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Research Paper: Assessing Quality of Services for the Elderly Residents in Nursing Homes of Tabriz, Iran in 2019

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ABSTRACT

Background: Environmental characteristics, as well as the quality of health care services provided to older adults group, are among significant determinants of elderly quality of life. The present study was done to assess the quality of services delivered to elderly residents in nursing homes located in Tabriz, Iran in 2019.

Materials & Methods: This cross-sectional study was conducted on the elderly living in nursing homes in Tabriz, Iran, of whom 74 residents met the inclusion criteria and were included. The researchers referred to the nursing homes and recruited the participants with regard to the inclusion and exclusion criteria.

Results: Out of the 74 older adults, 35 and 39 cases were respectively male and female. The largest age group (43.2%) was related to those between 60 and 69 years old. Also, 71.6% of the elderly had been residing in nursing homes for 6-20 months. The rate of service quality in terms of the medical, psychological, welfare, and social domains was 66%, 48%, 68%, and 65%, respectively. Besides, no significant relationship was observed between demographic variables and total scores of service quality (P>0.05).

Conclusion: Paying attention to psychological services, including providing counseling and social work services, adapting the centers, and creating recreational departments can lead to an increase in psychological quality and ultimately, overall service quality.

Keywords: Quality of Health Care; Elderly; Nursing homes

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1. Introduction

Old age, frequently defined as 60 or 65 years of age or older, is a sensitive period in the lives of human beings, accompanied by numerous physiological changes, in a way that meeting the needs of this life stage has been assumed as a social obligation. A large number of factors, such as socioeconomic developments, changes in lifestyles, as well as reduced mortality and fertility rates have accordingly resulted in variations in population growth rates and age structure in different countries, especially in Iran [1, 2]. In this respect, the World Health Organization (WHO) has considered individuals aged 60 years and over as elderly [2]. With reference to this definition and official statistics declared, the aging population in Iran in 1976 with a 5.3% growth rate had an ever-increasing trend. In this sense, according to the latest national census in 2016, the share of the elderly aged 60 and older was 9.3% and about 7 million [3].

In the contemporary era and with respect to the changes in cultures and lifestyles of families, older adults may leave their families intentionally or against their will and live in nursing homes [4]. About 4.5% of the aging population in the world is now residing in such centers [5]. Living in nursing homes may affect these individuals' mental status, functioning, and Quality of Life (QoL), and consequently shape their satisfaction or non-satisfaction. QoL can be also influenced by experiences, beliefs, expectations, and personal perceptions. Therefore, psychological and social aspects of life are as important as physical ones in terms of their impact on QoL [6]. Accordingly, attention to the dimensions of quality of services provided to the elderly by managers of nursing homes is of paramount importance.

Over the recent decades, numerous studies have been conducted on the QoL of older adults [7]. Gallicchio et al. confirmed the relationship between a poor social network and inappropriate physical and mental health status [8]. According to Bowling et al., living in unsuitable places, having low income, and being deprived of proper social interactions were among factors affecting QoL in the aged people [9]. Moreover, Sari et al. examined the factors affecting QoL among the elderly in Mashhad, Iran, and concluded that level of education, previous residence status, gender, and length of stay in nursing homes were among QoL determinants in these centers [10].

Currently, there are a total number of 250 nursing homes, delivering services to 10 to 15,000 elderly [11]. With regard to the increasing population of older adults and subsequently growth in the number of nursing homes, a limited number of studies have been done on the quality of services provided to the elderly in Iran, and further research in this field is needed [12]. Moreover, the majority of nursing homes in Iran are private and their service quality in medical, welfare, social, and psychological dimensions have not been comprehensively assessed. Considering the position of the elderly in the Iranian culture, this study was done to assess the quality of services provided to this age group as residents in nursing homes in Tabriz, Iran in 2019.

2. Materials and Methods

This descriptive-analytic cross-sectional study was conducted in five private nursing homes located in Tabriz, Iran in 2019 using the census method. The total number of individuals residing in these centers in 2019 was approximately 350 cases.

The inclusion criteria in this study were being over 60 years of age or older and residing in a nursing home for at least six months. On the other hand, the exclusion criteria were dementia and inability to speak and hear voices, along with withdrawal to continue participating in the study for any reason. Concerning the inclusion and exclusion criteria, about 21% of the elderly residents were recruited in the study. Therefore, the sample size was determined to be 74 people. To collect the required information, a researcher-made questionnaire comprised of 14 items in the medical dimension, 13 items in the psychological dimension, 9 items in the welfare dimension, and 9 items in the social dimension answered with yes or no options, was used. The yes option was given two points and one point was assigned to the no option.

To confirm the content validity of the questionnaire, it was submitted to 14 professors in health care services, public health, geriatrics, and health policy-making. After collecting the questionnaires, their comments were summed up and the required revisions were made. Finally, using Lawshe's formula, i.e., Content Validity Index (CVI) and Content Validity Ratio (CVR), the validity of the questionnaire was established. To measure the reliability of the research instrument, it was completed by 20 elderly and Cronbach's alpha coefficient was computed for each dimension: 0.89, 0.93, 0.92, and 0.70, respectively for medical, welfare, social, and psychological dimensions. At the next stage, the researchers collected the required information for two months

to complete the questionnaire after obtaining consent from the older adults and providing adequate explanations on how to do it. All the elderly residents were also assured that their information would be kept confidential and only visible to previously designated research team members. Moreover, the researchers assisted the participants in completing the questionnaires for those with a low level of education or if they had disabilities or defects in their physical status.

Statistical analysis

After collecting the required information, the SPSS statistics software (version 25) was employed. Before analyzing the data, their normality distribution was examined via the Shapiro-Wilk test. At last, the non-parametric Kruskal-Wallis H test was utilized because the data were not normal. The significance level (P-value) in all tests was considered smaller and equal to 0.05.

3. Results

Of 74 participants in this study, 35 individuals (47%) were male with a Mean±SD age of 70.94±8.35 years and 39 individuals (53%) were female with a Mean±SD age of 71.05±8.19 years. The largest age group (43.2%) was related to those aged between 60 and 69 years, and 71.6% of the residents had been living in the nursing homes for 1-20 months. Also, more than 67% of the study participants were illiterate. The findings of this study also revealed family dependence in the elderly. Accordingly, 66.2% of all the residents were financially dependent on their families and the cases having no income were 49 cases (66.1%). Furthermore, the results of the Kruskal-Wallis H test showed no statistically significant relationship between total scores of service quality and demographic characteristics of the elderly (Table 1).

The main findings of the study in terms of service quality demonstrated that welfare services with a higher mean of the maximum attainable score (68%) had higher quality than medical (66%), psychological (48%), and social (65%) services, respectively. Also, the score of total service quality provided to the elderly was above average (58%) (Table 2).

Moreover, the study findings based on each dimension of service quality established that in the dimension of medical services, respect for privacy during examinations (18.9%) obtained the lowest level of satisfaction and provision of medications and medical equipment required by the centers (97.3%) acquired the highest level of satisfaction. Considering the dimension of psychological services (86.5%), the elderly stating that their home had a happier environment than nursing homes, obtained the lowest level of satisfaction and a sense of security and peace in such centers (94.6%) was found with the highest level of satisfaction. Concerning welfare services, dissatisfaction with quality and quantity of foods served (52.7%) was observed with the highest level of dissatisfaction but satisfaction with the performance of security personnel in creating order and calmness (98.6%) was found with the highest level of satisfaction. Findings concerning the dimension of social services also showed that the lack of group discussions and co-thinking meetings at regularly occurring intervals (32.4%) were the most common reasons for dissatisfaction and holding recreational camps every so often and providing the possibility to go to places that are not within walking distance, constituted the highest level of satisfaction (98.6%).

4. Discussion

The present study assessed the quality of services provided to elderly residents in nursing homes. The results showed that the total score of service quality was at an optimum level (the maximum attainable score was 58%). A comparison between the service quality dimensions also revealed the highest level of satisfaction with welfare services provided for the aged residents followed by social, medical, and psychological services. The findings of this study in this regard were consistent with the reports by Ghazi et al. on client satisfaction with services delivered in nursing homes for the elderly [13].

The results similarly confirmed that in the dimension of medical services, various criteria, such as regular examinations by medical teams, respect for the privacy of the elderly during examinations, easy access to medical services when needed, physicians' conduct, and nurses' behaviors were involved in shaping these individuals' level of satisfaction. One of the effective criteria influencing the level of satisfaction with this dimension was no referrals by the elderly and their family members outside the centers to provide medications and medical supplies for the treatment of their diseases. In this regard, our results approved that the elderly's satisfaction with the availability of medicines and medical equipment if needed in nursing homes was at a high level. However, in the survey by Notenboom et al., the older adults had faced many problems to provide their prescribed medications [14] that were in contrast to the findings of the present study. Our results also showed that the elderly residents were dissatisfied concerning their privacy during examinations by physicians. According to Humayun

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Table 1. Relationship between demographic characteristics and service quality

Demographic Variables	Category	No. (%)	Mean Score	P
Gender	Male	35 (43.7)	38.80	0.621
	Female	39 (52.7)	36.33	
Level of education	Illiterate	50 (67.6)	37.87	0.174
	Below high school diploma	10 (13.5)	26.45	
	High school diploma	6 (8.1)	52.33	
	University degree	6 (8.1)	41.75	
	Other	2 (2.7)	26.25	
Level of income (Rials)	No income	49 (66.1)	37.21	0.842
	Below 10 million	9 (12.2)	37.33	
	10-40 million	15 (20.3)	39.30	
	40-70 million	1 (1.4)	26.00	
Family dependence	Yes	49 (66.2)	36.48	0.653
	No	25 (33.8)	38.06	
Age group (years)	60-69	32 (43.2)	36.17	0.785
	70-79	29 (39.2)	37.79	
	80-89	11 (14.9)	37.77	
	90-99	2 (2.7)	53.00	
Length of stay (months)	1-20	53 (71.6)	39.46	0.098
	21-40	18 (24.3)	29.92	
	41-60	2 (2.7)	63.00	
	61-80	1 (1.4)	19.00	

et al., respect for patient privacy was at the lowest levels in general hospitals in Lahore, Pakistan, which led to dissatisfaction among them [15]. Considering that respect for privacy is one of the basic needs of patients without any age limits, disturbances in meeting this need will deprive older adults of peace of mind and increase their anxiety [16]. Therefore, such centers should be diligent in selecting a homogeneous treatment team and emphasizing ethical considerations when examining and treating the elderly.

Among other issues raised in this study was satisfaction with psychological services. Given the fact that the elderly live away from their family members and have a sense of depression, rejection, and isolation, the services provided in nursing homes should make them feel safe and secure and they should have access to counseling and social work services if needed. They must also have the necessary autonomy to make decisions about themselves in terms of choosing physicians, nurses, or roommates. In this study, the highest level of satisfaction among the elderly, reflecting on the dimension of psychological services, was a sense of security and peace in such centers. According to Bowling et al., a sense of reassurance and tranquility were among the most important factors shaping satisfaction and life expectancy in aged people [9]. Another point addressed with regard to psychological services was that the elderly felt that the

Table 2. Mean score of service quality in different dimensions

Domain	Items	No. (%) Agreement	Mean±SD	Min-Max	Percent of Mean
Medical services	1. Taking measures to prevent the spread of infectious diseases to others	58 (78.4)	24.6±1.87	18-28	66
	2. Providing prompt action if you need medical services	70 (94.6)			
	3. Necessary reminders if using certain medications	63 (85.1)			
	4. Periodically check of the health status by a doctor	57 (77.0)			
	5. Being monitored by a nutritionist	33 (44.6)			
	6. Existence of support from the center in case an accident happens to people in the center	71 (95.9)			
	7. Improving your health after staying in this center	45 (68.0)			
	8. Satisfaction with access to health services in this center	64 (86.5)			
	9. Availability of required medicines and medical equipment when needed by the center	72 (97.3)			
	10. Observance of privacy in this center during the medical examination	14 (18.9)			
	11. Providing the necessary explanations by the physician and other members of the medical team when providing medical procedures	59 (79.7)			
	12. Satisfaction with the attitude of nurses	49 (66.2)			
	13. Satisfaction with the treatment of the treating physician	65 (87.8)			
	14. Providing the necessary facilities for personal hygiene in this center	71 (95.9)			
Psychological services	15. Feeling safe and secure in this center	70 (94.6)	21.9±1.76	18-26	48
	16. Providing access to work assistance and psychology when needed	40 (54.1)			
	17. Wounded emotions easily in this center	49 (66.2)			
	18. Feeling happy in this center	50 (74.3)			
	19. Fair treatment of people by the officials of this center	60 (81.1)			
	20. Becoming more hopeful of life after staying in this center	53 (71.6)			
	21. Feeling of constant pressure in this center	47 (63.5)			
	22. There are people in the center who understand you and sympathize with you	54 (73.0)			
	23. Feeling that your friends live in a happier environment outside of this place compared with you	10 (13.5)			
	24-Being easily angered with the people who live with you	31 (41.9)			
	25-Lack of feeling that you do not have control of your life by living in this center	15 (20.3)			
	26. There are at least 3 people in this center who want to support you in times of crisis	67 (90.5)			
	27. Giving the necessary independence to make decisions related to yourself in this center (choosing a doctor, nurse, roommate, type of treatment, etc.)	36 (48.6)			

Domain	Items	No. (%) Agreement	Mean±SD	Min-Max	Percent of Mean
Welfare services	28. Providing convenient facilities for comfortable sleep in this center	64 (86.5)	16.4±1.32	13-18	68
	29. Keeping yourself entertained at the center	55 (74.3)			
	30. Satisfaction with the attitude of service personnel	69 (93.2)			
	31. Satisfaction with the attitude of the food distribution staff	63 (85.1)			
	32. Healthy and hygienic environment of this center	52 (70.3)			
	33. Satisfaction with the conditions and facilities of your place of residence	68 (91.9)			
	34. Satisfaction with the performance of security personnel in creating order and tranquility	73 (98.6)			
	35. Satisfaction with the quality and quantity of food given in this center	39 (52.7)			
	36. Existence of communication facilities (telephone, internet, etc.) in this center	70 (94.6)			
Social services	37. Possibility to attend lively celebrations and parties by the center	71 (95.9)	15.9±1.69	12-18	65
	38. This place that you now live in deprive you of the social life you want to enjoy	33 (44.6)			
	39. Preventing the use of social opportunities by the place where you now live	37 (50.0)			
	40. Satisfaction with your social relationships with others in this center	56 (75.7)			
	41. Daily access to required news and information	68 (91.9)			
	42. Providing the possibility in this center to go to places that are not within walking distance	73 (98.6)			
	43. Organizing recreational camps periodically in this center	73 (98.6)			
	44. Periodic group discussions and symposiums are held at the center	24 (32.4)			
	45. Providing the necessary training, such as life skills, happiness, etc. periodically in this center	62 (83.8)			
	Total score	-	78.91±3.63	69-86	58

individuals living in their own homes compared with the ones residing in nursing homes experience happier environments. Similarly, Karimi et al. found that the elderly residents in such centers were not satisfied and happy due to their distance from their families, lack of emotional support from them, and sometimes, their spouse's death or separation [17]. Therefore, it is necessary to make use of certain mechanisms to strengthen the culture of living with the elderly in the family by exploiting religious beliefs and national cultures that underline respect for this age group [18].

Another effective dimension in the satisfaction of the elderly was welfare services. Accordingly, provision of appropriate facilities, quantity and quality of foods served, the personnel providing services, and the existence of the communication equipment, such as telephone and the Internet were effective in creating a sense of satisfaction in older adults as well as establishing a fun and happy atmosphere for them. In this study, the elderly were more satisfied with the performance of the security personnel in creating order and calm. In line with the findings of the present study, Arab et al. also mentioned appropriate behavior of the personnel as the main reason for satisfaction in older adults [19]. In the present study, the elderly residents were dissatisfied with the quantity and quality of foods provided, which was in agreement with the survey by Christenson et al.. In this study, more than 50% of the elderly admitted to hospitals and nursing care facilities were malnourished [20]. Therefore, observing issues, such as hot food, variety of diets, surveys on quality and quantity of foods served for the elderly, and recognition of their tastes could be effective in increasing their level of satisfaction. With reference to

these studies, the majority of the elderly were dissatisfied with their transfer to nursing homes, and they were typically suffering from depression and mental problems in most cases, due to feeling of homesickness, distance from family members, their callous and unemotional children, and no family visits.

Accordingly, managers of such centers need to allocate appropriate and standard space in terms of ventilation and congestion in rooms, cleaning, and removal of insects and rodents. Training staff to respect the elderly and pay attention to their needs and providing green space and simple exercise equipment in the campus of the centers, as well as educational and artistic spaces can be regarded as the major steps to create happier nursing homes in a homogeneous manner [18, 21].

Finally, the last dimension discussed in this study was the quality of social services. Many elderly were suffering from irreparable psychological consequences due to the lack of full emotional and psychological support from their families, fluctuations and an increase in psychological stress, and various relocations between their own homes and nursing homes. Therefore, nursing homes can boost older adults' satisfaction and help them live happily, and enhance their QoL by providing them with the opportunity to attend joyful celebrations and parties and creating a platform for being present in society and using existing social opportunities. Making the aged individuals informed of the daily news and information in their communities and also in the world, as well as holding camps, group discussions, and co-thinking meetings can be similarly effective. In this study, the elderly also were satisfied with holding recreational and pilgrimage camps periodically, which was in line with the results of the study by Ghazi et al. [13]. On the other hand, these individuals expressed their dissatisfaction with the inadequacy of holding group discussions and co-thinking meetings. According to Chang et al. and Ball et al., group discussions could have significant effects on the treatment processes and satisfaction with services provided by nursing homes among the elderly [18, 19]. Thus, talking and discussing with peers on various issues, such as common diseases and transfer of experiences in this field as well as acquaintance with each other's interests and cultures and as a result, finding a good friend and roommate will be the most basic and minimal effects of such meetings. Therefore, by holding these meetings, the managers of the given centers can instill a sense of worth in the elderly. These individuals can also talk about their problems and shortcomings by participating in these meetings and find solutions to tackle them by thinking together.

Moreover, we found no statistically significant relationship between demographic variables and total scores of service quality, which was consistent with the results reported by Ghazi et al. [13] and Mavrovic [22].

5. Conclusion

Sending the elderly to nursing homes is being increasingly accepted more than ever before because the Iranian society is aging. Concerning the high impact of living conditions on older adults and with respect to religious, cultural, and social conditions in Iran, there is a dire need to make much more effort to improve conditions, facilities, and services in nursing homes. In the absence of a happy environment in such centers, psychological services had also received the lowest quality compared with other dimensions in this study. Therefore, more attention to psychological services, including the provision of counseling and social work ones, the adaptation of centers, and the creation of recreational departments will lead to an increase in psychological quality and ultimately, overall service quality.

Limitations

Among the limitations of this study was the small sample size due to cognitive impairments (such as Alzheimer's disease) among the elderly residents in nursing homes. Observing ethical considerations despite the use of the census method for sampling, as well as the unwillingness of some aged individuals to participate in the study could be further noted as other limitations.

Ethical Considerations

Compliance with ethical guidelines

This study was approved by the Ethics Committee of the Tabriz University of Medical Sciences (IR.TBZMED.REC.1399.602).

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Author's contributions

Conceptualization and supervision: Raana Gholamzadeh Nikjoo and Akbar Javan Biparva; Methodology: Raana Gholamzadeh Nikjoo; Investigation, writing – original draft, writing – review and editing: Akbar Javan Biparva and Yegane Partovi; Data collection: Mitra Eyvazi Tor-

chi; Data analysis: Akbar Javan Biparva; Funding acquisition and resources: All authors.

Conflict of interest

The authors declare that there is no conflict of interest.

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