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A Study To Assess The Awareness Regarding Home Safety Measures Among Elderly Residing In Selected Areas Of District Ludhiana, Punjab.

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Abstract:

Background of the study: Ageing is an inevitable developmental phenomenon bringing along a number of changes in the physical, psychological, hormonal and social conditions. The house check focused on environmental hazards, sites and safety devices identified as most commonly associated with accidents or falls in older people. Hazards which are thought to increase the risk of falling, slipping or tripping and the absence of safety devices which may prevent falls made up the majority of items in the house check.

Objectives: The objective of the study was to assess the awareness regarding home safety measures among elderly residing in selected areas of District Ludhiana, Punjab.

Methodology: A descriptive study was conducted on 60 elderly of age group 60-90 years in selected areas i.e. Shimlapuri and Mohar singh Nagar Ludhiana city. Convenience sampling technique was used to select the study sample. Data was collected by using socio- demographic profile sheet, modified structured checklist to assess home safety measures of elderly.

Result: The socio- demographic profile of elderly revealed that out of 60 elderly more than half i.e. 51(85%) of elderly were from the age group 60-70 years, 32 (53%) were females, 36 (60%) were educated up to elementary level, 44 (73%) were married, more than half i.e. 57 (95%) were living with their children,31(52%) were doing moderate physical activity, 60 (100%) were have sedentary life style, 32 (53%) were homemaker, 51(85%) were unemployed, 39 (65%) were care giver, 40 (67%) were fully dependent and 59 (98%) were having personal monthly income <5,000.

Conclusion: It was concluded that majority of the study subjects had good home safety measures.

Key words: Elderly, Awareness, Home Safety Measures

I. INTRODUCTION

"Old age is an incurable disease". But more recently Sir James sterling Ross commented "you do not heal old age, you protect it, you promote it and you extend it". Ageing is a major life change includes physiological & psychological changes. Old age should be regarded as a normal inevitable biological phenomenon.

Ageing refers to a sequence of changes a life span of an individual. The term 'old age' conveys the images of frustration and pity, sickness and poverty, despair and senility, warmth and responsibility. The aged feel a sense of social isolation because of the disjunction from various bonds viz., work relationships, and diminish of relatives and friends, mobility of children to far off places for jobs. The situation of the elderly still worsens when there is physical incapacity and financial stringency. Today in India elderly face the miserable conditions in their life.

REVIEW OF LITERATURE

The purpose of the review is to search for the source of research ideas, orient to what is already known, provide a conceptual context, inform on research approach etc. Its purpose is to deliver what was previously done, what methods have been employed by other researchers and how the results of other research in area can be combined to develop knowledge.

Hwang E., Cummings L., Sixsmith A. (2011) the purpose of this study is to analyze the relationship between home modifications and aging-in-place. Using the ENABLE-AGE United Kingdom sample (*N* = 376), the authors hypothesize that seniors who have modified their housing are likely to have stayed longer in their current housing. There is a positive relationship between home modifications and aging-in-place. The results underscore the importance of supportive environment to prolong living in housing settings.

Erkal S. (2010) this study analyzed the relation between incidents of at-home accidents and the assistance in daily activities of women age of 65+ living in the area of Dikmen Akpınar Health Care Unit in Ankara-Turkey. Of the women, 49.2% had experienced a home accident in the last 12 months. More than half of these accidents were caused by falling. Women over the age of 65 who were dependent with regard to daily activities had a significantly higher level of accident percentages. As the age and the dependence level in daily activities increased, the ratio of accidents increased.

Leclerc BS. (2010) conducted a cohort study to determine the prevalence of hazards and to resolve whether they are linked to the risk of falls among 959 seniors receiving home-care services. Home environmental hazards were found in 91% of homes, with a mean of 3.3 risks per individual. The bathroom was the most common place for hazards. The presence of hazards was significantly associated with all falls.

Evei.E D. (2006) conducted a cross sectional study to identify the main characteristics of the dwellings of the elderly and to assess the impact of those on home accidents. It was found that 38.6 percent of the elderly have had many types of home accidents and the most common type of accident was falls (31.9%). Possible causes were analyzed and the houses were graded based on two different types of point scale. In scale1, 22.7% of the houses were in poor condition, while in scale 2, the percentage was 20.1.The study was considered to be helpful to provide a new perspective on this subject.

Erkal S. (2010) conducted a study on to analysed home safety and safe behaviours against fall accidents of elderly people living at home. The study group comprised 121 people aged 65+ living in the catchment area of Ankara Mamak Halil Ulgen Health Centre. Data were collected via a personal information form and Home- Screen Scale. Statistical analysis used an independent samples t-test and one- way ANOVA; the turkey test was also applied. According to the average score of the issues of Home Screen Scale of elderly people, the issue of "sufficient illumination of rooms and corridors at nights" ($\bar{x}$ = 7.47) had the highest average in the Home- safe subscale. The highest scoring issue in the safe- behaviour subscale differed significantly according to age and health security ($p < 0.5$). recommendations are to eliminate the situation that results in falling risks in the houses risks in the houses in which old people live, to improve the overall environmental conditions in such houses, and to inform elderly people of relevant safety risks in a way that well help them develop safer behaviours.

I. RESEARCH METHODOLOGY

A Descriptive research design was adopted to assess the awareness about home safety measures in elderly. A convenient sampling method was used to obtain 60 subjects who met the inclusion criteria for the research. The study was carried in selected areas, district Ludhiana, Punjab. Modified Structured Checklist HSSAT (Home Safety Self-Assessment Tool, 2013) was used to obtain the study data needed for the study analysis was done by descriptive and inferential statistics.

IV. RESULTS AND DISCUSSION

Table 1: Criterion measure to assess the awareness regarding home safety measures among elderly.

N=60

Level of Home Safety Measures	Criterion Measure
Good	+34 to +100
Average	+33 to -33
Poor	-34 to -100

Maximum= 100

Minimum= -100

Table 2. Sociodemographic profile of elderly residing in selected areas of district Ludhiana.

N=60

Socio-demographic Variable	f (%)
Age (in years)	51 (85)
60-70	06(10)
70-80	03 (05)
80-90	
Gender	
Male	28(47)
Female	32(53)
Educational Status	
Illitrate	09(15)
Elementary	36 (60)
Secondary	14 (23)
Graduate and above	01 (02)
Marital status	
Married	44 (73)
Widow/ Widower	16 (27)
Living status	
With children	57(95)
With spouse	3(5)
Physical activity	
Mild	20 (33)
Moderate	31 (52)
No activity	9 (15)
Life style	60 (100)
Sedentary	
Former occupation	32(53)
Homemaker	01(02)
Business	27(45)
Service / job	
Work Status	51 (85)
Unemployment	09 (15)
Employed	
If employed	06 (10
Service/ job	03 (05)
business	

*mean age = 65.8±6.686

Table 2 depicts the distribution of elderly as per their socio demographic profile. It shows that majority of elderly i.e. 51 (85%) were in the age group of 60-70 years followed by 6 (10%) elderly who were in the age group of 70-80 years and rest i.e. 3 (5%) in the age group of 80-90 years. More than half of the elderly i.e. 32 (53%) were females and only 28 (47%) elderly were males.

Regarding the educational status, more than half i.e. 36 (60%) were educated up to elementary school. 14 (23%) were educated up to secondary level, followed by 9 (15%) were illiterate and only 1 (2%) were falling in the category of graduate and above. Two – third i.e. 44 (73%) were married and only 16 (27%) were widow/widower. Maximum number of elderly i.e. 57 (95%) were living with their children and the rest i.e. 3 (5%) were living with their spouse.

As per the physical activity, more than half i.e. 31 (52%) were doing moderate activity, 20 (33%) were doing mild activity and only 09 (15%) were doing no activity. Most of the elderly 60 (100%) had sedentary life style. More than half i.e. 32 (53%) were homemaker, 27 (45%) were involved in service/ job and only 1 (2%) were involved in business. Majority of elderly i.e. 51 (85%) were unemployed and only 9 (15%) were employed from which 5 (10) were involved in service/ job and 3 (5%) were involved in business.

Hence, it was concluded that majority of elderly were from the age group of 60-70 years, were females, educated up to elementary level, married, living with their children, doing moderate activity, had sedentary life style, homemaker and unemployed.

Table 3: Distribution of elderly as per their financial characteristics

N=60

Financial Variables	f %
Source of income	
Pension	01 (02)
Business/ self employed	10 (17)
Care giver	39 (65)
Both pension and care giver	10 (17)
Economical Dependency	
Fully Dependent	40 (67)
Partially Dependent	15 (25)
Independent	05 (08)
Personal Income (monthly) of Older Person	
<5000	59 (98)
5,000-10,000	01 (02)

Table 3 depicts the distribution of elderly as per their financial variables. Out of 60 elderly, more than half i.e. 39 (65%) were having care giver, 10 (17%) were involved in business/ self-employed, followed by 10 (17%) were having both pension and care giver and only 1 (2%) were having pension.

As per the economical dependency, more than half i.e. 40 (67%) were fully dependent, 15 (25%) were partially dependent and only 5 (8%) were independent. Maximum number of elderly i.e. 59 (98%) have personal monthly income and only 1 (2%) have income in the range of 5,000-10,000 rupees.

Hence, it was concluded that maximum number of elderly were having care giver, fully dependent and having monthly personal income <5,000.

Table No 4: Distribution of elderly as per their Home Safety Measures Scores

Level of Home Safety Measures	**Criterion Measure** N=60	f (%)
Good	+34 to +100	60 (100)
Average	+33 to -33	0 (0)
Poor	-34 to -100	0 (0)

Maximum= 100 Minimum= -100

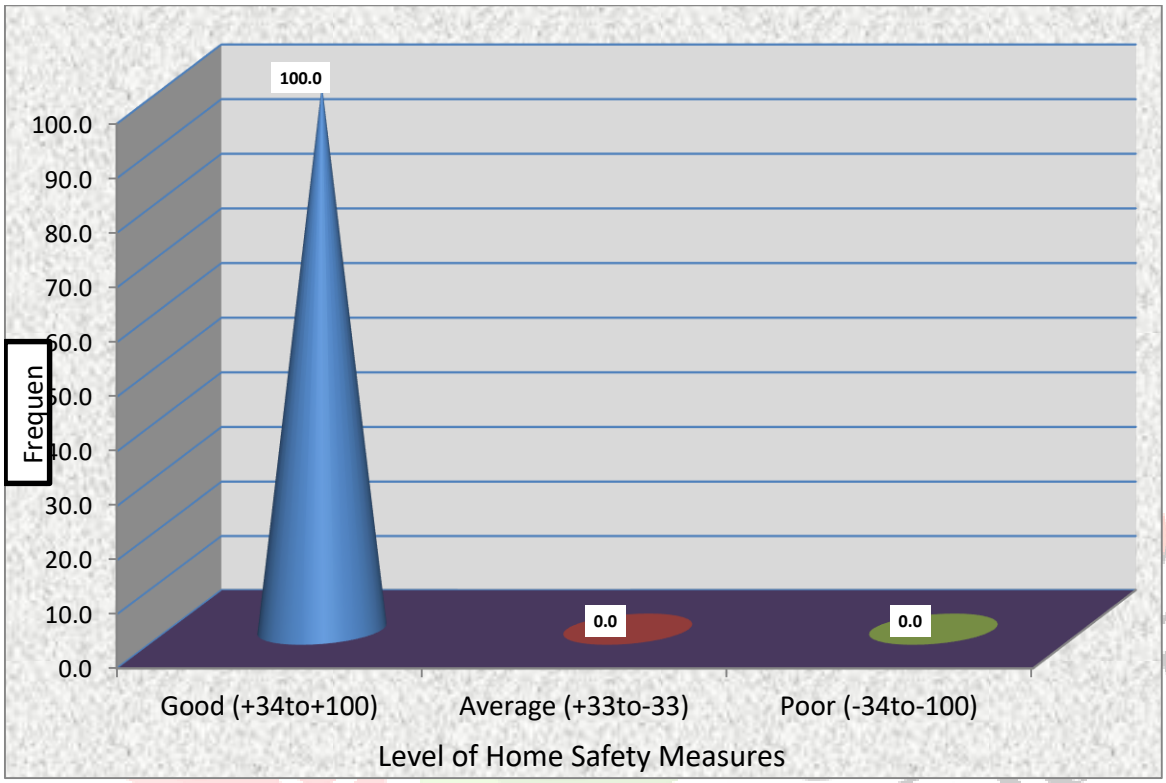

Figure No 3: Percentage Distribution of elderly as per their Home Safety Measures Score

Table 4 and Figure 3 depicts the criterion measures of home safety measures. It shows that all of the elderly i.e. 60 (100%) had good home safety measures scores.

Hence, it was concluded that all of the subjects had good home safety measures at home.

Table No 5: Distribution of Mean scores of awareness regarding Home Safety Measures

Areas	Maximum score	**Mean±SD**	**Mean %**
General Household	34	19.33±2.245	56.86
Kitchen	28	16.23±2.086	57.98
Bathroom	28	16.85±2.517	60.18
Bedroom	10	5.50±1.000	55.00
Overall	**100**	57.92±5.984	57.92

Maximum =100
Minimum = -100

Table 5 depicts the mean scores of home safety measures. Mean scores according to area as per home safety measures. For general household area Mean±SD was 19.33±2.245 with mean percentage 56.86, followed by kitchen Mean±SD was 16.23±2.086 with mean percentage of 57.98, for bathroom Mean±SD was 16.85±2.517 with mean percentage of 60.18 and rest of bedroom was 5.50±1.000 with mean score was 55.00. Overall Home safety measures score Mean±SD was 57.92±5.984 with mean percentage of 57.92. Hence, it is inferred that general household area was highest scores with Mean±SD 19.33 ±2.245 of home safety measure.

Table 6: Association of mean scores Home Safety Measures of elderly with their demographic Characteristics.

N=60

Variables	**n**	**Home Safety Measures scores Mean±SD**	**Mean %**	**F value**	**p value**
Age (in years)					
60-70	51	58.10±6.30	58.1		
70-80	06	57.83±4.36	57.8	0.372	0.691^{NS}
80-90	03	55.00±1.73	55.0		
Gender					
Male	28	58.04±4.74	58	0.143	0.887^{NS}
Female	32	57.81±6.97	57.8		
Educational status					
Illiterate	9	56.11±3.98	56.1		
Elementary	36	57.78±4.78	57.8	0.566	0.640^{NS}
Secondary	14	59.43±9.30	59.4		
Graduate and above	01	57.00	58.0		

Marital status					
Married	44	58.02±6.32	58.0	0.226	0.822^{NS}
Widow/Widower	16	57.63±5.14	57.6		
Living status					
With children	57	57.89±6.12	57.9	0.122	0.903^{NS}
With spouse	03	58.33±2.52	58.3		
Physical activity					
Mild	33	56.40±4.56	56.4		
Moderate	52	59.65±7.01	59.7	2.868	0.065^{NS}
No activity	15	55.44±2.60	55.4		
Former occupation					
Homemaker	32	57.81±6.97	57.8		
Business	01	57.00	57.0	0.025	0.975^{NS}
Service/ job	27	58.07±4.83	58.1		
Work status					
Unemployment	51	57.67±6.01	57.7	0.767	0.446^{NS}
Employed	09	59.33±5.96	59.3		
If employed					
Service/ job	06	58.83±5.78	58.8	0.336	0.747^{NS}
Business	03	60.33±7.51	60.3		
Variables	**n**	**Home Safety Measures scores Mean±SD**	**Mean %**	**F value**	**p value**
Source of income					
Pension	01	61.00	61.0		
Business/ self-employed	10	58.60±6.00	58.6	0.146	0.932^{NS}
Care giver	39	57.74±6.32	57.7		
Both pension and care giver	10	57.60±5.32	57.6		
Economical dependency					
Fully dependent	40	57.90±6.37	57.9		
Partial dependent	15	57.93±5.56	57.9	0.001	0.999^{NS}
Independent	05	58.00±4.95	58		
Personal monthly income					
<5,000	59	57.78±5.922	57.8	2.384	0.128^{NS}
5,000-10,000	01	67.00	67.0		

NS=Non Significant (p>0.05)
Maximum score = 100
Minimum score= -100

Table 6: depicts the association of mean score of Home Safety Measures of elderly with their demographic characteristics. Most of the elderly who were in the age group of 60-70 years had good home safety measures score of (58.10±6.30) followed by those in the age group of 70-80 with home safety measures score of (57.83±4.36) and the elderly who had age group of 80-90 years had home safety measures score i.e.

(55.00±1.73). Though, it was found to be not significant at 0.691 level of significance. Males were found to have good home safety measures as revealed by their higher mean home safety measures score (58.04±4.74) than females whose mean home safety measures was (57.81±6.97). It was found to be not significant at 0.887 level of significance.

As per the educational status, elderly who were educated up to secondary school had good level of home safety measures i.e. (59.43±9.30), followed by (57.78±4.78) who were educated up to elementary level, followed by (57.00) who were graduate and above and elderly who were illiterate mean was (56.11±3.98). It was found to be not significant at 0.640 level of significance. Elderly who were married had good home safety measures score of (58.02±6.32), followed by elderly who were widow/ widower mean was (57.63±5.14). It was found to be not significant at 0.822 level of significance.

Regarding living status, the mean home safety measurement higher among elderly who were living with their spouse (58.33±2.52) then elderly who were living with their children (57.89±6.12). Though it was found to be not significant at 0.903 level of significance.

More than half of the elderly had moderate activity had good home safety measures i.e. (59.65±7.01), followed by elderly who had mild (56.40±4.56) and (55.44±2.60) had no activity. It was found to be not significant at 0.065 level of significance. Out of 60 elderly (58.07±4.83) were involved in service/ job, followed by (57.81±6.97) were homemaker and (57.00) were involved in business. It was found to be not significant at 0.975 level of significance.

As per the work status, more than half of the elderly were employed had good home safety measures i.e. (59.33±5.96) and only (57.67±6.01) were employed and it was found to be not significant at 0.446 level of significance. Out of 60 elderly (61.00) were having pension and had good home safety measures, followed by (58.60±6.00) who were involved in business/ self- employed, followed by (57.74±6.32) were having caregiver and (57.60±5.32) who were having both pension and care giver. It was found to be not significant at 0.932 level of significance.

Regarding economical dependency, the elderly who were independent had good home safety measures i.e. (58.00±4.95), followed by (57.93±5.56) were partially dependent and rest were (57.90±6.37) were fully dependent. It was found to be not significant at 0.999 level of significance. Most of the elderly were having personal monthly income 5,000- 10,000 had good home safety measure scores i.e. (67.00) and only (57.78±5.922) had personal monthly income <5,000. Though it was found to be not significant at 0.128 level of significance.

Hence, it was inferred that the elderly among age group 60-70 years, were females, who were married, educated up to elementary, were living with their children, were moderately activity, were sedentary life

style, were homemaker, were unemployed, were having care giver, were fully dependent, who were having monthly income <5,000. Mean scores were found to be not significant for all.

CONCLUSION

It was concluded that most of the subjects had good home safety measures. The association of home safety measures among elderly with their demographic characteristics was found to be statistically non- significant.

LIMITATION OF THE STUDY

The study was limited to elderly people of age 60 years and above residing in Ludhiana city Punjab.

II. ACKNOWLEDGMENT

"Success is something you experience when you act accordingly. Success is not something you have, it's something you do."

The fruition of any work or effort requires the judicious blend of acknowledgement, suggestion, critical observations. It is a result of many helping hands. The ritual of giving thanks to the persons who helped us directly or indirectly in our success is a pleasure and indispensable.

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