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Life Satisfaction and Health - Related Factors among Older Adults Living in Geriatric Home: A Correlational Study

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Abstract
Background:*Population aging is happening in most of the world's metropolitan cities, and the proportion of elderly adults is predicted to increase significantly in the coming decades. This rapid growth of elderly populations became a challenge in front of the health care system to deliver a high quality of health care services.* ***The aim*** *of this study was to describe the levels of satisfaction, and explore the health-related factors that influencing life satisfaction amongst older adults living in geriatric home.****Methods:*** *Quantitative research was employed in this study, where a descriptive design used to describe the levels of life satisfactionof older adults and while correlational design used to investigate the association between life satisfaction and health-related factors among older adults living in geriatric homes in Cairo,Egypt. Using a tested instruments, one-hundard fifty clients were chosen randomly from three different geriatric home settings as a type of residential care that provide twenty-four hours primary health care from 1st July,2017 to the end of October,2017.* ***Tools:*** *Six tools were used to collect pertinent data**: I.** Socio-demographic characteristics,* ***II****. Satisfaction with Life Scale (SWLS),****III.****Self-Rated Health (SRH),* ***IV****. Rosenberg Self-EsteemScale (SES),* ***V****. Katz Index of Independence in Activities of Daily Living (ADL),* ***VI.****Lawton of Instrumental Activities of Daily Living (IADL) Scale.****Results:****Two-third of the participants were male (65.3%). A strong positive association between low life-satisfaction level andpoor self-rated and presence of the chronic illness (p = .001 & r = .270 ; p = .004 & r = .235); also poor self -esteem and functional status were modestly associated with lower life satisfaction(p = .005 & r = .230 ; p = .013 & r = .201) respectively. The results found a statistical association between the duration of stay in the geriatric home and lower life satisfaction (p = .003 & r = .975). In addition, there is an association between life-satisfaction levels and family support and the older who are keeping in touch with their family members as well as the presence of social support (p= .059 & r =.402; p = .044 & r = 0.589; p= .042 & r= .116) respectively. The life satisfaction lost the significance associatedwith age, gender, level of education and type of referral.****Conclusion and Recommendations****:Poor self-rated health and chronic illness have a greater impact on life satisfaction ,whereas low self-esteem and dependent older adults were strongly related to lower life satisfaction. Also, this result indicates that low family support , low social support and the duration of stay in the geriatric homewere hardly related to low life satisfaction at old age .These factors need to be deliberated in the care of these people to improve or maintain their life satisfaction.*
Key words :*Life satisfaction,Health-related factors, ADL, IADL, Self-esteem, Self-rated health, Older Adults,Geriatric Homes*

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I. Introduction

The phenomenon of aging is a dramatic public issue all over the world. Evidently the global increase in life expectancy and the sharp decline in fertility rates during 20th century era as one of society's utmost achievements. The expansion of this life expectancy within the older population leads to increasing number and proportion of the elderly people over 60 years.[(1)]In all Holy books, including Islam, there is a great value that the elderly must be treated with ultimate respect and a privilege to be in a high position among the family members and supported by their families for all their needs. There are several verses in the Quran are stating that Muslims should appreciate and regard the elderly as valuable and precious members of the community (e.g., Verse 23 of Asra Surah, Quran). There are also countless poems and expression in several literatures regarding the respected

position of elders in the family and in the community as the builders of our past and the repository of life experience.[2,3]

From 2015 to 2050, the percentage of the older population over 60 years will nearly double from 12% to 22%. In addition, by 2050, the number of the world's older population is expected to increase approximately triple to about 1.5 billion. However, the developed countries have the majority of the older population, although the most rapidly aging populations exist in the less developed countries. Amid 2010 - 2050, the percentage of the older population in the less developed countries is projected to increase more than 250 % compared to 71% increase in the developed countries. Therefore, by 2050 - it is expected that 80% of all older population will live in low- and middle-income countries. Practically, women ratio is higher than men by 2:1 in all societies.[1,4]

Similarly, in Egypt by 2050, itis expected to have the largest number of the older population (23.3 million) and oldest-old (3.1 million) as well as the life expectancy at birth is 72.9 years for females and 70.1 years for males. According to the Egyptian census, the proportion of the older population increased from 6.27% in 2006 to 6.9% in 2015 and it is expected to reach 9.2% in 2021 and 20.8% in 2050. [5,6] The increase in life expectancy is a result of rising longevity and decreasing fertility, where the average number of children in the eighties were five children per family and a decrease of three children in 2005 and two children in 2017. [5-7]

In developed countries, fertility fell below the replacement rate of two live births per women by 2005. In addition,the fertility was below two-child replacement level in the forty-four less developed countries in 2006. Hence, by 2020, the number of older population aged 60 years and above will be more than children less than 5 years. The worldwide tendencies toward having fewer children declared that there will be loss of the family caregiver support in the future. Furthermore,the average life expectancy was 70 years for older males and 74 years for older females in 2018, while in Egypt the percent of increase in life expectancy is 72.9 years for older females and 70.1 for males that will result in loss of support from spouse.[1,4]

With the changing role of the family due to urbanization which leads to many negative impacts on the aged population, such as in developing countries, migration of their adult children from rural to urban in seeking a better employment or education chances which leads to leaving their elderly alone at home and nobody taking care of them. In addition, the shifting of the family structure from extended to nuclear family plus the contribution of women in the labor market will eventually delayed her marriage. These factors can lead to the older person's loss of family support and caregiving.Meanwhile, in less developed countries that do not have an established and affordable long-term care infrastructure, this cost may take the form of other family members withdrawing from job to care for older relatives.[1,4]

As a result of various physiological changes that occurs among the older population, consequently they will experience these health-related issues,drop in their capacity to live independently due to decrease their functional status, restriction of mobility, impairment of cognitive and mental function. For these reasons, most of the elderly people are required to have more special care from their informal family caregivers. But in many situations, family caregivers are constrained to provide care for their elderly because they found that caregiving needs exceeded their capacities. By the time, the family caregiver decided to seek for geriatricor nursing homes to maintain their health and avoid deterioration.[8,9]

A nursing home is a long term care institution providing the most extensive care for helping older adults with activities of daily living such as bathing, dressing, and eating as well as skilled care that includes medical monitoring and treatments. Sometimes, it may include occupational, physical and speech therapy. Although nursing home should meet the physical, emotional and social needs of its residents, but still there are many environmental challenges associated with living in a nursing home that can increase the deterioration of the elderly condition. For instance, the elderly residents felt the lack of purpose in life, no control in respect to relationship with their caregivers, loss of contact with the outer world, enforced idleness, loneliness, and staff bossiness, loss of personal friends, and privileges. Therefore, the staff of nursing homes has to understand not only the physical needs, but also comprehend the psychological, emotional, social needs of the elderly and to behave in a manner that meets those needs and maintains satisfaction in the life of the elderly, not just sustaining life.[1,2,8,9]

II. Significance of the problem

Egypt is the most populous country in the Middle East and the second most populous in Africa with a trend of increase in the older adult population. By the year 2050, in Egypt, it is expected to have (23.7 million) of the total population of old age and (3.7 million) of the oldest old. [6] Today, people are living longer than ever before, and the number of older adults is expected to increase exponentially over the coming decades. Combined, these two demographic shifts will lead to enormous challenges for the health care system in general and for nurses in particular who provide the front line health care for older adults in a wide variety of settings, including in the community and in nursing homes.Community health nurses will play an increasingly critical role in addressing these challenges in the decades ahead by adopting specific strategies to ensure that older adults who live in long-term care settings will receive high quality health care; to live independently for as a

long as possible; satisfied with his/her life, maintain his/her self-esteem and health education for older adults who are self-managing multiple chronic illnesses. Therefore, the aims of this study were to describe the levels of satisfaction, and explore the health-related factors that influencing life satisfaction amongst older adults living in geriatric home.

III. Conceptual Framework

Life satisfaction (LS) is a subjective judgment that reflects how a person evaluate own's life as a whole rather than the current feelings.[10] With old age, life satisfaction is relatively different compared to young age where life satisfaction of older adults is higher in the past than in the present due to varying degrees of deterioration as a result of physiological, psychosocial, and economic changes which associated with the ageing process leading to a negative impact on well-being.[11]

Because life satisfaction is an important aspect of personal well-being; therefore, it is considered as a significant factor of successful ageing as well. [12,13] It is assumed that life satisfaction is among the wide range of factors that reveal the conditions of leading a good life. On the other hands, there are two main types of theories about life satisfaction: first theory is called "Bottom-up theories" or subjective well being which state that "life satisfaction is based on the individual experience of his/her life, such as the relationships with family and friends, individual growth, health status and physical fitness and the work". So this theory concluded that "the satisfaction of our lives in these areas are combined to create our overall life satisfaction. Second theory, is named "Top-down theories" which considered that the overall life satisfaction impacts the our life satisfaction in various domains which conveyed that overall life satisfaction and satisfaction are thoroughly linked in the multiple aspects of life.[14]

According to Coke and Twaite,(1995) &Neugarten et al.,(1961), the life satisfaction model is represented thatlife satisfaction among elderly population is influenced by various factors like demographic characteristics, socioeconomic status, health behavior, physical health status, cognitive health status, social support, and a number of morbidities(In Figure-A).[15,16]

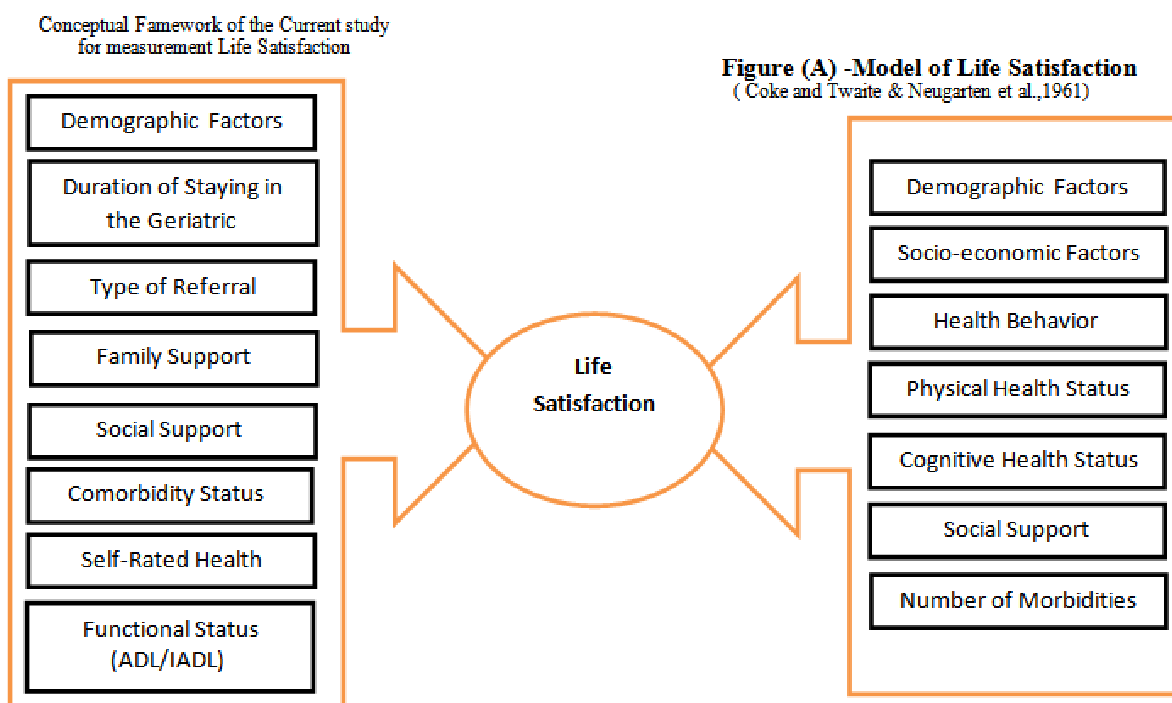


Figure (A) -Model of Life Satisfaction
(Coke and Twaite & Neugarten et al.,1961)

Furthermore, Puvill, (2016) and Efklideset al.,(2003) studies revealed that the level of life satisfaction among the elderly is influenced by many factors such as physical and mental health status, social relationship and environmental circumstances. At the same time, to improve the life satisfaction among the older population, there are many factors have to be considered such residential environment, neighborhood relationship, economic status, keeping friendships, maintaining family relationships, physical health condition, satisfaction in marital status, and satisfaction with job or career. [17,18]

Functional capacity is one of the healthiest related factors that that affecting older adult life satisfaction. Several researches were confirmed that the functional capacity is strongly significant on life satisfaction of the elderly. This functional capacity is measured by activities of daily living (ADLs) and

instrumental activities of daily living (IADLs) as generic tools to evaluate the physical health status of elderly and can determine the degree of disability among older age groups.[19,20]

Additionally, social support is the interaction within family members and friends or other significant relatives which has a greater impacts on the life satisfaction among the older group. Moreover, life satisfaction among the older population is also directly related to family support that enhance the emotional and psychological well-being, and it also depicts that elderly people are attached to their house and their family members and home environment more than the geriatric home or long term care institution. Conversely, less life satisfaction is found when the older adult has less family support or poor relation with the family member.[21,22]

Self-esteem is an important factor that has a strong association with the life satisfaction which motivates the elderly person to be more confident, feel his worth or abilities and self-respect.[23] In addition, various studies explored that the majority of the elderly people who had a low level of life satisfaction have a low self-rated health. Interestingly, another study found that self-rated health had positiverelation with life satisfaction than objective measures of health.[24]

The aim of this study was to describe the levels of satisfaction, and explore the health-related factors that influencing life satisfaction amongst older adults living in geriatric home.

Research question

Q1. What is the levels of life satisfaction among older adults living in geriatric home?

Q2. What are the health-related factorsthat influencing life satisfaction amongst older adults living in geriatric home?

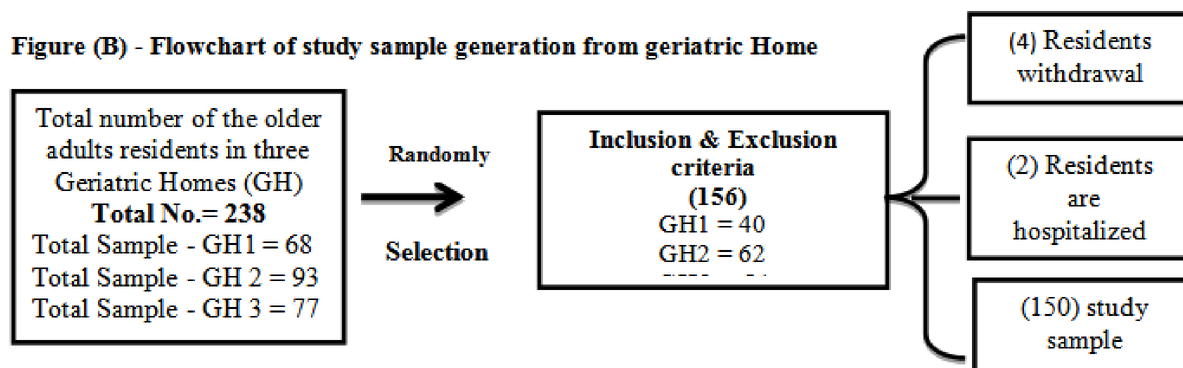
Q3. Is there a significant association between life satisfaction and health-related factors among older adults living in geriatric home?

Methodology

Research Design: Quantitative type of research was employed in this study, where a descriptive and correlational designs were utilized. A descriptive design was used to describe the levels oflife satisfaction of older adults while the correlational design was utilized toexplore the health-related factors that influencing life satisfaction amongst older adults living in geriatric homesin Cairo, Egypt.

Research Setting: The data werecollected from 1st July,2017 to the end of October,2017 at three different geriatric home settings as a type of residential care that provide twenty-four hours primary health care and rehabilitation services for the elderly or disabled residents and may also provide physical therapy, occupational therapy as convalescent care, skilled nursing or long-term facility as well as planned activities and daily housekeeping services.

Sampling and sample size: The target population for the current study was comprised of older adult residents who are living innursing homes on a regular basis. A simple random sample technique was used in which each member of the subset has an equal probability of being chosen. The calculated sample size was 156 older adults using G power (power analysis) of α 0.05 and medium effect size of 0.2, and using the correlation test, considering the confidence level 95% and confidence interval 5%. [25]The older adult residents in three geriatric homes are assigned a number between 1 and 238, after which 156 of those numbers were chosen randomly by a computer -generated process, as the lottery method, but four of the older adult residents are withdrawn and two are hospitalized outside the geriatric homes after selection. Therefore, the study sample was 150 older adult residents to carry out the research study as the flow chart described below (In Figure - B).



Inclusion and Exclusion Criteria

The researchers specified the inclusion and exclusion criteria for participation in the studyto make sure the appropriatenessof the subject data for the study and ensure that primary endpoint of the study are reached, and also minimize participants withdrawal.Therefore the participants were selected according to the following inclusion criteria: the participants, who are willing to participate in the study, aged 60 years and above, both genders, who are receiving nursing home for a long period of time at least 6 months at the selected geriatric homes. Exclusion criteria are the participants, who are diagnosed with mental or cognitive disorders, or unconscious patients.

Pilot study

The questionnaire was piloted among 15 older adult participants to assess the clarity and the applicability of the tools and also determine the time frame that will be required to fulfill the questionnaire. This pilotsample was excluded from the study sample.

Tools of data collection

A semi-structured interview questionnaire was developed by the researchers to gather data through a face to face interview with each participant individually that took about 60 – 90 minutes where some of the participants need time for rest and return back to continue the interview andto complete the questionnaire. The questionnaire is comprised of six tools:

(I). Socio-demographic characteristics which consists of age, gender, level of education, period of stay in the geriatric home, social support in the form of presence of friend/s outside the geriatric home, still keep in touch with the family members, family support, type of referral.

(II).Satisfaction with Life Scale (SWLS) includes five statements that respondents rate on a Likert scale from 1 (strongly disagree) to 7 (strongly agree). Total scores range from 5 to 35 where high score indicating high satisfaction and low score indicating dissatisfaction. Sum the participant's response scores for each item and then categorized the levels of satisfaction with life into" "Satisfied" from (35 to 27); "Neutral" from (26-18); and Unsatisfied from (17-7). The reliability test conducted on SWLS produced Cronbach's alpha values (0.94). In the current study, the internal consistency was tested after translation of this tool into Arabic language where Cronbach’s alpha value (0.82). (26,27)

(III).Self-Rated Health (SRH) was used to assess the health status of the older population, compared with other people of the same age, how do you rate your health. The participants' responses were given with reply five alternatives: Very good, Quite good, Neither good nor poor, Quite poor and Poor. In the current study, the coding for SRH have been reserved in the analyses with a 3-point scale good, fair, poor. The higher value of SRH is always equivalent to good ratings of health versus lower value indicates poor rating health. (28)

(IV). Katz Index of Independence in Activities of Daily Living (ADL) is the index ranks adequacy of performance in the six functions of bathing, dressing, toileting, transferring, continence, and feedingto assess functional status as a measurement of the client’s ability to perform activities of daily living independently.(19)

(V). Lawtonof Instrumental Activities of Daily Living (IADL) Scale is eight domains of function of ability to use the telephone, shopping, food preparation, housekeeping, laundry, mode of transportation, responsibility for own medication, and ability to handle finances,which are most useful for identifying how a person is functioning now, and to identify improvement or deterioration over time. (20)

The reliability of the instruments (ADL/IADL) has a consistently established its utility in evaluating functional status in the elderly population. The ADL was high internal consistency and a reliability coefficient (Cronbach’s alpha = 0.91). After translation of these tools into Arabic language in the present study, the internal consistency and the reliability coefficient were (Cronbach’s alpha = 0.89 & 0.80) respectively. The total points scoring for the participants responded to Katz scale (ADL) (IADL) is equal 6 scores. Sum the participant's response score for each item and then categorized the levels of functional capacity into "Independent"(6-4 score) i.e., "able to perform ADL independently"; and Depenedent (0-3 score) i.e.,"unable to perform ADL".

Similarly, in Lawton scale (IADL) - the total points scoring for the participants responded is equal 8scores .Sum the participant's response score for each item and then categorized the levels of functional capacity into "Independent"(8-5 score) i.e., "able to perform IADL independently"; and Depenedent (0-4 score) i.e.,"unable to perform IADL".

(VI). Rosenberg Self-Esteem Scale(SES) includes ten statements that respondents rate on a Likert scale from 0 (strongly disagree) to 3 (strongly agree). Because there items 3, 5, 8, 9, and 10 are reversed in valence, so scores ranged between 15 and 25 within the normal range that indicate in the present study as a high self-esteem; scores below 15 suggest (low self-esteem). The Rosenberg Self-Esteem Scale presented high ratings in reliability areas; internal consistency was 0.77, minimum Coefficient of Reproducibility was at least (0.90). In the current study, the internal consistency was tested after translation of this tool into Arabic language where Cronbach’s alpha value (0.75). (29)

Validity: All tools were tested for content validity by experts in the field of community health nursing and geriatric nursing. The modifications of the tools were done according to the panel's judgment on the clarity of the sentences and the appropriateness of its content, the sequence of its items and accuracy of scoring.

Data Analysis: Data entry and analysis were performed by using Statistical Package for the Social Sciences (SPSS, version 20, Chicago, IL, USA). The responses in the completed questionnaire were coded and entered into a data entry template. Descriptive statistical analysis was summarized as frequency count, percentage, mean, standard deviation, figures, and charts. Correlation between the variables was measured on an interval scale analyzed computing the product-moment correlation coefficients (i.e., Pearson's correlation).The critical value of the significance in all the analysis of $p < 0.05$.[30]

Ethical consideration*:* A formal letter was issued from College of Nursing, Cairo University, to obtain an official approval to carry out the study in the geriatrichomes. In this letter explained the aim of the study, clarifies the procedures and tools to be used for the data collection. Also an official letter was given to the authority's personnel to get the permission to carry out the study in the geriatric homes setting as well as an informed consent for participants who arewilling to participate in the study. All participants were fully informed regarding the purpose of the study, no potential risks associated with their participation and they have the right of withdrawing from the study without penalty. The participants' privacy and confidentiality were completely protected, no identifiers or personal information was collected or stored including participant's name IDs and others.

IV. Results

The socio-demographic characteristics of study sample have been presented **(Table-1)**. The majority of the participants were male (65.3%); whereas, 34.7% of them were females. More than half of the older adult (53.3%) were old-age group 75 years andabove; also the majority of the participants (72.7%) stayed around 5 years in the geriatric homes. However, 62.0% of them were in touch with their family members. Approximately, 47.3% of the participants had primary school; while, 22.0% had completed intermediated and secondary school. More than seventy percent of the total sample was referred to geriatric home by others relatives. Moreover, 78.7% of them had the proper family support. Only one-third (31.1%) of the study participants are satisfied with their life while the majority of older adults (67.4%) areunsatisfied with their life **(Figure-1)**.

Table (2) presented the levels of life satisfaction (satisfied, neutral & unsatisfied) among older adults in geriatric homes. The majority of the participants (86.0% & 87.3%) stated that their life was not close to an ideal life and not satisfied with their life respectively. Almost,three-fourth of the studied sample (74.7%; 78.7% & 78.0%) had seen the conditions of their life are not excellent, they have not gotten the important things in their life and they are unsatisfied if they were given a chance to live over their life again they would change almost nothing respectively.

Table (3) revealed a positive correlation between levels of lifesatisfactionand most of the health-related factors as follows: fifty two percent of older adults who have poor self-rated health is unsatisfied with their life (r= .270 & p= 0.001) ; while the older adults who have low self-esteem (50.7%) are unsatisfied with their life (r= .230 & p= 0.005). In addition, (54.7%) of older adults who have chronic diseases are unsatisfied with their life (r = .235 & p = 0.004); while fifty percent of the dependent older adults are unsatisfied with their life (r= .201 & p= 0.013).

Table (4)showed life satisfaction levels of older adults and items of the activities of daily living. The results has been found that a significant correlation between life satisfaction statement of " In most ways my life is closed to my ideal" and their ability to get dressed by themselves independently "(r= .155& p= .050). Regarding the statement of "the conditions of my life are excellent" of life satisfaction, a significant correlation was found with their ability to bath, dress themselves independently" (r=.210&p= 0.010; r =.285& p= 0.000) respectively. In relation to the statement of "I am satisfied with my life" a significant correlation was found with the ability of older adults to bathing, dressing themselves, and feeding independently (r=.244&p= 0.003;r =.325 & p=0.000 ; r=.192&p= 0.018) respectively. A significant correlation was found between life satisfaction statement of " so far , I got the important things I want in life" and abilities of older adult to transfer (r=.792 &p= 0.022).In the meantime, the results showed that there is no correlation betweenthe statement of life satisfaction "If I could life my life over , I would change almost nothing" and all parameters of ADL; ability to have a bath, to dress himself, go toilet, transfer, continence and to feed himself independently.

Table (5) the present results of the study exhibited correlation between levels of life-satisfaction anditems of instrumental activities of daily living among the studied older adults in geriatric homes. The results of the study displayed that a significant correlation between life satisfaction statement of " In most ways my life is closed to my ideal: and their ability to use the telephone and food preparation independently (r= .234 &p= .004; r= .058 &p=.023) respectively. Additionally, the findings exhibited that a significant correlation between life satisfaction statement of "the conditions of my life are excellent" and their ability to use the telephone, preparing their foods and taken the responsibility for their own medication independently (r =.166 &p= .042;r=

.234 &p= .004; r= .196 &p= .016) respectively. While, in relation to the statement of " I am satisfied with my life" a significant correlation was confirmed by the ability of older adults to prepare food and taken the responsibility for their own medication independently(r =.186 & p = .023; r =.244 &p = .003) respectively. On the other hands, the results showed that there is no correlation between two statements of the life satisfaction " I have gotten the important things I want in life"&"If I could live my life over , I would change almost nothing"andall parameters of IADL; to use the telephone, to take care of shopping needs, using the laundry, mode of transportation, perform housekeeping, and ability to handle finances.

Table (6) the study results confirmeda positive correlation between levels of life-satisfaction and socio-demographic characteristics of older adults in geriatric homes. The results indicated that there is a statistical significant correlation between levels of life-satisfaction and theirduration of stay in the geriatric homes (r = .975& p= .003);with the presence of theirfamily support (r=.402 & p= .059); with keeping them in touch with family members (p = .044 &r= .589) and also with social support in the form of presence of friends among the older adult participants (r=.116 & p =.042).In relation to the socio-demographic factors of gender, age, level of education, and type of referral to the geriatric homes, there is no significant correlation could be detected with the different levels of life satisfaction.

V. Discussion

Despite the rapid growth of life expectancy of older population in developed and developing countries but still the morbidity and mortality rate are increased among this age group with the association of decline in their levels of satisfaction. Therefore, the findings of this study are highlighted on the research questions regarding the levels of life satisfaction among older adults; and the association between life satisfaction and health-related factors among older adults living in geriatric home.

In the present study less than half of the studied elderly were females and the majority were males. In addition, the current study results shown that older age group (75- years) makes up the greatest percent (53.3%) and oldest-old age group (85+) was represented (15.3%). This result is consistent with CAMPAS (2018) and WHO (2018) which stated that life expectancy for older females was less than older males and the increasing life expectancy among the older population itself is rising the number and proportion of people at the oldest old group (aged 85+years) represent 8.0% of the world, while the young old group (60- years) and old group are represented 12.0% in more developed countries and 6.0% in less developed countries. Similarly, in Egypt, male older adult is slightly greater than female (45.95% & 44.14%) respectively .Also, changes in the age structure were found to causea decrease in the age dependency ratio from 82.0% in 1988 to 62.0% in 2008 showing a great opportunity for the demographic dividend, however the increase in the age dependency ratio to 66.0%, as a result of the increased total fertility rate.(1,4,5)

As regards, the relationship of age and gender to life satisfaction, the present study revealed that both variables were not associated with life satisfaction This result ison the same line withseveral studies which explored that the socio-demographic variables such as age and gender could play a very limited contribution in life satisfaction unless this age group has instability of psychological or emotional condition rather than physical health problems and socioeconomic issues. (31-33)Conversely, other studies proved that healthier people in the age group " young old" and "old-old" are more satisfied with life regardless of their age.(2,7)

Regarding to the relation of gender with life satisfaction , there is various studies stated that both gender have a direct significant association with the life satisfaction.(34) While there is another studies results displayed that life satisfaction among men is better than women as they grew older , but this effect was not statistically significant in women.(35) This result is contrary with other findings shown that the life satisfaction level was high among females old age population in comparison to males geriatric staying in old age home and is a significant difference in life satisfaction level between male and female geriatrics living in selected old age home.(36) This discrepancy between different authors may be due to different life events and personal experience among studied participants. In addition, this difference may be based on that the emotion of the subjective well-being has a greater impact on the one's life satisfaction rather than the cognitive or biological components of the subjective well-being, therefore when the women has her multi-responsibilities in her lifespan that lead her to expose too many stressful situations that interfering with her life satisfaction negatively.(37-39)

The findings of the present study showed that nearly half (47.3%) of the studied older adults were complete only primary school. This result is consistent with CAMPAS (2016) reported in Egypt, the respondents of the age group of 45 years and older stated lower educational level than younger age specifically in females,(5) and also supported by(Bowling Ann,2005; Lucas,2007) who mentioned that illiteracy is prevailing between both groups in geriatrics home and geriatric outpatient accounting for 60% and 48.3% respectively.(40,41) According to DHS data (2018) on the education for the elderly in all of the countries examined here have quite low levels of completed education, with the exception of Korean males, a large majority of elderly in all countries have a primary or lower level of completed education. People aged 25 years and older without disabilities have 7 years of schooling, compared with 4.8 years for those with disabilities. (42)

On the other hands, the results of the present study showed that there is no a statistically significant relation between life satisfaction and levels of education of older adult participants. In contradicting with the present study (Beyatzaset al.,2012; Wang and Wang, 2014; Li et. al., 2008) who reported that high educated elder group have a better life satisfaction than low educated group.[32,43,44]In addition, (Ng et al., 2017) who stated that women who had higher education received a higher mean score of the life satisfaction than men.[45] In the same study, the results found that there was a strongly significant difference between educated women and men with mean scores of their life satisfaction. This research also found that the highest mean score of life satisfaction among women who have an administrative position such a manager or higher business than the mean score of life satisfaction among men who have office workers or service personally.[46,47]

The findings of the present study found that, there is a significant relation between duration of stay in the geriatric homes and both life satisfaction and functional capacity of the older study participants. There is a few studies show the life satisfaction of the older adults and their duration living in the geriatric home or institution as a long term type government policy of the elder population's care, the statistical findings of this study showed that duration of living in geriatric home has low impacts on life satisfaction among older people.[48] However, the finding of this study shows that there is no significant differences with the norms of elderly people who living in the community.[49]

Other studies disagree with this result as (Swami and Chammorro-Premuzic,2009; Diener et al., 1985) who reported that the majority of the elderly people who are living in the geriatric institution are satisfied in most areas of their life, but they need to see an improvement in other areas.[50,51] Furthermore, other qualitative study finding shows that the elderly people are happy with their new life in geriatric homes because it is an environment free from the pressure of life, expectation, and obtaining free amenities (Jagodzinski, 2005). This discrepancy may be due to many of the elderly participants in different studies may come from low economic background status, and shifting to the new environment is better than the previous living environment or vice versus. [52]

According to Vinsi (2014) study findings stated that score level of the life satisfaction was higher among women than in men old age who staying in geriatric home and there is a significant difference in life satisfaction among male and female.[53] However, Pallavi et al.,(2015) andNg,et al.,(2017)results show that the life satisfaction of the elderly population relies on living arrangement as one of the important factors. [37,45]

The results of the present study revealed that social support network indicates to how the older adult of the study participants interact with their family members, friends, and the type or the way of referring to the geriatric homes. This study results show that there is no significant relation between the type of referral and life satisfaction as well as functional capacity. Unfortunately, there is no previous study search this point directly, but the interpretation in this current study to this point is integrated the type of referral as a part of the social system support and family support for their elderly person instead of leave them alone at home. Therefore, this result is disagree with (Pallavi et. al., 2015 and Bowling, 2005) who reported that life satisfaction as a part well-being has focused on the structure and supportive human relationships, and social context in which how the elderly live and integrated them within the society instead of leaving them alone .[36,40]

In addition, the results of the present study, explore the a statistically significant relation between family, friend and social support and life satisfaction and functional status of the older study sample. This result is supported by (Marpadyet al., 2012; Balachandran et al., 2007) who stated that family support and make a good relationship with a friend is a significant factor for the improvement of the psychological well-being of the elderly. In addition, various studies specified that the social support are also other significant factor that has a great impact on the life satisfaction. [54,55]

The findings of the present study indicated that there are a significant association between life satisfaction and self-rated health, self-esteem, presence of chronic illness,functional statusof the older adult in the study. This results analysis is congruent with (Pallaviet al., 2015; Ng et al.,2017) who reported that self-rated health and functional limitation as a result of multi-morbidity which lead to functional disability that has a significant impact on psychological well-being and subjective well-being (as a component of life satisfaction).[37,45] However, the various researches clarified that physician - rated health is different than self-rated heath which is mainly related to mental health status, whereas the physician rated health assessment provides information about health problem to elder people. Therefore, the previous statistical analysis showed that there is a weak association between poor life satisfaction and poor physical health which can treated after adjustment of mental health. On the contrary,with (Puvill,2016;Vogelsang,2014; Galenkamp,2013) who reported that poor life satisfaction has a strong association with poor mental health which cannot change after adjusted of mental health. Hence, psychological well-being is the main factor that could distinguish between older people who have low life satisfaction and those with high life satisfaction.[17,56,57]

The current study has shown that self-esteem has a statistical significant association between Life satisfactions of the older adult of the study sample. This result is consistent with (Bowling, 2005; Mehlsenet al., 2005) who is stating that self-esteem is a self-worth and reflected in one's self concept which is an important

component of the older adults emotional well-being that used as a subjective indicator to measure life satisfaction. [40,58]

The findings of the present study indicated that there are a significant association between life satisfaction andfunctional capacity (ADL and IADL) of the older adult in the study. This result agrees with many research studies which were focused on activities of daily living (ADLs) and Instrumental activities of daily living (IADLs) as an indicator to evaluate the health condition of the elderly and Life satisfaction. In addition, the present study showed that the physical activities as bathing, dressing, transferring, and feeding have positive relations with life satisfaction items, but few of ADLs are not related such as toileting and continence were not significant.[59]Similarly, several studies found that bathing, toileting, dressing, continence, movement and food intake, including ADL, are positively related to life satisfaction. However, few studies show that physical disability was not related life satisfaction. In addition, a study done among 132 countries, by Deaton, (2007) found that thereis a strong evidence that health and life satisfaction among elderly people decease with increase age and level of disability.[60]

VI. Conclusion and Recommendations

The results illustrated a general low life satisfaction among study participants. However, poor self-rated health and chronic illness have a greater impact on life satisfaction , whereas low self-esteem and dependent older adults were strongly related to lower life satisfaction. In addition, this result indicates that low family support , low social support and the duration of stay in the geriatric home were hardly related to low life satisfaction at old age. Hence, these factors need to be deliberated in the care of these people to improve or maintain their life satisfaction.

Table1:*Socio-demographicCharacteristics of the Older AdultResidentsin Geriatric Homes*

Variables		**Frequency (n=150)**	**Percentage (%)**
Gender	Male	98	65.3
	Female	52	34.7
Age/yr. Young old	60 – years	47	31.1
Old	75–years	80	53.3
Oldest-old	85 +years	23	15.3
Level of Education	No formal education	29	19.3
	Primary school	71	47.3
	Intermediate/Secondary school	33	22.0
	College	17	11.3
Duration of stay in the geriatric home/yr.	1-year	28	18.7
	5- year	109	72.7
	10-year	13	8.2
Social Support "Presence of Friends"	Yes	118	78.7
	No	32	21.3
“In-touch” with Family Members	Yes	93	62.0
	No	57	38.0
Family Support	Yes	118	78.7
	No	32	21.3
Type of Referral	Self-referral	26	17.3
	Referred by other relatives	108	70.7
	Directly referred by the department of social welfare	10	6.7
	Referred by enforcement	8	5.3

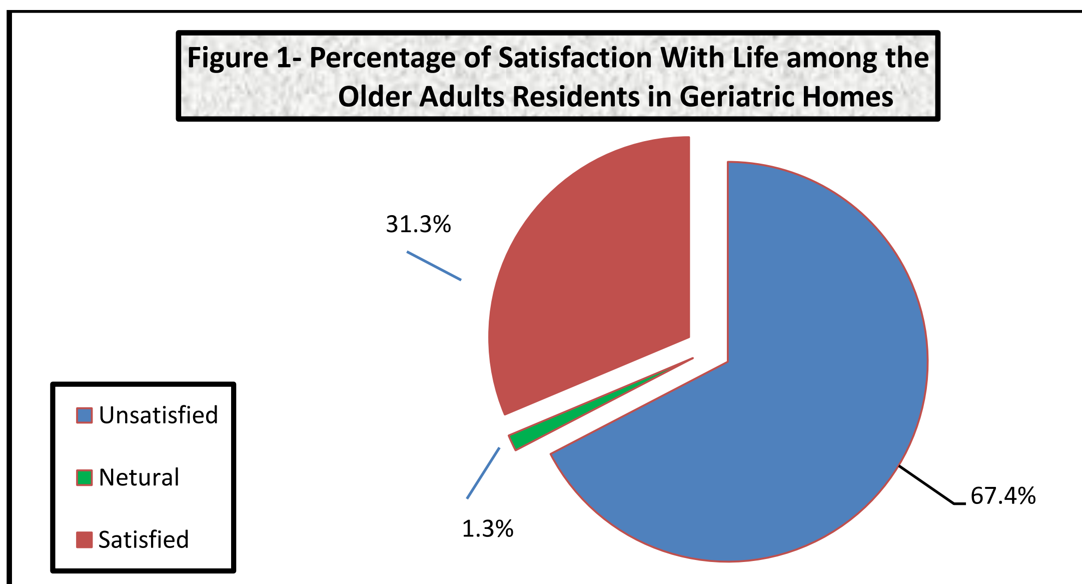


***Table 2:** Percentage the Levels of Satisfaction with Life among the Older AdultsResidents in GeriatricHomes*

SWL Items	**Satisfaction With Life (SWL) n=150**		
	Satisfied n (%)	**Neutral n (%)**	**Unsatisfied n (%)**
In most ways my life is close to my ideal	17(11.3)	4 (2.7)	129(86.0)
The conditions of my life are excellent	22(14.7)	16 (10.7)	112(74.7)
I am satisfied with my life	13(8.7)	6 (4.0)	131(87.3)
So far, I have gotten the important things I want in life	18(12.0)	14 (9.3)	118(78.7)
If I could live my life over, I would change almost nothing	16(10.7)	17 (11.3)	117(78.0)

***Table 3:**Correlation between Life-Satisfactionand Health –Related factors among the Older AdultsResidents in Geriatric Homes*

Health –Related Factors	**Levels of Life Satisfactionn=150**			**(r) p-value**
	Satisfied n (%)	**Neutral n (%)**	**Unsatisfied n (%)**	
Self- Rated Health				
Good	23(15.3)	0(0.0)	7(4.7)	(.270)
Fair	21(14.0)	1(0.6)	16(10.7)	.001***
Poor	3(2.0)	1(0.6)	78(52.0)	
Self-Esteem				
High Self-Esteem	20(13.3)	2(1.3)	25(16.7)	(.230)
Low Self-Esteem	27(18.0)	0(0.0)	76(50.7)	.005**
Chronic Illness				
Yes	28(18.7)	1(0.6)	82(54.7)	(.235)
No	19(12.7)	1(0.6)	19(12.7)	.004**
ADL&IADL				
Dependent	28(18.7)	0(0.0)	75(50.0)	(.201)
Independent	19(12.7)	2(1.3)	26(17.3)	.013**

* p < ·05, ** p < ·01, *** p < ·001

***Table 4:** Correlation between Life-Satisfaction and Activities of Daily living of the Older AdultsResidentsin Geriatric Homes*

Life- Satisfaction Items	Activities of Daily Living(ADL)											
	Bathing		Dressing		Toileting		Transferring		Continence		Feeding	
	r	p value	r	p value	r	p value	r	p value	r	P Value	r	p value
In most ways my life is close to my ideal	0.106	0.195	0.155	0.050*	0.036	0.658	0.405	0.068	0.045	0.587	0.083	0.312
The conditions of my life are excellent	0.210	0.010**	0.285	0.000***	0.128	0.119	0.093	0.138	0.104	0.204	0.103	0.209
I am satisfied with my life	0.244	0.003**	0.325	0.000***	0.136	0.096	0.081	0.143	0.093	0.259	0.192	0.018*
So far, I have gotten the important things I want in life	0.045	0.583	0.142	0.082	0.005	0.953	0.792	0.022*	0.005	0.951	0.083	0.314
If I could live my life over, I would change almost nothing	0.099	0.226	0.087	0.289	0.112	0.173	0.406	0.068	0.024	0.775	0.059	0.472

* p < ·05, ** p < ·01, *** p < ·001

***Table 5:** Correlation between Life-Satisfaction and Instrumental Activities of Daily living of the Older Adults Residents in Geriatric Homes*

Life- Satisfaction Items	Instrumental Activities of Daily Living(IADL)															
	Telephone		Shopping		Food Preparation		Laundry		Transportation		Medication		House Keeping		Handle Finance	
	r	p value	r	p value	r	p value	r	p value	r	P value	r	p value	r	p value	r	p value
In most ways my life is close to my ideal	.234	.004**	.063	.483	.058	.023*.	.083	.315	.058	.483	.014	.863	.083	.315	.058	.483
The conditions of my life are excellent	.166	.042*	.095	.247	.234	.004**	.111	.175	.095	.247	.196	.016*	.097	.235	.095	.247
I am satisfied with my life	.153	.062	.153	.062	.186	.023*	.101	.220	.153	.062	.244	.003**	.186	442	.153	.062
So far, I have gotten the important things I want in life	.037	.655	.129	.116	.017	.837	.021	.795	.129	.116	.041	.619	.021	.795	.129	.116
If I could live my life over, I would change almost nothing	.143	.081	.010	.907	.027	.745	.025	.760	.010	.907	.022	.794	.025	.760	.010	.907

* p < ·05, ** p < ·01, *** p < ·001

***Table 6:**Correlation between Levels of Life-Satisfaction and Socio-demographicCharacteristicsof theOlder AdultsResidents in Geriatric Homes*

Variables	Levels of Life-Satisfaction n=150						(r) p-value
	Satisfied n=47 (%)		Neutral n=2 (%)		Unsatisfied n=101 (%)		
	No.	%	No.	%	No.	%	
Gender							
Male	29	61.7	1	50	68	67.3	(.065)
Female	18	38.3	1	50	33	32.7	.430
Age (Year)							
60 –	16	34.0	0	0.0	31	30.7	(.063)
75-	20	42.6	2	100	58	57.4	.442
85+	11	23.4	0	0.0	12	11.9	
Level of education							
No formal education	16	34.0	0	0.0	13	12.9	
Primary school	16	34.0	2	100	53	52.5	(.147)
Intermed/Secondaryschool	11	23.4	0	0.0	22	21.8	.072
College	4	8.6	0	0.0	13	12.8	
Duration of stay in the geriatric homes (Year)							
1-year	10	21.3	1	50	17	16.8	(.975)
5- year	30	63.8	1	50	78	77.3	.003**

10-year	7	14.9	0	0.0	6	5.9	
Family Support							
Yes	34	72.3	2	100	82	81.1	(.402)
No	13	27.7	0	0.0	19	18.9	.059*
In-touch with Family Members							(.589)
Yes	19	40.4	1	50	37	36.6	.044*
No	28	59.6	1	50	64	63.4	
Social Support							
"As Presence of Friends"	33	70.2	1	50	84	83.2	(.116)
Yes	14	29.8	1	50	17	16.8	.042*
No							
Type of Referral							
Self-referral	10	21.3	0	0.0	16	15.8	
Referred by others	32	68.0	2	100	72	71.4	
Directly referred by the							(.336)
Department of Social Welfare	4	8.6	0	0.0	6	5.9	.079
Referred by enforcement							
	1	2.1	0	0.0	7	6.9	

* p < ·05, ** p < ·01, *** p < ·001

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