbert *et al*., 2013), which share certain features, like-traditional respondent and operant conditioning principles while also positing distinct character-istics. CBT has also been shown to have enduring effects that often far outlast the completion of treatment (Palazzolo, 2015).
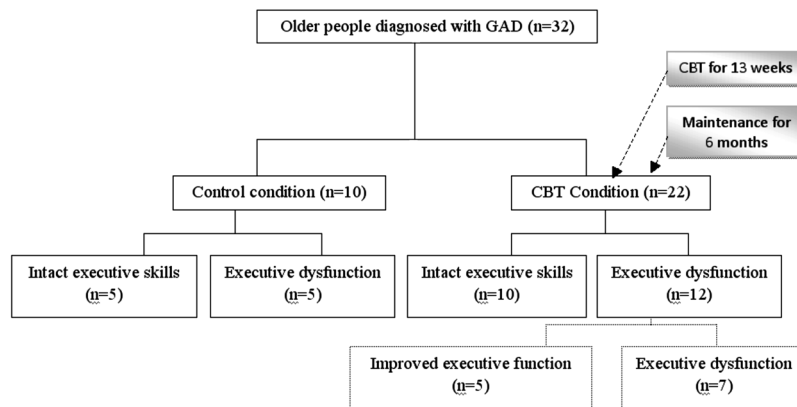
CBT has garnered to be the most effective support for older people with anxiety (Wetherell *et al*., 2003; Mohlman *et al*., 2003; Gorenstein *et al*., 2005; Stanley *et al*., 1996 cited in Mohlman *et al*., 2005; Barrowclough *et al*., 2001 cited in Ayers *et al*., 2007; Hendricks *et al*., 2008; Stanley *et al*., 2009; Cuijpers *et al*., 2014; Hall *et al*., 2015). Strong evidence of the efficiency of CBT for GAD has led to the endorsement of CBT as a first-line intervention for GAD by the American Psychiatric Association (2010) and the United Kingdom's National Institute for Health and Clinical Excellence, (2009) (cited in Barrera, 2015). The study also shows that depression and anxiety can be treated concomitantly through CBT and for enhancing the anxiety outcomes, a flexible approach in adapting the CBT sessions according to the unique needs of the older people is recommended.

Evaluation of Evidence

Although CBT has been found to be an effective treatment for anxious older people, a critical evidence review of three papers is given below:

Mohlman and Gorman (2005) examines the effectiveness of CBT on anxious older people with executive deficits. Executive deficits are common among the older people (Craik *et al*., 1995 cited in Mohlman *et al*., 2005) as ageing leads to brain atrophy – particularly in the frontal lobe (Rabbitt, 2005), delayed transmissions, fewer synapses (Stuart Hamilton, 2012), all of which results in the decline of executive functioning among the older people. In order to determine the level of executive functioning, three combined tests on complex cognitive abilities – namely Matrix Logic subscale of the Wechsler Adult Intelligence Scale III (Wechsler, 1997), Stroop colour-word test (Trenery *et al*., 1989), number of categories solved in Wisconsin Card Sort (Haton *et al*., 1993) were administered to non-demented older people diagnosed with GAD (according the Structured Clinical Interview Diagnostic, 1995). Based on the executive functioning – as found from the performance on the tests of cognitive abilities – the older people were divided into two groups – 1) intact executive skills and 2) executive dysfunction. In the next step, the participants were randomly assigned to control of CBT condition.

Figure 2
Flow of participants through the study


```
            Older people diagnosed with GAD (n=32)
                                                        ┌─────────────────┐
                                                        │  CBT for 13 weeks │
                                                        └─────────────────┘
                                                        ┌─────────────────┐
                                                        │  Maintenance for  │
                                                        │     6 months      │
                                                        └─────────────────┘

        Control condition (n=10)          CBT Condition (n=22)

  ┌──────────────┐  ┌──────────────┐   ┌──────────────┐  ┌──────────────┐
  │Intact executive│  │  Executive   │   │Intact executive│  │  Executive   │
  │    skills      │  │ dysfunction  │   │    skills      │  │ dysfunction  │
  │    (n=5)       │  │    (n=5)      │   │    (n=10)      │  │    (n=12)     │
  └──────────────┘  └──────────────┘   └──────────────┘  └──────────────┘

                          ┌──────────────────┐  ┌──────────────────┐
                          │Improved executive │  │    Executive      │
                          │    function       │  │  dysfunction      │
                          │     (n=5)         │  │     (n=7)         │
                          └──────────────────┘  └──────────────────┘
```

Both groups under CBT condition were provided thirteen CBT sessions, of 50 minutes/week, according to the manualised protocol for treating GAD in older adults (see Mohlman and Gorman, 2005), followed by CBT maintenance sessions for six months. The set of tests on cognitive abilities, for measuring executive functions was re-administered after thirteen CBT sessions, six months of maintenance sessions and twelve months after the last maintenance session, for obtaining post-CBT measures. The findings reveal differential response to CBT in the executive dysfunction group. Some participants in executive dysfunction group didn't respond to CBT as their scores on executive functions did not improve, while the scores on executive functions improved considerably after CBT for some participants from the same group – referred to improved executive function. Therefore the results indicate that CBT relies on executive functions. However, some older people with poor executive functions respond well to CBT.

Mohlman (2013) attempts to identify and explore the moderators of CBT, through cognitive abilities such as executive skills in late life anxiety. The study had 69 older people without dementia but diagnosed with GAD (according the Structured Clinical Interview

Diagnostic, 2002), and 52 age and sex matched older people without dementia and GAD in the control group. The GAD group was provided eights CBT sessions, of 90 minutes/session, according to the manualised protocol for treating GAD in older adults (see Mohlman and Gorman, 2005). Questionnaires for measuring worry, GAD and Depression – through Penn State Worry Questionnaire (PSWQ), 1990; GAD-Questionnaire (GAD-Q) IV, 2002; Beck Depression Inventory, 1987 – were administered at the beginning of the study on both the GAD and the control group. The same questionnaires were administered to the GAD group after the series of CBT sessions; while PSWQ was additionally administered on each CBT session for tracking improvement. Outcome measures were the changes in GAD-Q and PSWQ scores, before and after the CBT session/s. Experimenter-expectancy effect might have intervened in the PSWQ results, which was administered in every session. Further the participants were provided information about the content of each CBT session. The results revealed a significant difference in short-term memory for numerical information between the GAD and the control group. The verbal executive skill was found to be positively related to worry in the GAD group, but not in the control group. Verbal executive skill was also found to be positively associated with cognitive restructuring and homework compliance. Homework compliance was found to be most reliable predictor of the effectiveness of CBT among the older people with GAD. Depression was found to be negatively associated with homework compliance. CBT was found to be most effective among older people with lower scores on depression scale and higher scores on executive skills, while those with higher scores on depression scale and lower scores on executive skills were likely to drop out of CBT.

Harvey *et al.,* (2004) showed that similar cognitive-affective-interpersonal and behavioural maintaining factors are found in anxiety disorders and depression. CBT has been found to reduce both anxiety and depression (Newby *et al*., 2015). Therefore, DiNapolli *et al*., (2017) tried to examine the effect of CBT for Depression on the anxious older people. The study has two unique strengths. Firstly, the study assesses the effectiveness of 'home delivered' CBT on the older people, which if found to be effective can be administered in the community at the older people's home, as the older people often face

challenges in accessing treatment due to mobility issues, commute anxiety, frailty, stigma, etc. Secondly, by investigating whether the Home-Delivered Cognitive Behavioural Therapy (CBT) for Depression can be used for reducing Anxiety Symptoms, it attempts to economise resources. It also tries to address the issues of the rural older people experiencing anxiety, who according to Bocker *et al.,* (2012) are an under-represented group. 134 older adults from rural areas were randomly assigned to control or CBT for Depression group. CBT group was provided 16 CBT sessions of one hour each, with two sessions/week during the first month followed by weekly sessions. In order to evaluate the effectiveness of home-delivered CBT for depression on symptoms of anxiety, the anxiety and phobic anxiety subscales of Symptom Checklist–90-revised (1976) were administered after providing CBT for one month on the CBT group, and on both control and CBT groups after completing all the CBT sessions. Therefore, home-delivered CBT for depression might be used for reducing anxiety among the hard-to-reach older people – like those in a rural setting, frail older people, etc.

Comparing and Contrasting the Three Studies

The effectiveness of CBT on older people with anxiety has been explored in the three articles, but each study has addressed the issue from a different perspective, as shown in Table 1.

Table 1
Aim of the studies included in evaluating CBT for Anxiety of the Older People

Study	Aim-To study
Mohlman & Gorman (2005)	The effectiveness of CBT on anxious older people with executive deficits.
Mohlman (2013)	The relationship between executive skills and clinical indices of older people with GAD and CBT outcome.
DiNapoli et al.,(2017)	The effect of CBT for Depression on the rural older people with anxiety

Although all the three studies have been conducted in United States of America, the setting of each study varied. Mohlman & Gorman (2005) and Mohlman (2013) conducted their investigation in

two university Psychology Clinics, while DiNapoli *et al.,*(2017) conducted their assessment at the family homes of the older people in rural settings. The inclusion/exclusion criteria, nature and size of sample, interventions, clinicians and measures of the three studies varied widely as shown in Table 2.

Table 2
Characteristics of the studies included in evaluating CBT for Anxiety of the Older People

Study	Country	Partici-pants	Sample	Interven-tion	Clinician	Diagnostic Measure
Mohlman & Gorman (2005)	USA	60 yrs or above, GAD according to SCID, 1995	Community, mean age: 69 yrs, 53% female	CBT (individual), 13 sessions X 50 mins, followed by 6 months maintenance therapy	Doctoral level clinicians with 4 years of experience, neuro-psychological tests were administered by Master's level clinicians with 6 months of experience	Matrix Logic subscale of the Wechsler Adult Intelligence Scale III, Stroop colour-word test, number of categories solved in Wisconsin Card Sort
Mohlman (2013)	USA	60 yrs or above, GAD according to SCID, 2002	Community, mean age: 70 yrs, 73% female	CBT (individual) 8 sessions X 90 mins	Graduate school students of Masters or higher level	PSWQ, GAD-Q IV
DiNapoli et al.,(2017)	USA	65 yrs or above from rural areas, Poor Quality of life and high scores of Global Severity Index	Community, mean age: 75years, 56% female	CBT for depression 16 sessions X 60 mins	Master of Social Work Clinical Social Workers, without prior CBT experience, undergone 24 hrs of CBT training	Anxiety and phobic anxiety subscales of SCL–90-R

The three articles provided a varied knowledge about increasing the effectiveness of CBT and reducing CBT, will help is planning better policies.

Conclusion

Both CBT and home-delivered CBT for depression improve anxiety symptoms among the older people, including those in rural settings, excluding those with executive dysfunction. Executive function impacts the CBT outcome of older people with anxiety. However, some older people with anxiety disorder and executive dysfunction continue to improve with CBT. Older people whose executive skills improve with CBT, experience reduction in anxiety level. Designing flexible CBT sessions by evaluating the executive skills of the older people in both clinical and home-based setting is desired.

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Dementia: Overview of Indian Research 2008–2018

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ABSTRACT

Dementia is a global problem and has emerged as a concerned health problem for India as well. There is a dearth of literature when it comes to research on various facets of dementia in India. There are many studies from a clinical perspective that may have been done but there is a dearth of systematized research into the neurobiology and causative factors of dementia in India. The following paper looks at various facets of research on Dementia done in India over the last 10 years (2008–2018) and evaluates the work done. It also provides the framework for future research needs in the area and the work ahead.

Keywords: Dementia, India, Indian research, Health, Elderly

Dementia is an emerging mental health problem in India and soon there shall be spurt in the number of elderly living in India by 2023 which shall lead to more people with dementia living in the community (Patel *et al*., 2016). Research in dementia and geriatric psychiatry in India is sparse compared to other fields of psychiatry,

but the last few years has seen considerable progress (Lodha and De Sousa, 2018). The current review paper is an overview of Indian research done in dementia over the last 10 years and aims to provide a review of all the major research work done in the area of dementia in India over the last decade.

Method of Conducting This Review

This review was aimed at surveying the literature on Dementia in India over the past 10 years. A systematic search for all literature on dementia in India was carried out using search engines like Pubmed and Google Scholar. Search engines in various Indian journals like Indian Journal of Psychiatry, Indian Journal of Psychological Medicine, Journal of Geriatric Mental Health, Neurology India and Journal of Neurosciences in Rural Practice were also used. The terms used in the search engine were 'dementia', 'epidemiology', 'caregiver burden', 'treatment', 'care', 'management', 'economic impact' and 'Indian perspective' or 'India'. Where appropriate these words were entered in the search engine with an and/or statement and the articles obtained were filtered. All the authors went through all the articles and articles relevant to this literature review where methodology of the paper was sound were selected. Review papers and original research papers were both selected for the current review. Over 230 papers were reviewed and the most relevant to this review are included in this paper. For ease of review the papers were divided as per the facet of dementia studied and then included in this paper.

Prevalence Studies on Dementia

There is a dearth of epidemiological studies of dementia in India. Most of the studies done have been restricted to circumscribed catchment areas and small cities (Das *et al.*, 2012). Thus we do not have estimates of the true incidence and prevalence of dementia in India (Venketasubramanian *et al*., 2010). Dementia impacts the personal, family, and societal life of the individual. At an individual level, it reduces life span, induces strain for caregivers at family level, and utilizes health care facility, inflicting strain on national income (Krishnamoorthy *et al.,* 2010). The status of dementia in India is characterized by rapid epidemiological transition which is increasing the aging population and this in turn is correlated with higher

prevalence and incidence of non-communicable diseases such as stroke, cardiovascular diseases and dementia (Chandra *et al.,* 1994). This trend has been found to be similar to other developing countries in the world (Prince, 2007).

Few studies have estimated the precise prevalence of dementia in India (as culture and education along with various socio-demographic factors influence the performance on the neuropsychological tests (Vas *et al.,* 2001; Shaji *et al.*, 2005; Mathuranath *et al.*, 2010). There is a need for culturally and linguistically fair tests with norms from the local population in order to estimate the true prevalence (Prince *et al.,* 2013). Recent estimates show that dementia is a major cause of burden of disease amongst the elderly in India (Prince, 2000). Several parts of the developing world are witnessing a demographic transition thus dementia is likely to account for a likely greater proportion of this burden in the coming time (Catindig *et al.,* 2012). The number of people affected by dementia in India are predicted to triple, reaching six million in the coming forth 2 decades (Prince, 2009).

The prevalence of dementia in India has been reported to be variable, from 1.4 per cent to 9.1 per cent (Poddar *et al.*, 2011; Mathuranath *et al.,* 2012 and Raina *et al.,* 2014). It is estimated that there are already about 3.01 million people affected by dementia in India (Jacob *et al.,* 2007). The hospital-based studies have reported varying but high prevalence of dementia between 33–34 per cent (Saldanha *et al.,* 2010). A retrospective analysis of the department records of a memory or dementia clinic show that highest number of patients with organic/cognitive disorders were found in the age group of 80 years and above (74.3%) followed by 70–79 years (49.4%) and 60–69 (28.8%) (Nair *et al.*, 2012).

Studies using survey diagnosis or clinical diagnosis (DSM IV or ICD 10) reported the prevalence of dementia amongst the elderly range from 0.8 per cent to 5.5 per cent in rural areas and 0.9 per cent to 4.86 per cent in urban areas. Inconsistency in reported prevalence could be due to lack of sensitive and specific local measures of assessment, differing lifestyles, changed family structure and diets rich in antioxidants (Alladi *et al.,* 2013). Overall despite some of the research available, there is a dearth of systematic and planned epidemi-ological studies of dementia in India.

Prevalence of The Subtypes of Dementia

The syndrome of dementia encompasses several subtypes that include Alzheimer's disease (AD), frontotemporal dementia (FTD), dementia with Lewy bodies (DLB), vascular dementia (VaD), and others that differ in their clinical features, pathology, and outcome. Though the clinical profiles of dementia subtypes have been well established in the majority of developed countries, the reports from developing countries are still very few (Kalaria *et al*., 2008).

Epidemiological estimates from India have not yet found a prominent prevalence rate for dementia sub types though the commonest ones remain to be Alzheimer's, Vascular and Frontotemporal Dementia followed by Lewy body and mixed type. This approach is possible in specialized memory clinics that have multidisciplinary and experienced teams involved in the comprehensive care of dementia (Srikanth *et al.,* 2005). Studies from memory clinics located in different parts of the country may report variability in the clinical profile of dementia and its subtypes. Reasons include methodological differences in diagnosis, sociocultural factors in attitudes towards dementia, and demographic variability (Banerjee *et al*., 2008).

In a study, consecutive patients with dementia with a mean age of 66.3 years (younger than the usual dementia cohort), diagnosed in a University Hospital Memory Clinic in India between 2006 and 2010, were included. Results demonstrated that the clinical profiles of dementia subtypes in a clinic population were influenced by the population's demographic profile, cardiovascular risk factor burden, sociocultural *attitudes about cognitive impairment, and possibly genetic factors (Tripathi et* al., 2012). Another study done in Kerala showed the similar prevalence rates. Results also showed that age and education have independent effect on dementia prevalence; indicating that increasing age increased dementia and AD. Low-education was also seen to be associated with dementia and female-gender with AD (Verghese *et al.,* 2012).

Studies on Caregiver Burden in Dementia

The 10/66 Dementia Research Group (10/66) was founded in the early 21st century at the annual conference of Alzheimer's Disease

International (ADI) in Cochin, India. 10/66 refers to less than one-tenth of all population-based research into dementia that had been directed towards the two-thirds or more of people with dementia living in developing countries (Shaji *et al.,* 2003). 10/66 was formed to redress this imbalance, encouraging active research collaboration between centres in different developing countries and between developed and developing countries. The 10/66 Dementia Research group has proposed that existing or locally available healthcare resources be mobilized to provide outreach needs assessments and continuing care (Shaji *et al.,* 2009). The home-based intervention carried out. for people with dementia and their families in Goa, India is inspired by this model. They conducted the first trial to evaluate the effectiveness of a community based intervention for persons with dementia and their caregivers (Patel and Prince, 2001). Results showed that the intervention led to significant improvements in caregiver mental health and perceived burden; non-significant reductions were observed for behaviour disturbances and functional ability. Overall, a high mortality in the cohort of persons with dementia, and a 64 per cent reduction in the risk of death in the intervention arm was observed which was not statistically significant (Ibid). An unexpected finding of the study was the high mortality of patients, despite the fact that we excluded subjects with severe dementia. It is proposed that the provision of a medical assessment and consequent treatments for common medical complications, the improvement in caregiver mental health, and better information regarding caring for the person with dementia, may have contributed to the reduced mortality (Dias *et al.,* 2008). Similar findings suggesting higher survival rates for persons with dementia receiving home-based care interventions have been reported from richer countries as well (Prince *et al.,* 2004). Studies on caregiver burden in dementia are marred by limited sample size, small cohorts and a number of confounding variables that have not been taken into consideration by these studies.

In a pilot study, 706 persons with dementia and their caregivers were interviewed. Most caregivers were women living with the person with dementia in extended family households. One-quarter to one-half of households included a child. Larger households were associated with lower caregiver strain, where the caregiver was co-resident.

However, despite the traditional apparatus of family care, levels of caregiver strain were at least as high as in the developed world. Families from the poorest countries were particularly likely to have used expensive private medical services and to be spending more than 10 per cen of the per capita GNP on health care (Prince *et al.*, 2012).

The impact of dementia upon the individual, the family and the society has been little studied, particularly its contribution to disability, dependency, caregiver strain and costs. The response of health services and systems has also been relatively neglected. Social protection is hard to define, depending on an interaction between health status and dependency on the one hand, income sufficiency and secure living arrangements (Dias and Patel, 2009; Patel and Thara, 2003).

Studies on The Awareness of Dementia

Another 10/66 research conducted three studies from India (two conducted by the 10/66 Dementia Research Group) used a mixture of focus group discussion and open-ended interviews to investigate awareness related issues (Shaji *et al.*, 2002). They tended to agree regarding the extent of awareness in the different communities studied. First, the typical features of dementia are widely recognized, and indeed named "Chinnan" (literally childishness) in Malayalam language in Kerala, "nervafrakese" (tired brain) in Konkani language in Goa, and "weak brain" in Hindi in Banares. However, in none of these settings was there any awareness of dementia as an organic brain syndrome or indeed as any kind of medical condition. Rather, it was perceived as a normal, anticipated part of ageing (Albanese, *et al.*, 2011). This general lack of awareness has, in general, important conse-quences. First, there is no structured training on the recognition and management of dementia at any level of the health service. Second, in the absence of understanding regarding its origins, dementia is stigma-tized. Third, there is no constituency to place pressure on the government or policy makers to start to provide more responsive dementia care services. Fourth, while families are the main caregivers, they must do so with little or no support or understanding from other individuals or agencies (Shaji, 2009). Public awareness in LAMIC (Low

And Middle Income Countries) is less developed, with few media outlets carrying stories about dementia and ageing (Brijnath, 2014).

Service Development and Evaluation

People with dementia and their families are particularly unlikely to access healthcare, despite the high levels of associated disability and caregiver strain. Lack of demand for services arises in part from a tendency to view dementia as a normal part of ageing (Ibid). Encouraging help-seeking requires community dissemination to increase awareness with information from government, healthcare providers and media. However, efforts to increase demand must be accompanied by health system and service reform, so that help-seeking is met with a supply of better-prepared, more responsive services (Prince *et al.,* 2009). In parallel with its epidemiological surveys, 10/66 has been testing the effectiveness of training community healthcare workers to identify people with dementia and to deliver a brief intervention to educate and train caregivers (Prince *et al*., 2007). Initial findings, from the first of several randomized controlled trials in Goa (Dias *et al.,* 2008) show highly promising results. In practice, such interventions will need to be incorporated into horizontally constructed programs addressing the generic needs of frail, dependent older people and their caregivers, whether arising from cognitive, mental or physical disorders (Narayan *et al.,* 2015).

Providing cost-effective services for dementia sufferers and their caregivers in resource-poor regions, including India poses numerous challenges such as low health literacy (Patel, 2007), limited access to health care (Salas *et al.,* 2016) and the stigma associated with dementia (Maestre, 2012) and together they lead to huge treatment gap between numbers of people with a health condition and the number of these people who receive at least basic evidence based care, eventually increasing the global burden.

Screening Tools for Dementia In India

There are ample screening tests available, for dementia/MCI which fulfils the criteria of a good screening test. Few of the well-known tests used in dementia studies across India are the Mini Mental Status Examination (MMSE) (Folstein *et al.,* 1975), General

Practitioner Assessment of Cognition (GPCOG) (Ancelin *et al.,* 2006), Montreal Cognitive Assessment (MoCA) (Nasreddine *et al*., 2005), Addenbrooke Cognitive Assessment Revised (ACER) (Mathuranath *et al*., 2000) and Clinical Dementia Rating (CDR) (Morris, 1997).

In specific to India, different assessment tools have been used with a wide range of sensitivities and specificities due to its diverse cultural and educational variation (Pandav *et al*., 2002). For an example, MMSE is a widely used instrument, especially in screening for dementia. It is quick and easy to use; hence, it is used as 'gold standard' screening instrument for detecting cognitive impairment in elderly people (Ganguli *et al.,* 1995). However, it cannot be used with illiterate population (India major population is illiterate) or with hearing/visual impaired individuals. Many of the tests mentioned above have certain shortcomings and don't fulfil WHO screening program guidelines. Henceforth, there is a paucity of sensitive and specific measures of cognitive assessment in India, especially for dementia (Tiwari *et al.,* 2009).

The Clock Drawing Test has become increasingly popular with clinicians and researchers as a screening instrument for Alzheimer's dementia either by itself or as part of a brief battery and is a culture fair test that can be used in the screening and assessment of dementia (Palsetia *et al.,* 2018).

The Dementia Assessment by Rapid Test (DART) (Swati *et al.,* 2015) has been developed based on the clinical observation in Out Patient Department, Clinical Neuropsychology, All India Institute of Medical Sciences, New Delhi for a year about cognitive domains of impairment commonly encountered in MCI and possible dementia cases. DART consisted of four questions/items which were selected as per the domains affected in dementia/MCI following DSM-V (American Psychiatric Association, 2013). This criterion has been widely used in both clinical and epidemiological research internationally and in India as well.

The four cognitive domains are follows:

1. *Repeating dissimilar words:* The patient has to repeat 3 common words (elephant, bottle, and paper). This item assesses the domain of recent memory and cover hippocampus area of the brain.

2. *Naming:* The patient is asked to name as many vegetable names within 1 minute. This item assesses the domain of verbal fluency covering the temporal lobe.

3. *Recall dissimilar words:* It was tested by asking the subject to recall 3 words spoken earlier. This item assesses the domain of delayed memory covering both the hippocampus and temporal lobe.

4. *Clock Drawing:* This was tested by asking the patient to draw a clock showing time 10 minutes past 8. This item assesses the domains of visuo-spatial and executive functioning covering both frontal and parietal lobe. (If the patient is not able to draw; then a toy clock with needles is used, where the patient has to rotate the needles and show the prescribed time).

DART has high discriminating ability between controls and cases. Besides, it has been correlated with MMSE which is generally used as a standardized, brief and practical assessment of cognitive status in geriatric patients both internationally and nationally and came out to be a good sensitive tool (Srinivasan, 2010).

Need for Multidiscplinary Care and Planning

A team of multidisciplinary individuals (clinician, psychiatrist, clinical psychologist, social worker, physiotherapist, occupational therapist, dietician, nursing care staff along with caregiver) should make a comprehensive management plan and such strategic plans need to be implemented by taking full care and precaution. These care plan need proper coordination and monitoring of the entire team including the care giver of the patient. Regular follow up plans and reassurance to caregivers and patients makes that management and care better (Rao and Bharath, 2013).

Advance care planning (ACP) is a process, whereby an individual, in consultation with family members, health-care professionals, and/or significant others, is able to discuss and document decisions about his or her future medical care, in case he or she later experiences periodic, temporary, or permanent loss of capacity (Kumar and Kuriakose, 2013). ACP may take the form of a written instruction describing the care a person would want or does not want and the values that guide the person's decisions (i.e., advance directives or living wills). People may also choose to appoint someone to make

medical decisions for them should they lose capacity (i.e., substitute decision maker) (Wu *et al.*, 2008).

The mode of delivery of interventions to carers is important. Traditional face-to-face carer education and support programs can be logistically difficult to deliver. The time limited nature of these programs may also present difficulties with providing carers with adequate and ongoing support in the areas in which they need it most. To maximize the reach of these interventions, it is timely to examine how features of traditional programs can be adapted to a more flexible and tailored online format. Web-based programs may assist in overcoming some of these challenges (Yip and Mahal, 2008). Internet interventions offer a low-cost means of enhancing standard care by delivering targeted education and support to carers (Boots *et al.*, 2014).

Studies on The Economic Impavt of Dementia

Another less discussed impact of dementia is also that of its impact on the nation's economic standing. Estimating the economic impact of an illness is a challenge. Traditionally, disease burden is measured using one or more of the epidemiological indices (incidence, prevalence, and mortality rates) and the socio-economic impact of illness is acknowledged but poorly quantified. Despite one or more limitations, economic impact studies contribute significantly to health systems analysis, choosing alternatives for interventions or evaluating the interventions (Wimo *et al.,* 2013). Recent studies indicate an alarming increase in the numbers of Persons with Dementia (PwD). Global estimates have revealed that the proportion of PwD in developing countries like China and India is huge with nearly one-fourth (26.8%) of the global burden in 2001 was from these two countries and estimates indicated a 300 per cent increase between 2001 and 2040 (Banerjee, 2012). Amidst competing interests, health services for PwD are neglected both by the families and by the health policy-makers. Consequently, there is a dearth of scientific scrutiny and published work on dementia and its economic impact. The problem would become acute with changing lifestyles and breakdown of traditional social security systems (Wimo *et al.,* 2017).

Conclusions

Dementia research in India is still in a nascent stage. There have been a large number of small circumscribed studies done but none that would impact the nature and type of dementia care currently existing in India. We need research agencies to allocate funding to dementia research and scientists must engage in dementia research as India has a huge aging population to cater to which will require health care needs to be met. The future needs of dementia research exist in almost every area of dementia care and various facets of the dementia care process. Research in the progression of the illness, caregiver burden and strain are also scarce and needs to be looked into. We hope that next decade holds brightness in the field of dementia research.

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