

SCIENTIFIC PAPER PRESENTATION

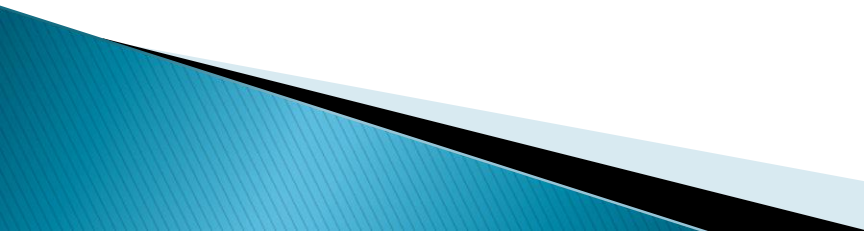


**Presenter: Dr. (Mrs.) Jasbir Kaur
Professor and Principal,
DMCH College of Nursing,
Ludhiana**

Title

A Descriptive study to assess the awareness and usage of assistive devices for mobility and self-care among elderly residing in Ludhiana City, Punjab.

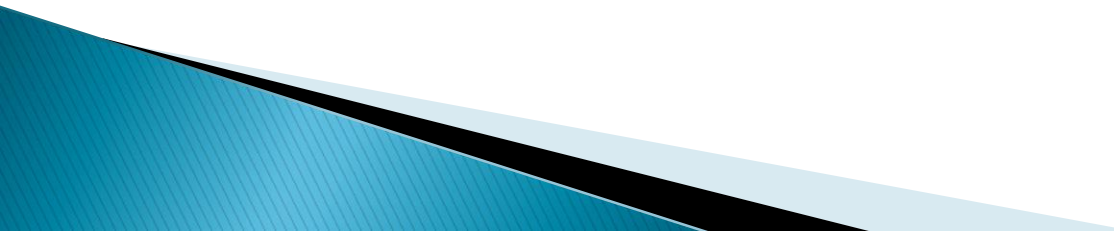
Background of the study

- ▶ According to United Nations (2011), the share of India's population ages 60 and older is projected to climb from eight percentage in 2010 to 19 percentage in 2050.
 - ▶ It is assumed that with rising number of elderly their ageing related problems will also be raised such as various ageing related disabilities and other health conditions.
 - ▶ The assistive devices for mobility and self care can make its use to sustain their independence in day to day activities.
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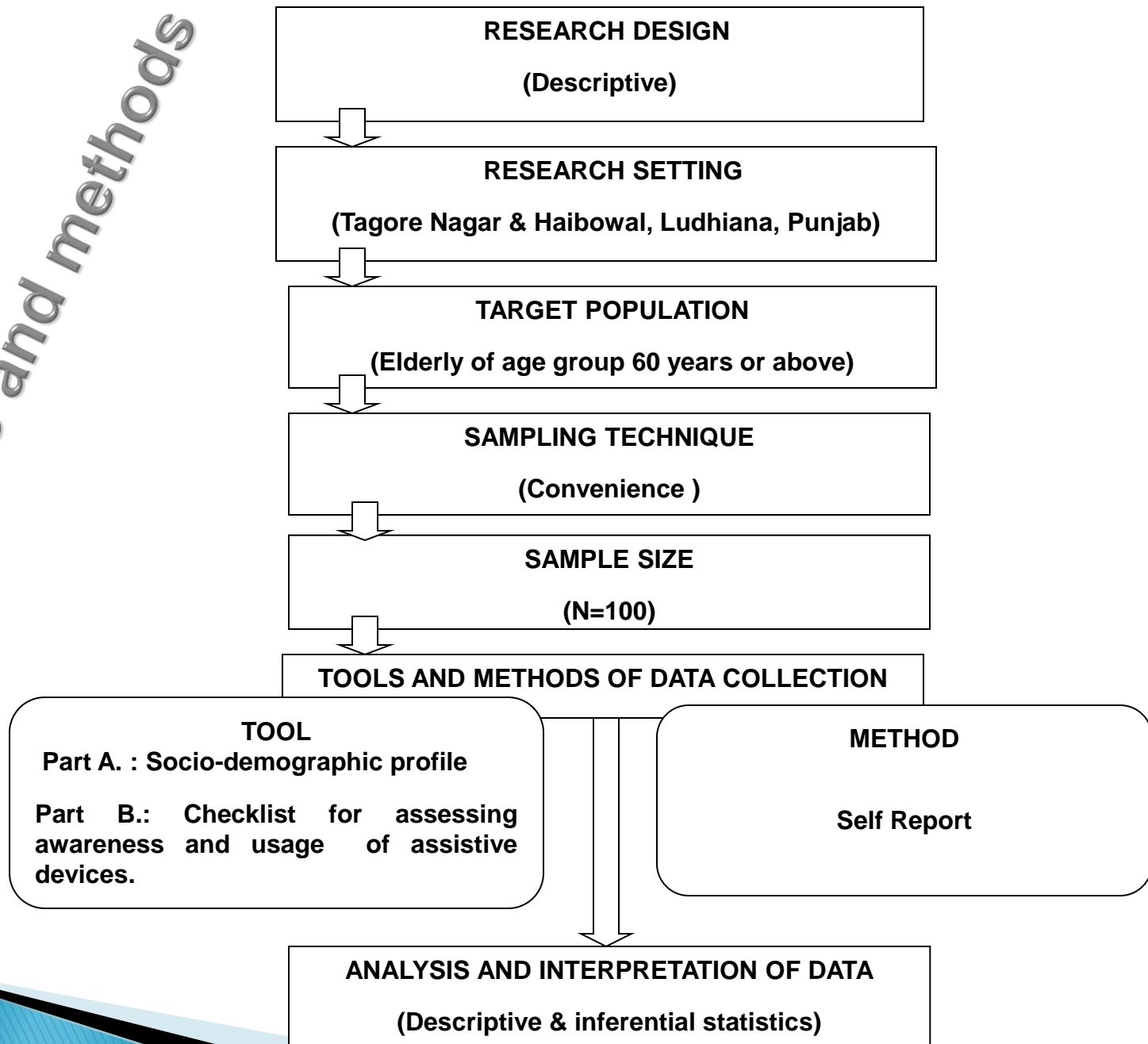
Need of the study

- ▶ With the projected increase in elderly population there would be increased risk for perceived disabilities in the future.
- ▶ In India, estimates of only 20% of people with disabilities had ever been advised on aids and appliances. Less than 16% actually acquired any assistive devices.
- ▶ There is no national statistics on number of people with disabilities in India, so the exact need of assistive devices cannot be defined at present.
- ▶ There is absence of systematic collection of facts related to the problem, inadequate devices and services used to help older individuals as well as there are insufficient high-quality studies evaluating the impact of specific assistive devices on self-care and mobility.

Objectives

1. To assess the awareness and usage of assistive devices for mobility and self care among elderly residing in Ludhiana City, Punjab.
 2. To plan and disseminate IEC Material regarding the awareness and usage of assistive devices for mobility and self-care.
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Materials and methods



Results

Characteristics of subjects



Table 1: Distribution of elderly as per Socio-demographic characteristics.

N=100

Socio demographic variable	%age
Age (in years)	
60 – 69	46.0
70 – 79	28.0
80 – 89	20.0
90 and above	06.0
Gender	
Male	48.0
Female	52.0
Educational status	
Illiterate	29.0
Elementary	25.0
Secondary	07.0
Graduation and above	39.0
Marital status	
Married	64.0
Never married	04.0
Widow/widower	32.0
Religion	
Sikh	47.0
Hindu	52.0
Muslim	01.0
Type of Family	
Joint	71.0
Nuclear	29.0

Table 2: Distribution of elderly as per Socio-demographic characteristics.

N=100

Variables	%
Living status	
With spouse	18.0
With children	32.0
With spouse and children	46.0
With relatives	04.0
Present employment status	
Unemployed	76.0
Employed	24.0
Former occupation	
Business	17.0
Professional	37.0
Farmer	06.0
Laborer	08.0
Housewives	32.0
Financial status	
Fully dependent on care giver	33.0
Partially dependent on care giver	19.0
Independent	48.0
Monthly income of elderly (in rupees)	
Nil	33.0
<5000/-	08.0
5001-10,000/-	09.0
>10,000/-	50.0
Source of income	
Pension	17.0
Business/ self employed	26.0
Caregiver	30.0
No source	03.0
Both pension and caregiver	24.0

Figure1 : Distribution of elderly as per existing Health problems.

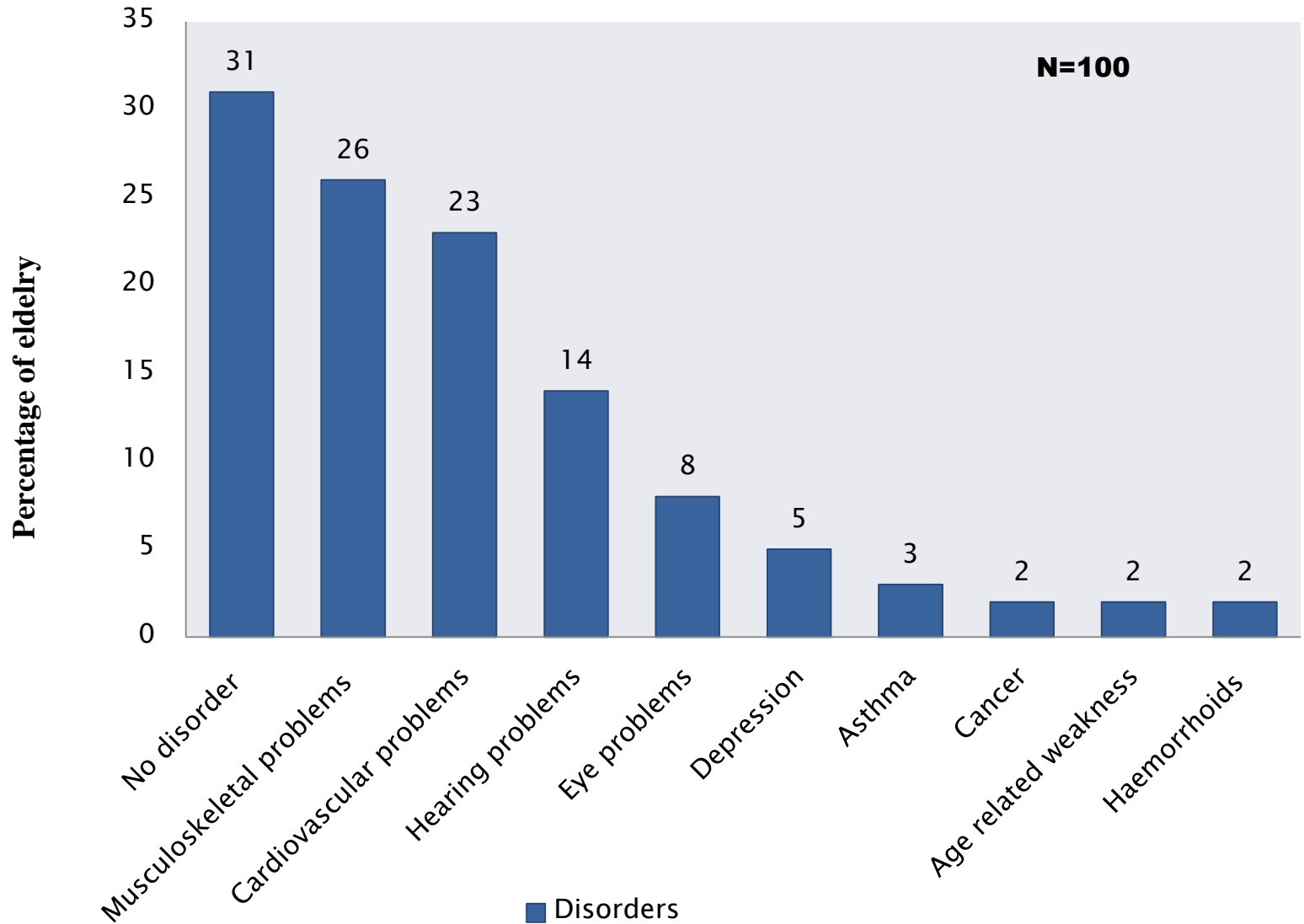
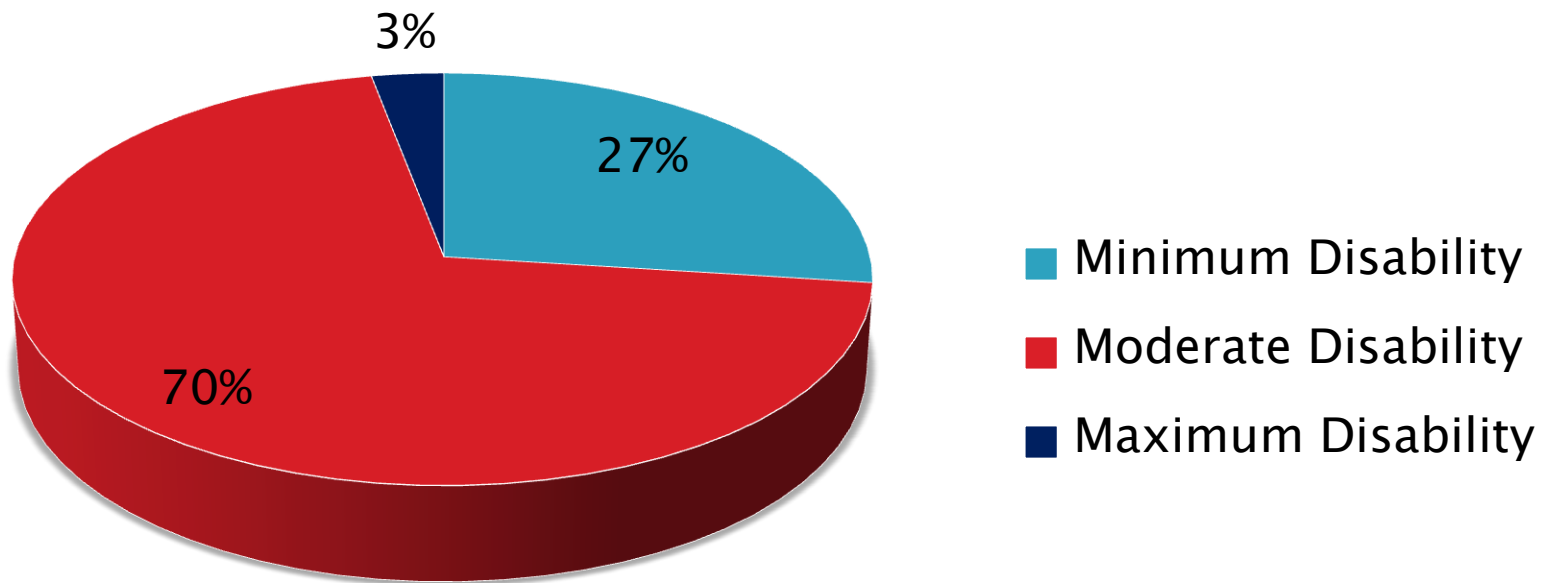


Figure 2: Disability profile of elderly residing in Ludhiana city, Punjab.

N=100



Disability profile of Elderly

Table no. 3: Distribution of elderly as per the relationship of awareness and usage of assistive devices for mobility.

N=100

Assistive devices for mobility	Awareness Percentage(%)	Usage Percentage(%)
CANES		
Standard canes	100	33
Offset canes	56	02
Quadripod	61	03
CRUTCHES		
Auxiliary crutches	94	00
Forearm crutches	46	00
Platform crutches	30	01
WALKERS		
Standard walker	97	14
Front wheeled walker	45	00
Four wheeled walkers	51	01
Hemi walkers	28	00
WHEELCHAIR		
Manual	97	02
Motorized	43	00
PROSTHESIS		
Dentures	96	41
Coventional body powered leg & arm	76	00
Maxilofacial intra oral prosthesis	59	06
Ocular prosthesis	53	00
Electric & myo electric arm	47	01
External silicon breast	38	00
Maxilofacial extra oral	36	00

Figure 3: Distribution of elderly as per relationship of awareness and usage of assistive devices for self-care used for dressing

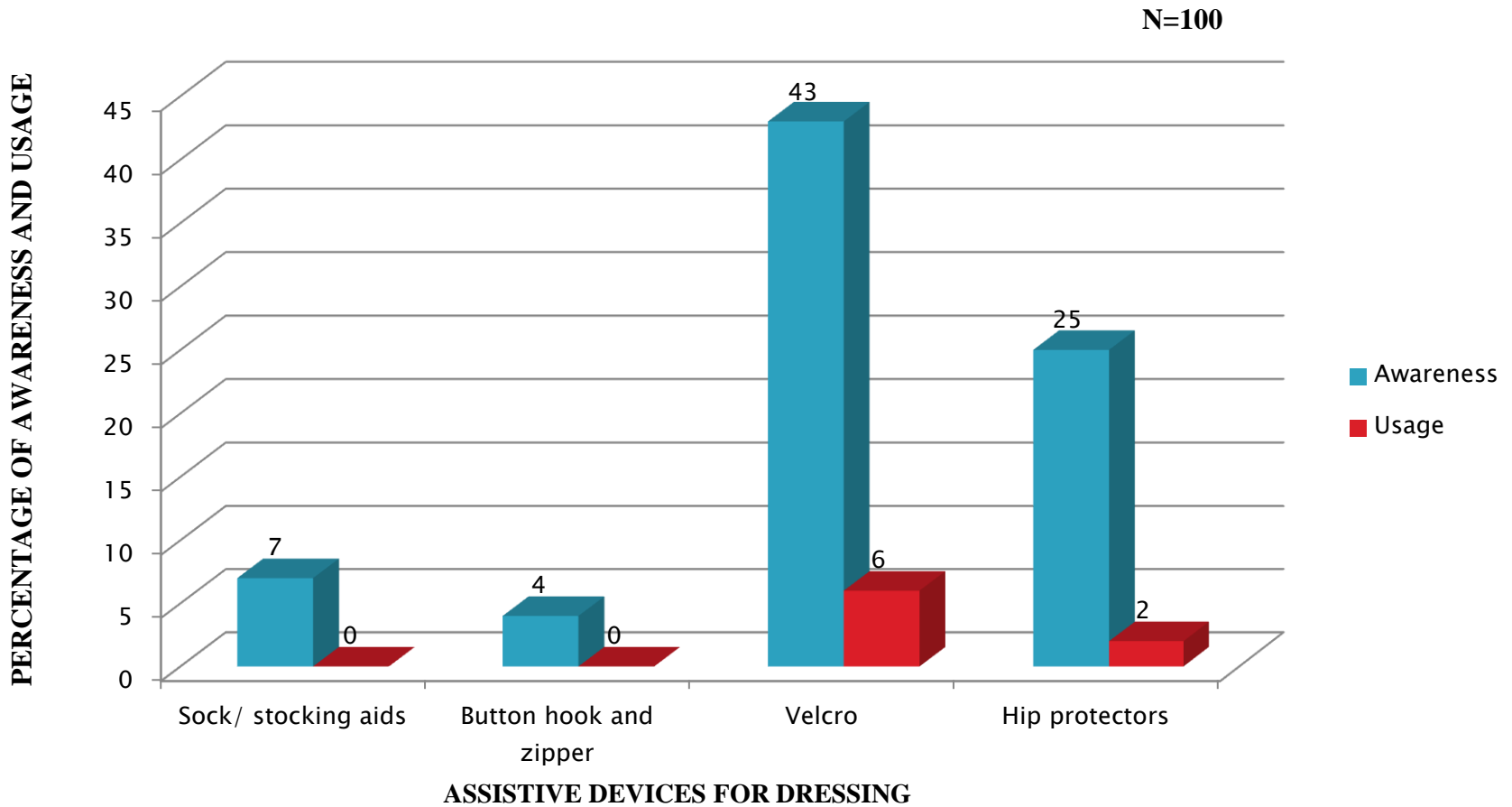
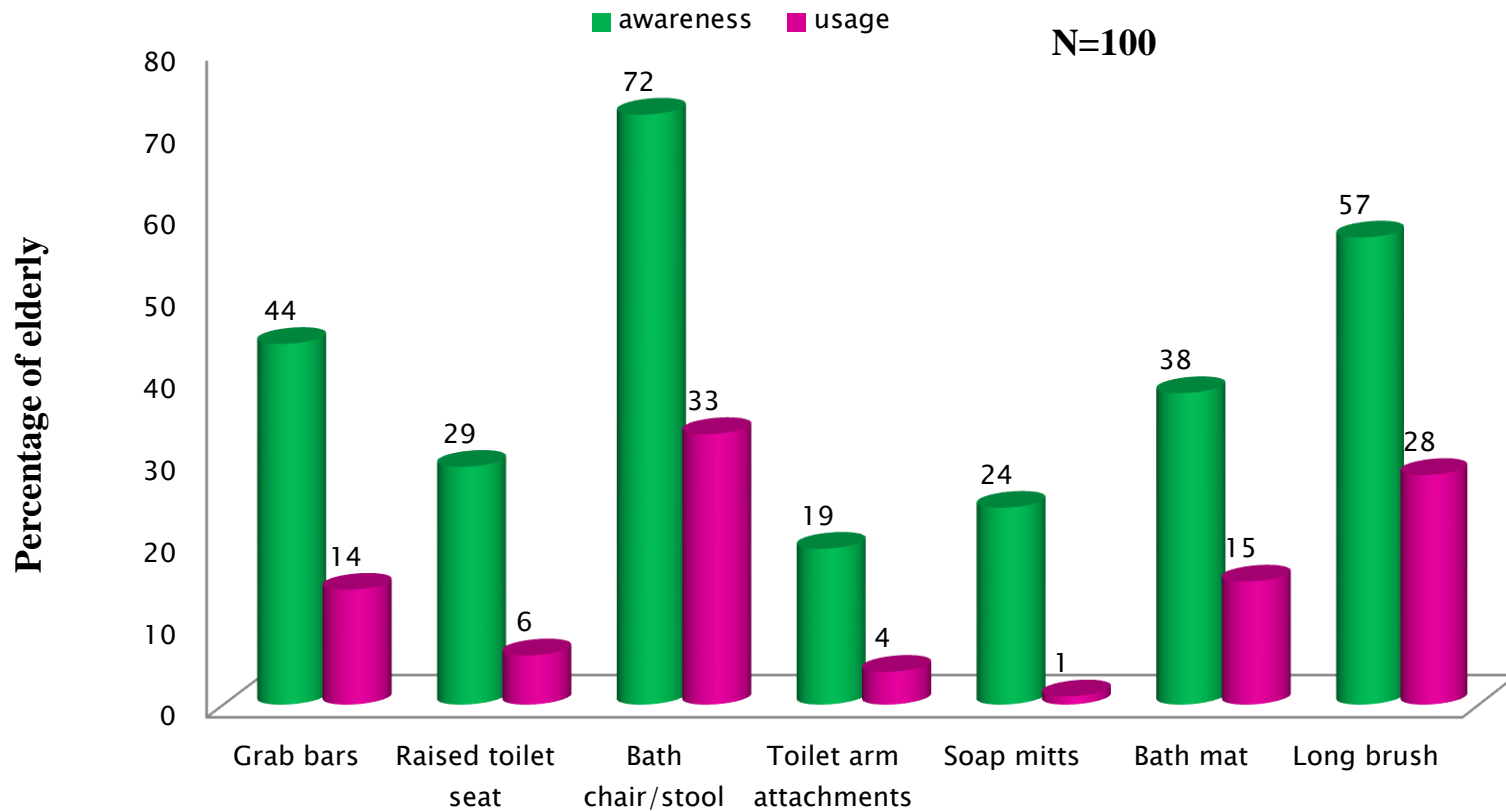


Figure 4: Distribution of elderly as per awareness and usage of assistive devices for self care which is toileting aids.



Awareness and usage of assistive devices for toileting

Table no. 4: Frequency distribution of elderly as per the relationship of awareness and usage of assistive devices for self-care.

N=100

Self care devices	Awareness (%)	Usage (%)
Accessibility Aids Grasping, bending, reaching -long handles	32	10
Grooming Tilt mirror Lever handles on sink	61 22	34 11
Customized holders Tooth brushes Razors Hairbrushes Nailcutters	18 16 18 10	00 00 02 00
Home safety/ environmental controls Motion sensor Grab bars on stairs Grab bar and chair lift on one side of stairs Railing on both sides of stairs Alarms	20 52 05 50 72	02 11 00 16 39

Figure 5: Distribution of elderly as per awareness and usage of assistive devices for meal preparation.

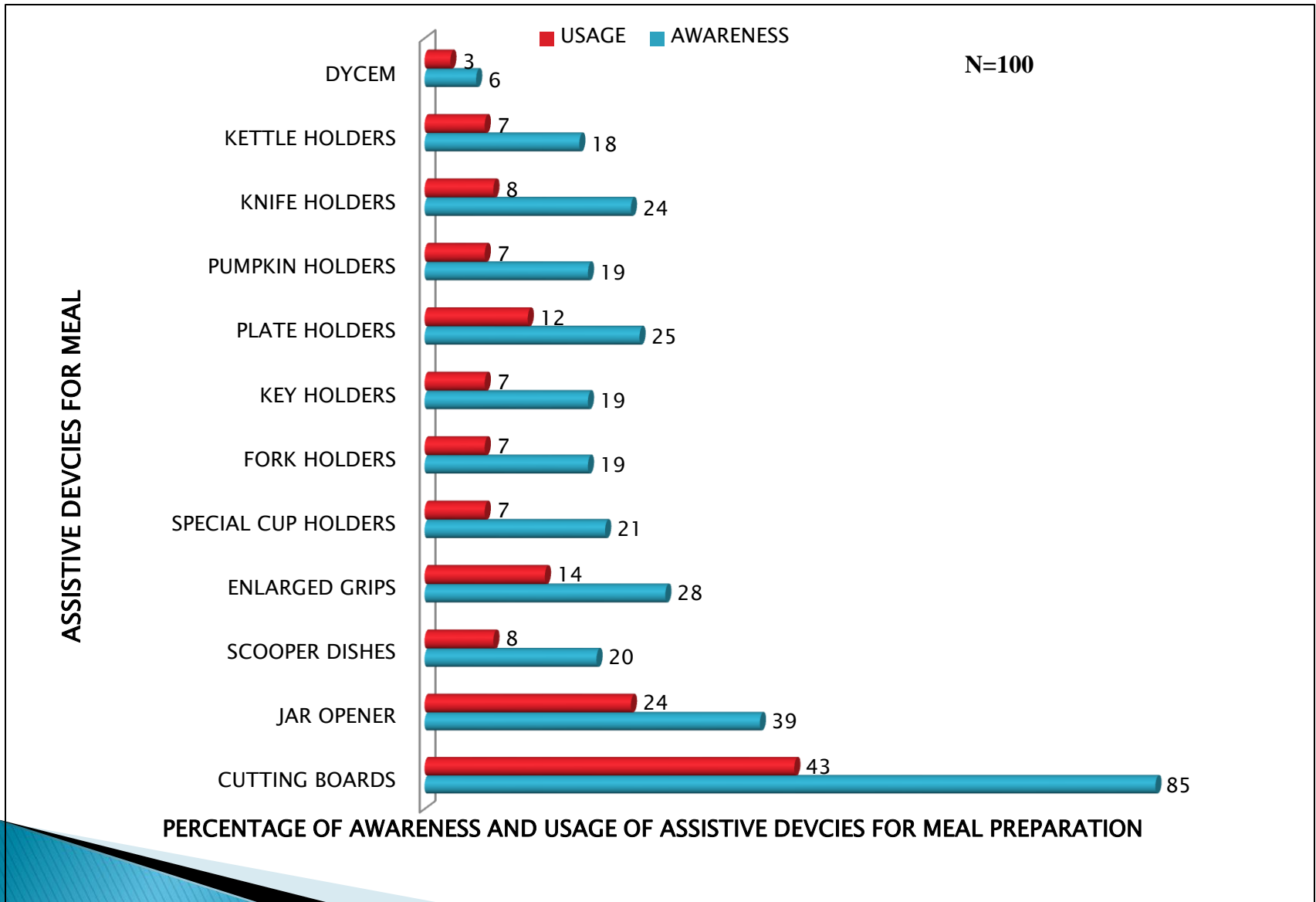
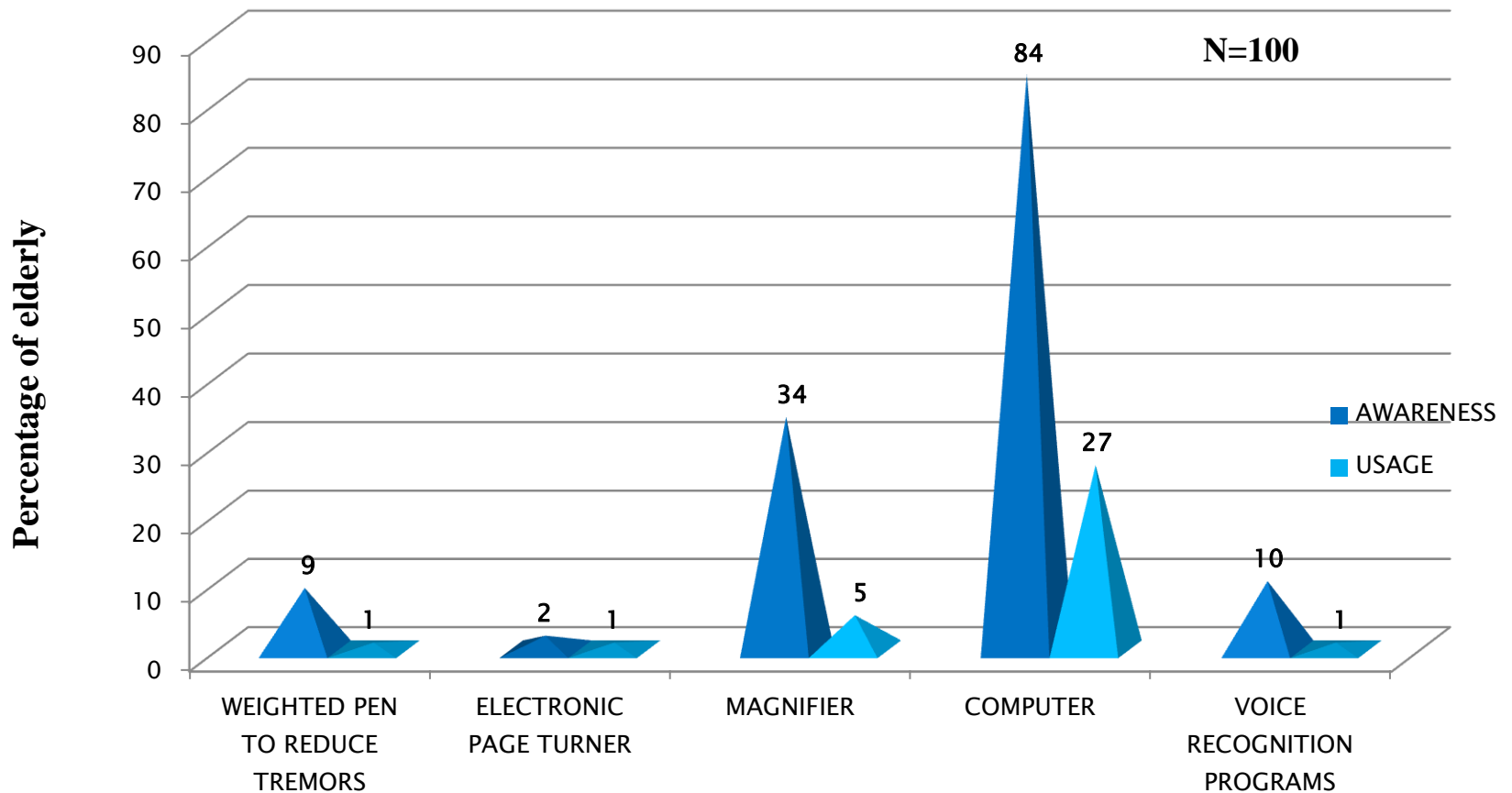


Table no. 5: Frequency distribution of elderly as per the relationship of awareness and usage of assistive devices for self-care.

N=100

Self care devices	Awareness (%)	Usage (%)
Hearing Aids		
Hearing devices	95	14
teletypewriters	09	00
Visual aids		
Big button telephones	68	08
Magnifying glass	60	24
Manilink vision	18	02
Touch memos	04	00
Talking watches	34	01
Talking calculators	30	00
Low vision lamps	23	03
Recorded book players	11	01

Figure 6: Distribution of elderly as per awareness and usage of assistive devices for communication and education.



Assistive Devices Used For Communication And Education

Major findings

- ▶ In the present study, 100% elderly had awareness about standard canes but only 33% were using. Regarding crutches, 94% elderly were aware about auxiliary crutches, 46% aware of forearm crutches and 30% know about platform crutches where as usage is nil.
- ▶ Maximum (97%) of elderly reported to have awareness of standard walkers and 14% were using for mobility. 97% subjects had awareness of wheelchairs but its usage was just two percent, 96% were aware of dentures and 41% were using.

Contd...

- ▶ 43% of elderly were aware of Velcro clothing and 25% of hip protectors but 6% and 2% respectively were using. Majority(72%) and 57% had awareness of bath chair/stool & long brush but its usage is 14% and 28%.
- ▶ 84% and 27% were aware and used computers for communication and education. 34% were aware of magnifiers and 5% are using them for reading etc. for hearing aids 95% were aware of hearing devices and 14% were using them.

Discussion

- ▶ In the present study, 100% elderly had awareness about the standard canes but only 33% were using it, 94% were aware about auxiliary crutches, 46% forearm crutches and 30% about platform crutches but usage was nil. Maximum (97%) of elderly reported to have awareness of standard walkers and wheelchairs, 14% and only 2% respectively were using them.
- ▶ Similar findings were reported by U.S. department of health and human services survey (1999) which showed that 25.8% usage of walkers and 15.6% usage of canes as outdoor use of mobility aids

Discussion contd...

- ▶ Present study revealed that 14% usage of bath chair/stool & 28% long brush. Majority(72%), 52% and 50% had awareness of alarms, grab bars on stairs and railing on both sides of stairs but 39%, 11% and 16% respectively were using them.
- ▶ Finding were supported by the reports of U.S. department of health and human services survey (1999) which depicted 37.1%. usage of seat for tub/showers, 17.2% usage of grab bars and 19.3% usage of rubber mat in bathroom.

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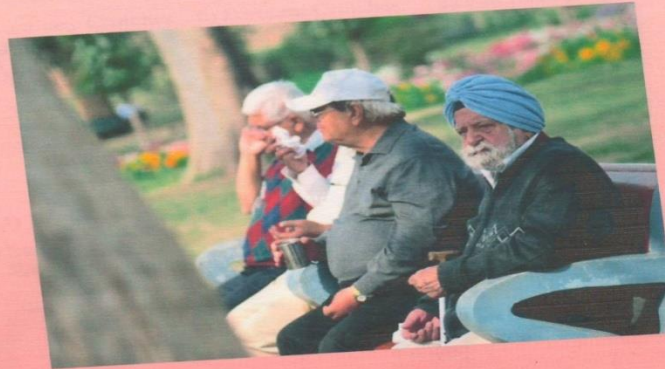
- ▶ Present study revealed that 70% of elderly were found to have moderate level of disability but minimum of them were using assistive device for mobility and self care.
- ▶ This finding were contradicted by national long term care survey in US reports (1999), which revealed that maximum of elderly were using assistive technology for mobility and there was significant decreased of disability among people aged 65 years and older.

Conclusion

- ▶ It was concluded that maximum of the of elderly were found to have moderate disability and musculoskeletal problem was most common among them. Most commonly used assistive device was dentures prosthesis (41%) standard canes(33%) and standard walkers(14%). Though majority of them were aware about various self care devices but minimal usage was reported.

IEC Material in English

ASSISTIVE DEVICES FOR MOBILITY AND SELF-CARE



1) Mobility Devices

1.1) Canes

a) Standard Canes



b) Offset Canes



c) Quadripod Canes



1.2) Crutches

a) Auxiliary Crutches



b) Forearm Crutches



c) Plat form crutches



1.3) Walkers

a) Standard Walkers



b) Front Wheeled Walkers



c) Four Wheeled



d) Hemi Walkers



1.4 Wheel Chairs

a) Manual



b) Motorized



1.5 Prosthesis

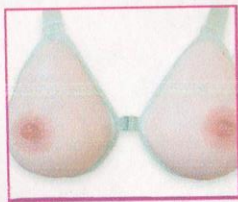
a) Conventional – body powered leg and arm prosthesis



b) Electric & myo-electric arm prosthesis



c) External silicon breast prosthesis



d) Maxillofacial intra oral Prosthesis



e) Maxillofacial extraoral prosthesis



f) Ocular Prosthesis



g) Dentures



2. SELF CARE

2.1 Dressing

a) Sock/Shocking aids



b) Bottom hook and zipper for persons with one hand



e) Velcro



d) Hip Protectors



2.2 Toileting

a) Grab Bars



b) Raised Toilet Seat



c) Bath chair/tool



d) Toilet arm attachments



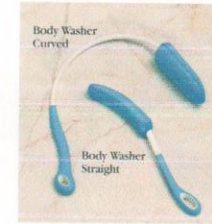
e) Soap mitts



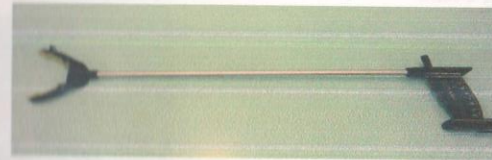
f) Bath mat



g) Long brush



2.3 Accessibility Aids

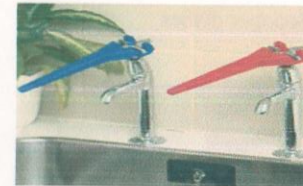


2.4 Grooming

a) Tilt Mirror



b) Lever handles on sink



2.5 Customized Holders

a) Toothbrushes



b) Razors



c) Hairbrushes



d) Nail-cutters



2.6 Meal preparation/eating

a) Cutting Board



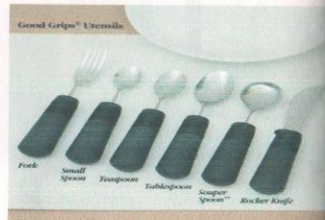
b) Jar Opener



c) Scooper dishes



d) Enlarged Grips



e) Special cup holders



f) Fork holder



g) Key holder



h) Plate holder



i) Pumpkin cutter holder



j) Knife holder



k) Knife holder



i) Dycem



2.7 Home Safety/ Environmental Controls

a) Motion sensor lights



b) Grab bars on stairs



c) Chair lift



d) Railing on both sides



e) Alarms



2.8 Communication & Education

a) Weighted pen to reduce tremors



b) Electronic page turner



e) Magnifier



d) Computer



e) Voice recognition programs



2.9 Hearing Aids

a) Hearing Devices



behind the ear (BTE)

in the ear (ITE)

in the canal (ITC)

completely in the canal (CIC)

Receiver in the Ear (RITE)



b) Teletypewriters

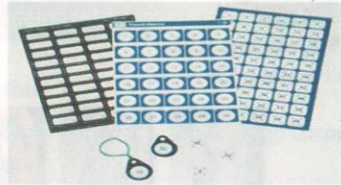


2.10 Visual Aids

a) Magnilink Vision



b) Touch memos



c) Talking watches



d) Talking calculator



e) Magnifying glass



f) Low vision lamps



g) Recorded book players



h) Big button telephones



IEC Material in Punjabi

ਬੁਜ਼ੁਰਗਾਂ ਦੇ ਤੁਰਨ ਫਿਰਨ ਵਿੱਚ ਸਹਾਇਕ ਅਤੇ
ਆਤਮ ਸੰਭਾਲ ਲਈ ਵਰਤੇ ਜਾਂਦੇ ਸਾਧਨਾਂ ਦੀ
ਜਾਗਰੂਕਤਾ ਸੰਬੰਧੀ ਸੂਚੀ।



1) ਤੁਰਨ ਫਿਰਨ ਲਈ ਯੰਤਰ

1.1 ਓ) ਸਾਧਾਰਣ ਖੁੰਡੀ 1.1 ਅ) ਆਫਸੈਟ ਖੁੰਡੀ 1.1 ਏ) ਚਾਰ ਪੈਰਾਂ ਵਾਲੀ ਖੁੰਡੀ



1.2 ਫਹੁੜੀਆਂ

1.2 ਓ) ਸਾਧਾਰਣ ਫਹੁੜੀਆਂ 1.2 ਅ) ਹੱਥਾਂ ਵਾਲੀਆਂ ਫਹੁੜੀਆਂ 1.2 ਏ) ਬਾਹਾਂ ਵਾਲੀਆਂ ਫਹੁੜੀਆਂ



1.3 ਵਾਕਰ

1.3 ਓ) ਸਾਧਾਰਣ ਵਾਕਰ 1.3 ਅ) ਅਗਲੇ ਪਹੀਆਂ ਵਾਲਾ ਵਾਕਰ 1.3 ਏ) ਚਾਰ ਪਹੀਆਂ ਵਾਲਾ ਵਾਕਰ



1.4 ਪਹੀਆਂ ਵਾਲੀ ਕੁਰਸੀ

1.4 ਓ) ਸਾਧਾਰਣ ਪਹੀਆਂ ਵਾਲੀ ਕੁਰਸੀ



1.4 ਅ) ਮੋਟਰ ਵਾਲੀ ਪਹੀਆਂ ਵਾਲੀ ਕੁਰਸੀ



1.5 ਨਕਲੀ ਅੰਗ

1.5 ਓ) ਨਕਲੀ ਲੱਤ ਤੇ ਹੱਥ



1.5 ਅ) ਬਿਜਲਈ ਬਨਾਉਟੀ ਬਾਂਹ



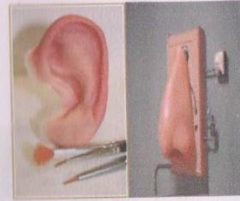
1.5 ਏ) ਬਾਹਰੀ ਸਿਲੀਕਾਨ ਬਨਾਉਟੀ ਛਾਤੀ (ਨਕਲੀ ਛਾਤੀ)



1.5 ਸ) ਨਕਲੀ ਜਬਾੜੇ ਤੇ ਤਾਲੂਏ



1.5 ਹ) ਨਕਲੀ ਨੱਕ, ਕੰਨ



1.5 ਕ) ਨਕਲੀ ਅੱਖਾਂ



1.5 ਖ) ਨਕਲੀ ਦੰਦ



2 ਆਤਮ ਸੰਭਾਲ

2.1 ਕੱਪੜੇ ਪਾਉਣ ਵਿੱਚ ਸਹਾਇਕ ਯੰਤਰ

2.1 ਓ) ਜੁਰਾਬਾਂ ਚੜ੍ਹਾਉਣ ਵਾਲਾ ਯੰਤਰ



2.1 ਏ) ਚੋਪੀ ਵਾਲੇ ਕੱਪੜੇ



2.1 ਅ) ਇੱਕ ਹੱਥ ਵਾਲੇ ਆਦਮੀ ਲਈ ਬਟਨ ਹੁੱਕ ਤੇ ਜਿੱਪ ਖੋਲਣ ਤੇ ਬੰਦ ਕਰਨ ਵਾਲਾ ਯੰਤਰ



2.1 ਸ) ਪਿੱਠ ਰੱਖਿਅਕ



2.2 ਬਾਥਰੂਮ ਵਿੱਚ ਸਹਾਇਕ ਯੰਤਰ

2.2 ਓ) ਖੜ੍ਹੇ ਹੋਣ ਤੇ ਬੈਠਣ ਲਈ ਸਹਾਇਕ ਹੱਥੇ



2.2 ਏ) ਨਹਾਉਣ ਵਾਲੀ ਕੁਰਸੀ



2.2 ਹ) ਸਾਬਨ ਵਾਲਾ ਦਸਤਾਨਾ



2.2 ਅ) ਟਾਈਲਿਟ ਸੀਟ



2.2 ਸ) ਟਾਈਲਿਟ ਬੈਠਣ ਲਈ ਬਾਂਹ ਵਾਲੀ ਕੁਰਸੀ



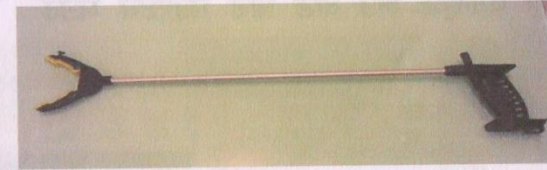
2.2 ਕ) ਨਹਾਉਣ ਵਾਲਾ ਮੈਟ



2.2 ਖ) ਲੰਬਾ ਨਹਾਉਣ ਵਾਲਾ ਬੁਰਸ਼

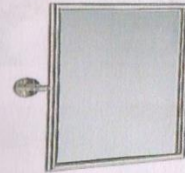


2.3 ਸਮਾਨ ਚੁੱਕਣ ਤੇ ਫੜਨ ਵਾਲੀ ਛੜੀ



2.4 ਗਰੂਮਿੰਗ

2.4 ਓ) ਝੁਕਿਆ ਹੋਇਆ ਸ਼ੀਸਾ



2.4 ਅ) ਸਿੱਕ ਲੀਵਰ ਦਾ ਹੱਥਾ



2.5 ਆਧੁਨਿਕ ਸਹਾਇਕ ਹੋਲਡਰ

2.5 ਓ) ਦੰਦਾਂ ਵਾਲਾ ਬੁਰਸ਼



2.5 ਅ) ਉਸਤਰਾ ਜਾਂ ਬਲੇਡ



2.5 ਬ) ਵਾਲਾ ਵਾਹਉਣ ਵਾਲਾ ਬੁਰਸ਼



2.5 ਸ) ਨਹੂੰ ਕੱਟਣੀ



2.6 ਖਾਣਾ ਪਕਾਉਣ ਅਤੇ ਖਾਣ ਵਿੱਚ ਸਹਾਇਕ ਯੰਤਰ

2.6 ਓ) ਸਬਜ਼ੀਆਂ ਕੱਟਣ ਵਾਲਾ ਗੱਤਾ ਜਾਂ ਬੋਰਡ



2.6 ਅ) ਮਰਤਵਾਨ ਖੋਲਣ ਵਾਲਾ ਯੰਤਰ



2.6 ਏ) ਅਸਾਨੀ ਨਾਲ ਖਾਣ ਲਈ ਸਹਾਇਕ ਬਸਤਰ



2.6 ਸ) ਵੱਖ-ਵੱਖ ਤਰ੍ਹਾਂ ਦੇ ਦਸਤੇ



2.6 ਹ) ਸਪੈਸਲ ਕੱਪ ਹੋਲਡਰ



2.6 ਗ) ਕਾਂਟਾ ਹੋਲਡਰ



ੲ) ਚਾਬੀ ਹੋਲਡਰ



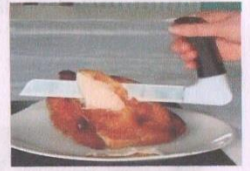
2.6 ਙ) ਪਲੇਟ ਹੋਲਡਰ



2.6 ਚ) ਮਤੀਰਾ ਕਟਰ ਹੋਲਡਰ



2.6 ਛ) ਚਾਕੂ ਹੋਲਡਰ



2.6 ਜ) ਕੋਤਲੀ ਹੋਲਡਰ



2.6 ਝ) ਛੋਟੇ ਭਾਂਡੇ ਸਪਿਰ ਰੱਖਣ ਵਾਲੇ ਮੈਟ



2.7 ਘਰੇਲੂ ਸੁਰੱਖਿਆ ਨਾਲ ਸੰਬੰਧਤ ਯੰਤਰ

2.7 ਓ) ਗਤੀ ਸੰਵੇਦਕ ਲਾਈਟਾਂ 2.7 ਅ) ਪੌੜੀਆਂ ਦੀ ਰੇਲਿੰਗ ਤੇ ਫੜਨ ਵਾਲੇ ਹੈਂਡਲ



2.7 ਬ) ਪੌੜੀਆਂ ਦੇ ਇੱਕ ਪਾਸੇ ਕੁਰਸੀ ਵਾਲੀ ਲਿਫਟ ਅਤੇ ਰੇਲਿੰਗ 2.7 ਸ) ਪੌੜੀਆਂ ਦੇ ਦੋਨੋ ਪਾਸੇ ਰੇਲਿੰਗ



2.8 ਗੱਲਬਾਤ ਅਤੇ ਪੜ੍ਹਾਈ ਵਿੱਚ ਸਹਾਇਕ ਯੰਤਰ

2.8 ਓ) ਕੰਪਨ ਘਟਾਉਣ ਲਈ ਭਾਰ ਵਾਲੇ ਖਾਸ ਪੈਨ 2.8 ਅ) ਪੇਜ ਪਰਤਣ ਵਾਲਾ ਬਿਜਲਈ ਯੰਤਰ



2.8 ਬ) ਅੰਪਰ ਵੱਡੇ ਕਰਨ ਵਾਲਾ ਯੰਤਰ

2.8 ਸ) ਕੰਪਿਊਟਰ

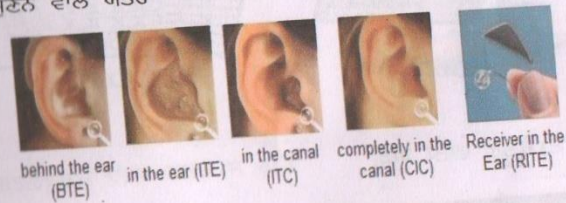


2.8 ਹ) ਅਵਾਜ਼ ਪਹਿਚਾਣ ਵਾਲੇ ਪ੍ਰੋਗਰਾਮ



2.9 ਸੁਣਨ ਵਾਲੇ ਯੰਤਰ

2.9 ਓ) ਸੁਣਨ ਵਾਲੇ ਯੰਤਰ



2.9 ਅ) ਟੈਲੀਟਾਈਪ ਰਾਈਟਰ

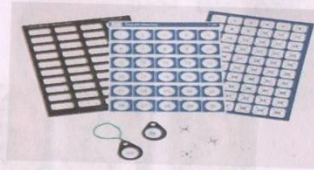


2.10 ਦੇਖਣ ਅਤੇ ਪੜ੍ਹਨ ਵਿੱਚ ਸਹਾਇਕ ਯੰਤਰ

2.10 ਓ) ਮੋਟਾ ਕਰਕੇ ਵਿਖਾਉਣ ਵਾਲਾ ਯੰਤਰ



2.10 ਅ) ਛੋਟੇ ਕੇ ਪਛਾਣ ਦੱਸਣ ਵਾਲੇ ਯੰਤਰ



2.10 ਏ) ਬੋਲਣ ਵਾਲੀ ਘੜੀ



2.10 ਸ) ਬੋਲਣ ਵਾਲਾ ਕੈਲਕੁਲੇਟਰ



2.10 ਚ) ਵਡਦਰਸ਼ੀ ਸੀਸਾ



2.10 ਗ) ਘੱਟ ਦ੍ਰਿਸ਼ਟੀ ਵਾਲਾ ਲੇਪ



2.10 ਘ) ਰਿਕਾਰਡ ਕੀਤੀ ਕਿਤਾਬ ਨੂੰ ਸੁਨਾਉਣ ਵਾਲਾ ਯੰਤਰ



2.10 ਙ) ਵੱਡੇ ਬਟਨਾਂ ਵਾਲਾ ਟੈਲੀਫੋਨ



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