Original Article

Effects of Fall among the Elderly for themselves and Caregivers: Insights from a Qualitative Study in Kerala

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Abstract

Falls are being acknowledged as having far reaching consequences for the quality of life of the aged; yet there are not many studies conducted in India. This paper attempts to provide some insights on the effects of falls on the life of the elderly and also for the caregivers.

Objective: The broad objective of the study is to understand the effects of falls among the elderly population. It helps in interpreting the causes and the effect of falls in the future life of the elderly people. It ultimately sheds some light on how the falls of the elderly affect the life of their caregivers as well.

Methods: Qualitative research was carried out in Thrissur district of Kerala among those who experienced falls between the time period of January 2015 to January 2016. The data was collected in the month of May 2016. In-depth interviews with victims of falls and their care givers were conducted. Key informant interviews were also used as a method for collecting data.

Results: The findings of the study revealed that age was a major risk factor in falls. Other risk factors such as history of falls and non-communicable diseases also played a significant role in contributing to falls among the elderly. As a result of falls, majority of the respondents opted for treatment in private hospitals which ultimately resulted in high healthcare expenditure. Restriction of activities among majority of the respondents were reported as a consequence of falls, which resulted in change in attitude of the elderly people, mostly leading to loss of confidence along with an increase in fear of fall. The caregivers were mainly involved in assisting the elderly in their routine activities. There was a constant need of support and assistance for the elderly for performing their activities which to some extent was burdensome to the caregivers.

Conclusions: Falls among the elderly are resulting in people getting affected not only physically but psychologically as well. The ultimate consequence is more social withdrawal and less activities resulting in a change in attitude of the elderly. The health awareness among the people of Kerala also results in people seeking quality treatment which most of them considers, is available in private hospitals. This ultimately results in increased healthcare expenditure which turns out to be a burden on the productive population especially in a scenario where majority of the elderly is remaining uninsured.

Key words: *Falls, Elderly, Caregivers*

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INTRODUCTION

According to WHO, all persons who are of the age 60 and above are considered to be elderly.[1] We can obviously say that ageing of population is a definitely consequence of the demographic transition occurring not only the developed countries, but is also encompassing developing nations. There has been a substantial increase in life expectancy across different regions of the world since 1950. It has dramatically increased from 42 years in the1950-1955 era to 72 years in 2010-2015. According to data from World Population prospects: the 2015

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Revision [United Nations 2015], between 2015 and 2030 the number of people in the world aged 60 years or above is expected to grow by 56%. The number of people of the age of 80 years and above is even growing at a faster pace than the number of all old persons. Over the next 15 years Asia is expected to rank second in the number of fastest ageing population. The number of aged people in developing nations is projected to grow by 71 percent between the year 2015 and 2030.[2]

India's elderly population is also showing a dramatic increase in the past decades. There has been a steady increase in the share of elderly population over decades. It has risen from 5.6% in 1961 to 8.3% in 2014.[3]

Table 1

States	% of elderly population (60 years above)	Old age dependency ratio
Andhra Pradesh	9.8	15.4
Assam	6.7	11
Bihar	7.4	14.2
Chattisgarh	7.8	13.1
Delhi	6.8	10.4
Gujarat	7.9	12.6
Haryana	8.7	14.1
Himachal Pradesh	10.2	16.1
Jammu & Kashmir	7.4	12.5
Jharkhand	7.1	12.7
Karnataka	7.7	14.8
Kerala	12.6	19.6
Madhya Pradesh	7.9	13.4
Maharashtra	9.9	15.7
Odisha	9.5	15.4
Punjab	10.3	16.1
Rajasthan	7.5	13
Tamil Nadu	10.4	15.8
Uttar Pradesh	7.7	13.9
Uttarakhand	8.9	14.9
West Bengal	8.5	13.2

Source: Census 2011

In India, taking a glance at the state wise distribution of the aged people of 60 years and above (Table 1), it can be observed that, the composition of the elderly population varies in different states, ranging from 6.7% in Assam to 12.6% in Kerala which is among the highest when compared to other states and Union territories[4]. The elderly population of Kerala is passing through a critical stage of demographic transition due to changes in fertility and mortality rates. This has ultimately brought positive changes in the number of older persons. Though the death rate of the elderly population has declined, the morbidity rate is on a higher side. It is observed that Kerala ranks the highest among all the other states in India. A considerable attention is not being given regarding the morbidity status of the elderly population, although Kerala ranks the highest in morbidity among the elderly population[5] (National Sample Survey, 71st round). A significant cause for this higher morbidity rate among aged people is the increased frequency of falls and fall related injuries. Falls and their sequelae are potentially preventable and hence it is of importance to know the risk factors for falls in the elderly. Assessment of the morbidity profile and its determinants will help in the application of interventions, both medical and social, to improve the health status and thus the quality of life of the elderly. The study was conducted in Thrissur, the cultural capital of Kerala situated in the central part of the state. The district accounts for one amongst the highest number of elderly population in the state[6] (Census, 2001)

Trends in falls

Falls are commonly defined as "inadvertently coming to rest on the ground, floor or other lower level, excluding intentional change in position to rest in furniture, wall or other objects". The falls are coded as E880-E888 according to International Classification of Disease-9(ICD-9)[1] (World Health Organisation, 2007). Recurrent falls are considered to be an important cause of mortality and morbidity in the elderly. The incidence of falls is seen to be varying across different countries. According to a study in South East Asia region, it is estimated that in China 6-31% of older adults and in Japan 20% of older adults fall each year. Another study conducted in the region of the Americas (Latin or Caribbean Region) found that the proportion of older adults who fell each year was ranging from 21% in Barbados to 34% in Chile. Regarding the consequences of fall related mortality, it accounts for nearly 40% of all injury deaths. Also, it varies according to different regions. The fall fatality rate for people of 65 years and above in USA is 36.8 per 100000 population, whereas in Canada mortality rate for the same age group is 9.4 per 100000 population[1] (World Health Organisation, 2007). Considering India, there are fewer studies regarding falls and its related injuries among the elderly population. Similar is the case with the population of Kerala. Thus, the study attempts to identify fall

related risk factors, fall related injuries, its implications in the life of elderly as well as the caregivers'.

Causes and Risk Factors related to falls

As per the study conducted by WHO, in the year 2010, falls accounted for over 77 percent and 85 percent of years lived with disability (YLDs) due to unintentional injuries excluding traffic accidents, in people aged 50-69 and 70 and above. The study measured prevalence and risk factors for fall-related injury in older adults in low and middle income countries in which self-reported fall-related injury prevalence was 4%, though it varied by country. A significant association was seen between certain risk factors such as depression, arthritis, grip strength, insufficient intake of fruits and vegetables, severe or extreme sleep problems, water source outside the home and completed secondary education. It was also found that the highest annual prevalence of injuries and fall related injuries was in India and lowest in South Africa[7].

According to a study conducted in Canada, age was considered as a strong risk factor in falls of elderly, especially to those above the age of 85 years. Also, chronic pathologies like diabetes and dementia acted as independent risk factors for intrinsic falls, but only diabetes for extrinsic falls. History of falls also acted as a significant and independent risk factor for both types of falls according to the study. Through this study, it could be summarised that the number of independent risk factors involved in falls with an intrinsic precipitating cause was greater than the number determined for extrinsic type falls[8]. Krishnaswamy and Shanthi[9] found that medical conditions causing falls were more prevalent in people >70 years. Among the medical conditions causing falls, musculoskeletal causes and visual defect were common. The study also indicated that musculoskeletal problems like osteoarthritis, rheumatoid arthritis, myopathy secondary to hypothyroidism, cervical and lumbar spondylosis were the causes for falls in elderly. Neurological illnesses, which cause deterioration of sensory motor function of muscle, contributed to falls. Multiple factors were responsible for falls in this study group. According to another study by Sebestina Anita D'souza et.al[10] 190 older adults of 60 years and above were interviewed for history and description of falls in the previous two years. They found that 72 older adults (38%) fell; amassing 95 falls. 47% women fell as compared to 31.2% men. Fall prevalence increased with age. 58.6% older adults using mobility aids/ personal assistance for ambulation fell as compared to 34.2% older adults not using mobility aids. Falls most often occurred in the morning (54.7%) while engaged in the ambulatory activities (58.9%) and bathing (18.9%). Most of the falls occurred on the road (30.5%) and in the bathroom or toilet (21.1%). Soft tissue injuries (28.4%) were most common injuries and physician's treatment was for 47.37% of all fall related injuries. 52.8% of the older adults with falls had fear of fall and 30.6% reported activity restriction especially outdoors. Johnson (2006)[11] examined the frequency and nature of falls and fall-related injuries among older women in the state of Kerala, India. The study involved 82 community living and 63 institutionalized women aged 60 years or older in Trivandrum, Kerala, India. A significantly lower percentage (45%) of community dwelling participants suffered a fall in the previous year, compared to 64% of those in the Long Term Care (LTC) settings. Overall, of those who fell, 74% reported an injury (e.g., cuts and bruises, fractures) as a result of the fall and 48% of older adults in the community and 70% in the LTC setting required medical treatment as a result of the falls. Falling is emerging as a significant public health problem facing older women in the state of Kerala. A study by Rashmi and Lalita[12] revealed that hip fractures in elderly are almost always the result of falls. Also, regular exercise is seen to reduce the tendency to fall by increasing muscle strength, coordination and flexibility. Regarding the study on prevalence and correlates of falls among community dwelling elderly of Guwahati, it was observed that a high prevalence of recurrent falls among the fallers. Also, physiological and social factors put women at higher risk of falls. Some factors like dementia, cognitive impairment, and usage of particular medications contributed to an increased risk of falling[13]. The prevalence of falls was found to be high in among the male population than the females and it was high within the age group of 70-79 years, in a study conducted in Karnataka. But the risk of fall was higher among the females, especially among those who had a history of falls, psychologically impaired, hearing impaired, patients suffering from osteoarthritis and those who had impaired mobility as well[14].

Impact of falls

Miriam C. Faes et al[15], studied the impact of falling in frail older persons and family caregivers in which, all the respondents described a fear of falling and social withdrawal. Also, the caregivers stated a fear of the respondents falling again. Some caregivers rated the consequences of their care recipients' cognitive problems more burdensome

than their falls and were of the notion that a prevention programme would not be useful because of the care recipient's cognitive impairment, physical problems, age and personalities. Regarding the fear of falls, certain community based studies conducted in India reveal in their research that 45.7% subjects had fear of fall with the history of fall whereas 25.9% subjects had fear of fall with no history of falls within the last six months. This indicates that the elderly develops fear of fall with or without the history of falls[16]. Numerous other studies have revealed that care-giving is extremely stressful and it ultimately results in adverse physiological and psychological outcomes for both caregivers and recipients[17-19]. Moreover, several other studies reveal that the consequences of falls not only affect them physically, but also leads to a fear of falling which ultimately lead to restriction in activity or increased dependency[20].

To summarise, the given studies indicates that the falls ultimately affects the life of elderly not only in their mobility or physical activities but also have an impact in their confidence level thereby restricting them even in their routine activities. As compared to the studies conducted in the developed countries less focus is laid on studies related to falls and its consequences on elderly as well as on their caregivers in develop-ping nations like India, especially in Kerala where the elderly population is on an upsurge. Moreover, the studies conducted are mostly quantitative in nature and focus only on quantifying the major risk factors and the effects of falls without focussing on the impact of the falls which is subjective in nature. This could only be explored through a qualitative methodology by conducting in-depth interviews with the respondents.

The present paper is based on a qualitative research aimed to explore falls among elderly in Kerala. It attempts to understand the major risk factors, the effects on the elderly and its implications on the life of other family members and caregivers.

Methodology

A qualitative research methodology was adopted for this study as it helps in understanding the practices that is actually occurring in the real world. It involves an interpretive naturalistic approach to the world. This means that the qualitative researchers study things in their natural settings, attempting to make sense of, or to interpret, phenomena in terms of the meanings people bring to them.[21] Therefore, a qualitative methodology was adopted to develop a deeper understanding on risk factors of the falls and how it affected the personal and social life of the elderly population as well as the caregivers associated with them. In order to collect the sample, three primary health care centres, a private hospital, a rehabilitation centre as well as an old age home was approached. The palliative care policy 'Arogyakeralam Palliative Care Project' is being adopted by the state as a measure for identifying the needy patients, providing care at home for the bedridden and incurably ill and involving home based primary care as a part of the project by equipping them to provide care including medicines to the 'socioeconomically backward' patients. The sample of elderly population, who had a fall and is taking healthcare services from the pain and palliative care services of the PHCs, was selected. Regarding the institutional care services to the elderly, much of them are provided by non-governmental agencies which particularly involve charitable organisations. As of 1998, Kerala state accounts for the maximum number constituting 123 old age homes, Thrissur ranking one among the highest[22]. The old age home which was selected for the study was funded by a renowned non-profit organisation of India as well as from an organisation from UK. The model of the Old Age home was "Free" type which provided care for the destitute old people who had no one else to care for them. There was no particular caretaker to take care of the needs of the elderly. In case of any health issues, they were taken to the nearby district hospital or to any private hospital according to the convenience. Rehabilitation centre at Thrissur offers a comprehensive care programme for patients facing life threatening or terminal illness and also to give comfort to their families. Trained care givers were employed to attend these inpatients day and night. Sample was collected from this rehabilitation centre as well. Non-probability purposive sampling technique was being employed and a sample of 16 elderly and 13 caregivers were taken. Out of the 16 elderly people, two people were from the rehabilitation centre and one from the old age home. 13 caregivers were associated with the elderly who were community based, residing in their homes. The data regarding people who had taken medical interventions for fall related injuries, within the past one year but not within past 2 months were obtained. The sample of respondents who had a fall between the time periods of January 2015 to January 2016 was chosen. The data were collected in the month of May 2016. The information was tape recorded with the consent of the respondents. Participants of the age 60 years and above are considered. The caregivers of the participants were also interviewed. The

sample included both male and female respondents between the age group of 60-90 years. The caregivers of the community based respondents who were interviewed included their wife, children, grandchildren or their relatives. Nursing staffs of the rehabilitation centre were also interviewed. Regarding the socioeconomic status of the sample taken, except two, all the others were above poverty line. Majority of the population were employed either in the government or in private sectors irrespective of male or female. Some of them were unemployed and were dependents as well. Very few people were continuing their jobs even at this old age as well. The respondents were either single, married, widows or separated, among which majority was either married or widowed.

The data was collected with the help of two interview guidelines, one for the elderly and another for the caregivers.

Since the economic impact of falls on the elderly was also a part of the study, people who had a fall in past one year was considered.

Elderly who had a fall within the last 2 months were excluded from the study as it was difficult to interpret the economic impact of such recent falls. Participants were contacted and informed about the study and an oral consent was obtained from them for conducting the interview.

Results

The three major themes that have emerged from this study are: causes of falls among the elderly and their treatment seeking behaviour; life of the elderly before and after the falls; and the life of caregivers after the fall. The analysis was based on these three major themes.

Causes of falls among the elderly and their treatment seeking behaviour

Much of the falls were due to non-communicable diseases among the elderly population such as diabetes and hypertension which in turn resulted in major illnesses affecting vision, stroke, kidney failure. In addition, elderly degeneration of bones was another factor which resulted in falls among the elderly. Other difficulties related to urinary incontinence among the elderly do have an impact in their behavioural pattern especially resulting in hurry in their activities causing increased risks of falls.

"Talking about the fall, after taking bath in the morning, when I was about to come out of the bathroom I felt giddiness because of which I tried to sit, in between I fell down." (Elderly, female, 73 years, Illiterate, not working, widow)

The behavioural factors such as carelessness and rush during work contributed to falls and most of the falls occurred during day time. Environmental causes such as darkness of the room as well as slippery surface of the tiled floor also contributed to the same. Cultural factors such as taking oil bath, wearing regional attires like mundu (dhothi) were also an unusual cause that resulted in falls among the people.

The falls among the elderly people of the rehabilitation centre was mainly due to the desire to walk on their own in the absence of nursing staffs, which resulted in recurrent falls. The fall was mostly followed by fractures among the respondents, especially among the females.

"She used to bath by putting oil all over her body and I think that is what caused the slip in the bathroom." (Caregiver, Male, Carpenter, Son)

"Telling about how it happened, we have this 'mundu' no, I used to lift it up a little and climb the stairs to the consultation room. Like that when I was climbing stairs accidently I stamped at the tip of the 'mundu', and the 'mundu' was about to get undraped which I held with one hand, and in other hand I had a bottle and I fell down..." (Elderly, Male, 80 years, Traditional medical practitioner, Married)

Most of the respondents were taken for medical interventions immediately after the fall. But irrespective of the economic status, they opted for treatment in private hospitals rather than public hospitals.

"Yes, I am taking treatment from private hospital. The medicines are very expensive." (Elderly, Male, 78 years, Graduate, Ex-businessman, Married)

Modern system of medicine was the preferred treatment option than the traditional systems of medicines. It was also seen that people who had initially accessed private healthcare services later on shifted to primary health centres for follow up services due to low cost of treatment as well as for free care from ASHA workers.

"And we will have to bear additional expenses, especially for ambulance, every time we go to hospital just for changing the tube. It charges Rs. 1500. It is not only about the expenses, but going in ambulance is quite different when compared to going in car. At

that time, we came to know about ASHA workers. They helped us by providing free urine bags and tubes and helped in insertion of the same also." (Caregiver, Female, Teacher, Daughter)

Lack of health insurance was another major setback for the treatment of the elderly. Apart from the treatment expenses at the time of hospitalisation other expenses with respect to the follow up of the treatment process was also high.

"The medicines that he [doctor] gives, it costs around Rs.3500 a month. [Ratheesh] [son] gives money for all that. Also, the medicines for heart costs around 3000.This medicine is really very expensive" (Elderly, Male, 78 years, Graduate, Ex-business man, Married)

Life of the elderly before and after the falls

All the elderly respondents were much lively in their routine activities before the fall. They indeed provided support to the caregivers, in running the family before the falls occurred.

"Whether it be washing the clothes or cooking food, I used to do all the things." (Elderly, Female, 60years, Retired press worker, Widow)

"Yes, she used to go to temple twice a day. Sometimes she goes only in the morning because it might get dark early. In the morning, she used to go to temple."(Caregiver, Female, not working, Daughter-in-law)

Most of them recognised social withdrawal as a consequence of their fall which was mainly due to the persistence of fear after the fall. This has also contributed to decreased physical capabilities of the respondents and also resulted in increased dependence on their caregivers.

"Yes. It has affected. I am a bit scared now, at the same time I would like to walk as well. I am trying myself now by walking here, around, 2-3 times." (Elderly, Female, 75years, Retired teacher, Married)

I am scared, may be when we are about to enter into the bus when the bus leaves all of a sudden and we will slip our feet. So now I only travel by auto or taxi. I can go anywhere. I can get down right in front of the place and come back after my work." (Elderly, Male, 78years, Graduate, Ex-business man, Married)

This dependence has ultimately resulted in an increased level of expectation of care and concern from the caregivers. The fear of not being cared by the caregivers up to their expected level was a concern that some of the home based elderly respondents had, while the respondents from the old age home and rehabilitation centre expected that one day or the other their family will take care of them. Majority of the respondents received fairly good support from their caregivers. The fall has also affected the level of confidence of the elderly to an extent that they are unable to lead a similar life they had before the falls.

"I am not going anywhere now. For marriages or anything. It's because we have to go in a crowd and I will have to apply medicine and go there. So, people will start asking 'what happened to your leg'. So I don't go out for anything." (Elderly, Male, 80 years, Traditional Medical practitioner, Married)

Few of them were distressed about the negligence they faced from their family members in assuring care after their fall.

"They took her. She was with her son for 2 months. But his [son's] wife was not behaving well with her. So, she came here." (Caregiver, Female Daughter, Widow, not working)

Effects of falls on the life of caregivers:

The responsibilities stated by the caregivers mainly insisted in assisting in their daily routine activities such as bathing, toileting and care in administration of food and medications on time. However, financial constraints and lack of manpower and time were the hardships faced by them. This was reflected in the provision of care, at least in some respondents.

"My daughter helps me with bathing. Son and son-in-law lift me up till bathroom. My daughter and granddaughter will help me with bathing. They will again lift me up back to the room."(Elderly, Female, 73 years, Widow)

The story in rehabilitation centre was the same, with the nursing staff being involved in assisting and taking care of the old age people. This included rehabilitation therapies also.

"We try to make her do the exercise by making her hold on the window there. We support her while she is going to toilet, for taking bath and all." (Nursing staff, Rehabilitation centre)

Some of the caregivers had to execute other additional tasks which mostly included taking care of other members of the family.

"Earlier he used to do everything on his own. But now I have to do everything for him. Going to corporation, standing in queue, all these I was not familiar, for paying bills and all. Now we have to do everything for him. He can't go there stand in the queue and all." (Caregiver, Wife, not working)

Due to the additional burden of care giving to the aged people, some of them had to assign a home nurse to take care of them. Those who were unable to do so had to send the respondents to rehabilitation centre. The respondents at the old age home were not taken care of by anyone other than the other cohabitants and it was observed that this has increased affection and care between the cohabitants to some extent. Regarding the challenges faced by the caregiver, the main challenge was the limitation they faced in activities like going for work, attending functions etc. Other challenges were financial constraints and lack of time to take care of the elderly.

"I'll go out only if there is any emergency. Otherwise I won't go. I'll just go to the church and come back. If i want to attend any marriage function then I'll make the rice and curry and will place it near her and then go. Also, I'll try to arrange someone like my sister's children if I am going out. Sister has 3 boys; either of them will come over here to take care of her."(Caregiver, Daughter, not working)

DISCUSSION

There are limited studies pertaining to falls among the elderly and its consequences on in the life of the elderly especially in an Indian context. Much of the available studies are from the western countries. Most of the studies adopted the quantitative research methodology adding to less subjective data availability. The findings of the current study in Kerala agreed to the finding that age was a major risk factor in falls, but it was observed that the impact of the fall was independent of the type of fall. Diabetes was an independent risk factor that contributed to the falls in elderly, irrespective of the falls being intrinsic or extrinsic. In contrast to the findings of Krishnaswamy & Shanthi[9], it was observed that irrespective of the age (starting from the age of 60 years), there were respondents who were affected with musculoskeletal diseases such as cervical spondylosis and cardiovascular illnesses such as stroke which contributed to falls. Also, history of falls was a significant and independent factor that resulted in falls. Though the study conducted by Krishnaswamy and Shanthi[9] stated that musculo skeletal causes and visual defects were the common conditions contributing to falls, only few people were affected with these etiologies resulting in fall related injuries. Moreover, it could be generalised that irrespective of being institutional based or non-institutional based elderly factors like non communicable diseases contributed more to the falls among the elderly. It was also noted that there was an interlinkage between various risk factors such as biological and behavioural which in turn contributed to the falls. Cultural factors were also an unusual cause that resulted in falls among the people. Most of the falls occurred inside the bathroom which was mainly due to the slippery surface of the tiled bathrooms. But more fractures were reported as a result of falls, when compared to other soft tissue injuries, which was contradictory to the study conducted by D'Souza.[10] Fractures were reported more among the female respondents.

The study also reported a restriction in activities among majority of the respondents, both indoors as well as outdoors. This was in agreement with the study conducted by Johnson[11] which reported fractures to be more common among the female subjects.

As per the study conducted by Rashmi and Lalita[12], it was found that hip fractures in elderly were almost always the result of falls, but in this study, it was observed that fracture of femur was the major complication that the respondents encountered with, as a result of fall. Most of the respondents were taken for medical interventions immediately after the fall. But irrespective of the economic status, they opted for treatment in private hospitals rather than public hospitals. It could also be interpreted that since most of the participants received their own pension, the caregivers were ready to take care of them and provide them better treatment facilities. It was also observed that people who had initially accessed private healthcare services later on shifted to primary health centres for follow up services due to low cost of treatment as well as free services from ASHA workers. Lack of health insurance was a major setback for the treatment of the elderly. Apart from the treatment expenses at the time of hospitalisation other expenses with respect to the follow up of the treatment process was also high. The respondents opted for the modern system of medicine rather than going for traditional systems of medicines.

Regarding the life of elderly before the occurrence of falls, it was observed that all the respondents in the study were much active in performing their own routine activities and were highly supportive to the family especially in doing

household related works ultimately reducing the burden of other working members of the family. They were active both indoors as well as outdoors before the fall. These elderly respondents were able to perform their daily routine activities. Thus, it could be interpreted that the elderly had a better level of confidence before the occurrence of falls. The situation was the same irrespective of whether they were home based or institution based.

Most of the respondents experienced a difficulty in walking after the fall. They had to depend either on the caregivers or a walking aid which contributed more to social withdrawal of the respondents. This was in agreement with the study conducted by Miriam C Faes et al.[15] which stated increased fear of falling and social withdrawal as a consequence of fall. This has also resulted in change in attitude of the elderly people, mostly leading to loss of confidence along with an increase in fear of fall leading to more restriction in activities. Wide range of mood variations such as irritation, grief, laziness to do daily activities were also observed in some of the elderly respondents. Very few of them were seen to thrive these difficulties related to fall related injuries by either trying to walk on their own or by engaging in some activities thereby diverting their mindset. While most of the respondents among the household elderly people received support and care from the caregivers, very few people were neglected by their family members. Among the institution based elderly there was persistent grief due to absence of the family members at this point of difficulty. But a hope persisted among the respondent that they would take care of her one day or the other.

The caregivers were mainly involved in responsibilities such as assisting the elderly in their routine activities. This included activities such as bathing, assisting in toileting and timely administration of food and medicines. It was also observed that there was a constant need of support and assistance for the elderly which to some extent was burdensome to the caregivers. This mainly affected the caregivers who were employed as they were unable to manage their duties along with simultaneously taking care of the elderly they, appointed home nurse for their assistance, to take care of the elderly. Also in spite of the physical assistance provided by them, the caregiver had to provide psychological support as well, as most of the elderly faced social withdrawal due to lack of confidence and the fear of recurrence of fall. Another difficulty was regarding the financial limitations that the caregivers faced while providing treatment for the elderly. Moreover, most of the caregivers stated that they had to constantly accompany the elderly to the places he/she goes. This has in turn put a limitation in other activities of the caregiver. Economic dependency was yet another issue that was bothering the caregivers. They had to rely on other family members for monetary support. Most of the caregivers also faced the difficulty in going out for their own purpose as they had to either depend on someone to take care of the elderly or had to limit their other activities like attending functions. The elderly at the rehabilitation centre was taken care of by the nursing staff in all their activities. In contrast to the home based respondents, proper hygiene was maintained at the rehabilitation centre even if the patient was bedridden. The lack of care was evident for the elderly who were residing in the old age home. Only mutual assistance was seen between the co-habitants.

The caregivers were supported by people such as ASHA workers in providing care to the patients who were bedridden and also by providing consumables free of cost. Regarding the old age home respondent, a mutual affection and care was seen to have been developed between the cohabit-ants and they were taking care of each other. Another form of financial support which was availed by most of the retired elderly was the pension schemes. Only very few respondents from the home based elderly population reported lack of support from children both in care and in financial assistance.

CONCLUSION

The falls among the elderly is emerging, the major risk factor being the emergence of non-communicable diseases. In the long run, it results in people getting affected not only physically but psychologically as well, the ultimate consequence being social withdrawal and less activities resulting in a change in attitude of the elderly. The attitudes are mostly pessimistic in nature and thus affect the life of the caregivers also. In addition to the physical stress, there is also mental stress which in long term may affect the health of the caregivers as well. The health awareness among the people of Kerala also results in people seeking quality treatment which ultimoately results in increased healthcare expenditure which turns out to be a burden on the productive population especially in a scenario where majority of the elderly remain uninsured. The recommendations which we could put forward for improving the conditions of the elderly include;

- Comprehensive health programs that link geriatric care along with non-communicable diseases should be initiated.

- Setting up health insurance programs to ensure quality treatment for the falls and related injuries.
- To set up elderly day care centres to reduce the burden on the care giving population which also includes recreational activities which is an effective way of improving mood of the elderly people.

The major limitation of this study was regarding the representativeness. Only a sample of 16 elderly people and 13 care givers were interviewed due to short span of time. Thus, it is not possible to generalise the results of the study to the entire population. Secondly, the interview was conducted in Malayalam and was later translated into English. There can be a possibility of misinterpretation or loss of data. The researcher has tried her best to minimize such errors.

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