Quality of Life and Social Resources of Elderly Nursing Home Residents in Beirut

By Hind Beydoun

This article is based on: "Determinants of Mental Health among institutionalized elderly people in Beirut", a research project conducted by Hind Beydoun and Nisrine el Rachidi during the period of 1997-98 at the American University of Beirut (Faculty of Health Sciences) in collaboration with Dar al Ajaza Hospital.

I. Introduction

1. Aging of Societies: A Global Trend

Nowadays, population aging or the gradual increase in the proportion of elderly people is a global phenomenon affecting both developed and developing nations. The overall decline in fertility and mortality and the increase in life expectancy at birth constitute the main cornerstones for this worldwide demographic transition.

Cross-national surveys have revealed larger proportions of aged individuals in developed nations as compared to their developing counterparts. Western Europe, today, is the region of the world with the highest percentage of persons aged 65 years and over, ranging between 13.6% for Luxembourg and 18% for Sweden – the largest share of elderly in the world. The next highest percentages are found in Eastern Europe, North America and Australia, with proportions of elderly ranging between 10% for Poland and 13% for Bulgaria. Finally, countries of Africa and Asia (excluding Japan) have relatively lower percentages of elderly, with a range between 2% and 6% (Kinsella & Taeuber, 1992).

These figures might suggest that population aging is mainly an issue for developed societies. However, such findings mask the relatively large and increasing number of elderly people living in developing countries. In particular, 62% of the world's monthly net gain of aged individuals occurs in developing nations alone (Kinsella & Taeuber, 1992). According to the United Nations projections for the year 2000, the percentage of individuals over 65 years is expected to attain 13.2% and 4.7% in developed and developing nations, respectively. However, absolute numbers of persons aged over 65 years will be 229 million in developing nations as compared to only 167 million in developed nations (Ciba Foundation, 1988).

The situation in Lebanon (both urban and rural) is evolving at a rate similar to that of most developing nations in the world. Almost thirty years ago, the Ministry of Planning in Lebanon estimated the number and proportion of elderly people (65 years or more) to be 105,345 individuals, or 4.9% of the overall Lebanese population (MOP, 1970). According to a recent survey conducted by the Ministry of Social Affairs on a representative sample of households in Lebanon, estimates of the number and proportion of elderly people aged 65 years and above were 213,284 and 6.8 %, respectively (MOSA, Population and Housing Survey, 1996).

The burden of population aging is more pronounced in the urban areas of Lebanon, especially in the area of Beirut and its suburbs. A household survey of the population of Administrative Beirut was conducted in the early 80s at the Faculty of Health Sciences at the American University of Beirut. Household members were first interviewed in 1983-84 and then followed up longitudinally until 1992-93. The results of this longitudinal study have suggested an increasing trend in the proportion of persons aged 65 years and above: 5.3% in 1983-84 and 7.7% in 1992-93 (Deeb, 1997).

2. Dependent Elderly: A Burden on Society?

Although the perception of elderly people as a burden on society is in part socially created, some aspects of aging bring about innumerable losses both at the individual and community levels.

As is the case for young dependents, most elderly people are non-productive members of society and are therefore considered as a burden on the economically active adult population. Furthermore, the prevalence of chronic and infectious diseases as well as functional impairments and disabilities increase with age, placing greater pressure on the social network of the elderly person and on the nation's health care systems.

As a consequence of their gradual physical, mental, and social impairment, many elderly individuals will require additional resources for assistance in activities of daily living, for health maintenance and rehabilitation or for the treatment of common illnesses. Such services may be provided in the community by the individual's social network (e.g. spouse, children, other relatives, and friends) or by specialized institutions (e.g. community nursing services).

Some elderly people suffer from serious health conditions or are too frail or too poor to survive on their own in the community. Others lack suitable caregivers to provide the needed economic and social support. One permanent solution

for such highly disadvantaged people is their placement in long-term care institutions where a multidisciplinary team (e.g. physicians, nurses, social workers, dietitian, physical therapist, speech pathologist, occupational therapist etc.) replaces family members and friends as their primary caregivers (Maguire, 1985).

3. Institutionalization vs. De-Institutionalization

In the past, care for the impaired or frail elderly was a family function. Institutions for the aged were small and custodial in purpose and served as charities for the poor and homeless. With the tremendous increase in the size of the elderly population, increased incidence of non-communicable disease, lowered fertility, increased geographical mobility, and rapidly advancing medical technology, institutionalization has become a major health resource (Borson, 1987; Kinsella & Taeuber, 1992).

As opposed to developed societies, the rates of institutionalization in developing nations (including Lebanon) are usually very low, even negligible (UNDIESA, 1985; Hugo, 1991). The most common living arrangement for the elderly persons in this region of the world is with their children and grandchildren (Kinsella & Taeuber, 1992). However, homes for the aged are becoming more common in countries where the sustained fertility decline has led to a rapid population aging and reduced the number of potential family caregivers (Kinsella & Taeuber, 1992).

However, the rising awareness that institutionalization is likely to have adverse effects on the quality of life of elderly nursing home residents prompted the search for alternative forms of care (Jacelon, 1995). A general trend towards de-institutionalization and the emergence of community care was observed in many developed societies. The "community services" alternative has the advantage of keeping people in their own homes and requiring less governmental expenditures than institutional care (Jorm, 1993; Grolier, 1995). Decision-making with respect to the optimal form of care depends on several outcomes including health status, patient preferences and costs (National League for Nursing, 1988).

II. Aging and Quality of Life:

1. Physical and Cognitive Health

Aging is known to have an adverse effect on physical health and on the individual's overall "quality of life". A thin line separates the perception of aging from that of disease.

a. Chronic Diseases & Infectious Diseases

Several types of chronic illnesses have been shown to increase with advancing age. The risks of cardiovascular diseases, diabetes, arthritis, chronic obstructive lung disease, kidney failure, cancer and some neurological diseases (e.g. Parkinson's and Alzheimer's disease) are known to be age-associated.

b. Cognitive Health

Physical health is not the only area affected in old age. In fact, the incidence of various types of cognitive disorders rises in an exponential fashion as a function of age. The most frequent form of cognitive disorders is dementia – "a significantly deteriorated mental function resulting from organic brain disease" (Ciba Foundation, 1988; Mortimer & Schuman, 1981).

2. Functional Impairments and Disabilities

On the other hand, most elderly men and women suffer from multiple functional problems including immobility, inanition, urinary incontinence and sensory impairment. Contrary to the well-defined chronic and infectious diseases of the general population, these common health problems are usually taken for granted as normal manifestations of the aging process. They are subjected to geriatric treatment, which emphasizes caring (i.e. improving symptoms and function) rather than curing the underlying pathophysiology (Rubenstein & Federman, 1995).

A general assessment of the degree of impairment or disability of older adults and their dependency on other persons or instrumental aids is usually performed to determine the form of treatment required for each geriatric patient.

Several interview schedules were developed for assessing the ability of elderly patients to perform basic "Activities of Daily Living" (ADL). For instance, the physical ADL scale relates to simple bodily functions such as eating, dressing, caring for personal appearance, walking with or without the use of aids, getting in and out of bed, taking a bath or a shower and getting to the toilet on time.

3. Mental Health

The mental health of elderly people is often measured in terms of either a particular mental disorder or an overall state of psychological wellbeing. A more holistic perspective of the concept of "mental health" relates to both its positive and negative aspects. Thus, the focus of our study is on two indicators of mental health – depression and life satisfaction – taken simultaneously.

a. Depression

Clinically speaking, depression is an affective disorder characterized by symptoms of sadness and dejection, decreased motivation and interest in life, negative thoughts and such physical symptoms as sleep disturbances, loss of appetite, and fatigue (Atkinson, 1993). The aged is at a considerably high risk of mild depressive disorders and dysphoric states. Depression is directly associated with advancing age and is more prevalent among females at any particular age (Blazer, 1991; Carpinello, 1989; Katona, 1994).

b. Life Satisfaction

Life satisfaction generally refers to "an overall assessment of one's life, or satisfaction with domains, perhaps a comparison of aspiration and achievement, or in comparison with others" (Bowling, 1993). The measurement of life satisfaction constitutes an alternative approach to the measurement of pathological aspects of mental health (e.g. depression).

Higher life satisfaction scores were observed among men in general, married men, women with a higher socioeconomic status (education & occupation), and those elderly men and women with adequate financial resources. The availability of social networks and the regular performance of social activities were also important determinants of life satisfaction (Iwatsobu, 1996).

III. Aging and Social Resources:

A less visible form of aging relates to the interaction of elderly people with their social environment. Sociological aging, as opposed to biological aging, affects the type and extent of participation of the elderly individual in social networks. Children of elderly parents usually would have left home to establish their own nuclear families; interaction with work associates becomes more difficult after retirement; and the death of old friends further narrows the breadth of friendship associations available to old people. However, the most devastating life event of old age is the loss of a spouse, with its various implications from the psychological and economic viewpoints (Maguire, 1985).

Social isolation is a common situation for many elderly - particularly women in the developed societies. In the United States, the "decline of the family" and the prevailing values of self-fulfillment and egalitarianism have destroyed the bond that used to link generations within families. Consequently, there is much less influence today of the elderly over their own children. By contrast, the cultural values that prevail in a great number of developing nations (including Lebanon) have rendered the elderly an integral part of the family structure (Carpinello, 1989).

Social support of the aged individual – both material and emotional – has been historically obtained from the family, the basic institution around which societies are organized. Spouses and children constitute nearly three-fourth of primary informal caregivers of older, disabled persons. Fortunately, the proportion of older persons with living spouses is likely to increase due to improved mortality at the older ages. In addition, persons who have entered the oldest old cohorts are more likely to have living children due to historic changes in fertility and current trends in mortality (Freedman, 1988). Our culture is known to discriminate against female offspring and to celebrate the birth of a male who will carry the name of the family. Curiously, daughters and wives are more likely, than sons and husbands to provide informal care to their elderly parents or spouses (Ciba Foundation, 1988; Freedman, 1988).

However, potential caregivers face a number of obstacles, primarily of economic nature. The fact that spouses and children are also aging limits their caregiving capacity. Employment outside the home and child rearing responsibilities, particularly among women, compete for time which might otherwise be devoted to caring for an impaired older parent (Silverstein & Bengtson, 1994). Such competing roles and responsibilities from jobs and family may constitute a barrier for non-spouse caregivers, particularly daughters, leading to an increased demand for formal types of support – i.e. community services or long-term care institutions (Kelman, 1994).

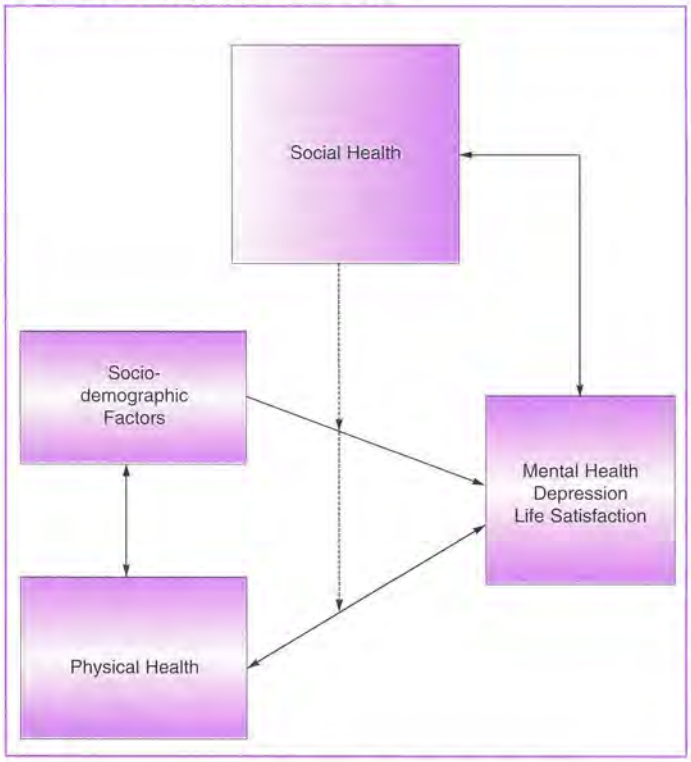
Besides their greater need for caregivers to support them financially and emotionally, some elderly people engage in a variety of social activities, as a means to boost their morale or to avoid social isolation. In fact, the regular performance of physical exercise, of hobbies (e.g. painting or reading) or activities within associations, trade unions, or clubs are common to the more fortunate members of this age category (Iwatsobu, 1996).

IV. Study Methodology:

1. Study Objectives

The main interest of the current study is to assess differences in the quality of life and social resources of institutionalized and non-institutionalized elderly people in Administrative Beirut. The study also aims at evaluating the effects of demographic, health and social factors on the mental wellbeing (depression and life satisfaction) of elderly people. A theoretical model was constructed that related the outcome variables — depression status and life satisfaction — with the three determining factors, which are, by order of increasing importance: socio-demographic factors, physical health and social health **(c.f. Fig 1)**. This article will tackle only some of the social determinants of psychological health in the elderly population.

Figure 1. Conceptual Framework.



2. Study Design

A cross-sectional sample of elderly subjects residing in an institution was matched on a one-to-one basis to another sample of non-institutionalized domiciled elderly subjects, according to three socio-demographic characteristics, namely, gender, age (+/- 5 years) and area of residence – a proxy measure for socioeconomic background. Similar information was collected on the two comparison groups, using a valid and reliable interview schedule. Questions asked relate to four main study areas: (1) socio-demographic background, (2) mental health, (3) physical health, and (4) social health.

3. Instrument

Two versions of the survey instrument – one for each setting – were developed based on preexisting schedules and scales. Both questionnaires were translated into Arabic, and were pilot tested for duration (30-50 minutes), clarity and ease of administration. The various areas covered by the instrument and the corresponding scales, schedules and items are described in **Box III.**

Box III. Components of the Interview Schedule

Area	Schedules, Scales and items
Cognitive Health	Clifton Assessment Schedule (Pattie & Gilleard, 1976)
Depression	GeriatricDepression Scale (15-item version) (Yesavage , 1983)
Life satisfaction	Life Satisfaction Scale (McDowell & Newell, 1987)
_ Physical health _ Activities of daily living _ Social resources _ Caregiver questions _ Interviewer rating scales	OMFAQ (Fillenbaum, 1988)
Social support	Social Support Scale (Ilfred, 1978)
Sociodemographic characteristics	_ Age _ Sex _ Marital status _ Number of children _ Education _ Occupation _ Income _ Insurance
Lifestyle characteristics	_ Smoking _ Alcohol _ Exercise
Additional questions	_ Time elapsed since loss of the spouse _ Ownership of residence (community) _ Attitude toward the nurse (institution) _ Leisure activities

Box I. PROFILE OF DAR AL AJAZA HOSPITAL

Dar al-Ajaza is a non-profit institution. It is located on an area of 3500 square meters in the Tarik el Jdideh area, in the midst of an environment saturated with camps (i.e. Sabra and Shatila), the disadvantage of which has reflected adversely on the high standards of functioning of the hospital. Today, Dar Al-Ajaza hospital includes two different institutions within its structure:

(1) A neuropsychiatric hospital for the treatment of mental and nervous disorders

(2) A home for the invalids, disabled and old-aged patients

The hospital is currently divided into two main sections: The medical and the administration and services sections. The medical section which is served by 25 doctors of diverse specialization includes 4 sections for neuropsychiatric cases (for men and women separately), 4 sections for elderly and disabled (for men and women separately) and 1 section for children with congenital birth defects or disabilities. The administrative section is composed of other non-medical services such as the Mosque, the General Library, the Central Kitchen, the Laundry, the Maintenance Department, the Computer Room and the Administration as such.

The mission statement of this long-term care institution is to ensure health, medical care, nursing care and social services for mental and nervous disorders, physical disability and problems of old age and senility.

Dar al Ajaza was inaugurated for the first time in May 1954 as a refuge for the elderly. It was converted in 1959 — after the creation of a neuro-psychiatric division — into a second-rate hospital (based on the classification of the MOPH). It started to expand through continuous construction efforts during the period that preceded the civil strife.

During the war, several events resulted in major damages to the hospital. For instance, the Israeli invasion (in1982) caused the demolition of the children's section. In 1985, the camps' war had demolished various sections of the hospital, burning the pharmacy together with the laboratory and depots.

Despite the immense capacity of the hospital, it still has a shortage of place to meet the great demand to which it is exposed. At present there are 800 beds that are permanently occupied by patients. According to the institution's statistics in 1994, a total of 823 patients (of which 142 were elderly) had resided in that hospital throughout the year. Around 30% of these patients resided in Beirut before institutionalization while the remaining 70% came from different regions of Lebanon, mainly the South (155 patients), Mount Lebanon (122 patients), the Bekaa valley (118 patients) and the North (60 patients). In addition, around 90% of Dar al Ajaza patients are covered by the MOPH.

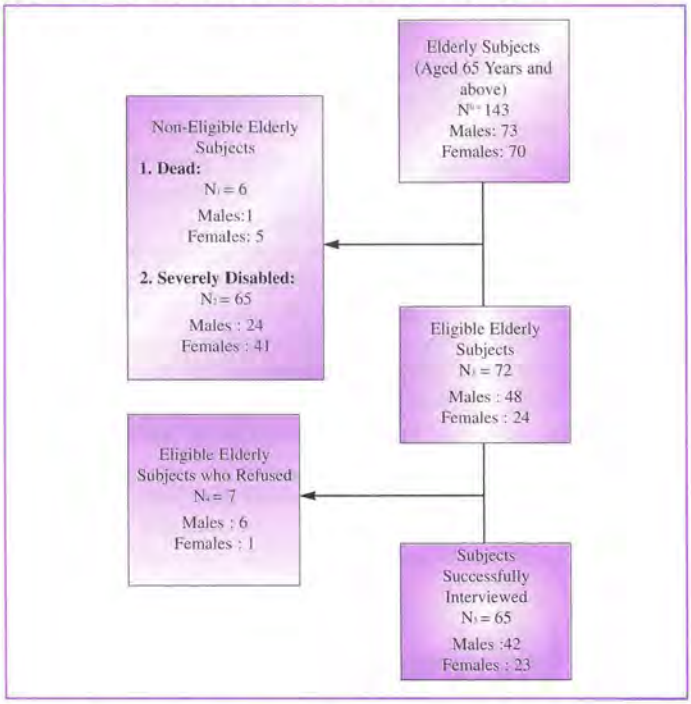
The hospital depends financially for its resources on both stable and unstable sources. The stable sources are formal institutions such as the Ministry of Health, UNRWA, Medical Brigade in the Lebanese Army, in addition to some private patients, all of which cover nearly half of the annual costs. Contributions, financial assistance, charity and donations constitute the unstable sources of funds.

4. Sampling and Data Collection

Institutionalized elderly subjects were accrued from the largest nursing home in Administrative Beirut (Dar al Ajaza Hospital) between December 1997 and March 1998 (c.f. Box I). Eligible cases were all nursing home residents aged 65 years and over, of both sexes. Subjects were excluded if they had any serious physical or mental health condition that would not allow them to participate in the study or to give reliable answers to questions asked in the interview schedule.

The initial number of age-eligible subjects was 143 of which 73 were males and 70 were females. 71 subjects were then eliminated; 6 of them had died before the interview period (1 male and 5 females) while 65 (24 males and 41 females) suffered from a variety of physical and mental ailments that precluded the successful administration of the interview questionnaire. The most prevalent health problems among the excluded cases were senile dementia (53.8 %), chronic schizophrenia (21.5 %), psychosis (7.7 %) and mental retardation (6.2 %). Thus, a total of 72 subjects (48 males and 24 females) were eligible for entry into the study. However, 7 subjects (6 males and 1 female) refused to participate. The remaining 65 (42 males and 23 females) were successfully interviewed **(c.f. Fig 2).**

Fig 2. Sampling Stages in Dar Al Ajaza Hospital



Next, a community-dwelling elderly subject was selected to match each one of the 65 nursing home residents described above. These subjects were judged as eligible if they were 60 years and over and were not mentally or cognitively impaired. As mentioned earlier, the selection of this control group was conditional on three socio-demographic variables that characterized each one of the institutionalized cases. For instance, an 80-year old woman currently residing at Dar al Ajaza Hospital and who used to live in Saida was matched with another home-based woman having these same characteristics **(c.f. Box II).**

Box II. CASE STUDY — OUM KAYED

During our fieldwork, we landed in the marketplace of Ancient Saida. My companions and I went along the dark and narrow alleys of the "Souk", searching for a street named "St Nicolas". We were supposed to locate an eighty-year old woman in that neighborhood. We asked the vendors if they knew anyone that fits these specifications. A little boy told us that his grandmother Oum Kayed was the right person. So, we followed him and climbed irregular stairs to reach the house of the old lady. She received us with a smiling face and was very happy to meet newcomers. I sat right beside her on the sofa. My friend Fatima was next to me and my sister May sat next to Fatima.

While I was gathering sociodemographic information about Oum Kayed, I stumbled upon a question with an obvious answer: "What is your religion?" In fact, the Koran verses were hanging all over the room, and when I asked her this question, her eyes came out of her face. She replied immediately: "Al hamdu lillah". So, I understood on the spot what she meant. At a later stage, I asked her questions that reflect on her mental health status. One of these questions was: " How do you feel about the streamline of your life?" Oum Kayed was very surprised and again she stared at me. So, Fatima had to rephrase the question into "Are you basically satisfied with your life?" Then came the more sensitive questions, like: " Do you think that other people respect you?" Her answer was very prompt. She said: "Why not?" Coming to the question of lifestyle, Oum Kayed admitted that she used to hubble-bubble in her youth in Palestine, and that she started smoking cigarettes only when her husband passed away.

At some point during the interview, I had to list the most common chronic diseases that elderly people usually suffer from. Oum Kayed picked them all (or almost all) by saying: "Ah Wellah " every time I named one. She had in her closet more than a dozen of prescription drugs that were provided by the Wikala (i.e. UNRWA).

Suddenly, Fatima could no longer hold herself and "Oum Kayed" probably thought she was being friendly. Fatima whispered to my sister May: "Look at this closet! Look what's written on it". Indeed, Oum Kayed seemed to have a great sense of humor as she wrote on the drug closet: "Chibli Pharmacy", (Chibli was her last name).

V. Main Study Findings:

The study included several areas for the assessment of the quality of life and social resources of elderly men and women among nursing home residents as compared to their community-dwelling matches. This article will focus on few health indices including mental health (depression and life satisfaction), functional health (Activities of Daily Living) and a number of social resources indices (e.g. social network, caregiver availability, loneliness) **(See Boxes IV and V).**

Box IV. Quality of Life Indices by Gender and Setting.

	Institution			Community		
	Male	Female	Total	Male	Female	Total
Mental health						
Depression score (Mean +/- SD)	7.38 (+/- 3.3)	7.30 (+/- 3.7)	7.35 (+/- 3.4)	5.29 (+/- 3.4)	7.64 (+/- 3.5)	6.09 (+/- 3.6)
Depression status						
% Depressed (GDS > 6)	61.9	65.2	63.1	38.1	68.2	48.4
Life satisfaction score (Mean +/- SD)	8.78 (+/- 3.4)	9.59 (+/- 4.2)	9.06 (+/- 3.7)	11.3 (+/- 4.5)	10.70 (+/- 4.6)	11.06 (+/- 4.5)
Physical & functional health						
# of chronic diseases % Having three or more	23.8	52.2	33.8	38.1	52.2	43.1
Physical ADL score (Mean +/- SD)	8.71 (+/- 4.1)	8.05 (+/- 4.5)	8.48 (+/- 4.2)	13.43 (+/- 2.1)	12.48 (+/- 3.1)	13.09 (+/- 4.2)

Box V. Social Resources Indices by Gender and Setting

	Institution			Community		
	Male	Female	Total	Male	Female	Total
Marital Status (%)						
Never married	54.8	30.4	46.2	4.8	4.3	4.6
Currently married	14.3	4.3	10.8	83.3	21.7	61.5
Previously married	30.9	65.2	43.1	11.9	73.9	33.8
Child Status						
% Having no children	21.1	31.3	25.7	9.5	4.3	7.7
% Having no female children	42.1	50.0	45.7	15.0	--	9.7
Social Network [1]						
% None	45.0	54.5	48.4	5.3	5.6	5.4
% Five or more	10.0	13.6	11.3	71.1	44.4	62.5
Availability of Caregivers [2]						
% Having caregiver	33.3	9.1	24.6	85.0	91.3	87.3
Loneliness						
% Quite often	50.0	56.5	52.5	24.4	30.4	26.6
% Almost never	23.7	21.7	23.0	51.2	47.8	50.0
Presence of Confidant						
% Having a confidant	56.1	65.2	59.4	54.8	87.0	66.2
Social Activities						
% At least one social activity	38.1	23.8	33.3	35.7	17.4	29.2

1. Social network was measured through the number of individuals the elderly subject can visit in their homes.
2. Caregivers were defined as informal providers of care during sickness.

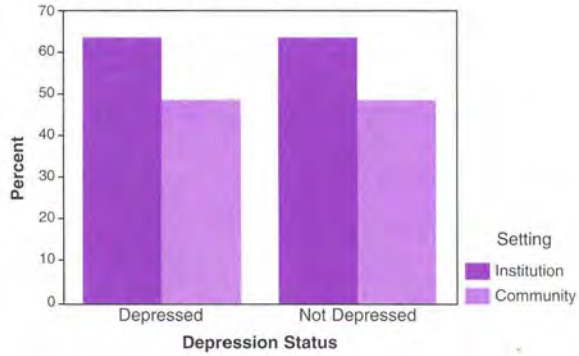
1. Quality of Life by Gender and Setting:

Depression

The depression status of our elderly sample was assessed through the use of a scale specifically designed for this age group – the short version of the Geriatric Depression Scale (Yesavage, 1983).

In the current study, the average depression score differed significantly between the two populations as it was slightly above the cut-off point (Mean 7.35; SD= 3.4) for nursing home residents and slightly below the cut-off point (Mean: 6.09; SD= 3.6) for community-dwelling subjects. By the same token, a relatively high prevalence of depression (63.1%) was observed within the institutional setting, whereas the proportion of depressed community residents was only 48.4% **(c.f. Fig 3).** Depression was also more prevalent among females, irrespective of the survey setting **(See Box IV).**

Fig 3. Distribution of Elderly Subjects by Depression Status and Setting.

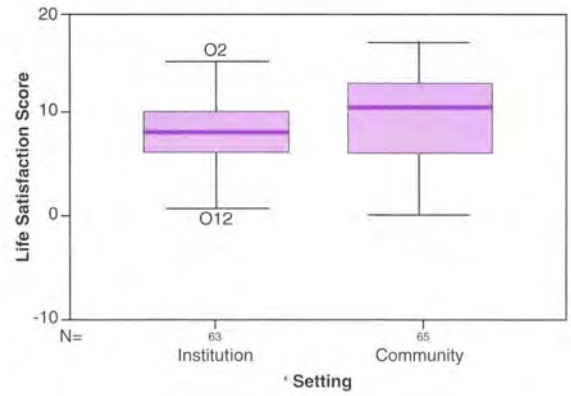


Life Satisfaction

The Life Satisfaction Scale utilized in this particular survey was also a 15-item scale composed of five areas, four of which consisted of binary (Yes/No) questions and the remaining area included Likert-type questions (McDowell & Newell, 1987).

In our study, nursing home residents were less satisfied with their overall life situation as compared to their community-based matches (c.f. Fig 4). In fact, the mean life satisfaction score was significantly higher for the community dwellers as compared to institutionalized elderly (11.06 (SD=4.5) vs. 9.06 (SD=3.7). In addition, female nursing home residents reported a slightly higher

Fig 4. Distribution of Elderly Subjects by Life Satisfaction and Setting



level of life satisfaction when compared to their male counterparts (9.59 (SD=4.2 vs. 8.78 (SD=3.4).

Chronic Illnesses

The burden of disease among elderly nursing home residents and their community-based counterparts was assessed through several mechanisms. The survey instrument included a list of commonly occurring diseases and disorders in the older age categories. Around 43% of community-dwellers were found to have three or more chronic illnesses – a proportion slightly higher than that observed among institutionalized elderly individuals (34%). In both settings, females were more likely to suffer from multiple chronic conditions than were men. The most prevalent diseases were hypertension (29.2% in the institution vs. 32.3% in the community) and Diabetes Mellitus (17.4% in the institution vs. 24.6% in the community). Stroke (32.3%) was also prevalent in the institutionalized group whereas gastrointestinal problems (32.3%), heart trouble (32.3%) and arthritis (24.6%) were more frequently reported by community-dwellers.

Activities of Daily Living

As mentioned earlier, the physical ADL score is an indicator of the degree to which older individuals still maintain their independence while performing activities such as eating, dressing, bathing, walking etc. In our study, non-institutionalized elderly people had a uniformly high physical ADL score – nearly 13 out of 14. As such, they were less physically dependent on caregivers or aids than their nursing home matches with a mean physical ADL score of 8.48.

Among the institutionalized elderly, a decreasing trend in the physical ADL was observed with age. The onset of "dependency" was around the age of 70, whereby we can notice a sharp decline in the physical ADL score. Moreover, no significant gender differential in disability levels was observed among elderly nursing home residents (c.f. Fig 5 & 6).

2. Social Resources by Gender and Setting:

Social resources were either deficient or lacking for the majority of institutionalized elderly as opposed to community dwellers of the same age, sex and socioeconomic background.

Most of the nursing home residents were either single (46.2%) or previously married (43.1%), while only 10.8% were currently married.

Fig 5. Distribution of the Institutionalized Elderly People by ADL Score and Age

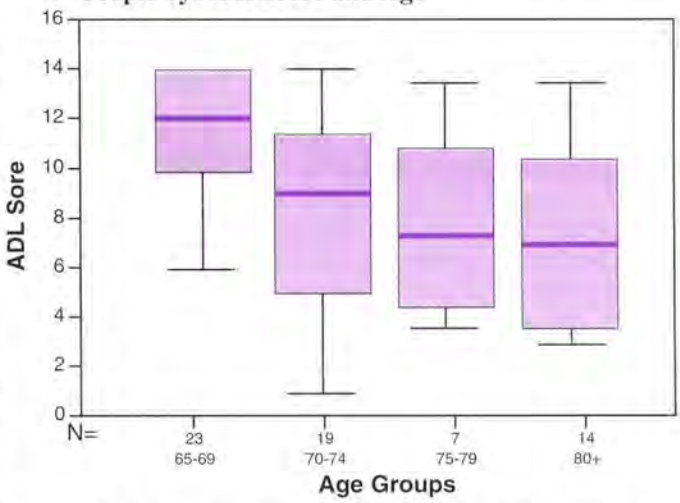
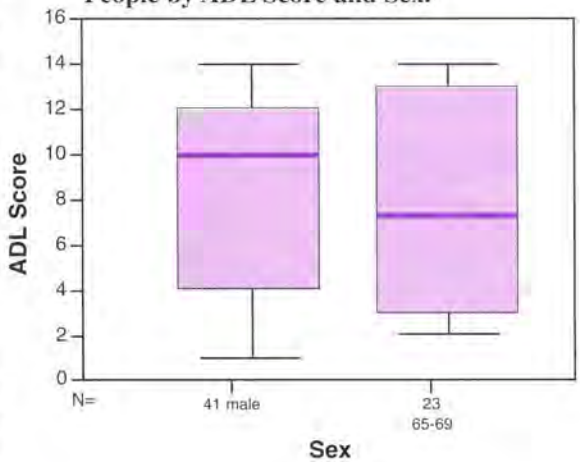


Fig 6. Distribution of the Institutionalized Elderly People by ADL Score and Sex.



By contrast, married elderly people constitute 61.5% of the non-institutionalized sample. As a result of the existing gap in life expectancy between the sexes, elderly women were more likely to be widowed than their male counterparts. Within the institution, 60.9% of females were widowed versus only 21.4% of males.

Over 25% of institutionalized subjects had no children, whereas 92.3% of community dwellers had at least one child. In addition, almost half of institutionalized elderly men and women had no female offspring versus only 9.7% of their community matches. Since children – and more specifically female offspring – constitute a major resource as potential caregivers, childless elderly men and women are at a greater risk for nursing home placement.

Social network was measured through the number of individuals the elderly subject can visit in their homes. Over 60% of community dwellers had a network size of 5 people or more, whereas 48% of institutionalized subjects had no relatives or friends that they consider as part of their social network. On the whole, elderly women were less likely to report a large network size.

The majority of our institutionalized elderly had no informal caregivers from outside Dar al Ajaza Hospital. Over half of them reported feeling lonely "quite often" whereas half of the community dwellers almost never experienced feelings of loneliness.

The proportion of individuals who had a close relationship with another person (i.e. a confidant) was slightly higher in the community when compared to the institution (66.2% vs. 59.4%). In either setting, elderly women were more likely to have a meaningful relationship with another individual than were men.

Similar proportions of elderly people reported engaging in one form or another of the different types of social and leisure activities proposed by the interview schedule. In fact, one third of the institutionalized cases (vs. 29.2% of community controls) were socially active, with males outnumbering females. However, the type and frequency of these activities were shown to be different in the two settings. Healthy community-dwellers had better opportunities for enriching their lives with a variety of social and leisure activities.

3. Social Factors and Mental Health of the Elderly:

One objective in our study was to identify the major determinants of mental health among elderly people in either setting. In our model, social health was given considerable importance since it has both a direct and an indirect effect on mental health (See Fig 1).

Our findings suggested that the determinants of the two major outcomes (i.e. depression and life satisfaction) differed between the two settings. In fact, most of factors that determined depression status at the institution were social in nature, whereas the mood of community dwellers was affected by a myriad of demographic, physical health and social health factors. As for life satisfaction, it was greatly affected by perceived social support in both institutional and community settings.

Thus, social factors seem to play an important role in determining an elderly person's mental health status after controlling for individual variations in sociodemographic background and physical health. For instance, elderly people who reported participating in any kind of leisure or social activities were less likely to be depressed and were more satisfied with their lives. The number of social activities to which elderly people are exposed is a strong predictor of life satisfaction in both study groups. Finally, those who perceived the frequency of contact with their friends and relatives as adequate were at a lower risk of developing depressive symptoms.

IV. Conclusion

Three main conclusions can be drawn from this investigation:
- On the whole, elderly nursing home residents had a poor quality of life and less social resources when compared to their community-dwelling counterparts.
- The health of elderly women and their social support systems were less favorable than those of elderly men, regardless of the setting.
- In old age, social factors – and especially social activities – are strong predictors of mental wellbeing, even after controlling for physical health and sociodemographic background variables.

It is, however, necessary to pinpoint some of the methodological limitations associated with our investigation. One weakness is the cross-sectional nature of the study design, which limits our ability to ascertain the direction of the association between any determinant and the outcome of interest.

Another limitation is the degree of representation of our study sample. Institutionalized elderly people were chosen from a single nursing home that included the largest population of institutionalized elderly people in Administrative Beirut. However, the total number of eligible subjects (n=65) was relatively small due to the high prevalence of psychiatric and cognitive impairment among the residents. This limitation in sample size may have reduced the power of our study. Future research should focus its attention on the health and social needs of the elderly in general and elderly women more specifically, through large-scale cross-sectional and follow-up surveys.

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