Physical Activity and Depression in Elderly Adults

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The movement of the body that uses energy in physical activity such as Walking, gardening, pushing a baby stroller, climbing the stairs or dancing are all-good for being active that all for health benefits, physical activity should be moderate or Strenuous effort.

Activity improve quality of life in a multitude of ways. Daily physical activity can relieve tension, anxiety, depression and anger. Exercise increases the flow of oxygen, which directly affects the brain. Mental acuity and memory can also improve with physical activity and can reduce risk of heart diseases by improving blood circulation, keep weight under control, prevent bone loss, boost energy level, help fall asleep more soundly and manage stress.

In aged 65 years and above, activity include respite time physical activity like walking, dancing, gardening, hiking, swimming, transportation (walking, cycling),occupational if the individual is still engaged in work, household chores, play, games, sports or planned exercise, in the context of daily, family and community activities.

Depression remains a significant global health concern. Engaging in physical activity have demonstrated to reduce symptoms of depression, whereas a rise in these symptoms often results in decreased participation in exercise. Although it have observed that, this condition affects both men and women with increasing frequency, as they get older.

Operational Definition-

- **Physical activity-** These are responses of elderly adults to a structured quantitative data that includes household activities, walking, light and heavy exercises, visiting temples including recreational activities.

- **Depression-** According to our study in elderly Adults depression is hopeless and dropped activities with lacking of interest and avoid social gathering.
- **Elderly Adults-** People between Age group of 60-75 years.

Methodology

Research approach
Quantitative approach were used for the study.

Research design
Research design selected for the study was Descriptive design.

Sample and sample size
This study consisted of 70 Elderly adults of age 60-75 years.

Sampling technique
Non-probability sampling technique were used.

Setting: Awas Vikas, Haldwani

Data collection tool: The tool for assessing the physical activity and depression

- **Tool 1:** Socio demographic life style related factor
- **Tool 2**: Structured Quantitative data to assess frequency of physical activity.
- **Tool 3**: Structured depression checklist.

Development of the tool

The structured questionnaire was prepared to assess the physical activity and level of depression in elderly adults.

Description of the tool

Tool 1: Socio-demographic data

This section consists of Age, Gender, religion, education status, occupation, Family income, type of family, residential area, number of family member, raising time, sleeping time, and mode of transportation.

Tool 2: Physical activity practices

Structured Quantitative data was prepared to assess the socio demographic factors, which influence the physical activity practice among the elderly adults.

Tool 3: Depression checklist

It includes 24 structured questionnaires for assessing depression in elderly adults.

Analysis and Interpretation

Presentation of data:

The findings of the study were organized and presented in the following sections-

- **Section I** frequency and percentage of socio demographic variables.
- **Section II** frequency distribution of physical activity in daily life.
- **Section III** frequency distribution of depression checklist

Table 1: Frequency and percentage of socio demographic variables of elderly adults

s.no	Socio demographic. Variables	Frequency	Percentage
1	**Age**		
	60-65 years	34	48.6
	66-70 years	25	35.7
	71-75 years	11	15.7
2	**Gender**		
	Male	37	52.9
	Female	33	47.1
3	**Religion**		
	Christian	4	5.71
	Hindu	62	88.6
	Muslim	2	2.9
	Sikh	2	2.9
4	**Education**		
	No formal education	12	17.14

	Primary	17	24.28
	High School	16	22.9
	Intermediate	12	17.14
	Graduate	9	12.9
	PG or more	4	5.71
5	**Occupation**		
	Agriculture	6	8.6
	Government Job	6	8.6
	Home maker	30	42.9
	Private job	3	4.28
	Retired	18	25.71
	Self-employ	7	10.00
6	**Family Income**		
	>5000	13	18.6
	5001-1000	9	12.9
	10001-20,000	24	34.28
	>20000	24	34.28
7	**Family type**		
	Nuclear	17	24.3
	Joint	52	74.28
	Extended	1	1.42
8	**Living Area**		
	Urban	70	100
9	**Family Member**		
	2-4	23	32.9
	5-7	31	44.28
	8-10	12	17.14
	>11	4	5.71
10	**Rising Time**		
	4-6	64	91.42

	7-8	6	8.6
11	**Sleeping Time**		
	8-10	55	78.6
	11-1	15	21.42
12	**Transport**		
	Walking	23	32.9
	Scotty	13	18.6
	Car	11	15.71
	Public	23	32.9

Table 1: The data represented that majority (49%) of elderly adults were in the age group of 60-65 years and most of them were males and belongs to Hindu religion. They were primarily educated and their occupation was homemaker. Their family income is more than 20000 and they all live in joint family and belong to urban area. 44% of elderly adults have 5-7 family. Members and they all get up between 4 am to 6am and sleep at 8 pm to 10 pm and most person prefer walking and public transport.
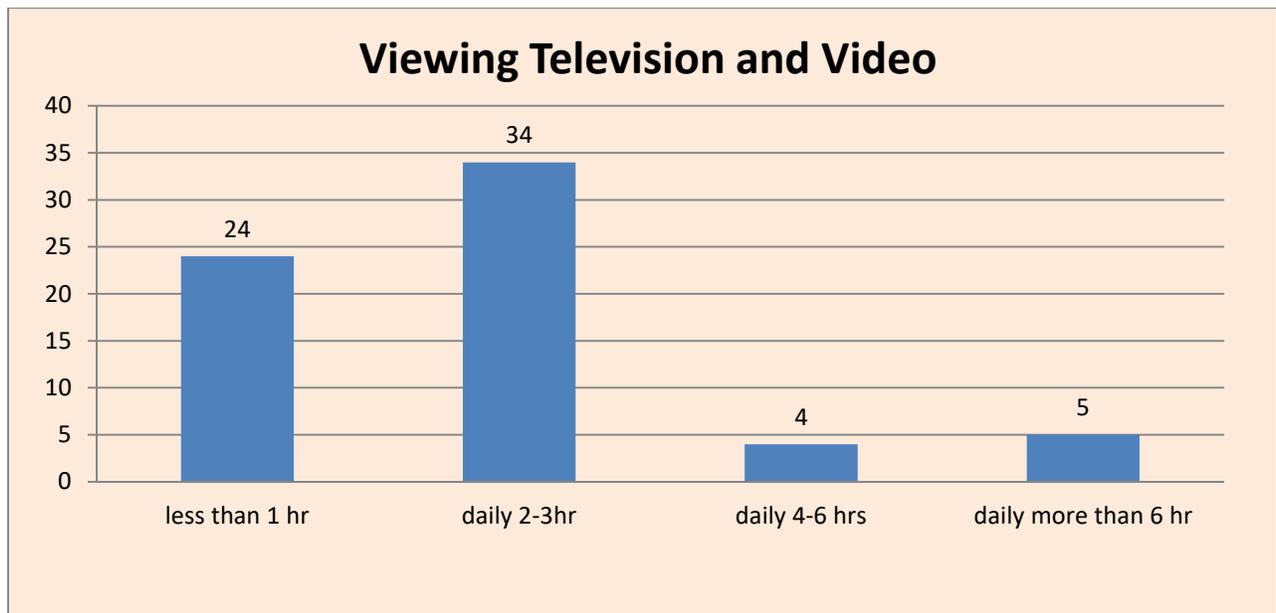

Figure 2: frequency distribution of viewing TV and videos

Figure 1: This bar diagram shows that out of 70 elderly adults 34 elderly adults watch TV daily 2-3 hours and 24 elderly adult watch TV less than 1 hour and 5 person watch TV daily more than 6 hour and 4 person watch TV daily 4-6 hours.

Frequency distribution of elderly adults for stair climbing-

Figure 3: frequency distribution of elderly adults for stair climbing at home

Figure 2: The figure represent that 45 (64.28%) elderly adults climb stairs daily and 16(22.86%) elderly adults climb stair once in a week.
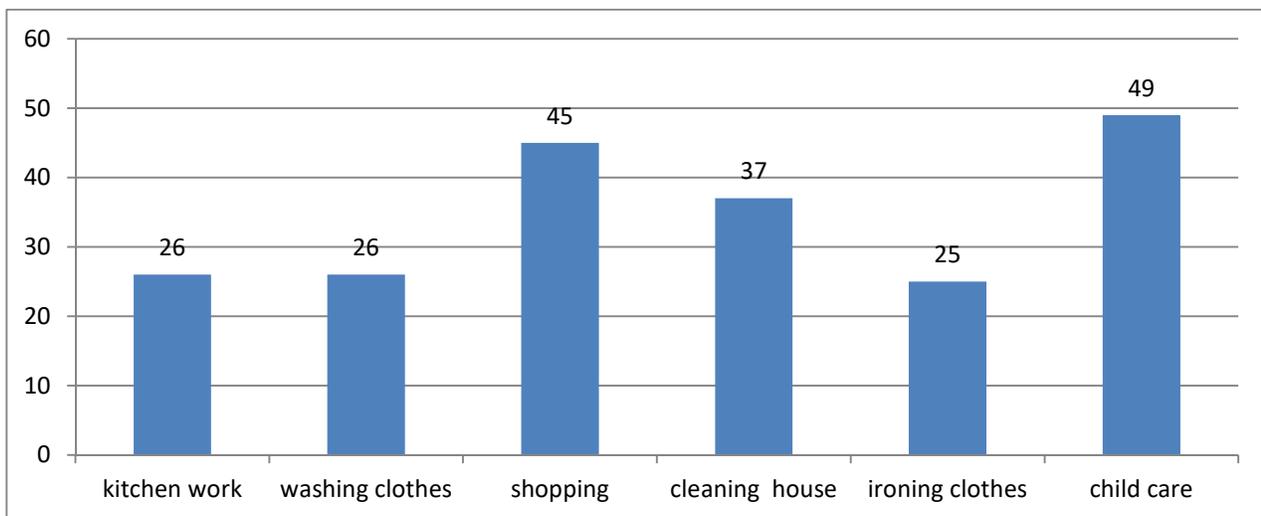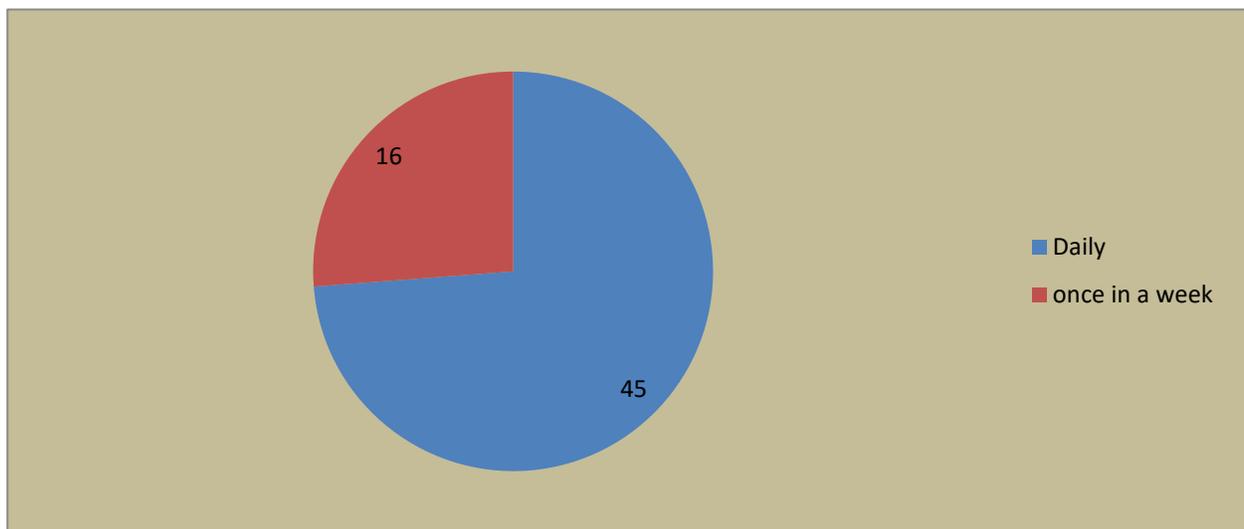
Figure 4: frequency distribution of elderly adults for activities in and around the house

Figure 4: This bar diagram represents that majority of samples were involved in child care whereas 45 of them are involved in doing shopping. 37 samples were engaged in cleaning house and 26 were involved in kitchen work and washing clothes respectively.
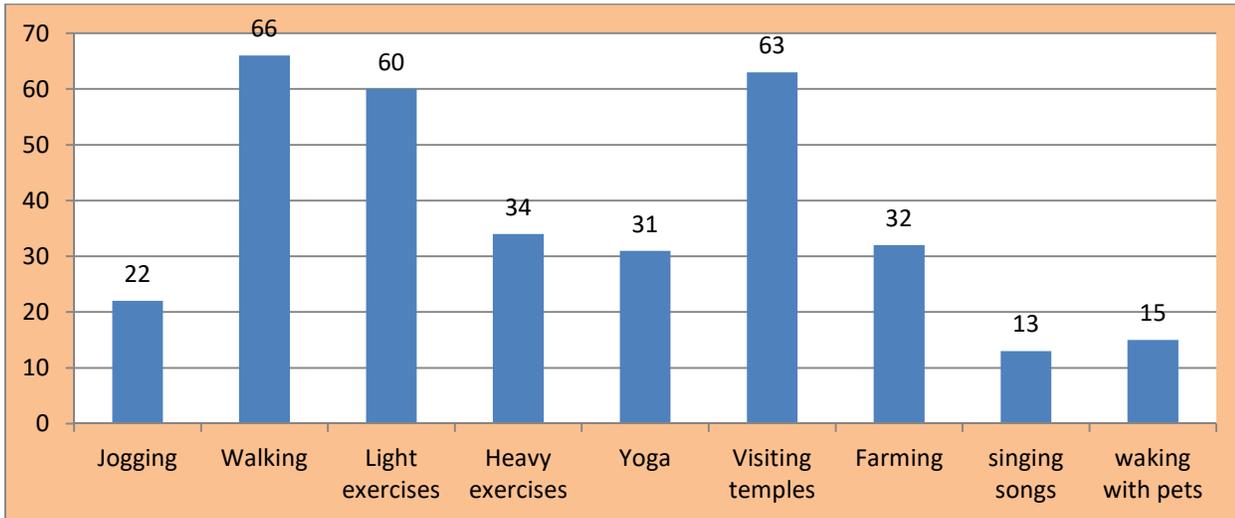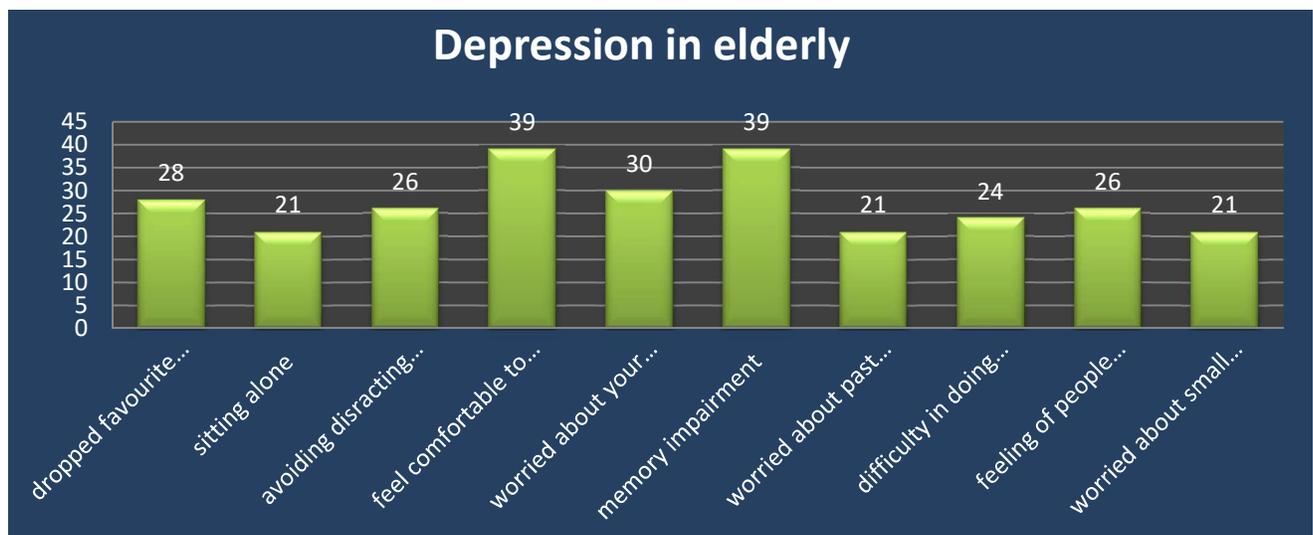

Figure 5: Frequency distribution of elderly adults for recreational activities

Figure 5: This bar diagram represents that majority (66) samples were actively involved in walking whereas 63 samples have preferred visiting temples. 60 samples were actively engaged in light exercises and 34 preferred heavy exercises whereas 13 samples preferred singing songs respectively.

Figure 6: frequency distribution of depression checklist

Figure 6: This graph shows that majority (39) samples had memory impairment and feel comfortable to stay at home whereas 30 were worried about their future and 28 have dropped their favourite activities and 26 has avoiding distracting thoughts and feeling of people are better than them and 24 has difficulty in new work and 21 like to sit alone, worried about past experience, worried about small things

Findings, Discussion & Conclusion

Findings of the Study

TOOL 1: Finding related to socio demographic factor

Finding related to socio demographic Performa of the study showed that maximum number of elderly adults 34 was from the age group of 60-65Year and 37 were male and 33 were female, 30 female were homemaker. Most of the samples belong to joint family, Majority (64) of sample's rising time was between 4-6 am and sleeping time was between 8-10 pm, 23 samples prefer walking.

TOOL-2:

Objective 1: To assess the physical activity in elderly adults.

- Finding of the study shows that more than half-34 elderly adults watch TV daily 2-3 hours while 24 watch TV less than 1 hour randomly 4 sample watch TV daily 4-6 hours.
- One-third participants (45) using stairs climbing daily.
- Majority of 49 samples were involved in childcare, 37 were involved in cleaning house and 25 ironing the clothes.
- Most (66) participants were actively involved in walking and 63 participants like visiting temples as a recreational activity.

TOOL-3:

Objective 2: To assess the depression in elderly adults.

- Study shows that majority of samples were having memory impairment and feel comfortable to stay at home
- The study reveals that 30 participants were worried about their future.

- Out of 70 participants, 28 dropped their favorite activities.

- For depression 24 participants were having difficulty in new work

- Only 21 participants prefer to sit alone.

Objective-3: To find the correlation between physical activity and depression.

Physical Activity	10.01	r= -0.03
Depression	6.4	

Table 2: The table shows that there is a value (-0.03) indicate a moderate negative linear relationship between physical activity and depression.

Conclusion

On basis of findings majority of participants were physically active, (49%) were from age group between 60-65 year and used to get up 4-6 am and sleep between 8-10 pm.Out of 70 elderly adults 34 watch TV daily 2-3 hours and most of them used stairs in their daily life, one third participants were engaged in child care, 63 participants prefer visiting temple. Most of the participants feel comfortable to stay at home and were having memory impairment.

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