Life satisfaction and its contributors among noninstitutionalized older people in Tabriz, Islamic Republic of Iran

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Abstract

Background: With the rising growth of the older population, the well-being of older people is an important objective for both economic and health policy.

Aims: This study investigates levels of life satisfaction among older people living at home and the factors that influence it.

Method: Applying probability proportional to size, a cross-sectional survey was conducted of 1067 older people living in Tabriz, Islamic Republic of Iran. The Satisfaction with Life Scale and the Multidimensional Scale of Perceived Social Support questionnaires were administered. The data were analysed using chi-squared tests and logistic regression.

Results: More than half of the participants were dissatisfied with their lives. Female, educated, and active older people reported greater satisfaction than others.

Conclusion: The significant positive effects of perceived social support and physical activity rate indicated that social interaction may be as vital as physical activity for the well-being of older people, and that these qualities should be actively promoted among older people in the Islamic Republic of Iran.

Keywords: life satisfaction, social support, elderly, health policy, Iran

Introduction

The spread of healthy lifestyles, public health measures and health care over the past century have increased life expectancy (1). Currently, the world population is rapidly ageing and facing an unprecedented situation. It is expected that during the next few decades the population aged 60 years or older in low and middle-income countries will grow at a rate several times faster than the equivalent rate in the developed countries (2,3).

According to the 1996 census, about 6.6% of the Iranian population was aged 60 or more years; by 2011 the share had increased to 8.2% (4). Comparisons with other countries show that the Islamic Republic of Iran will be among those with the highest rate of ageing and that over the next 3 decades the population pyramid will be inverted (5,6). The changing demographic structure has created new challenges to improving the well-being of individuals in different age groups. Moreover, with increased longevity and the ageing population, paying attention to older people as a vulnerable social group becomes inevitable. Some of the older people live with a sense of satisfaction and stoical realism in the last years of their lives while others find their decreased abilities and lack of social importance unpleasant (7–11).

Life satisfaction is directly related to social vitality and is one of the effective variables and important indices for explaining an older person's mental health status. People who are more satisfied with life have better physical and mental health than those who are less satisfied (12). People who are satisfied with their lives have more effective and appropriate coping styles, experience deep positive emotions and feelings and have better health. Dissatisfaction with life is correlated with poor health status, depression symptoms, personality problems, inadequate health behaviours and poor social status. This theoretical framework suggests that engagement with the contributors is an important component of successful ageing (13–15).

Over the last 4 decades, the Islamic Republic of Iran has been experiencing rapid sociodemographic and economic changes. Data from population censuses show that rapid urbanization, new patterns of internal migration, declining fertility, the current youth bulge, an upcoming aged population, and the growing number of female-headed households are some of the main population issues to have emerged due to broad socioeconomic changes. The proportion of men and women aged 65 years and over living with their children has decreased (16). Therefore, new research reassessing the well-being challenges for older people is particularly important for understanding the general role that factors such as age, sex, level of education, place of birth, marital status, physical and mental health and family structures play in shaping life satisfaction in rapidly ageing societies. In this study, we aimed to investigate life satisfaction and

its influencing factors among older Iranian people.

Methods

Design

The study sampled a representative cross-section of people aged ≥ 60 years living in their own homes in Tabriz, Islamic Republic of Iran.

Participants and sampling

According to data from the Statistical Center of Iran, the population of interest totalled 146 312 in 2011 (4). Individuals aged ≥ 60 years were included in the study. Based on Cochran's sample size formula, and considering prevalence of life dissatisfaction = 0.5, d = 0.03 and significance level = 0.95; sample size was estimated at 1060. We recruited 1067 individuals in our sample, 514 males and 553 females.

We used "probability proportional to size", a sampling procedure under which the probability of a unit being selected is proportional to the size of the ultimate unit, giving larger clusters or blocks a greater probability of being selected and smaller clusters or blocks a lower probability (17). In the first stage, and in order to ensure that all units in the population had the same probability of selection irrespective of the size of the cluster, 107 blocks were selected out of 8531 urban blocks in Tabriz.

After calculating the sampling interval by dividing the total population by the number of blocks, the random starting point (first block) was selected in a range between 1 and the sampling interval using a random number table. The succeeding blocks were determined utilizing a randomized systematic sampling process. At the next stage, 10 eligible older people were randomly nominated from each block. People were considered ineligible if they had multiple chronic difficulties or severe cognitive impairment, or were too frail to undertake the survey.

Measures

The questionnaire included both demographic information and the Farsi version of the Satisfaction with Life Scale standard questionnaire (13). The original scale was designed in 1958 and has been used in many intercultural studies with high reliability and validity. The scale contains 5 items which are evaluated using a 5-point Likert scale from "always dissatisfied" (score 5) to "very satisfied" (score 25). The validity and reliability of the Farsi version of the questionnaire have been evaluated in other studies (18,19).

The perceived social support was assessed using the Multidimensional Scale of Perceived Social Support (20). This tool was developed in 1988 for evaluating the perceived social support provided by relatives, friends and other individuals important in the person's life. The questionnaire has 2 items which are scored using a 5-point Likert scale from "strongly disagree" to "strongly agree" (20,21). The Iranian version of this tool has been used in a domestic study among older people (22). The questionnaires were evaluated among 45 eligible participants in a pilot carried out before our study. The reliability of the final drafts was accepted using Cronbach's alpha (Satisfaction with Life Scale: α = 0.71 and Multidimensional Scale of Perceived Social Support: α = 0.83).

Data collection and procedures

Since the ability of the participants to complete all of the questionnaires was uncertain, a preliminary pilot study was conducted; the results showed that older people were rather weak in completing the questionnaires by themselves. Among those willing to participate in the study, data collection was conducted by trained interviewers through face-to-face interviews. The place where the interviews were conducted was determined in accordance with the convenience and proclivity of the participants. We performed the majority of interviews in a quiet room in the homes of the participants. Each interview lasted 25–35 minutes. If a potential participant was not available at the relevant address, a replacement was selected from the next household on the right.

For the data analysis, descriptive, inferential statistics, chi-squared tests and logistic regression were used. In order to make the appropriate comparisons, the 5 possible responses were dichotomized into "satisfied" or "dissatisfied".

Ethical standards

Informed consent was obtained from all the people who participated in the study. All procedures performed in the study were in accordance with the ethical standards of the Ethics Committee of Tabriz University of Medical Sciences (number: 1395.1148).

Results

The mean age of the participants was 70.19 [standard deviation (SD) 8.2] years [males 71.25 (SD 8.26), females 69.20 (SD 8.05) years]. Table 1 compares the level of life satisfaction scores and sociodemographic variables. Male:female ratio was 0.929. In terms of marital status, the most common was "married" and the least common "never married" (n = 7). Around 54% were illiterate, with a strong difference between the sexes, men 37.4%, women 70.2%. More than half of the respondents were born in rural areas and had migrated to Tabriz. In terms of family type, 619 (58%) were living in extended families (with > 1 marriage represented).

The descriptive statistics showed that the mean score for life satisfaction was 14.14 (SD 4.12), with the most prevalent category being "dissatisfied".

Evaluating the simultaneous effect of independent variables on life satisfaction using logistic regression showed that the impact of sex, education, perceived social support and daily walking were statistically significant at the 5% level (Table 2). Assuming other model variables as constant, being female increases the probability of life satisfaction 1.42 times. A higher level of education also had a significant effect on the likelihood of satisfaction with life. Having received elementary, secondary or academic

Table 1 Comparison of life satisfaction scores and sociodemographic characteristics among noninstitutionalized older people in Tabriz (n = 1067)

Characteristic	Life satisfaction						P-value
	Dissatisfied		Satisfied		Total		
	No.	%	No.	%	No.	%	
Sex							
Male	289	56.2	225	43.8	514	48.0	0.01
Female	368	66.5	185	33.5	553	52.0	
Age (years)							
60–64	187	55.8	148	44.2	335	31.4	0.01
65–69	126	61.8	78	38.2	204	19.1	
70–74	118	59.6	80	40.4	198	18.6	
75–79	117	72.7	44	27.3	161	15.1	
80–84	68	63.0	40	37.0	108	10.1	
85–89	31	73.8	11	26.2	42	4.0	
90+	10	52.6	9	47.7	19	1.7	
Education level							
Illiterate	428	73.8	152	26.2	580	54.3	< 0.001
Primary	161	55.7	128	44.3	289	27.1	
Secondary	45	34.6	85	65.4	130	12.2	
Higher	23	33.8	45	66.2	68	6.4	
Place of birth							< 0.001
Village	376	68.1	176	31.9	552	52.0	
Town	281	54.6	234	45.4	515	48.0	
Marital status							
Married	434	56.7	332	43.3	766	71.8	< 0.001
Divorced[a]	18	81.8	4	18.2	22	2.1	
Widowed	205	73.5	74	26.5	279	26.1	
Family structure							
Living alone	90	73.8	32	26.2	122	11.4	0.007
Nuclear	184	57.5	136	42.5	320	30.0	
Extended	383	61.3	242	38.7	625	58.6	
Walking (daily)							
Does not walk	195	73.0	72	27.0	267	25.4	0.001
< 15 minutes	192	66.2	98	33.8	290	27.6	
15–30 minutes	148	52.9	132	47.1	280	26.6	
≥ 60 minutes	109	50.9	105	49.1	214	20.4	
Perceived social support							
Very low	33	100.0	0	0.0	33	3.1	0.001
Low	155	82.0	34	18.0	189	17.7	
Average	38	65.5	20	34.5	58	5.4	
Much	335	57.0	253	43.0	588	55.2	
Very much	95	48.0	103	52.0	198	18.6	

[a]This includes 7 people who were never married. Since the numbers were so low, the 2 groups were merged

education compared with being illiterate increased the odds of satisfaction with life 1.82, 3.84 and 2.87 times respectively. Walking was also associated with the increased chance of satisfaction with life compared to no walking: daily walking of ≥ 15 minutes had a statistically significant effect on satisfaction with life compared to no walking (P = 0.004). According to the regression results, perceived social support also had a significant positive effect on satisfaction with life. Assuming that other model variables were constant, an increase of 1 unit in perceived social support increased the chance of satisfaction with life 1.06 times.

Table 2 **Logistic regression: contribution of determinant to variables life satisfaction among noninstitutionalized older people in Tabriz (*n* = 1067)**

Characteristic	Dissatisfied		Satisfied		OR	95% CI	P-value
	No.	%	No.	%			
Age (years)							
60–64	187	55.8	148	44.2	1.02	1.00–1.04	0.142
65–69	126	61.8	78	38.2			
70–74	118	59.6	80	40.4			
75–79	117	72.7	44	27.3			
80–84	68	63.0	40	37.0			
85–89	31	73.8	11	26.2			
90+	10	52.6	9	47.7			
Perceived social support							
Very low	33	100.0	0	0.0	1.06	1.04–1.08	< 0.001
Low	155	82.0	34	18.0			
Average	38	65.5	20	34.5			
Much	335	57.0	253	43.0			
Very much	95	48.0	103	52.0			
Sex							
Male	289	56.2	225	43.8	1.00		
Female	368	66.5	185	33.5	1.42	1.01–2.00	0.047
Place of birth							
Village	376	68.1	176	31.9	1.00		
Town	281	54.6	234	45.4	1.12	0.83–1.50	0.455
Family structure							
Living alone	90	73.8	32	26.2	1.00	0.44–1.55	0.552
Nuclear	184	57.5	136	42.5	0.83	0.43–1.33	0.338
Extended	383	61.3	242	38.7	0.76		
Marital status							
Divorced[a]	18	81.8	4	18.2	1.00		
Widowed	205	73.5	74	26.5	2.04	0.55–7.61	0.287
Married	434	56.7	332	43.3	2.98	0.79–11.19	0.106
Education level							
Illiterate	428	73.8	152	26.2	1.00		
Primary	161	55.7	128	44.3	1.82	1.29–2.55	0.001
Secondary	45	34.6	85	65.4	3.84	2.38–6.18	< 0.001
Higher	23	33.8	45	66.2	2.87	1.56–5.28	0.001
Walking (daily)							
Does not walk	195	73.0	72	27.0	1.00		
< 15 minutes	192	66.2	98	33.8	1.30	0.88–1.93	0.190
15–30 minutes	148	52.9	132	47.1	1.82	1.21–2.74	0.004
≥ 60 minutes	109	50.9	105	49.1	1.91	1.22–2.99	0.004

OR = odds ratio; CI = confidence interval.

[a]This includes 7 people who were never married. Since the numbers were so low, the 2 groups were merged.

Discussion

An understanding of the many determinants of quality of life can serve a number of purposes. One is to identify the most important contributors to quality of life so that they can be targeted for programmes and interventions. Another is to provide a descriptive context for understanding how to appropriately measure quality of life within a particular study. For example, knowing the range and level of education, literacy, medical problems and living circumstances in a particular sample can aid the selection of an appropriate conceptual and measurement approach, e.g. whether the focus should be on lower

versus higher levels of functioning, or what methods of data collection are optimal. Finally, scores on such determinants can be useful covariates in studies attempting to explain quality of life outcomes, facilitating the isolation of the unique influence of the independent variables of primary interest (23).

Our findings showed significant relationships between satisfaction with life and sex, perceived social support, level of education and daily walking. These findings are consistent with those reported by Borg et al. among older people in Sweden (24) and by Beygzadeh et al. among older people in Shiraz (25).

Old age is the retirement period, which means not only loss of job but also exclusion from social interactions in the workplace (26). Furthermore, the modernization and industrialization of societies is accompanied by changes in the workforce and in family structures that tend to isolate older people, who are increasingly exposed to feelings of loneliness and rejection and psychological risks (27). A reduction in social interactions results in constricted social networks and, consequently, reduced perceived social support. Loneliness can be considered the result of reduced perceived social support. Previous research has demonstrated a significant inverse relationship between loneliness and satisfaction with life (28). Our findings on the significant positive effect of perceived social support and satisfaction with life are consistent with those reported by Adams et al. (29) and

Tamannayeefar et al. (30). In another study, satisfaction with friends showed a significant correlation with life satisfaction among Swedish older people (31). Moreover, the significant positive relationship we found between level of education and life satisfaction replicates the findings of Ho et al. in a study among older people in Hong Kong (32). They also found a significant relationship between physical status and life satisfaction, as did we in Tabriz.

Our study had some limitations. The participants were selected from a group of relatively healthy and younger older people. Although our results were unequivocally positive, the findings may not be representative of the Iranian population as a whole since our sample was selected only among a limited geographical, cultural and religious setting.

Conclusion

Given the results of the present study, particularly the significantly low satisfaction with life among older women and the strong influence of the perceived social network in generating satisfaction with life, the current perspectives may be reconciled to identify the specific mechanisms that govern the apparent increase in associational involvement with age among older adults. As an example, opening up educational institutions may address the lack of a social network since our research identified this factor as important in life satisfaction.

Niveau de satisfaction dans la vie et facteurs contributifs chez les personnes âgées non institutionnalisées résidant à Tabriz (République islamique d'Iran)

Résumé

Contexte : Compte tenu de l'augmentation croissante de la population âgée, le bien‑être de cette tranche d'âge constitue un objectif important pour les politiques économique et sanitaire.

Objectifs : La présente étude portait sur les niveaux de satisfaction à l'égard de la vie chez les personnes âgées vivant à domicile et les facteurs qui l'influencent.

Méthode : En appliquant une probabilité proportionnelle à la taille, une étude transversale a été menée auprès de 1067 personnes âgées résidant à Tabriz. Les questionnaires correspondant à l'Échelle de satisfaction dans la vie et à l'Échelle multidimensionnelle de soutien social perçu ont été administrés. Les données ont été analysées à l'aide de tests du khi carré et de la régression logistique.

Résultats : Plus de la moitié des participants étaient insatisfaits de leur vie. Les femmes âgées, actives et éduquées faisaient état d'un niveau de satisfaction plus élevé que les autres.

Conclusion : Les effets positifs significatifs du soutien social perçu et du taux d'activité physique indiquaient que l'interaction sociale peut jouer un rôle aussi essentiel que l'activité physique pour le bien-être des personnes âgées. De ce fait, ces qualités devraient être activement encouragées parmi les personnes âgées en République islamique d'Iran.

درجة الرضا عن الحياة والعوامل المساهمة في تحقيق ذلك في صفوف السكان الأكبر سنا من غير المقيمين في مؤسسات الرعاية في تبريز، جمهورية إيران الإسلامية

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الخلاصة

الخلفية: مع النمو المتزايد للفئات السكانية الأكبر سنا، بات موضوع عافية المسنين يمثل هدفا مهما لكل من السياسات الاقتصادية والسياسات الصحية.

الأهداف: استقصت هذه الدراسة مستويات الرضا عن الحياة في صفوف الأشخاص الأكبر سنا الذين يعيشون في المنزل، والعوامل المؤثرة عليها.

طريقة البحث: من خلال تطبيق الاحتمال المتناسب مع الحجم، أُجري مسح مقطعي شمل 1067 شخصا من الأشخاص الأكبر سنا الذين يعيشون في تبريز. وطُبّق كل من استبيانيْ مقياس الرضا عن الحياة ومقياس الدعم الاجتماعي الملموس المتعدد الأبعاد. وحُللت البيانات باستخدام اختبارات مربع كاي والانحدار اللوجستي.

النتائج: أبدى أكثر من نصف المشاركين عدم رضاهم عن حياتهم. بينما أبدى الأشخاص الأكبر سنا من الإناث، والمتعلمين، والأكثر نشاطا رضا أكثر من سواهم.

الاستنتاج: تشير الآثار الإيجابية المهمة المترتبة على الدعم الاجتماعي الملموس ومعدل النشاط البدني إلى أن التفاعل الاجتماعي قد يكون مهما لتحقيق عافية الأشخاص الأكبر سنا بقدر أهمية النشاط البدني لهم، وأنه يتعين تعزيز تلك الخصائص بصورة فعالة في صفوف الأشخاص الأكبر سنا في جمهورية إيران الإسلامية.

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