Psychosocial assessment of geriatric subjects in Abha City, Saudi Arabia

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تقييم الحالة النفسية الاجتماعية للمرضى المسنّين في مدينة أبها بالمملكة العربية السعودية مصطنى عبد النتاح أبر الغترج، وعاصم دفع الله، ومحمل يونس خان، وماجد سبد خطاب، وإسماعيل عبد المنعم خلاصة: تم تقييم الحالة النفسية الاجتماعية للمرضى المسنّين الذي تبلغ أعمارهم 65 سنة أو أكثر (وعددهم 810) عن طريق مسح منولي في مناطق تخدمها ثلاثة مراكز للرعاية الصحية الأولية. وقد أجريت مقابلات مفصلة مع جميع المشمولين بالدراسة، وتسلّم كلِّ منهم نسخة مختصرة من مقياس اكتباب المسنّين. ووُجد الاكتباب لمدى من المرضى، وكان أكثر انتشاراً بين النساء (27.7% في مقابل 12.7%). وكان من شأن التأثير المشترك للشعور بضعف الحالة الصحية (52.4%) وضعف القدرة الوظيفية (6.66%) والوحدة (4.5%) والعزوبة (8.42%) والأمية (8.58%)، أن يفسر وجود 23.7% من اختلافات قياس درجة الاكتباب بتحليل التحيّف (الانحدار) المتعدد العوامل. إن الاكتباب يُعتبر إحدى المشاكل المنتشرة بين جمهرة المسنّين في المنطقة ولاسيّما بين النساء. ريوسي الباحثون بإجراء تحرّيات منزلية دورية للحالات النفسية الاجتماعية للمرضى.

ABSTRACT Psychosocial assessment of geriatric subjects was carried out through a home-based survey of people aged 65 years and over (n = 810) in the catchment areas of 3 primary health care centres. All the participants had a structured interview and were given a short version of the geriatric depression scale. Depression was found in 17.5% of the subjects, more commonly in women (27.7% versus 12.7%). The combined effect of impaired perceived health status (52.4%) and functional capacity (26.6%), loneliness (4.5%), single status (24.3%), and lack of education (80.5%) explained 23.7% of the variance in depression score by multiple regression analysis. Depression is a problem among the geriatric population in the region, especially women. Periodic home psychosocial screening of geriatrics is recommended.

Evaluation psychosociale des patients gériatriques dans la ville d'Abha (Arabie saoudite)

RESUME Une évaluation psychosociale des patients gériatriques a été effectuée par le biais d'une enquête réalisée à domicile sur des personnes agées de 65 ans et plus (n = 810) dans les zones de desserte de trois centres de soins de santé primaires. Tous les participants ont eu une interview structurée et ont reçu une version courte de l'échelle de dépression gériatrique. Une dépression a été trouvée chez 17,5 % des patiente, le plus fréquomment chez les femmes (27,7 % versus 12,7 %). L'effet combiné du mauvais état de santé perçu (52,4 %) et de la capacité fonctionnelle (26,6 %), de la solitude (4,5 %), du fait de vivre seul (24,3 %), et du manque d'éducation (80,5 %) expliquait 23,7 % de la variance dans le score de dépression par l'analyse de régression multiple. La dépression est un problème au sein de la population gériatrique dans la région, notamment chez les femmes. Le dépistage psychosocial périodique des patients à domicile est recommandé.

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Introduction

The World Health Organization (WHO) has predicted that developing countries will account for most of the increase in the world's elderly population by the year 2000 [1]. The health problems of the elderly are complicated by social, economic and psychological interactions to a greater degree than younger people. Moreover, the health problems of the elderly are usually multiple and are often masked by sensory and cognitive impairments so that special skills are required to detect them [2]. Both factors contribute to a worsening of morbidity and mortality.

The importance of early surveillance of the health needs of elderly people has been emphasized [3.4]. Geriatric assessment is a multidimensional diagnostic process designed to identify medical, psychosocial and functional capabilities and problems, and to produce a comprehensive plan for the management of elderly people [5]. Home assessment programmes are an important part of geriatric assessment. Previous studies have shown that the use of home-based programmes resulted in reduced mortality, improved diagnosis and a reduction in nursing home and hospital admissions [6].

The aim of this study was to determine the psychological and social characteristics of a geriatric population in Abha, Saudi Arabia, during home visits using:

- Estimation of the prevalence of depression among geriatric subjects according to the Geriatric Depression Scale.
- Determination of the quality of life of geriatric subjects in terms of:
 - functional capacity based on the basic activities of daily living;
 - perceived health status at the time of inquiry:

- social characteristics in terms of living conditions, loneliness, loss of a close person, presence of a caregiver and financial support.
- Assessment of the health status of the geriatric subjects based on previous diagnoses and use of medication.

Participants and methods

Study population

All people aged 65 years and above in the catchment areas of three primary health care centres were allocated to the target group for this study. The three primary health care centres were selected from six centres in Abha on the basis of existing collaboration with the College of Medicine, King Khalid University. The total number of geriatric subjects aged 65 years and above registered at these centres was 919. A total of 810 subjects responded to the study, giving a response rate of 88%.

Methods

All the participants in the study, and/or their caregivers, were interviewed during a home visit using a structured questionnaire to collect the following data:

- Sociodemographic data including age, sex, marital status, educational level, occupation, housing conditions, living conditions (alone or with others), satisfaction with health services, presence of a caregiver and sources of financial support.
- Functional capacity in terms of seven basic activities of daily living (ADL) [7]: walking, sitting, bathing, using the toilet, dressing, eating, and getting in and out of bed. The type of help needed was determined for each activity as: no help; some help; complete help. The overall functional status of each person

was estimated using a scoring system giving zero points for no help, 1 point for some help and 2 points for complete help. The total dependency scores therefore ranged from 1 to 14. Participants were classified according to functional capacity into 3 categories: good (independent in all ADL), average (independent but with difficulty in one or more ADL) and poor (dependent in at least one ADL).

- · Perceived health status. Each participant was questioned about physical health, symptoms related to different body systems and age-related health problems, such as heartburn, incontinence, constipation, abdominal pain, anxiety, difficulties in sleeping, headache, tremor of the hands, fatigue or weakness, and fits or dizziness over the preceding 6 months. The overall physical health status as perceived by the participant was rated using a scoring system giving 1 point for the presence of each complaint or symptom of poor health and zero points for the absence of such complaints or symptoms. The total score thus ranged from 0 to 20 points. Scores between 0 and 5 were considered to indicate good physical health, 6-13 average health and 14-20 poor health.
- The presence of chronic disease such as diabetes mellitus, hypertension, ischaemic heart disease was recorded for each participant, based upon previous diagnoses and/or medication.

The short version of the geriatric depression scale [8,9] was used to screen for depression. It consists of 15 questions to be answered by yes or no. One point is awarded when the answer matches the answer given in the test, and zero points when not. Anybody who scores 5 or more points is considered to be depressed.

Data were analysed using SPSS and EPI-Info statistical packages. The Pearson chi-squared test was used to compare categorical data and the Student t-test and single factorial analysis of variance (ANOVA) were used to compare quantitative data. The chi-squared test for linear trends was used to establish whether increasing risk levels were associated with depression. Odds ratios were calculated with 95% confidence intervals for the likelihood of an elderly person being depressed according to the different levels of risk factors for depression. To estimate the independent association of each risk factor with depression. multiple regression analysis was performed. P-values ≤ 0.05 were considered significant.

Results

A total of 810 geriatric subjects were studied, constituting 4.7% of the total population in the screening catchment areas. Their characteristics according to sex are shown in Table 1. About two-thirds of all geriatric subjects (65.6%) were aged 65-74 years, with those aged 85 years or more constituting only 12.5% of all geriatric subjects. Of all the participants, 24.3% were unmarried (single, divorced, widowed or separated), 80.5% had received no education and 71% were unemployed. The mean age of female geriatric subjects was significantly higher than that of males (P = 0.047). Females constituted significantly higher proportions of unmarried (P < 0.001), uneducated (P < 0.001)0.001) and unemployed (P < 0.001) geriatric subjects than males.

Table 2 shows the social characteristics of geriatric subjects according to sex. Of all the subjects, 4.5% were living alone, 24.4% had recently lost one or more close person, 17.9% suffered from one or more chronic medical conditions, 5.6% used five or more

Table 1 Characteris	tics of 810 geriatric	subjects in Abha hy sex
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Characteristic	Males $(n = 546)$		Females (n = 264)		Total (n = 810)		χ² (<i>P</i> -value)
	No.	%	No.	`%	No.	%	
Age range (years)ª							
65-74	368	67.4	163	61.7	531	65.6	
75-84	119	21.8	59	22.3	178	21.9	
85+	59	10.8	42	15.9	101	12.5	4.136 (0.042)
Marital status							
Unmarried	37	6.8	160	60.6	197	24.3	
Married	509	93.2	104	39.4	613	75.7	280.15 (0.000)
Education							
Secondary	30	5.5	1	0.4	31	3.8	
Primary and							
intermediate	125	22.9	2	8.0	127	15.7	
None	390	71.4	261	98.9	651	80.4	73.15 ^b (0.000)
Employment							
Employed	227	41.6	8	3.0	235	29.0	
Unemployed	319	58.4	256	97.0	575	71.0	128.37 (0.000)

^{*}Mean age (standard deviation) was 72.96 (9.45) years for males and 74.41 (10.08) years for females (Student test P = 0.047).

medications, and 25.7% were not satisfied with the primary health care services available.

Female geriatric subjects made up a significantly higher proportion of those living alone (P < 0.001), those who were dissatisfied with health services (P < 0.01), and those who took large numbers of drugs (P = 0.001). On the other hand, the loss of a close person (P < 0.001) and presence of chronic conditions (P = 0.005) were significantly more common in men.

Regarding caregivers, over half the subjects were dependent on their children or other relatives. Only 25.1% had no caregiver. Female subjects were significantly more dependent upon their children (P < 0.001), while the wife was the main caregiver for males (P < 0.001).

The government provided financial support for 36.3% geriatric subjects, children for 27.2% and charitable organizations for 21.6% of subjects. Children provided the main financial support for their mothers (P < 0.001), while the government was the main source of support for men (P < 0.001).

Table 3 shows the distribution of geriatric subjects by sex according to the prevalence of depression, functional capacity and perceived health status. Of all the subjects, 17.5% were scored as depressed, 26.6% had impaired functional capacity and 52.4% rated their health status as average or poor. All these rates were significantly higher among females than males (P < 0.001).

Table 4 shows that very old geriatries (75 years and more) were significantly more likely to be depressed (28.3% versus

bChi-squared test for linear trend.

Percentages have been calculated excluding missing values.

Table 2 Distribution of the geriatric subjects in Abha according to social interaction and sex

Variable	Males (n = 546)		Females (n = 264)		Total (n = 810)		χ² (<i>P</i> -value)
	No.	%	No.	%	No.	%	
Living conditions							
Living alone	9	1.7	28	10.6	37	4.5	
Living with others	536	98.3	236	89.4	772	95.5	32.68 (0.000)
Caregiver ^e							
None	147	26.9	56	21.2	203	25.1	0.29 (0.59)
Spouse	306	56.0	36	13.6	342	42.2	70.74 (0.000)
Child	270	49.4	163	61.7	433	53.4	19.67 (0.000)
Other	22	4.0	54	20.4	76	9.4	52.89 (0.000)
Financial support							
Self-supported	197	36.1	30	11.4	227	28.0	54.55 (0.000)
Child	89	16.3	131	49.6	220	27.2	97.89 (0.000)
Government	269	49.3	25	9.5	294	36.3	121.90 (0.000)
Charitable organization	86	15.8	89	33.7	175	21.6	33.07 (0.000)
Others	27	4.9	62	23.5	89	11.0	62.54 (0.000)
Loss of a close person							
Yes	158	29.0	39	14.8	197	24.4	
No	387	71.0	225	85.2	612	75.6	19.52 (0.000)
Satisfaction with health sen	/ices						
Satisfied	421	77.1	181	68.6	602	74.3	
Dissatisfied	125	22.9	83	31.4	208	25.7	6.81 (0.009)
Chronic medical condition							` ,
Yes	112	20.6	33	12.5	145	17.9	
No	433	79.4	231	87.5	664	82.1	7.84 (0.005)
Medication use ^c							. ,/
None	227	41.6	84	31.8	311	38.4	
1-2 drugs	236	43.2	100	37.9	336	41.5	
3-4 drugs	58	10.6	60	22.7	118	14.5	
5+ drugs	25	4.6	20	7.6	45	5.6	18.77 ^b (0.000)

^{*}Multiple response item.

11.8%, P < 0.001), have impaired functional capacity (38.9% versus 19.6%, P < 0.001) and have perceived impaired health status (65.3% versus 44.0%, P < 0.01).

After adjusting for age, females showed significantly higher mean depression scores (P < 0.001), higher mean functional dependency scores (P < 0.001) and higher

mean scores for perceived symptoms (P < 0.001).

Table 5 shows the association between depression scores and some risk factors for depression among geriatric subjects. Increased age was strongly associated with increased risk of depression. People aged 75–84 years were 3 times more likely and

Chi-squared test for linear trend.

^{*}Mean number of drugs (s_x) was 1.26 (1.57) for males and 1.69 (1.72) for females (t = 3.447, P = 0.001).

Table 3 Prevalence of depression, functional capacity and perceived health status among geriatric subjects in Abha by sex

Variable	Males (n : No.	= 546) %	Females (n = 264) No. %		Total (n = 810) No. %		χ² (Ævalue)
Depression							
Depressed scores	67	12.7	67	27.8	134	17.5	
Not depressed	459	87.3	174	72.2	633	82.5	26.01 (0.0001)
Mean scores (s)	2.20 (2.22)		3.35 (2.68)				(0.000)ª
Functional capacity							
Good (no help)	434	78.9	160	61.8	594	73.4	
Average							
(some help)	82	14.9	60	23.2	142	17.6	
Poor							
(complete help)	34	6.2	39	15.1	73	9.0	29.07 (0.000)
Mean scores (s)	0.87 (2.64)		2.09 (3.74)				(0.000)a
Perceived health sta	tus						
Good	303	55.5	83	31.4	386	47.6	
Average	229	42.0	166	62.7	395	48.8	41.315 (0.000)
Poor	14	2.5	15	5.7	29	3.6	$(0.000)^{a}$
Mean scores (s)	5.65 (3.55)		7.34 (3.74)				

Probability for one-way, with age adjustment.

those aged 85+ years were 4.7 times more likely to suffer depression compared to those aged 65-74 years (χ^2 = 46.81, P < 0.001). Female geriatric subjects were 2.6 times more likely to suffer depression than males ($\chi^2 = 24.35$, P < 0.001). Unmarried geriatric subjects were 2.8 times more liable to be depressed than married ones (χ^2 = 27.38, P < 0.001). Uneducated and unemployed subjects were 5 times and 1.7 times more likely to have depression than those who were educated and employed respectively $(\chi^2 = 21.40, P < 0.001) (\chi^2 = 4.57, P =$ 0.03). Geriatric subjects who lived alone were twice as likely to have depression than those who lived with others ($\chi^2 = 7.31$, P =0.006). The prevalence of depression was significantly higher among geriatric subjects with one or more chronic medical

Table 4 Prevalence of depression, impaired functional capacity and perceived impaired health status among the old and the very old geriatrics

Variable	Old (n = 527)	Very old (n = 283)	<i>P</i> -value
Sex ratio (M/F)	2.3:1	1.9:1	> 0.05
Depressed scorers (%)	11.8	28.3	< 0.001
Impaired functional capacity,(%)	19.6	38.9	< 0.001
Perceived impaired health status (%	6) 44.0	65.3	< 0.01

Results are presented for those whose data were available.

bChi-squared test for linear trend.

s = standard deviation.

Table 5 Association between depression scores and some risk factors for depression among the geriatric subjects in Abha

Variable	Prevalence of depression scores No. %		Odds ratio (95% CI)	χ² (<i>P</i> -value)
Age (years)				
65–74 (n = 503)	55	10.9	1®	
75–84 (<i>n</i> = 177)	47	26.6	2.92 (1.89-4.52)	
85+ (n = 87)	32	36.8	4.74 (2.82–7.96)	46.81ª (P < 0.001)
Sex				,
Male (n = 522)	67	12.8	1®	
Female ($n = 232$)	64	27.6	2.59 (1.76-3.80)	24.35 (P < 0.001)
Marital status			, ,	,
Married (n = 567)	75	13.2	1®	
Unmarried ($n = 187$)	56	29.9	2.80 (1.89-4.17)	27.38 (P < 0.001)
Education			•	,,
Educated $(n = 151)$	7	4.6	1®	
Uneducated (n = 602)	124	20.6	5.34 (2.44-11.69)	21.40 (P < 0.001)
Employment			,	,
Employed $(n = 651)$	106	16.3	1®	
Unemployed ($n = 100$)	25	25.0	1.71 (1.04-2.82)	4.57 (P = 0.03)
Living conditions			, ,	,
Live with others $(n = 730)$	123	16.8	1®	
Live alone $(n = 37)$	11	29.7	2.63 (1.27-5.43)	7.31 (P = 0.006)
Chronic medical condition			,	
No (n = 625)	9	6.3	1®	
Yes (n = 142)	125	20.0	3.69 (1.83-7.46)	14.98 (P < 0.001)
Perceived health status			,	, ,
Good $(n = 372)$	26	7.0	1®	
Average (n = 371)	99	26.7	4.84 (3.06-7.67)	
Poor (<i>n</i> = 24)	9	37.5	7.98 (3.19–19.99)	55.87° (P < 0.001)
Functional capacity				
Good $(n = 562)$	59	10.5	1®	
Average (n = 129)	40	31.0	3.83 (2.42-6.07)	
Poor $(n = 63)$	32	50.8	8.80 (5.01-15.45)	84.22 a (P < 0.001)

^{* =} reference category.

conditions than among those without any such conditions (OR = 3.69, P < 0.001). Perceived health was strongly associated with depression ($\chi^2 = 55.87$, P < 0.001). Those who rated their health as average or

poor had a 5 and 8 times increased risk of depression respectively compared to those who rated their health as good. The functional capacity of geriatric subjects was also strongly associated with depression;

^{*}Chi-squared test for linear trend was applied.

CI = confidence interval.

Table 6 Multiple regression analysis of depression scores on certain independent
sociodemographic variables among geriatric subjects in Abha

Independent variable	Partial regression coefficient β ($s_{\overline{x}}$)	Computed t for β	<i>P</i> -value 0.45	
Sex (male = 1)	-0.17 (0.23)	-0.75		
Age (years)	0.01 (0.01)	1.35	0.18	
Marital status (unmarried = 1)	0.53 (0.24)	2.20	0.03	
Education (uneducated = 1)	0.47 (0.23)	2.02	0.04	
Employment (unemployed = 1)	0.15 (0.26)	0.58	0.56	
Living conditions (live alone = 1)	1.37 (0.42)	3.24	0.001	
Perceived health status (perceived symptom score)	0.16 (0.03)	6.10	0.000	
Functional capacity (dependency score)	0.15 (0.3)	4.97	0.000	
Chronic medical condition (yes = 1)	0.37 (0.27)	1.37	0.17	

Based on number of geriatric subjects for whom data were available. Multiple r=0.486; $R^2=0.237$; adjusted $R^2=0.226$; $s_{\overline{x}}=2.19$; F=23.248; P=0.000. $s_{\overline{y}}=$ standard error.

those with average functional capacity were 3.8 times more likely and those with poor capacity 9.5 times more likely to suffer depression than those with good functional capacity ($\chi^2 = 84.22$, P < 0.001).

When the combined effect of the significant variables (sex, age, marital status, education, employment, loneliness, perceived health status, functional capacity and presence of chronic medical condition) was examined with multiple regression analysis using depression scores as the dependent variable (Table 6), the 9 variables jointly contributed to 23.7% of the variance in total score. Of these, perceived impaired health status (P < 0.001), impaired functional capacity (P < 0.001), loneliness (P = 0.001), single status (P = 0.003) and lack of

education (P = 0.04) were the only significant predictors of depression in geriatric subjects.

Discussion

This study assessed all geriatric subjects aged 65 years and over in the catchment areas of three primary health care centres in Abha. The geriatric subjects constituted 4.7% of the entire population in the catchment areas. This figure is higher than the 4.1% registered for the Saudi population over 60 years old [1], and may indicate that the elderly population in the country is increasing every year, with all the economic and social implications this has.

Previous surveys of the elderly population in the Eastern Mediterranean Region have shown that females by far outnumber males [1]. Our study showed the opposite, with the number of elderly males almost double that of elderly females. However, the geriatric population in the present study is not representative of all Saudi geriatric persons.

Almost all geriatric subjects in the present study lived with their families and were cared for by family members (95.5%). while only 4.5% lived alone. Children were the caregivers for over 50% of geriatric subjects. It is the cultural norm for children to care for aged parents and grandparents and homes for the elderly in the country, as in all countries in the region, tend to make the younger generation feel guilty for having failed to take on their natural responsibility [1]. However, it is difficult to say how long this practice will persist. Although there is no national policy on the care of the elderly in Saudi Arabia, the social welfare sector provides financial support to the elderly in the form of old age pensions. We found that the government was the main source of financial support (36.3%) for the participants of our study followed by children and charitable organizations.

Maintaining a daily routine of activities is fundamental to health in old age. Functional decline is not an inevitable or irreversible consequence of advancing age. Only 5% of people aged 65 years and older need institutional care; 95% remain in the community, with or without physical and social support [10]. Our study revealed that 9% of all geriatric subjects had poor functional capacity and needed complete help, 17.6% had average capacity and needed some help, while 73.4% had good functional capacity. This finding may reflect the lack of activity among geriatric subjects with poor functional capacity as inactive

older adults tend to suffer loss of function [11]. Thus, when disease and/or a sedentary lifestyle are superimposed on normal ageing, a person's ability to remain independent is much more likely to be compromised.

Many elderly people have one or more chronic conditions for which they are taking medication, and it is against this backdrop that acute disease patterns must be assessed. It is therefore often difficult to identify one major etiological factor to explain the deteriorating health status of an elderly person [5]. In our study, such chronic conditions were present in 18% of all geriatric subjects, with a high medication use ranging from 1 to 10 drugs per person, a finding that emphasizes drug use as a major problem in the elderly (too high a dose of medication and/or too many medications). Moreover, if we remember that 80% of these elderly subjects were illiterate and perhaps unable to read medication labels, a high degree of non-compliance with longterm medication is to be expected, constituting a significant clinical problem among the elderly [12]. Today, it is recognized that geriatricians must attempt to reduce the number and/or dosage of drugs a patient receives. The high proportion of geriatric subjects who were dissatisfied with the health services provided in primary health care centres in the present study reflects the lack of specialized geriatric health services.

In the absence of more objective measures, perceived health status may be a suitable measure of health status in epidemiological studies. In our study, more than half of the geriatric subjects rated their health as average or poor. This may reflect a generally low quality of life in this group of subjects, as perceived health indicates the total burden from a wide range of underlying, hidden, and diagnosed conditions and symptoms.

Mental disorders are common in elderly people. In most developing countries, depressive disorders are not well characterized and are often dismissed as the normal behaviour of old age or senility [14]. The routine use of the geriatric depression scale has been recommended for the early detection of depression [8,9]. In the present study, this screening tool detected 134 previously undiagnosed cases of depression, giving a prevalence of 17.5%. This is relatively high compared to a prevalence of around 10% in western communities [15,16], a finding that indicates a need to investigate the possible underlying ecological factors. The frequency of depression in geriatric subjects was significantly associated with very old age, being female, lack of education, being unemployed or unmarried, the presence of chronic medical conditions, average or poor perceived health status, and average or poor functional capacity. However, when assessed by multiple regression analysis, only five factors showed a persistent significant association with depression. These were perceived health status, functional capacity, living conditions, marital status and education.

The question of why elderly females have a higher prevalence of depression than males may be answered by the results of our study, which show that women have a higher frequency of independent risk factors for depression, i.e. loneliness, single status, lack of education, poor functional capacity and poor perceived health status, and possibly higher drug consumption and less satisfaction with the health services provided.

Conclusion and recommendations

The following are the main findings of our study.

- The quality of life of Saudi geriatric population in Abha is poor in terms of functional capacity, perceived health status, depression and economic dependency.
- Depression constitutes a health problem among Saudi geriatrics in Abha, especially among women.
- Poor perceived health status rather than the presence of a chronic condition among the elderly appears to be the most sensitive predictor of depression. Other predictors of depression among geriatrics are loneliness, being unmarried, illiteracy and poor functional capacity.

The main aim of geriatric care is not only to add years to life but also to add life to years. Thus, more emphasis should be given to psychosocial aspects to improve the quality of life of geriatric people. This aim could be achieved through:

- Periodic selective psychological and social screening of geriatric people via home visits with special emphasis on the more vulnerable groups, such as women and those who are uneducated, single or who live alone. This could be performed by the health teams of regional primary health care centres.
- The social shift from extended to nuclear families should be discouraged so that geriatric people can continue to live with others.
- Physical complaints of the elderly should receive medical attention, if necessary, and not be ignored as mere features of old age.
- Training programmes should be developed for all staff in geriatric health care, with special emphasis on psychogeriatrics.

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References

- Hafez G, Bagchi K, Badr A. Ageing populations of the Eastern Mediterranean Region: a challenge for health care systems. Health services journal of the Eastern Mediterranean Region, WHO, 1992, 6:15.
- Harrison S et al. Assessing the needs of the elderly using unsolicited visits by health visitors. *Journal of the Royal Soci*ety of Medicine, 1985, 78:557–61
- Arie T. Prevention of mental disorders of old age. Journal of the American Geriatric Patients Society, 1984, 32:460-5.
- Pathy MS et al. Randomised trial of case finding and surveillance of elderly people at home. *Lancet*, 1992, 340:890–3.
- 5. Morely JE. Geriatric update. Saudi medical journal, 1989, 10:15–20.
- Hendriksen C, Lund E, Stromgard E. Consequences of assessment and intervention among elderly people: a three-year randomised controlled trial. *British medical journal (clinical research ed.)*, 1984, 289:1522-4.
- Rulgomez A, Alonso J, Anto JM. Relationship of health behaviours to five-year mortality in an elderly cohort. Age and ageing, 1995, 24:113—9.
- Lyness J. Short survey is an effective screen for significant depression in elders in the primary care setting. Modern medicine of the Middle East, 1997, 14:21.
- Allen N et al. A brief sensitive screening instrument for depression in late life. Age and ageing, 1994, 23:213-8.

- O'Brien K. Getting around: A simple office workup to assess patient function. Geriatric patients, 1994, 49:38–42.
- Pronsati MP. Use it or lose it: researchers promote exercise in elderly. Advances in physical therapy, 1992, 4:8.
- Botelho RJ, Dudrak R II. Home assessment of adherence to long-term medication in the elderly. *Journal of family practice*, 1992, 35:61–5.
- Kaplan GA et al. Perceived health status and morbidity and mortality: evidence from the Kuopio ischaemic heart disease risk factor study. *International journal of* epidemiology, 1996, 25:259–65.
- Hatez G, Bagchi K, eds. Health care for the elderly: a manual for primary health care workers. Alexandria, World Health Organization Regional Office for the Eastern Mediterranean, 1994 (WHO Regional publications, Eastern Mediterranean Series 10).
- Livingstone G et al. The Gospel Oak Study: prevalence rates of dementia, deproesion and activity limitation among elderly residents in Inner London. *Psy*chological medicine, 1990, 20:137–46.
- Copeland JR et al. Range of mental illness among the elderly in the community. Prevalence in Liverpool using the GMS AGECAT package. British journal of psychiatry, 1987, 150:815–23.