

Satisfaction among Residents of Elderly Homes in Alexandria

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Abstract: Satisfaction among residents of institutions is an important issue. Several factors affect the elderly satisfaction as socio-demographic characteristics, health status, expectations about care, the structure, the process and the out come of the services. The present study aimed to assess the degree of satisfaction among elderly homes' residents in Alexandria. The sample included all elders living in the governmental homes in Alexandria who accepted to participate in the study. Data was collected using a structured interview sheet to obtain information about the general characteristics of the elderly, assessment of their functional abilities, and a consumer satisfaction tool which was translated and tested for content validity and reliability. The results revealed that the majority of the residents were either satisfied or very satisfied with the total satisfaction score of all satisfaction's domains (48.9%, 43.1% respectively), while only 8.1% of the elderly were dissatisfied. **Recommendation:** Regular monitoring and evaluation of services provided at the elderly homes to ensure a best quality of care at them.

INTRODUCTION:

Life expectancy had risen sharply during the twentieth century and is expected to continue to rise, in virtually all populations throughout the world, where the population over 65 years increases by 2.5% per year. In the developed countries, 12.6% of the populations are elders compared to only 4.6% in the developing ones.^(1,2) In Egypt, the percentage of those aged 60 years and over represent 5.8% of the total population and is expected to reach more than 10% by the year 2025.⁽³⁾ The percentage of elders living in institutions dramatically increases with age.⁽⁴⁾ In USA , the percentage of persons aged 65 years or older living in institutions

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represent 5%, while in UK it represents 6.3%.^(5,6) On the other hand, this percentage reaches 1% in Egypt, 1.4% in United Arab Emirates, and 1.3% in Bahrain.⁽⁷⁻⁹⁾ In Alexandria, the rate of institutionalization was estimated to reach 0.2 per 1000 elderly persons 60 years of age or older.⁽¹⁰⁾ Institutions provide the elders with a shelter, assistance with activities of daily living, meal and house keeping services. They also provide care for the disabled, occupational and physical therapy, in addition to social and psychological support.⁽¹¹⁾ In spite of these services, there are some shortcomings of these homes. They may increase the family separation, increase dependency of the elders, and may dehumanize the elders by destroying their defined role in the family and community thus they lose their sense of identity and security.⁽¹²⁾

One of the main aims of the institutions is meeting the needs and expectations of the consumer. The role of the client in the

health care and social services system is evolving, "patients/clients" became consumers and are now often referred to as "consumers". The emphasis on the consumer's perspective has created a demand for information on consumer experiences and satisfaction with health and social services.⁽¹¹⁾ This evolution towards consumer focus has also increased the importance of measuring satisfaction with care for older adults.⁽¹³⁾ Patient satisfaction is a primary outcome that may be defined as the extent to which an individual's needs and wants are met.⁽¹⁴⁾ Elderly satisfaction is the degree of congruency between consumer's expectations of ideal care and the perception of real care he or she receives. Satisfaction results from meeting or exceeding consumer's expectations. Patient satisfaction is an important consideration that is closely related to consumer care efficiency. Measuring consumer satisfaction can provide useful

information about the structure, process, and out come of the services provided.⁽¹⁵⁾ By identifying sources of consumer's dissatisfaction, the organization can address system weakness thus improving its risk management.⁽¹⁶⁾

Measures of patient satisfaction are increasingly being used to assess the competency of health care providers and the quality of care, particularly as satisfaction relates to continuity of care. Numerous factors have been related to consumer satisfaction. These include socio-demographic characteristics, health status, expectation about care, and the structure, process, and out come of the services. Meeting and exceeding consumer expectations is a top priority of any institution. ⁽¹⁷⁾ Assessing the satisfaction of institutionalized elders can help health team members in planning, sponsoring and evaluating programs and services in order to provide a health –enhancing environment.⁽¹⁸⁾

Aim of the study: The present study aimed to assess the degree of satisfaction among elderly homes' residents in Alexandria

Subjects and Methods:

Study design:

A descriptive cross sectional study was carried out.

I- Setting:

The study was carried out in all the governmental elderly homes in Alexandria namely: Dar El Hadaya, Dar El Hana, Dar El Saada, Dar El Hanan, Dar El Regal, and Dar El Nour elderly homes in Alexandria.

II- Subjects:

The sample included all residents in the previously mentioned settings who were able to communicate, and accepted to participate in the study. The sample size from different homes amounted to 123 residents.

III- Tools:

Two tools were used to collect the data:

Tool I: This tool consisted of three

parts:

A- A structured interview sheet was developed by researchers to obtain information about:

- 1- Socio-demographic characteristics of the elderly.
- 2- Source of income.
- 3- Reason of admission to the elderly home.
- 4- Feeling of the elder after admission.

B- Katz scale for activities of daily living (ADLS):⁽¹⁹⁾

The Katz scale was used to assess degree of dependency in performing activities of daily living. It included data about the basic daily activities of the elderly as bathing, dressing, toileting, transfer, urinary and feecal continence and feeding. The six different functions are measured and scored according to the individual's actual performance of these functions. They are categorized into three levels of dependency: each item was scored from zero to two, where two indicates full

independence i.e. the ability to perform the task without human assistance, one indicates that the patient needs assistance i.e. the ability to perform the task with some help, and zero indicates total dependence i.e. the inability to perform the task even with assistance.

The total score of the scale was from 0-12. According to the scale, patients were classified into three categories:

- 1- Totally independent: score 9-12
- 2- Partially dependent: 5-8
- 3- Totally dependent: 0-4

C- Lawton and Brady scale of instrumental activities of daily living (IADLs)⁽²⁰⁾

Lawton scale was used to assess instrumental activities of daily living. The scale includes eight items: ability to use the telephone, go shopping, food preparation, house keeping, laundry, transportation, responsibility for own medication and ability to handle finances.

The answers were given a score according

to the response as follows:

- Able (2)
- Unable (1)

The maximum score was 16 for females and 10 for males. Six points from the maximum score were subtracted for males for gender-specific questions. The score achieved by the elder was calculated as a percentage from the maximum score of his category representing 100%. The degree of the elder's performance of IADL was categorized as follows: totally dependent (0-<25%), partially dependent (25-<75%), independent ($\geq 75\%$).

Tool II: - A consumer satisfaction scale (2006): ⁽²¹⁾ was used to measure the residents' satisfaction at homes for the elderly. It consists of six domains: satisfaction with staff and administration of the home, satisfaction with physical aspect of the nursing home, satisfaction with the activities available to residents, satisfaction with the personal care provided to residents, satisfaction with food and meals,

and satisfaction with resident's personal rights. Respondents rate their satisfaction on a five point scale ranging from 1 to 5, with 1=very dissatisfied, 2=dissatisfied, 3=neutral (neither satisfied nor dissatisfied), 4= satisfied, 5= very satisfied. The maximum total satisfaction score was 215. Scores from 0-<25% of the total score indicated poor satisfaction, scores from 25-<75% of the total score indicated moderate satisfaction, and scores $\geq 75\%$ of the total score indicated high satisfaction.

Methods:

1. Official permissions were obtained from the managers of the elderly homes.
2. Satisfaction scale was translated into Arabic, and validated by the juries including five experts in administration and gerontological nursing. The required corrections and modifications were carried out accordingly.
3. Satisfaction scale was tested for its reliability. Test-retest was used;

coefficient factor "r" was calculated using the Pearson's Coefficient of Correlation 0.8.

4. A pilot study was carried out on 20 clients in the selected homes to ascertain clarity, applicability of the tool, and to estimate the time needed to complete the questionnaire. The pilot subjects were not included in the main studied sample.
5. Each resident was interviewed individually after explanation of the purpose and method of the study and obtaining his or her oral consent in order to participate in the study, confidentiality was secured. Each individual interview took about 20 minutes. The participant had the right to leave from the research at any time.
6. Data were collected during the period of four months from the begging of December 2008 to March 2009.

Statistical analysis:

Data were analyzed using SPSS software

version 13.0. Descriptive statistics as proportion, mean and standard deviation were used. The Kolmogorov-Smirnov test was used to examine the normality of the shape of satisfaction score distribution. As the distribution was not normal so, non-parametric measures were used. The Mann-Whitney test was used for comparison of satisfaction score between two groups and the Kruskal-Wallis test was used in case of more than two groups. All reported *p* values are two-tailed. The level of significance was set at 0.05.

Results:

Table 1: illustrates the general characteristics of the residents of the elderly homes. It demonstrates that about two thirds of the residents had a mean age of 69.8 ± 5.9 , 61.8% were females, 62.6% were widowed, 74.8% were illiterate or could only read and write, 57.7% were housewives, and 73.2% had sons or daughters. It also shows that the monthly income of more than one third of the

sample (39.8%) ranged from 400 to less than 600 pounds/month, and the source of income for most of the sample (93.5%) was pension. The table also illustrates that according to Katz for activities of daily living (ADLs) and Lawton scale for instrumental activities of daily living (IADL), most of the sample were independent in performing the ADLs and IADLs (98.4% and 87.8% respectively).

Table 2: Shows the distribution of study sample according to admission and social variables. The table shows that the majority of elders (74.8%) were admitted to the homes by their own will and the highest percentage of elders were admitted due to feeling lonely in their own homes (42.3%). In addition, the mean length of stay of the elders was 4.02 ± 2.83 years. The table also shows that more than half of the sample (52.0%) had a feeling of loneliness after admission to the home. Concerning the frequency of family visits to the elderly, the modal frequency for visits

was once per week (34.1%). As regards participation of elders in social activities in the homes, the table shows that about two thirds of the sample participated in social activities (60.2%).

Table 3: illustrates the degree of residents' satisfaction with the different satisfaction domains. The table shows that more than half of the elders were satisfied or very satisfied with the different domains of satisfaction scale. It shows that 35.8% were very satisfied with administrative aspects, 31.7% were satisfied with physical environment, 32.5% very satisfied with available services, 28.5% satisfied with personal care, 33.3% satisfied with food services, and 35.8% satisfied with personal rights.

Table 4: shows distribution of the study sample according to their total satisfaction score. The table shows that about half of the elders were satisfied and the other half were very satisfied (48.8% and 43.1% respectively). Only 8.1% were

dissatisfied

Table 5: shows the relation between characteristics of the study sample and the mean score of satisfaction domains.

The table shows that the mean total satisfaction score was almost equal among both males and females. It also shows that the highest mean total satisfaction score was among elders aged 80 years and above (150.6 ± 33.7). Regarding the marital status, the table shows that the highest mean total satisfaction score was among widowed elders (145.9 ± 48.0). It also shows that the highest mean total satisfaction score was among elders whose income was 600 and more pounds/month (158.7 ± 40.3). As regards the relation between physical functioning and the mean total satisfaction score, the table revealed that the highest mean total satisfaction scores were among elders with better physical functioning as detected by Katz and Lawton scales (148.6 ± 46.2 and 144.9 ± 48.3 respectively). The only variable

that demonstrated a statistically significant relation with the mean total satisfaction score was the instrumental activities of daily living (IADL) ($P=0.03$).

Table 6: shows the relation between admission and social variables, and the mean score of satisfaction domains. The table shows that the highest mean total satisfaction score was among elders whose admission was by their own will (156.0 ± 42.9), who were admitted due to feeling lonely at home (157.8 ± 42.8), and those whose feeling after admission was just loneliness (166.6 ± 38.4). The table also shows that the highest mean total satisfaction score was among elders who were more frequently visited by their relatives (173.0 ± 32.5), and who participated in social activities (169.2 ± 31.7). The table also reveals that the highest mean total satisfaction score was among elders whose length of stay was 5 or more years (154.4 ± 39.3).

A statistically significant difference

was found in the mean total satisfaction score in relation to decision and cause of admission, feeling after admission, length of stay, and participation in social activities.

Discussion:

Admission to elderly homes is a significant event in lives of older persons and their families. ⁽²²⁾ Elderly homes offer skilled and basic nursing care on an ongoing basis. Committee on aging 2000 described elderly homes as being different from other health care services because the aim is to maintain an optimal level of functioning rather than to achieve cure. To achieve this aim, they must provide medical, nursing, social, restorative, and personal services in addition to special housing for those with some functional impairment or skilled nursing needs. Gerontological nurses have an important role to play in this setting. ⁽²³⁾ Their goal is promoting the highest quality of services for all residents by identifying points of weakness and strength in the provided services. The aim of this study

was to assess the degree of satisfaction among elderly homes' residents in Alexandria.

Regarding sex, the present study showed that about two thirds of the residents were females (61.8%) and more than half aged 60 to less than 70 years (55.3%) (Table 1). This finding differs from a study carried out in the USA ⁽²²⁾ which mentioned that males were the primary residents of elderly homes. This may be due to the finding that about two thirds of the residents were widowed (62.6%)(Table1) and about one third (32.5%) were admitted due to absence of a caregiver at home (Table 2). Regarding physical functioning, the present study demonstrates that most of the sample was independent in performing both activities of daily living (ADLs), and instrumental activities of daily living (IADLs) (Table1). This differs from a study in USA ⁽²⁴⁾ where the majority of residents (80%) were functionally dependent. This difference

may be due to that the rules of all of the studied elderly homes mentioned that it is not permit to admit the independent elderly, especially the independent in performing activities of daily living.

The present study showed that the most common reason for elders admission was feeling lonely at own home and the least common reason was absence of caregiver, this is due to the culture and norms in Eastern communities which consider it a shame for the children to let their parents live in elderly homes (table2).

The present study demonstrates that more than half of the sample (52.0%) felt lonely after admission, and the other half had a feeling of grief and misery (48.0%)(Table2). This may be attributed to the fact that relocation of elders is a stressful event and may even cause a psychic trauma to some of them. This result is in agreement with other studies that report that depressive symptoms such as anger, loneliness, fear, and weeping

were accompanied with admission to the geriatric homes. ⁽²⁵⁻²⁷⁾.

Elders' satisfaction is a prerequisite for quality care as they are the central users of elderly homes and therefore the assessment of elderly perceived quality of residential care is important for evaluation of delivered services. ⁽²⁸⁾ However, elders can't be viewed as a homogenous group with similar needs and capacities therefore their satisfaction is influenced by many factors. ⁽²⁹⁾

The main factor that might cause adverse effect on satisfaction of institutionalized elders is the quality of relationship with institution's workers and caregivers, ⁽³⁰⁾ however, the present study revealed that more than one third of the residents were very satisfied with staff and administration of the elders' home(table 3). This may be due to the fact that some elders were reluctant to express dissatisfaction in case their future medical or nursing care was compromised. This

goes with previous studies ^(31, 29) which mentioned that elders demonstrate considerable loyalty to their care providers and administrative staff whom they often viewed not solely as professionals but as good and valued friends as well. Also, personal interactions with helping workers and actual caregivers appear to be a significant predictor of elders' satisfaction rather than elder's approval of the actual care provided.

The present study shows that more than half of the sample was satisfied and very satisfied with services available for the residents (Table3), a finding which contradicts with a study done in Japan 2003⁽³²⁾ that revealed that the elderly in elderly homes had a low satisfaction score with the available services. This may be attributed to the fact that elders have lower expectations of provided services or they may be afraid to express their dissatisfaction inspite of repeated assurance.

Physical environment of the elderly home must have special characteristics in order to promote proper functioning and safety of the residents. ⁽³¹⁾ The present study revealed that about two thirds of the residents (table3) were satisfied and very satisfied with the physical aspect of the homes. This may be due to the impression that elderly home is an obligatory alternative stay and elders have to be satisfied with their surroundings regardless of their quality, also it may be due to ignorance or having little knowledge about the safety precautions needed in the elderly homes. This goes with the finding in a previous study carried on a group of elderly residents in the UK which showed that elders, rated their satisfaction with the home environment as the best. ⁽²⁹⁾

The present study also found that about two thirds of the residents were satisfied and very satisfied with their personal rights in the homes (table3). This may be due to devaluation of the elderly

regarding their rights and that their acceptance for the minimal rights. This contradicts with the finding of a study carried out in Taiwan which revealed that the basic traumatic experiences which the residents of elderly homes faced was the restriction of rules and regulations of the institution that affected their autonomy and ability for decision making and which they considered a deprivation of their human rights.⁽²⁷⁾

Regarding satisfaction with food and meals, the present study revealed that more than half of the sample were satisfied and very satisfied with the meals provided (Table 3). On the other hand, a similar study in USA revealed lower ratings of elderly residents on meals as they boast greater expectations for homes' food quality.⁽³³⁾

The high ratings of elders to the different satisfaction domains may be a function of other factors. Elders feel a cultural obligation to express gratitude to

their care providers and feel that social norms reinforce elders' feelings of inadequacy in judging care experts. Elders may also be reluctant to express negative feelings about care providers, particularly if they expect to be dependent upon them in the future. They also feel that residents in homes supported by public funds should perceive the care they receive as a benefit and not want to appear ungrateful.⁽³⁴⁾ In addition, despite the focus on adverse response to relocation, residence in elderly homes offers numerous benefits as the convenience of having available basic services such as meals, laundry, housekeeping, and personal assistance, and stability of being in a safe setting. So moving to proper elderly home can serve to improve the elderly level of functioning where the home can assist elders to meet their basic daily needs when caregivers are unavailable for any reason.^(35, 26, 36)

The present study also investigated the factors related to elders' satisfaction in

elderly homes. Sex, income, degree of dependency in performing activities of daily living and level of education influence the degree of satisfaction of elderly residents with care provided. ⁽³⁶⁾

As regards age, the study revealed that the highest mean total satisfaction score was among elders aged more than 80 years (150.6 ± 33.7) (Table 5). Several studies showed that elderly are more likely to express satisfaction with provided care. ⁽²⁹⁻³⁴⁾ A number of possible explanations have been put forward: that the older residents often perceive the minimal provided care better than younger ones, that they have lower expectations of care or that they are reluctant to articulate their dissatisfaction.

Regarding the marital status, the present study revealed that the highest mean total satisfaction score was among widowed elders (145.9 ± 48.0) (Table 5). This may be due to the lack of physical and psychological support among those elders

in their own homes.

Elders' economic level can affect the degree of satisfaction with elderly homes. Lack of finance can affect the quality of shelter, nutrition social participation, household assistance and seeking the medical care and services, all of which will have an effect on the needs and demands of the elderly in the quality of institution. ⁽³⁷⁾ This explain the finding in the present study where the highest mean total satisfaction score was among elders with the least monthly income (158.7 ± 40.3) (table 5).

As regards the relation between physical functioning and satisfaction, the present study revealed that the highest mean total satisfaction score was among elders with good physical functioning as detected by Katz and Lawton scales (144.9 ± 48.3 and 148.6 ± 46.2 respectively) (Table 5). This may explained by the fact that physiologically dependent elders who require more assistance, may be more negative about their residential stay and

their dependency and discomfort may also make them more dissatisfied. This goes with previous studies which found that elders with better physical functioning rated their care as better. ^(38,39,34)

The degree to which the elder participate in the decision making to live in a elderly home can affect their feelings, and consequently their satisfaction with the home. ⁽²⁵⁾ This goes with the finding in the present study where the highest mean total satisfaction score was among elders whose admission decision was according to their own will (Table 6).

Moreover, the length of stay in the home highly affects the satisfaction of the residents. ⁽⁴⁰⁻⁴²⁾ Elders who have experience from the long use of a home may be more realistic about expected services, and thus more satisfied. They also have greater familiarity with the process of care and greater familiarity with potential shortcomings in care delivery, and are thus more satisfied. This goes with the

results of the present study where the highest mean total satisfaction score was among elders whose length of stay was 5 or more years (Table 6).

Visits from family and friends can buffer the overwhelming of being in an institutional environment, and residents who have more familial visits tend to be more satisfied with their institutionalization. ⁽⁴³⁾ Moreover, elders with poor social relations tend to have a negative outlook on life in general and are reported to be more likely to both view their health as poor and be dissatisfied with their health care. ^(39,40) This goes with the results of the present study, which showed that the highest mean total satisfaction score was among elders who were visited by their families once per week, and who participated in the social activities in the geriatric home (173.0 ± 32.5 and 169.2 ± 31.7 respectively) (table 6).

The purpose of the institution is to bring each resident to the highest practical level

of mental, physical, and psychological well being in an environment that emphasizes residents' rights. So efforts should be directed towards evaluation of elderly home by direct observation of all aspects of care and services with emphasis on the residents' satisfaction.

Conclusion:

The study concluded that only 8.1% of the residents were dissatisfied ,while nearly half of them 48.8% were satisfied, and 43.1% were very satisfied regarding the total satisfaction score of the six domains of satisfaction scale. The least domains of satisfaction were satisfaction with staff and administration of elderly home followed by satisfaction with food and meals. A statistically significant difference was found in the mean total satisfaction score in relation to Lawton scale score, decision

and cause of admission, feeling after admission, length of stay, and participation in social activities.

Recommendations:

Based on the findings of the present study the following can be recommended:

1. Regular monitoring and evaluation of services provided at the elderly homes to ensure a best quality of care at them.
2. In-services training to all staff of elderly homes to increase their skills in dealing with the elders.
3. Collaboration of multimedia with the specialists in gerontology to increase the elderly awareness about the concept of admission to elders' homes and the elderly rights, which may change their degree of satisfaction towards services provided to them.

Table1: General characteristics of the residents of the elderly homes

variables	Frequency (n=123)	Percent
Sex		
Male	38.2	38.2
Female	61.8	61.8
age in years		
60-	68	55.3
70-	44	35.8
80+	11	8.9
X ± SD =69.8±5.86		
Marital status		
Single	20	16.3
Divorced	26	21.1
Widowed	77	62.6
Having sons/daughters		
Yes	90	73.2
No	33	26.8
Education		
Illiterate or read and write	92	74.8
Primary or preparatory	14	11.4
Secondary or above	17	13.8
Work before admission		
Manual worker	28	22.8
Employee	24	19.5
Housewife	71	57.7
Income/ month		
≤200	47	38.2
400-	49	39.8
600+	27	22.0
Source of income		
Pension	115	93.5
Children	6	4.9
Social support	2	1.6
Katz scale for ADL		
Independent	121	98.4
Partially dependent	2	1.6
Lawton scale for IADL		
Independent	108	87.8
Partially dependent	15	12.2

ADL=Activities of daily living

IADL=instrumental Activities of daily living

Table2: Distribution of the study sample according to admission and social variables.

variables	Frequency n=(123)	%
Person responsible for admission decision		
His/Her own will	92	74.8
Others	31	25.2
cause of admission		
no private house	31	32.5
loneliness	52	42.3
no caregiver at home	40	25.2
feeling after admission		
Loneliness	64	52.0
Grief & Misery	59	48.0
length of stay at the home in years		
1-	32	26.0
3-	51	41.5
5+	40	32.5
$X \pm SD = 4.02 \pm 2.83$		
Frequency of family visits		
once/week	42	34.1
once/2weeks	40	32.5
once/month	41	33.3
participation in social activities		
Yes	74	60.2
No	49	39.8

Table 3: Degree of residents' satisfaction with the different satisfaction domains

Satisfaction domains	Degree of satisfaction									
	Very dissatisfied		Dissatisfied		Neutral		Satisfied		Very satisfied	
	Frequency	%	Frequency	%	Frequency	%	Frequency	%	Frequency	%
Administrative aspects	10	8.1	14	11.4	29	23.6	26	21.1	44	35.8
Physical environment	10	8.1	16	13.0	21	17.1	39	31.7	37	30.1
Available services	11	8.9	13	10.6	28	22.8	31	25.2	40	32.5
Personal care	10	8.1	14	11.4	30	24.4	35	28.5	34	27.6
Food services	10	8.1	17	13.8	28	22.8	41	33.3	27	22.0
Personal rights	10	8.1	15	12.2	20	16.3	44	35.8	34	27.6

Table 4: Distribution of study sample according to their total satisfaction score

Degree of satisfaction	Frequency	%
Dissatisfied	10	8.1
Satisfied	60	48.8
Very satisfied	53	43.1
Total	123	100

Table 5: Relation between characteristics of the study sample and the mean score of satisfaction domains

Characteristics	Satisfaction with staff and administer.	satisfaction with physical aspects	satisfaction with the activities available to the residents	satisfaction with the personal care provided to the residents	satisfaction with food and meals	satisfaction with residents' personal rights	Total satisfaction score
Age (Years)	Mean \pm SD	Mean \pm SD	Mean \pm SD	Mean \pm SD	Mean \pm SD	Mean \pm SD	Mean \pm SD
60-70-80+ P	51.3 \pm 16.9 50.5 \pm 20.1 52.7 \pm 11.9	27.8 \pm 9.2 27.2 \pm 10.7 31.0 \pm 7.2	17.3 \pm 6.1 17.5 \pm 7.1 18.7 \pm 4.4	17.4 \pm 5.8 17.1 \pm 6.7 17.7 \pm 4.1	17.2 \pm 5.8 16.4 \pm 6.5 16.7 \pm 5.2	14.3 \pm 4.6 13.9 \pm 5.3 13.7 \pm 4.3	145.2 \pm 45.3 142.5 \pm 55.0 150.6 \pm 33.7 0.96
Sex Male Female P	51.8 \pm 15.9 50.7 \pm 18.7	27.8 \pm 8.7 27.9 \pm 10.2	18.0 \pm 5.9 17.2 \pm 6.5	17.7 \pm 5.4 17.0 \pm 6.3	16.2 \pm 5.4 17.3 \pm 6.3	14.1 \pm 4.5 14.1 \pm 5.1	145.6 \pm 43.6 144.2 \pm 50.6 0.89
Marital status single divorced widowed P	50.5 \pm 20.2 47.7 \pm 15.6 51.6 \pm 17.9	26.3 \pm 10.2 27.0 \pm 9.3 28.1 \pm 9.7	15.6 \pm 7.1 17.5 \pm 6.2 17.5 \pm 6.1	17.1 \pm 6.6 17.2 \pm 5.8 17.2 \pm 6.1	16.1 \pm 6.9 15.5 \pm 5.4 17.3 \pm 6.0	13.4 \pm 5.6 13.5 \pm 4.9 14.2 \pm 4.7	138.4 \pm 53.7 138.3 \pm 45.2 145.9 \pm 48.0 0.12
Income/ month \leq 200 400-600+ P	46.0 \pm 20.1 53.7 \pm 15.8 55.2 \pm 14.4	25.5 \pm 10.7 28.6 \pm 9.1 30.6 \pm 7.7	15.6 \pm 7.1 18.0 \pm 5.5 19.9 \pm 5.4	15.7 \pm 6.6 17.8 \pm 5.6 19.2 \pm 4.9	15.8 \pm 6.7 17.1 \pm 5.7 18.1 \pm 4.9	13.0 \pm 5.3 14.3 \pm 4.5 15.7 \pm 4.1	158.7 \pm 40.3 149.6 \pm 43.6 131.7 \pm 53.5 0.07
Katz scale for ADL Independent Partially dependent P	51.2 \pm 17.8 44.0 \pm 0.0	27.9 \pm 9.7 29.0 \pm 0.0	17.5 \pm 6.3 16.0 \pm 0.0	17.3 \pm 6.0 16.0 \pm 0.0	16.8 \pm 6.0 18.0 \pm 0.0	14.1 \pm 4.9 14.0 \pm 0.0	144.9 \pm 48.3 137.0 \pm 0.0 0.66
Lawton scale for IADL Independent Partially dependent P	52.5 \pm 17.1 40.9 \pm 18.3	28.5 \pm 9.3 23.6 \pm 10.9	18.0 \pm 6.1 14.3 \pm 6.6	17.9 \pm 5.8 13.2 \pm 6.0	17.3 \pm 5.8 14.0 \pm 6.3	14.5 \pm 4.7 11.3 \pm 5.0	148.6 \pm 46.2 117.3 \pm 52.2 0.03*

*Statistically significant ≤ 0.05

ADL=Activities of daily living

IADL=instrumental Activities of daily living

Table 6: Relation between some variables and mean score of satisfaction domains

Variables	satisfaction with staff and administration of nursing home	Satisfaction with physical aspects of the nursing home	Satisfaction with the activities available to the residents	satisfaction with the personal care provided to the residents	satisfaction with food and meals	Satisfaction with residents' personal rights	total satisfaction score
	Mean \pm SD	Mean \pm SD	Mean \pm SD	Mean \pm SD	Mean \pm SD	Mean \pm SD	Mean \pm SD
Decision of admission to the home							
His/Her own will	55.4 \pm 15.6	30.1 \pm 8.7	19.0 \pm 5.7	18.7 \pm 5.4	18.0 \pm 5.4	15.0 \pm 4.4	156.0 \pm 42.9
Others	39.2 \pm 16.7	21.5 \pm 8.9	13.4 \pm 5.3	12.6 \pm 5.4	13.8 \pm 5.6	11.6 \pm 4.8	112.0 \pm 48.6
P							0.00*
Feeling after admission to the home							
Loneliness	59.1 \pm 14.4	31.4 \pm 8.3	20.1 \pm 4.9	20.1 \pm 4.9	19.8 \pm 5.0	16.2 \pm 3.9	162.3 \pm 34.3
Grief & misery	42.4 \pm 16.8	24.0 \pm 9.5	14.7 \pm 6.4	14.5 \pm 5.7	13.7 \pm 5.3	11.9 \pm 4.8	82.5 \pm 36.1
P							0.00*
Cause of admission							
No private home	42.7 \pm 18.9	25.1 \pm 11.2	15.7 \pm 7.5	15.2 \pm 6.5	14.1 \pm 6.1	12.1 \pm 5.1	124.7 \pm 52.5
Feeling lonely	55.8 \pm 17.0	30.0 \pm 9.3	19.1 \pm 6.0	19.0 \pm 5.9	18.5 \pm 6.0	15.3 \pm 4.8	157.8 \pm 46.7
No caregiver at home	51.6 \pm 15.3	27.2 \pm 8.2	16.9 \pm 5.2	16.8 \pm 5.1	16.8 \pm 5.0	14.1 \pm 4.2	143.4 \pm 40.6
P							0.01*
length of stay at the home in years							
1-	41.4 \pm 19.2	23.3 \pm 11.0	14.5 \pm 7.3	15.2 \pm 6.8	13.9 \pm 6.4	12.1 \pm 5.7	120.4 \pm 54.4
3-	54.8 \pm 14.9	29.5 \pm 8.2	18.8 \pm 5.3	17.8 \pm 5.2	18.3 \pm 5.0	15.2 \pm 4.0	151.9 \pm 46.7
5+	54.3 \pm 17.0	29.5 \pm 9.2	18.2 \pm 5.8	18.3 \pm 5.8	17.4 \pm 6.1	14.3 \pm 4.7	154.4 \pm 39.3
P							0.02*
Frequency of family visits							
once/week	62.1 \pm 12.5	33.4 \pm 6.2	20.5 \pm 4.2	20.1 \pm 4.8	20.4 \pm 4.5	16.6 \pm 3.2	173.0 \pm 32.5
once/2weeks	43.7 \pm 16.6	24.2 \pm 10.1	15.7 \pm 6.5	15.5 \pm 6.1	14.9 \pm 5.7	12.3 \pm 4.8	126.1 \pm 47.1
once/month	47.1 \pm 17.9	25.8 \pm 9.7	16.3 \pm 6.9	16.3 \pm 6.1	15.2 \pm 6.1	13.4 \pm 5.2	134.0 \pm 49.4
P							0.2
participation in social activities							
yes	59.8 \pm 12.1	32.6 \pm 6.7	20.6 \pm 4.3	20.1 \pm 4.2	19.7 \pm 4.3	16.4 \pm 3.2	169.2 \pm 31.7
no	38.1 \pm 16.7	20.8 \pm 9.0	12.9 \pm 6.0	13.0 \pm 5.7	12.5 \pm 5.5	10.6 \pm 4.7	107.9 \pm 44.6
P							0.00*

*Statistically significant ≤ 0.05

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