Assessment of Physical Competencies of Elderly Persons known to the Community Health Nurses

By Sandra Stephens

ABSTRACT

A prospective study has been carried out to assess the physical competency of the elderly. The study included 379 persons, their ages ranging from 60–110 years. There were 127 males and 252 females. The mean age of the males was 72.7 years and the mean age of the females was 69.6 years.

Several areas of competency have been studied, the frequency distribution of all areas of competency show that the three areas in which elderly persons were most frequently incompetent were those of shopping, cleaning and the adequacy of housing. In the areas of dressing, feeding, bathing and bowel and bladder function most of them were competent. This suggests that the areas of need for this population were social needs.

The elderly segment of the population is of increasing concern to health planners throughout the world. In 1982 the United Nations made that year the year of concern for the elderly. According to the Bahrain Census of Population and Housing of 1982, the number of persons 60 years of age and over was 11,696 Bahraini and 13,100 total. The American Mission Hospital shared the concerns of the Ministry of Health and the Ministry of Labour and Social Services in finding ways to meet the needs of elderly persons in Bahrain.

At the time of this study there was a 54 bed geriatric home caring for both male and female patients in Muharraq administered by the Ministry of Health and there was a rehabilitation unit at the Isa Town Rehabilitation Home which cared for 16 female patients on an inpatient basis for limited stays, administered by the Ministry of Labour and Social Services. The American Mission Hospital committed its limited resources to a project for the elderly which was aimed at providing a limited programme as a demonstration project to help meet the needs of the elderly. A project proposal was written requesting some assistance with funding from the ministries. While that was in process, an advisory committe met periodically to give advice and suggestions on possible programmes. As the discussions went on, it was evident that more concrete information regarding the needs of the elderly would be necessary and beyond that would be the need to determine methods of delivery of health care that would be acceptable to patients and their families.

PURPOSE

The purposes for the study were :

1. To obtain some indication of numbers and ages of elderly persons known to the rehabilitative services in the Ministry of Labour and Social Affairs and Public Health Services of the Ministry of Health.
2. To obtain an index of the persons' needs and the persons' abilities to meet those needs.

LITERATURE REVIEW

There have been two articles concerning the elderly in the Bahrain Medical Bulletin. One was by Dr. Rashid Fulayfil[1] in which he gave categories of classifying the problems of the elderly as :

1. The elderly persons who, though physically active, have retired and therefore need more psychological support and emotional reassurance ...
2. The physically fit retired who need social and economic support– a responsibility of concerned institutions.

3. The physically unfit retired due to a disease. This group can be subdivided into two:
   3.1 Acutely ill, or patients who though suffering from some chronic ailment are mobile. These need specialised geriatric care as part of internal medicine.
   3.2 The bed-ridden aged. This group needs special treatment in a sanitorium, with rehabilitation, physiotherapy and psychotherapy. These last two groups are the responsibility of the Ministry of Health.

The other article was by the editor of the Bahrain Medical Bulletin, Jaffar M. Al-Bareeq[2] in which he noted that the people of Bahrain have traditionally had large or extended families, and that the elderly were respected by the young, it being a privilege to serve them. With the increase in industrialisation, urbanisation, and decrease in the family size, more of the elderly will find themselves alone. He also noted that with economic progress one finds increases in cardiovascular accidents, cardiac problems, increased blood pressure and obesity. With the advent of the idea of retirement there is a decrease in social contacts. He pointed out that "the total population over 60 years is 6,158 male and 5,538 female ... the overall percentage is 3.7% which is a much lower figure than the developed countries.

METHOD

The problem of how to get a study population was discussed with members of the advisory committee and Mrs. Reid suggested the community health nurses might be of some assistance. It was decided to ask the community health nurses to complete assessment forms on elderly persons they know or see in the homes as they carry out their health counseling visits. It was considered a distinct advantage to have the community health nurses as the observers because their professional training made them highly skilled in health observation and interviewing techniques and their roles in the home and community added to their acceptance by interviewees.

An index of conditions of elderly persons was developed with the help of Mrs. Mitchell O.T. and Mrs. Williams of the Isa Town Rehabilitation Home. The nurses were asked to assess elderly persons in the following areas of physical competencies: shopping for food, mobility and walking, dressing one's self, food preparation, feeding one's self, bathing one's self, bowel function, bladder function, cleaning of one's clothes and residence, adequacy of housing, vision, hearing, orientation and alertness, and ability to speak. The nurses were also asked to assess the adequacy of housing and to make some general comments if they knew whether the person received medical care, financial help or had help from their family. A brief, general description of the surroundings and availability of toilet and water facilities were suggested for comments.

The guideline to the use of the form identifies the ranking of 1 in each area when no problem existed. A ranking of 2 was to be placed in the area of competency if the individual had problems. The form, its purpose and interpretation were reviewed with the community health nurses.

The nurses then used the form to assess each person, 60 years of age and over, known to them in their community health work. This did not restrict them to elderly persons they were counseling, but was to include elderly persons living with families the nurse was visiting for other health counseling purposes.

A descriptive study was chosen for three reasons. One, being the need to get some indication of what kinds of problems the elderly and their families were facing. The other reasons were the limitation of time and the limitation of funds for a more inclusive study design.

The Health Centres where the nurses were stationed were : Al-Razi, Budaiya, Ibn Sinna, Isa Town, Jidhaffs, Muharraq, Sh. Salman and Western Region.

There were 416 persons assessed and thirty-seven of the cases were discarded because of errors, making the total number of persons entered in the study 379. The most common errors were entries of persons under 60 years of age and mistakes in completion of the form. The report from Jidhaffs was lost en route. It should be noted that there were 278 cases reported from

the Sh. Salman catchment area and the remaining 142 cases came from the other six catchment areas.

It was decided to discard two items of the original assesssment form. One was that of "food preparation" as some of the nurses gave a 2 value to men because they do not prepare food and it does not reflect whether or not the men were capable of preparing food for themselves. The other item discarded was "orientated and alert" as there was no standardised method for measuring this area of competency.

RESULTS

There are 379 persons included in this study. The range of their ages was from 60 to 110 years of age (Figure 1). One would expect to see a larger number of persons in the 60 to 70 year old categories in the general population. It is most probable that that is not reflected in the study population as they were in extended family households in many cases and did not include persons in that age group who were working or maintaining their own homes.

The sex distribution was males 127 and females 252. The mean age of the males was 72.7 and the mean age of the females was 69.6. The difference of the means was 3.1. A T-test of the means was done between the age groups with 377 degrees of freedom and a probability level of .05. The value of acceptance was 1.96. The T-value was 3.37. Therefore, the age of the males was significantly higher than the age of females in this study. The next variable and the first of the physical competencies was that of the ability of the individual to shop for themselves.

Table 1
Able to Shop for Themselves

	Numbers	*Percentages*
Able to shop	127	33.51
Not able to shop	252	66.49

The next area of competency was the ability of the person to walk or be mobile (Table 2). Table 3 shows the frequency with which the study population were able to dress themselves.

Figure 1 : *Distribution of 379 elderly persons according to age.*

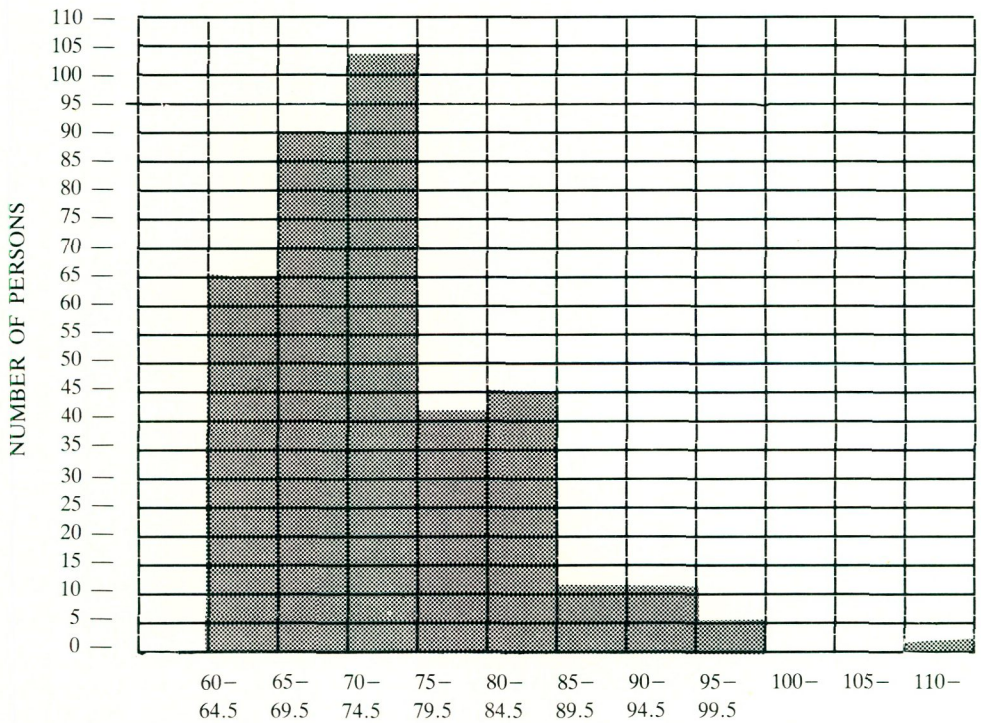


Table 2
Ability to Walk

	Numbers	*Percentages*
Able to walk	287	75.73
Not able to walk	92	24.27

Table 3
Ability to dress themselves

	Numbers	*Percentages*
Able to dress self	325	85.75
Not able to dress self	54	14.25

The next area of competency was the ability to feed themselves.

Table 4
Ability to Feed Themselves

	Numbers	*Percentages*
Able to feed self	340	89.71
Not able to feed self	39	10.29

The following area of competency was the ability to bath themselves.

Table 5
Ability to bath themselves

	Numbers	*Percentages*
Able to bath self	322	84.96
Not able to bath self	57	15.04

Table 6 shows the frequency with which the study population had normal bowel function or difficulty with bowel function.

Table 6
Bowel Function

	Numbers	*Percentages*
Normal Bowel Function	344	90.77
Difficulty with Bowel Function	35	9.23

The next area of competency was that of bladder function.

Table 7
Bladder Function

	Numbers	*Percentages*
Normal Bladder Function	340	89.71
Difficulty with Bladder Function	39	10.29

Table 8 reflects the frequency with which persons included in this study were able to clean their clothes and household.

Table 8
Cleanliness

	Numbers	*Percentages*
Able to Clean	222	58.58
Difficulty with Cleaning	157	41.42

The next item on the index was housing. The nurses were asked to check (1) if it was adequate and (2) if it was not adequate. In their comments they usually gave the substantiation for a 2 rating observing that they were too crowded, had inadequate ventilation or lack of water and toilet facilities.

Table 9
Housing

	Numbers	*Percentages*
Adequate Housing	180	47.49
Inadequate Housing	199	52.51

The next area of competency was that of vision. In many cases those who had difficulties were partially or totally blind.

Table 10
Vision

	Numbers	*Percentages*
Able to see	259	68.34
Difficulty with vision	120	31.66

The last two area of competencies were those of hearing and the capability of speaking.

Table 11
Hearing

	Numbers	*Percentages*
Able to Hear	306	80.74
Difficulty with Hearing	73	19.26

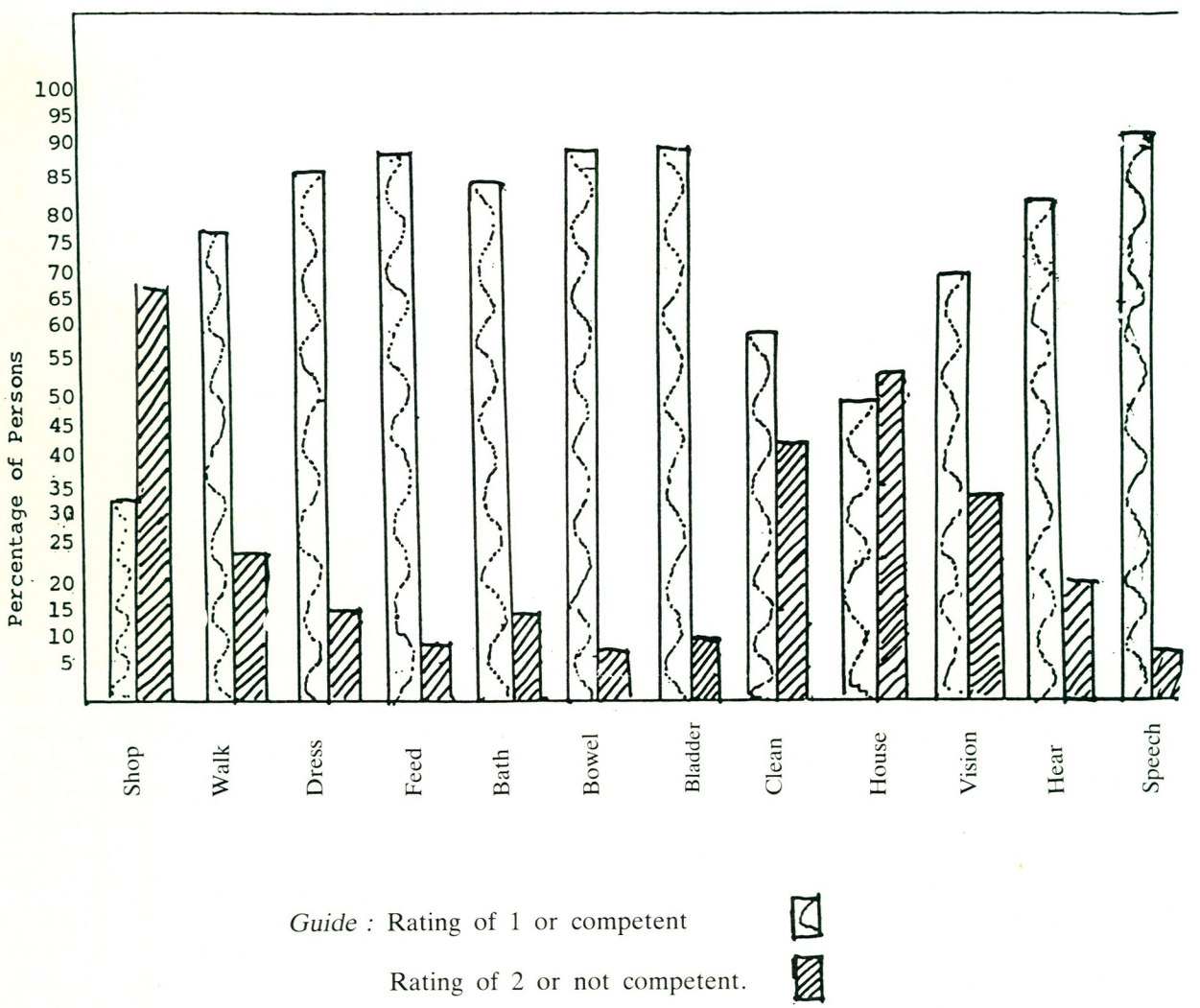
Table 12
Speech

	Numbers	*Percentages*
Able to Speak	352	92.88
Difficulty with Speech	27	7.12

A look at the frequency distribution for all of the areas of competencies, (Figure 2) show the three areas in which elderly persons most frequently were incompetent were those of shopping, cleaning and the adequacy of housing. In the areas of dressing, feeding, bathing and bowel and bladder function, most of them were competent. This suggest that the areas of need for this population were social needs.

This does not mean the population did not have health needs. This study does not reflect the health status of the individuals; it merely gives some information regarding the elderly's ability to cope or care for themselves.

Figure 2 : *Frequency Distribution of all the areas of Competency rated by the nurses.*



The following shows the correlation matrix. The level for significance for the correlations is 0.113. With the exception of the category of sex, there is a significant correlation or a positive relationship between the areas of competencies. Put another way, as the individual is able to shop or bath himself, he is also able to walk or have normal excretory functions.

READER DATA B: ELDERLY
NUMBER OF CASES : 379

LABEL: PHYSICAL CHARACTERISTICS
NUMBER OF VARIABLES : 14

CORRELATION MATRIX FOR ELDERLY

	Age	Sex	Shop	Walk	Dress	Eating	Bath	Bowel	Urine	Clean	House	Sight	Hear	Talk
Age	1.00													
Sex	−0.192	1.000												
Shop	0.237	0.226	1.000											
Walk	0.271	−0.042	0.389	1.000										
Dress	0.306	−0.063	0.289	0.632	1.000									
Eating	0.270	0.002	0.240	0.517	0.806	1.000								
Bath	0.322	−0.014	0.299	0.554	0.779	0.659	1.000							
Bowel	0.248	−0.027	0.226	0.457	0.756	0.792	0.631	1.000						
Urine	0.250	−0.016	0.240	0.477	0.781	0.829	0.659	0.942	1.000					
Clean	0.232	0.054	0.529	0.511	0.423	0.350	0.440	0.379	0.403	1.000				
House	0.188	0.013	0.534	0.415	0.357	0.305	0.326	0.303	0.322	0.575	1.000			
Sight	0.276	−0.087	0.303	0.289	0.258	0.274	0.269	0.234	0.274	0.395	0.295	1.000		
Hear	0.308	−0.051	0.262	0.348	0.433	0.451	0.487	0.445	0.473	0.309	0.331	0.387	1.000	
Talk	0.204	0.031	0.197	0.322	0.474	0.480	0.486	0.372	0.446	0.246	0.202	0.319	0.463	1.000

The category of sex does not show any correlation to any of the competencies, with one exception. A significantly greater number of women are able to shop than men. This is somewhat surprising as it was believed to be more culturally acceptable for the male to do the shopping.

CONCLUSION

The group of elderly persons in this study were a homogenous grouping of persons who were competent to care for themselves. It might be safe to say that they are people who have been competent and so were able to survive through the years.

One can determine what services would be more in demand by looking at the figures in the frequency distribution. Certainly, inadequate housing and help with cleaning would be two areas where asistance is needed. The nurses observed 120 persons that had trouble with vision. Further study and more information about their condition and the amount of assistance they received would be necessary before a relevent service could be provided.

One of the great weaknesses of this study is that we may have established an area of need, but we did not consistently establish whether the elderly person's needs were currently being met by the family, or were going unmet. It would be most helpful to the providers of service to do studies on a random basis of the population at large that would include a more detailed health assessment and the areas of unmet needs.

ACKNOWLEDGEMENTS :

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I would also like to extend my gratitude to Dr. Russell Schumacher who gave me his time and expertise in compiling and assessing the data.

REFERENCES

1. Fulayfil R. The Elderly in Bahrain. BMB 1984; 6: 1: 31–32.

2. Al Bareeq JM. Add Life to Years. BMB 1982; 4: 1: 5–9.