UTILIZATION OF FORMAL SOCIAL SUPPORT SERVICES BY NON-INSTITUTIONALIZED ILL ELDERLY

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SYNOPSIS

This study done on 500 non-institutionalized ill elderly found that the utilization of formal social support services is related to functional capacity and social network. 15.9% of the elderly with poor functional capacity and weak social network live alone. 2.2% with moderate and 2.7% with poor functional capacity have weak social network and receive no homehelp, and these elderly are the high risk group. About ⅓ of the elderly with good functional capacity receive aids which have made them mobile and independent. The study recommends that for a developing country, where health care for the elderly is still not a priority, a community health aide covering the functions of both a homehelp and homenurse be considered to meet the needs of all homebound and disabled individuals, including the elderly.

INTRODUCTION

Over the recent decades the social, demographic and epidemiological changes that have occurred in the industrialized societies have resulted in more and more people entering the higher age group. In these societies the health care of the elderly has been a major problem for many years, a problem which has increased and, in most countries, will continue to increase for many years to come (1). Although the process of ageing is continuous, an aged individual is more likely than a younger person to suffer from multiple chronic and often permanent conditions, which may be disabling — the physical and mental impairments are concentrated among persons aged 75 years and older. Fillenbaum (2) says that concern is not with the cure of these chronic conditions, but rather with maintaining functional independence. The health status of an elderly is often measured in terms of his/her ability to continued with normal role functioning, i.e. to continue with his/her activities of daily living (ADL) like walking, dressing, bathing, etc.

Long term care in nursing homes, etc has proved to be costly and with increasing elderly populations the demand for this care will naturally increase. Health planners in some societies e.g. Denmark, are now moving away from expensive institutional care of the elderly. Instead they are providing effective social support services which will enable the elderly to continue staying in their own homes, even when they have chronic and disabling conditions. Also most elderly prefer to remain in their own homes and surroundings, but many of those remaining in the community, especially the very old require assistance in shopping, preparing a meal, bathing and other activities of daily living (3).

Most of the older adults in all societies live out their lives without the need for public services because the great majority of them survive without significant disability, and when they are disabled they are cared for by kins and friends (1). It is only in the case of increasing demands and inability to cope with the demands that the family turns to social support from the formal sources (4). Increasing demands are usually due to increasing disability and decreasing functional capacity. Coulton and Frost (5) in their study concluded that the use of medical, personal care and mental health services among the elderly is primarily related to perceived and evaluated need. "Perceived need" refers to an individual's own judgement about the necessity or benefit of a particular service, and "evaluated need" refers to physical, mental, personal care and social impairment. McAuley and Arling (6) have said that illness level, disability and/or functional impairment are consistently the strongest predictors of health and social service use among the elderly population.

In Denmark, where 19% of the population is above 60 years of age (7), the policy is to encourage the elderly to stay at home for as long as possible. Only about 6% of the elderly above 65 years live in nursing homes (8), the rest remain in the community, but are supported by well established social support services e.g. homehelp and homenursing services, aids, meals-on-wheels, etc. Although studies (1, 4, 9) have found that it is the family which provides the immediate and most care for the elderly, formal social support services are still utilized by the elderly, presumably by the ill and disabled with poor social network. The primary aim of the health service planners then, would be to provide the non-institutionalized elderly who are ill with sufficient supportive services, which will encourage them to continue remaining in the community. This kind of primary health care service for the elderly would be ideal for a developing country like Malaysia, where only 5.8% of its population in Peninsular Malaysia is 60 years and above (10), and where strong family ties still hold strong in the face of rapid urbanisation and development.

It is the intention of this article to study the utilization of formal social support services, by the varying levels of functional capacity and social network of non-institutionalized ill elderly, in a developed society like Denmark. In the light of the findings of this study, recommendations will be made on the possible types of formal social support services that will be suitable for Malaysia where special services for the elderly hardly exist.

The population of non-institutionalized ill elderly was chosen because it is this group of elderly who are more likely to have reduced functional capacity due to disabilities, and they are the ones who would require more social support services. Table 1 shows the number and percentage of the elderly living alone in the study sample by their sex and age. There are more women than men and a majority of them are 80 years and above. Also more women than men live alone.

TABLE 1: NUMBER AND PERCENTAGE OF ELDERLY LIVING ALONE BY SEX AND AGE

Sex and age (years)	Number	Percentage	Total
Men			
70-79	26	28.6	91
80 &>	37	41.1	90
Women			
70-79	75	61.0	123
80 &>	126	76.4	165
Total	264	56.3	469

$X^2 = 64.964$, $p < 0.001$

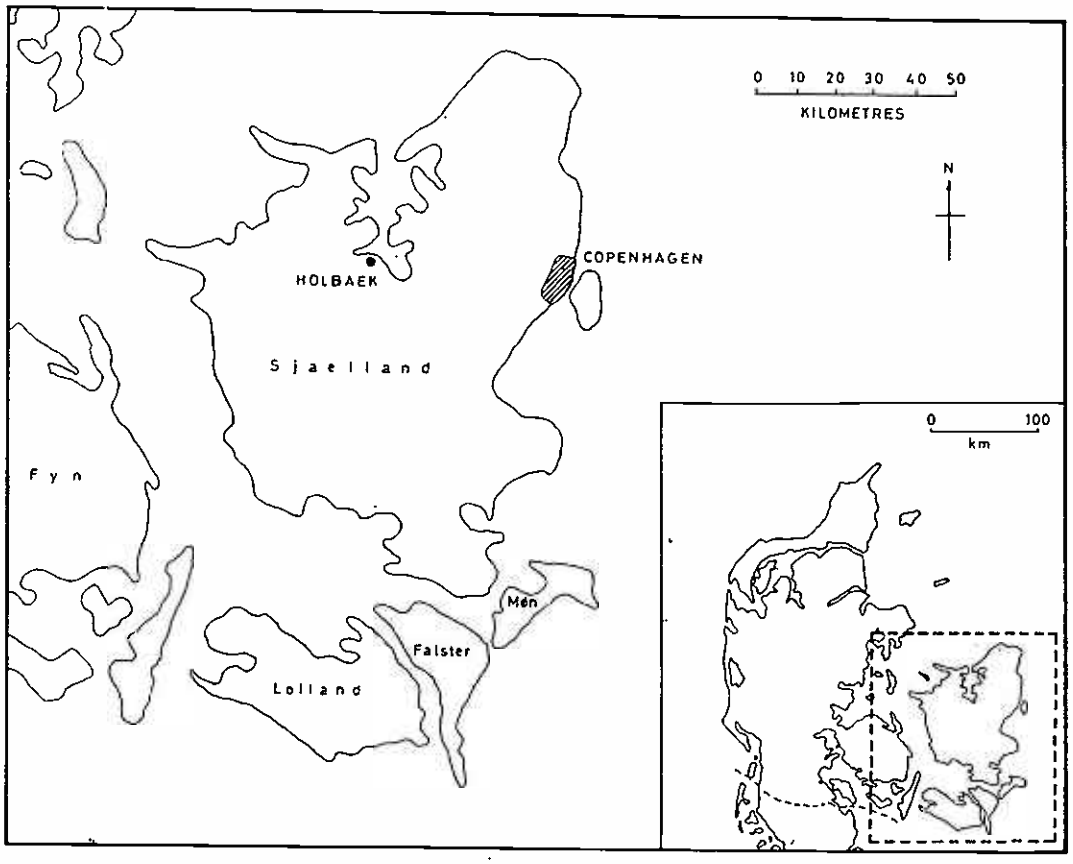

Figure 1 Map of Denmark showing location of Holbaek and Copenhagen

METHOD

The data used in the present study are taken from a survey which was conducted in 1981-83 on the elderly in the Municipality of Holbaek, Denmark (Fig. 1). It covered all residents aged 70 years and above who were either acutely ill at home, or had been recently discharged from hospital. A structured questionnaire was used and the interview was carried out by one research nurse the day after an eligible elderly was reported to the municipal district nursing unit. A total of 500 elderly were interviewed, 281 who were acutely ill at home and 219 who had recently been discharged from hospital. Data from the survey used in this study were processed for this article by the author. During the analysis, respondents with missing observations were left out and this accounts for the inconsistencies in the total. Details of the methodology are described in other studies (11, 12).

Measures

Functional capacity was measured by the ADL. Respondents were asked about six basic ADL i.e. going out of doors, walking up/down stairs, getting about the house, washing and bathing, dressing and undressing, and using the toilet. The possible responses were:- 1) can perform it on his/her own without any difficulty 2) can perform it on his/her own but with difficulty and 3) needs help to perform the activity. The response for each of the six activities was recorded and the respondents were categorized for functional capacity as: 1) good — those who can perform all six activities on own without any difficulty 2) moderate — those who can perform all six activities on own but has difficulty with at least one activity and 3) poor — those who need help for at least one activity.

Social network was based on the frequency of contact the respondent had with the children, siblings, friend and neighbours. Those who had one or more weekly contact with at least one of them was classified as having a strong social network, and the rest of the respondents who did not belong to this category were classified as having weak social network.

Service utilization was measured by whether the respondent received the service or not. If the service was received, the frequency of contact as in the case of homehelp and homenursing services, or the time interval since the last contact as in the case of the family physician's service was recorded. The services which were measured were homehelp, homenursing and family physician's services, and aids for mobility e.g. walking stick, walking frame, wheel-chair, etc and other aids which are fixtures or modifications to homes in order to facilitate mobility of the elderly e.g. removal of door step, widening of doors for wheel-chair, etc.

FINDINGS

Social background

Age and sex: Table 2 shows that more women than men have poor functional capacity for both age groups. The distribution also shows that functional capacity decreases with increasing age.

Household composition: Majority (56.3%) of the respondents live alone. The percentage of those living alone for each of the three levels of functional capacity i.e. good, moderate and poor are 55.9%, 57.1% and 55.8% respectively. The rest do not live alone. The difference is not statistically significant ($X^2 = 0.351$, $p > 0.05$).

TABLE 2: FUNCTIONAL CAPACITY BY AGE AND SEX

Functional capacity	Age (years) and Sex				Total
	Men		Women		
	70-79	80 &>	70-79	80 &>	
Good	31 (24.4)*	28 (22.1)	38 (29.9)	30 (23.6)	127
Moderate	42 (22.8)*	32 (17.4)	50 (27.2)	60 (32.6)	184
Poor	17 (11.0)	30 (19.4)	34 (21.9)	74 (47.7)	155
Total	90	90	122	164	466

*Figure in parentheses are percentages of row total
$X^2 = 23.248$, $p < 0.001$

TABLE 3: FUNCTIONAL CAPACITY BY SOCIAL NETWORK AND HOUSEHOLD COMPOSITION

Functional capacity	Weak social network		Strong social network		Total
	Lives alone	Not alone	Lives alone	Not alone	
Good	5(4.0)*	8 (6.4)	65 (52.0)	47 (37.6)	125
Moderate	17 (9.3)	14 (7.7)	88 (48.4)	63 (34.6)	182
Poor	24 (15.9)	9 (6.0)	61 (40.4)	57 (37.7)	151
Total	46	31	214	167	458

*Figure in parentheses are percentages of row total
$X^2 = 12.606$, $p = 0.05$

Social network and household composition (Table 3): For the three levels of functional capacity, the percentage of those with weak social network and who live alone increases with decreasing functional capacity. The reverse is seen for those with good social network and who live alone.

Utilization of formal social support services

Homehelp service: 17.8% with poor functional capacity have no homehelp, but on comparing the three levels of functional capacity, a higher percentage of the elderly with poor functional capacity receive longer hours of the service. Only 44.4% of those with good functional capacity do not receive the homehelp service (Table 4).

Social network and homehelp service (Table 5):

TABLE 4: FUNCTIONAL CAPACITY BY HOMEHELP SERVICES

Functional capacity	Homehelp			Total
	No homehelp	1-5 hrs/wk	6 &> hrs/wk	
Good	56 (44.4)*	43 (34.1)	27 (21.4)	126
Moderate	54 (29.7)	82 (45.1)	46 (25.3)	182
Poor	27 (17.8)	59 (38.8)	66 (43.4)	152
Total	137	184	139	460

*Figure in parentheses are percentages of row total
$X^2 = 32.233$, $p < 0.001$

TABLE 5: FUNCTIONAL CAPACITY BY SOCIAL NETWORK AND HOMEHELP SERVICE

Functional capacity	Weak social network		Strong social network		Total
	No homehelp	Has homehelp	No homehelp	Has homehelp	
Good	6(4.8)*	7 (5.6)	50 (40.0)	62 (49.6)	125
Moderate	4 (2.2)	26 (14.4)	49 (27.2)	101 (56.1)	180
Poor	4 (2.7)	28 (19.0)	23 (15.6)	92 (62.6)	147
Total	14	61	121	255	452

*Figure in parentheses are percentages of row total
$X^2 = 27.809$, $p < 0.001$

Among the elderly with poor functional capacity, 2.7% have weak social network and no homehelp and another 15.6% have strong social network and no homehelp. 2.2% of the elderly with moderate functional capacity have weak social network and no homehelp. Almost half (49.6%) of those who are functionally able and independent have strong social network and receive homehelp.

Homenursing: 359 of the 464 (77.4%) elderly do not receive homenursing service. Most of the elderly receiving the service either have poor or moderate capacity (Table 6).

Social network and homenursing service (Table 7): Among those with poor functional capacity, 8.6% of the elderly with weak social network and 23.8% of the elderly with strong social network are receiving home nursing. Among the respondents who have good functional capacity, 8.9% have strong social network and receive homenursing. For all the three levels of functional capacity and for both types of social network, the percentage of those receiving homenursing increases with decreasing functional capacity.

Contact with family physician: There is statistically no significant difference between the levels of functional capacity and utilization of family physicians' services ($X^2 = 4.779$, $p>0.05$). Among the elderly with poor functional capacity 40.9% had contact with their family physician within the last one week, 57.6% within the last one to six months and 1.5% more than six months ago. For those with moderate functional capacity the percentages are 46.6% within the last one week, 50.3% within the last one to six months and 3.1% more than six months ago; and for those with good functional capacity the respective percentages are 45.8%, 48.6% and 5.6%.

Aids (Table 8): The majority of the elderly with poor functional capacity receive aids for mobility and other aids, whereas only a small percentage of those with good functional capacity receive either type of aid. When both types of aids are combined about 1/3 of the elderly with good functional capacity, 54.9% with moderate functional capacity and 78.2% with poor functional capacity receive either one aid or both aids.

TABLE 6: FUNCTIONAL CAPACITY BY HOMENURSING SERVICE

Functional capacity	Homenursing			Total
	No homenursing	Less than daily	Daily or more	
Good	113 (90.4)*	5 (4.0)	7 (5.6)	125
Moderate	142 (77.6)	17 (9.3)	24 (13.1)	183
Poor	104 (66.7)	34 (21.8)	18 (11.5)	156
Total	359	56	49	464

*Figures in parentheses are percentages of row total
$X^2 = 29.380$, $p<0.001$

TABLE 7: FUNCTIONAL CAPACITY BY SOCIAL NETWORK AND HOMENURSING SERVICE

Functional capacity	Weak social network		Strong social network		Total
	No homenursing	Has homenursing	No homenursing	Has homenursing	
Good	13 (10.6)*	0 (0.0)	99 (80.5)	11 (8.9)	123
Moderate	23 (12.7)	8 (4.4)	118 (65.2)	32 (17.7)	181
Poor	20 (13.2)	13 (8.6)	82 (54.3)	36 (23.8)	151
Total	56	21	299	79	455

*Figures in parentheses are percentages of row total
$X^2 = 27.110$, $p<0.001$

TABLE 8: ELDERLY RECEIVING AIDS BY FUNCTIONAL CAPACITY

Functional capacity	Aids for mobility	Other aids	Both aids combined		Total
			Only one aid	Both aids	
Good	29 (22.8)*	21 (16.5)	34 (26.8)	8 (6.3)	127
Moderate	83 (45.1)	51 (27.7)	69 (37.5)	32 (17.4)	184
Poor	100 (64.1)	82 (52.6)	65 (41.7)	57 (36.5)	156
Total	212	154	168	97	467
X^2	48.108	44.915	70.215		
P	<0.001	<0.001	<0.001		

* Figures in parenthesis are percentage of row total

DISCUSSION

The salient findings of this study demonstrate that functional capacity is related to age, sex and social network. It also shows that the utilization of homecare services and aids by the non-institutionalized ill elderly depends on the level of functional capacity.

Functional capacity is expected to be related to age since the prevalence of chronic conditions increases remarkably with age. Chappel (13) says that of those 65 years and above living outside institutions, 85% report at least one chronic disease, and about 50% report some limitations of normal activity related to chronic health conditions. Branch and Jette (14) on the other hand say that over 80% of their sample of elderly 65-years and above are entirely self-sufficient in performing the basic ADL. In this study 311 of the 466 (66.7%) elderly who are 70 years and above report to be self-sufficient with the ADL. This lower percentage is probably due to the fact that the respondents in this study are older and are also ill elderly.

There is very little difference in the distribution of elderly by whether they live alone or not for the three levels of functional capacity. Concern here is for those who have poor functional capacity and live alone. More than half of those in this level of functional capacity live alone and they will either depend on the informal social supports, or the formal social support services or both to help them with the ADL. In order to depend on the informal supports these elderly must have a good social network. In this study the 15.9% elderly who have poor functional capacity and live alone do not have their spouse, child/children, relatives or friends to help them with their ADL and will therefore naturally have to depend on the formal social support services for assistance. But the 6.0% who have poor functional capacity and who do not live alone are probably living with their spouse who, in most instances, will also be old. The help that the spouse can give will be limited and hence these elderly will also need the formal social support services. On further analysis of functional capacity by social network and homehelp, this study found that only 2.2% of those with moderate and 2.7% of those with poor functional capacity have weak social network and no homehelp. These two groups of elderly need the services of the formal social support system if they are to remain in the community. They are the high risk group and are candidates for institutionalization if the formal social support services do not reach them in their homes. Coulton and Frost (5) in their study say that socially isolated elderly may have weak ties to other parts of the community, such as the social and health services, and without special efforts to reach them they may be at high risk to deterioration and institutionalization. A greater percentage (when compared to those with weak social network) of those who have strong social network do not have homehelp, and only 23 of th 121 respondents (19.0%) need help with their ADL, and this help is presumably provided by the family. Ward (15) in his study says that the informal social supports, especially the family, play an important mediating role in assisting older people to obtain appropriate services, and this is probably the reason why about 2/3 of those with strong social network have homehelp service. A large perentage of the elderly who do not need help with the ADL thus receive homehelp. They may be receiving the homehelp service for assistance with instrumental ADL tasks like housekeeping, food preparation, shopping, etc. The elderly with lesser functional capacity receive more homehelp and homenursing services. The use of formal homecare services is related to ADL impairment i.e. older people who have greatest physical impairment are most likely to use formal sources (6). But studies (4, 14, 16) have also consistently shown that it is the family which provides the immediate and most health care and assistance with ADL required by non-institutionalized elderly. In this study, 17.8% of the elderly need help with their ADL but do not receive any homehelp probably because most of them receive assistance from their families and relatives.

33.1% of the respondents with good functional capacity are receiving aids and this facility has obviously made them functionally able and independent. The elderly who are not receiving any aid, and who have poor functional capacity may be the ones who need help with ADL which require finer and more complex movements, e.g. dressing and undressing, and the use of aids for these activities is limited. Further analysis shows that only 0.5% of those not receiving any aid need help for all the six ADL measured in this study.

For a country like Malaysia, where health care for the elderly is still not a priority because of other more urgent health needs and where homenursing is still yet to be established, a community health aide (an equivalent of the assistant nurse) can carry out the functions of both a homenurse and homehelp. Her responsibility will not only be for the elderly, but for all homebound and disabled individuals who have poor informal social support or who need homenursing care. The main functions of such an aide will be to provide basic nursing care and general health guidance, some simple medical treatment, and to help with personal hygiene, dressing, cleaning, washing and cooking. The other aspect of formal social support which is worth considering is the provision of aids for mobility to the elderly, so that the burden of dependency is reduced.

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