

DISCUSSION

In the past, elderly care has been the responsibility of family members and was provided within the extended family.⁽¹²⁸⁾ When an older person cannot manage living in their own home, usually due to fragility, disability, dementia or a combination of these, alternative living arrangements need to be considered which mainly were living in the extended family.⁽¹²⁹⁾ Since the beginning of the 21st century, industrialization and urbanization have changed the structure of families. Changes have occurred in the economic, academic, political, and family structure. For instance, more young people and couple like to live independently, and women like to work rather than stay at home. These changes leave elders to live alone or be cared for in elderly homes.⁽²¹²⁾

Nowadays, in developed countries, elderly homes placement is the main option for elderly support and care; for example, in the UK, approximately 5% of people aged 65 and over, and 20% of people aged 85 and over, live in elderly home care establishments.⁽¹²⁹⁾ In USA by 2009, four percent of older Americans aged 65 and over resided in long-term care facilities and 3% live in their communities with services such as; meal preparation, laundry, cleaning and help with medications. Among individuals age 85 and over, eight percent resided in community housing with services, and 14% resided in long-term care facilities.⁽²⁸⁾

Populations aging in developing countries will increase in the coming decades. By 2050 about 80 percent of the world's elderly will be living in developing countries.⁽²⁻²⁴⁾ In developing countries, the responsibility for providing long-term elder care usually falls completely on the family. This can be a heavy burden for families with already presence shortage resources, especially when it prevents family caregivers from working particularly females' caregivers⁽²¹³⁾. In early 2000s, the proportion of persons aged 60 years or over living in institutions was only about 1 per cent in Africa and not more than 2 per cent in Asia and in Latin America and the Caribbean.⁽¹¹⁵⁾

In old concept among Arabic countries, because of Arabic culture place numerous respect on elders and obligations on family to support them in old age, most Arabic elders live at homes and receive care from their spouse, children, or other close relatives. Recently, many changes have occurred in family structures and relations between family members. Elderly homes in Arabic communities in last decade started to take place of family in elderly care. Although, the number of institutionalized elders remains low in most Arabic communities and the accurate estimation of the proportion institutionalized are unknown. For instance, in the United Arab Emirates (UAE), the prevalence of institutionalization among elderly is 7-14 per 1000 persons aged 65 and older which are six times lower than rates in the US.⁽²¹⁴⁾ In Bahrain, the percentage of elderly in residential care (residential home, nursing home or hospital) is nearly 1.33% of the total population aged over 65 years.⁽²¹⁵⁾ In Egypt, numbers of elderly homes are about 135 homes serving nearly 3129 elderly of whom 1607 males and 1522 females are resident⁽³¹⁾

Advanced age is one of the causes of institutionalization. United Nations Statistics Division (between 1989 and 1997) reported that the proportion of living in institutions is substantially higher among persons aged 75 years or over compared with age group 60 years or over as a whole in all Regions (Africa, Asia, Europe, Latin America and North America).⁽¹¹⁵⁾ In developed countries as England a National

Longitudinal Survey in (2001) based on 1995/96 admission rates, reported that people admitted to a care home were typically aged 80 years and over.⁽²¹⁶⁾ In developing countries as India a study carried out by Dubey and Bhasin (2011) found that (33%) of elderly Living in institution their age were more than 75 years in comparison to (6%) for those living in the family.⁽¹²⁶⁾ In the same line in a regional study done in Bahrain by Al-Nasir and Al-Haddad (1999) found that 22% of home-care group were 75 years and over while in the institutionalized group 45% were 75 years and over.⁽²¹⁵⁾ the present study agree with all above as elderly aged 85 years and more were significantly represented in the elderly homes as compared to community (26% vs 0%). The mean age of the individual's resident in elderly homes was significantly higher than those living in the community. The correlation between increase age and institutionalization at elderly homes may be due to as elderly become more old confronting numerous losses such as loss of physical and mental ability, loss of intimate persons as partner, close relative and friends and become more dependent on caregivers and need assistance. These explain the increased number of older elderly in elderly homes in comparison to community. On the other side, in an Indian study done by Nagaraj et al (2011) found that the mean age of the individuals living in the community and elderly homes were nearly equal and there were no significant differences (72.96 ± 7.63 and 72.70 ± 7.62 years respectively).⁽²¹⁷⁾

United Nations in (2009) reported that women represent 54 % of the total population aged 60 years and over, 63 % of population aged 80 years and over and their percentage rising to 81 % among centenarians (over 100 years).⁽²¹⁸⁾ Life expectancy between male and female varies widely in between developed and developing countries. There are greater life expectancy for women than men in developed countries as in Canada and Germany, the percentages of elderly women were higher than elderly men especially at older elderly group (85 years and above). This factor makes females in developed countries more likely to be instituted in elderly homes.^(219, 220) United Nations Statistics Division (1989a and 1997a) reported that all Regions except Africa show higher proportions of older women than men living in institutions. For example; in Africa the percentage of male to female in institution was 1: 0.9, in Asia 1.8: 1.9, in Latin America 1.9:2.1, in North America 4.4:7.6 and in Europe 1.9:3.4.⁽¹¹⁵⁾ In England a National Longitudinal Survey in (2001) based on 1995/96 admission rates, reported 3:1 female to male was expected to enter a care home for older people.⁽²¹⁶⁾ In Australia, Liu et al. (2001) reported that the risk for long term care admission at age 65 was higher in females than males (42 % vs 24 % respectively).⁽²²¹⁾ in USA Census Bureau (1990) reported that the ratio of female to male in institution were (5.1 to 2.7 respectively).⁽¹¹⁵⁾ Moreover, in a National Nursing Home Survey's in USA by Achintya el at (1997) reported that elderly nursing home residents were predominantly women (75 %).⁽²²²⁾ On the other hand, in Regional study in Bahrain (1999) reported no significant difference in sex ratio between the groups of elderly resident in elderly homes or in the community.⁽²¹⁵⁾ Similarly, in another study in Egypt by Abd El-Rahman (2013) reported any significant difference in sex between instituted elderly residents and non-instituted elderly.⁽²²³⁾ The current study disagree with results of developed countries and agrees with the results in the Regional studies where difference between female and male resident in elderly homes was insignificant ($\chi^2 = 0.160$ and $P = 0.689$). This can be explained by the differences in culture and values between Arabic counties and western developed countries as females especially elderly one in Arabic communities have a great value and cared for by her family members. Add on, life expectance in

Africa and Arabic countries between male and female doesn't show a big differences. Where United nation in (2005-2010), reported that the gender gap in life expectancy ranged from a low of 2.4 years in Africa and 3.7 in Asia to a high of 8 years in Europe.⁽²²⁴⁾

The chances of living in an institution are substantially greater for unmarried older persons than for those who have a spouse. Studies in developed countries have shown that the spouse is often the main caregiver for older persons who are unable to manage on their own, and those who lack a spouse are evidently at greater risk of entering an institution when they need care.⁽¹¹⁵⁾ In USA a report based on the 1996 Nursing Home Component (NHC) of the Medical Expenditure Panel Survey (MEPS) found more than one half (59.8 %) of elderly homes residents were widowed and only 16.6 % of them were married.⁽²²⁵⁾ In a National Nursing Home Survey's in USA by Achintya el at (1997) reported that (66%) of elderly residents in nursing homes were widow.⁽²²²⁾ The same result reported in studies carried out in developing countries, in a Malaysian study carried out by Aznan et al (2007) showed a higher percentage of single or divorced residents (50%), followed by widowed (38.9%) among elderly homes resident.⁽²²⁶⁾ Moreover, study in Singapore (2003) found a highest percentage of widowed and single among elderly homes residents (227). Similarly to this finding, a study done in India by Nagaraj et al (2011) who reported high statistical significant difference between the two groups of elderly as regard marital status, as more people in the community were currently married and staying with the partner (n=30, 60%) compared to old age homes resident (n=18, 26%).⁽²¹⁷⁾ In an Egyptian study done by Abd El-Rahman (2013) reported a high percentages of widowed individuals (56%) among institutionalized residents versus (34%) for non-institutionalized elderly resident.⁽²²³⁾ In line with previous studies in developed and developing countries, the present study showed widow elderly were significantly higher in elderly homes than community group (62% versus 32%). Moreover, married elderly show less percentage among elderly homes than single and divorced one.

As regard living arrangement. The proportion of older persons living either alone or with spouse - independently- ranged widely between the more and less developed countries. In United States of America 75 % are living alone or with spouse and in all the European countries their percentages are at least 50% of older persons. By contrast, in Asia and in Latin America they represent about 20 % and about 16 % in Africa. On the other side, In Africa, the proportions of older persons living with a child or grandchild (extended family) ranged from 50% in Gabon to more than 85 % in Guinea. In Asia, the percentages ranged from 48 % in Japan and Kazakhstan to 90 % in Bangladesh. By contrast, in Europe, the values range from 4 % in Denmark to 43 % in Spain and in the United States of America, are about 18 %.⁽¹¹⁵⁾

Similarly, world economic and survey (2007) reported that in more developed communities, the extended family co-residence is less common while in developing communities as in Africa and Asia, the average is high up to three quarters.⁽²²⁸⁾ Moreover, many developing countries in East and South East Asia demonstrate that most of the elderly persons either co-reside with their adult children or receive financial or instrumental support from them.^(229,230) So elderly peoples in developing countries with smaller family size are at greater risk for institutionalization. The study carried out in India (2011) found that elderly with smaller family size (2 - 5 members) are more represented in institution than those in the community group (60% versus 23.3%). On the other hand, elderly with larger family size (10 and more members) are

represented only in the community (29.9%).⁽²¹⁷⁾ Add on; a study done in Brazil (2012) demonstrated significant differences as the average number of children among elderly living in community was 2.9 (SD±1.88), while the average number of children among those institutionalized in elderly homes was 1.89 (SD±3.10).⁽²³¹⁾ In line with the study carried out in developing countries, the current study reported that (40%) of elderly resident in elderly homes didn't have any children as compared to (6%) of elderly living in the community these differences were highly significant. This can be explained that when people become older they loss their spouse which consider the main care provider and children in many cases take the role of care provider to their elder parents and in case of small family size or haven't an offspring elderly people Forced to be instituted in elderly homes. Opposing, in an Egyptian study done by Abd el- Rahman (2013) reported that elderly with no offspring were higher among non-institution elderly than in- institution elderly group (68% vs24%) where ($\chi^2 = 33.8$; $P = 0.001$).⁽²²³⁾

In developed countries elderly are highly educated, as in U.S.A (Census Bureau 2010) reported (80%) of the older population had high school graduates or more and (23%) had a Bachelor's degree or more.⁽²⁸⁾ On the other hand, in developing countries as Singapore the Department of Statistics (2011) reported that the proportion of elderly with secondary education and less were (91%) for elderly aged 85 years and over, (88%) for elderly aged 75-84 years and (74%) for elderly aged 65- 74 years.⁽²³²⁾ In Egypt the educational level of elderly has wide variation. In a study carried out in Assiut by Mohammed el at (2013) found that (21%) of elderly were illiterate or basic education, (33%) were middle education and (25%) highly educated.⁽²³³⁾ On the other hand, in a study done in Alexandria by El Kady and Ibrahim (2013) found that (49%) of elderly were illiterate or basic education, (51%) were middle or highly educated.⁽²³⁴⁾ The current study found that one third (36%) of the elderly were highly educated, (28%) were middle education, one fourth (25%) had basic education as they had primary education or read and write and only one tenth (11%) were illiterate. The differences between results in the Egyptian studies can be explained by differences in the samples as regard place of collecting sample and other socio-economic factors.

Moreover, the current study showed no significant difference in the educational level between elderly home resident and community living. Opposite to this finding, an Indian study done by Nagaraj el at (2011) reported high significant differences between the two groups of elderly as elderly living in the institution were more illiterate as compared to those in the community (93.3% vs 36.6%) and regarding primary education (3.3% vs 30%).⁽²¹⁷⁾ Similarly, in Malaysian study (2007) most of elderly homes resident did not have formal schooling (55.6%).⁽²²⁶⁾ In Nepal, Ranjan et al (2013) reported the majority of elderly resident in elderly homes (78%) were uneducated.⁽²³⁵⁾ These differences between the current study and studies in developing countries might be due to the differences in the educational level of these countries rather than being a factor for institutionalization.

Some elderly work out of economic necessity. Others may be attracted by the social contact, intellectual challenges, or sense of value that work often provides. In 2012, only (18.5 %) of American aged 65 and over were in the labor force and they constituted 5% of the U.S. labor force.⁽²⁸⁾ In an Egyptian study done by Aref (1990) reported that community resident elderly were significantly more employed than institutionalized elderly (19.33% compared to 5.11%).⁽²³⁶⁾ Similarity, in the present study it was found that the percentages of worked elderly represent (15%) and they

were reported only in the community group than in elderly homes group (30% versus 0%). This could be attributed to the advanced age and increased level of physical disability among elderly resident in elderly homes.

Source of income varies between countries and sometimes even within countries. In developed countries as U.S.A the Census Bureau in (2011) stated that the major sources of income as reported by older persons were Social Security (reported by 86% of older persons), income from assets (reported by 52%), private pensions (reported by 27%), governmental employee pensions (reported by 15%), and earnings (reported by 28%).⁽²⁸⁾ In contrast, in all countries of the European region, the main source for income for elderly is pension.⁽²³⁷⁾ In less developed countries as in the western pacific area, 28% of men and 54% of women were dependent on their families for financial support, 14% of men and 9% of women relied on pensions and 16% of men and 6% of women depend on paid employment.⁽²³⁸⁾ In developing countries as Singapore the Department of Statistics (2011) reported majority of the elderly (63 %) depended on their children's budgets as their main source of financial support in 2010. Compared to the ever-married elderly a higher proportion of never-married elderly depended on income from employment or business, savings or interests earned or other sources as their main source of financial support.⁽²³²⁾ In Egypt, Kady and Ibrahim (2013) found that 65% of elderly depend on pension and 18% received support from family.⁽²³⁴⁾ Add on Mohammed el at (2013) found that 65% of elderly depend on pension (their own pension or guardian pension).⁽²³³⁾ In the current study, the majority of elderly received pension from governmental sector, minority (14%) received Pension from private sector, (36%) had other sources of income and (21%) received help from others(offspring and relatives).

As regards Annual income, older people generally have lower incomes than their younger counterparts. They have only half the income of working-age households. U.S. Census Bureau stated that in 2010, American older people in the middle income group made up the largest share of older people by income category (34%) and the proportion of the older population having a high income rose from (18 %) in 1974 to (31 %) in 2010.⁽²⁸⁾ Studies in developing countries as in a Malaysian study (2007) reported that the majority of the elderly in nursing homes had a low monthly income; hence all the residents from the NGO's (non-governmental organizations) nursing homes received financial support from the Social Welfare Department.⁽²²⁶⁾ In Egypt El Kady and Ibrahim (2013) reported that Just over half of the hospitalized elderly (51.5%) and the majority of community dwelling elders (67.6%) considered their income was sufficient, but for the institutionalized elders more than one-third (36.4%) reported it as insufficient and the income of about half of them (48.5%) was not sufficient and they had to borrow money.⁽²³⁴⁾ the current study reported that (43%) of the elderly subjects have middle annual income and about one third (31%) have high annual income. Add on; It was reported that percentages of elderly which had low annual income were higher in elderly resident in elderly homes than those living in the community (30% versus 22%) and also reported that (26%) of elderly resident in elderly homes received financial help from others as compared to (16%) for community group. These can be explained by elderly with low income can obtain financial support and services at the governmental elderly homes. Add on, elderly with high income can obtain paid services and help at homes and they can modify their houses to be a safe and suitable environment to their physical condition. The idea of "aging in place" and living in the community housing with services are much more extent in countries with high income. On the other hand, Abd El-Rahman (2013) reported highly statistically significant difference between the instituted and non-

instituted elderly concerning monthly income, She was noticed that, elderly who earn less than 300 pounds monthly were (44%) among non-instituted elderly and those got less than 600 pounds were (54%) among instituted residents.⁽²²³⁾

Visits are one of the most important social activities that elderly spent their time in. A study done in Israel by Ben Natan (2009) found Relatives' contact with elderly had diminished following institutionalization.⁽²³⁹⁾ In Egyptian study done by Mohammed el at (2013) reported More than 80 % of the elderly living in the community spend their leisure activities on social events like (visiting friends, family and relatives)⁽²³³⁾ In the current study it was found that (100%) of elderly in community group and (94%) of elderly resident in elderly homes were visited in their places by others. On the other side, it was found that significantly higher percentage of elderly resident in elderly homes didn't do any outdoor visits as compared to elderly living in the community (34% versus 4%). This can explained by the disability in elderly resident in elderly home were more higher than in community group which prevent them from outdoor visits. Moreover, the current study found that the relatives' visits to elderly resident in elderly homes were higher than visits to elderly living in community (74% versus 56%). This result disagrees with the study done in Israel and it can be explained by the differences in cultures and values between the two countries.

The term "disability" refers to many types, levels, and durations of limitations in the ability to accomplish tasks associated with daily living. Disability is not an individual attribute but an interaction between the individual and the environment.⁽²⁴⁰⁾ The term "activities of daily living" (ADLs) refers to a basic set of everyday activities or tasks that an individual should be able to perform in order to live independently.⁽²⁴¹⁾

As regard degree of disability; ADLs are widely used in developed countries as predictors for the need for long-term care either in the community or in institutional settings. National Long-term Care Survey in US (1994) showed that those with one or two ADL limitations can be looked after in the community whereas those with three or more ADL limitations probably require institutional care.⁽²⁴²⁾ This survey also reported that only 6.5 % of elderly resident in for long-term care aged 65 to 69 years received assistance, compared with 27 % of 80 to 84 year-old persons and 80 % of those aged 95 or older.⁽²⁴³⁾ Another study in USA done by Achintya et al (1997) from National Nursing Home Survey's (NNHS) reported that (97%) of elderly residents required assistance with at least one ADL.⁽²²²⁾ National Longitudinal Survey in England (London, 2001) found that dependency at admission among elderly admitted to residential and nursing home care (using Barthel Index of ADL) was 23% severe dependent and 24% moderate dependent.⁽²¹⁶⁾ In developing communities, in a survey conducted in Thailand (2007), more than a third (36.1%) of older persons reported having at least one functional limitation. This survey also found that individuals over the age of 70 were much more likely than those aged 60 years to be disabled.⁽²⁴⁴⁾ In a Malaysian study done by Aznan et al (2007) reported significantly higher percentages (61.1%) of dependence among elderly in nursery homes in at least one daily activity (ADL) as compared to other Malaysian studies among the elderly in the community which showed a lower functional dependence ranging between(8.0% to 17%).^(226,245,246) In a case-control study done in Brazil (2012) found elderly adults with a functional disability were significantly more likely to be institutionalized than elderly adults without disabilities as (79.4%) of institutionalized adults had limitations in at least one basic activity of daily living compared to (26.8%) of elderly adults living in the

community ($t = 4.23$, $p < 0.001$).⁽²⁴⁷⁾ in Regional study done in Lebanon (2104) reported that the most nursing home residents suffered from functional impairment (64.7%).⁽²⁴⁸⁾ In Egypt, El-Adawy et al (1998) reported nearly 9% of the elderly having difficulty in performing one or more ADLs with the proportion of those with ADL limitations increasing significantly with age; with 22.18% of those in age group 75-79 years and 34.67% of those age 80 or older reporting a limitation with at least one ADL.⁽²⁴²⁾

In line with studies carried out in developed and developing communities, the current study reported that the percentages of dependence were significantly high among elderly resident in elderly homes group than in the community group (74% versus 46%). Moreover, the degree of dependence among elderly resident in elderly homes ranged between (20%) were mostly dependent, (20%) were moderately dependent and (32%) of them were partially dependent. These results confirm that disability increased among older elderly who were more represented in elderly homes. Add on, disability is main risk factor for institutionalization. On the other hand, in longitudinal study done in Germany (1991-1994) reported that there was no significant relationship between dependency (with respect to basic ADL functions) and the rate of institutionalization. The authors explained the failure of an association between ADL limitations and the rate of institutionalization was due to one aspect, which is to be taken into account, that the high mortality rate (42% of the subjects died during the follow-up), which reflects the bad general status of this cohort, could have affected the results. Persons in need of intensive assistance in all basic ADL functions might have died due to severe functional impairment already before they could have entered a nursing home.⁽²⁴⁹⁾

As regard items of activities of daily living, in the current study it was reported significantly higher percentages of dependence among elderly resident in elderly homes group than in the community group in all items of daily living activities except for toileting (there was differences between both groups in toileting but insignificant). It was noticed that physical ambulation is the highest item for dependence (62%) among elderly resident in elderly home followed by toileting and grooming. These results supported by study carried out in United State (1996) reported that two-thirds (66.5%) of residents at nursing homes had problems with mobility such that they received assistance getting around the facility (36.5 %) or were totally dependent on others for movement within the facility (30.0 %).⁽²⁵⁰⁾ Similarly, a study done in Bahrain by Al-Nasir and Al-Haddad (1999) reported that the physical disabilities in elderly resident in elderly homes were mostly related to mobility. In addition, 43% of them were in bed during the day.⁽²¹⁵⁾ Moreover, Aznan et al (2007) reported that the most common functional dependence among elderly in nursing homes was mobility (47.2%).⁽²²⁶⁾ On the other hand, a study in USA done by Achintya et al (1997) from National Nursing Home Survey's (NNHS) reported the ADL that residents required assistance with the most frequently was bathing or showering (96 %), followed by dressing (87 %), using the toilet room (58 %), eating (45 %), and transferring in or out of a bed or chair (24 %).⁽²²²⁾

As regard instrumental activities of daily living, (IADL's) were developed to measure a range of activities that are important for independent living but are more complex than ADL's. Achintya et al (USA, 1997) from National Nursing Home Survey's (NNHS), reported that (86%) of all elderly residents required assistance in at least one of the instrumental activities of daily living.⁽²²²⁾ The current study reported that (86%) of elderly resident in elderly homes had a degree of dependence in IADLS

as; (42%) were partially dependent and (44%) were completely dependent. Moreover, the percentages of complete dependency in elderly resident in elderly homes were significantly higher than among elderly in community group (44% versus 2%). Also, it was reported significantly higher percentages of dependence among elderly resident in elderly homes group than in the community group in all items of instrumental daily living activities except for using telephone as following; transportation (70% vs 20), food preparation (80%vs 34%) and shopping (80%vs 48%).

The instrumental activities of daily living as; doing laundry, food preparation, shopping and housekeeping showed a highest percentages of dependence among elderly resident in elderly home (84%,80%,80% and 72% respectively). These might explained by elderly homes staff doing all of these activities which make elderly resident in elderly homes more dependent in these activities.

Self-esteem is an important aspect of the adaptive processes at all stages of life. In a Cohort-Sequential Longitudinal Study (2009) Latent growth curve analyses indicated that self-esteem follows a quadratic trajectory across the adult life span, increasing during young and middle adulthood, reaching a peak at about age 60 years, and then declining in old age. Women had lower self-esteem than did men in young adulthood, but their trajectories converged in old age. Whites and Blacks had similar trajectories in young and middle adulthood, but the self-esteem of Blacks declined more sharply in old age than did the self-esteem of Whites. More educated individuals had higher self-esteem than did less educated individuals, but their trajectories were similar. Moreover, the results suggested that changes in socioeconomic status and physical health account for the decline in self-esteem that occurs in old age.⁽⁹⁴⁾ Baltes & Mayer (1999) stated that the transition from midlife to old age, which involves high levels of instability, resulting from changes in roles (retirement, out-of-date work skills), relationships (spousal death, decreased social support), and physical functioning (declining health, memory loss, reduced mobility), as well as a drop in socioeconomic status these changes are likely to contribute to a normative decline in self-esteem.⁽²⁵¹⁾ Similarly, Robins et al. (2002) found that self-esteem levels were high in the youngest age group and declined sharply beginning in the mid-60s.⁽²⁵²⁾ On the other hand, Gove et al. (1989) found that their oldest cohort (age 75 and older) had the highest level of self-esteem.⁽²⁵³⁾ Midway between the two extremes, Wylie (1979) concluded that self-esteem does not show systematic increases or decreases at any point in the life span.⁽²⁵⁴⁾

In the current study the majority of elderly (100 elderly subjects) had high Self-esteem (77%). This finding agrees with the study of Gove et al. As regard differences between the two studied groups, elderly resident in elderly homes showed a higher percentage of low Self-esteem than those living in community (26% vs 20%) although, this difference was insignificant. This result might be explained by the study carried out by Baltes & Mayer as all factors which lower the elderly Self-esteem were prominent among elderly resident in elderly homes.

Age is an important determinant of mental illness. The overall prevalence of mental and behavioural disorders tends to increase with age due to the normal ageing of the brain, deteriorating physical health and cerebral pathology.⁽²⁵⁵⁾ Lack of family support and restricted personal autonomy are other important contributing factors. Psychiatric morbidity among elderly people is frequent, severe and diverse. Disorders

such as depression, anxiety, cognitive have a high prevalence in this segment of the population.⁽¹⁰²⁾

The prevalence of depression in elderly varies widely between country to others and in the same country depending on the method of diagnosis and the type of institution from which the sample is dselecte. World Health Organization (2001) show that up to 20% of elderly cared for in the community and about 37% of elderly cared for at the primary level are suffering from depression.⁽²⁵⁶⁾ The In developed communities as in U.S. Blazer et al (2003)⁽²⁵⁷⁾ and Djernes et at (Scandinavia, 2006)⁽²⁵⁸⁾ estimated major depression in older people living in the community range from 1% to 5% and among those in long-term care facilities were as high as 42%. Add on, Baldwin et al (2008)⁽¹⁶²⁾ reported prevalence rates in community-dwelling populations between 6% and 20%. In developing communities as Malaysia , Aznan el at (2007) reported that the percentage of depression among the elderly residents in nursing home was (22.2%).⁽²²⁶⁾ In an Indian study, Singh et al (2012) in a comparative study found that 25% of the people at old age homes and 21.7% of elderly in general population had depression but no significant difference between them.⁽²⁵⁹⁾ Another study in Brazil (2014) reported the prevalence of depressive symptoms in Brazilian institutionalized elderly is 49.76%.⁽²⁶⁰⁾ in Nepal, Ranjan et al (2013) reported depressive disorder is highly prevalent among the elderly population residing in the old age home in Kathmandu as (47.33%) of them had depression.⁽²³⁵⁾ Psychiatric morbidity in the Arabic world is underestimated. in UAE (2010) depression disorders among older adults in general population were (20.2%).⁽²⁶¹⁾ In Lebanon, Unofficial data in different nursing home facilities revealed 25% to 30 % level of depression among residents.⁽²⁶²⁾ In an Egyptian study done by Abd El-Rahman (2013) found depression among elderly in institution group, collectively constituted (90%), versus (74%) for that of in non-institution group and the statistical analysis showed significant differences between the two study groups ($\chi^2=13.2$ and $p= 0.001$).⁽²²³⁾ El Kady and Ibrahim (2013) reported depression was more prevalent among hospitalized (21%) and institutionalized elders (24%) than among those living in the community (6%).⁽²³⁴⁾ In line with the previous studies, the current study revealed that the rate of depression (based on Beck Depression Inventory) in elderly homes was higher than community group (74% versus 68%) but the differences was insignificant. These could be attributed to higher prevalence of widow, physical disability, loneliness and social isolation among elderly resident in elderly homes, which are an important stressful factors for depression. Further, in the present study, it was noticed that rate of borderline depression (based on IDA Scale) and depression (based on Beck Depression Inventory) in community group and in elderly homes group were higher than other international studies in developed and developing countries and similarly with Abd El-Rahman (2013) study. This may be explained by the sense of insecurity and instability during the period of collecting the sample (2013) as the majority of elderly showed worry about the future of their country after the Arabic spring.

Anxiety one of the most common mental health concerns experienced by older people, Despite it is usually unrecognized by clinicians, which could be due to the fact that anxious older people mostly present with physical complaints, and often anxiety is concomitant with depression.⁽²⁶³⁾ Australian Bureau of Statistics (2008) reported that anxiety disorders are more prevalent than other affective disorders in people aged 65 and over⁽²⁶⁴⁾ In Germany, a study done by Wittchen (2002) reported anxiety disorders in about 4% to 10% of community samples of older adults, and anxiety symptoms that do not meet criteria for a disorder affect 15% to 20%.⁽¹⁷⁵⁾ Bryant et al

(2008) estimated that approximately 10% of community dwelling older people have a diagnosable anxiety disorder.⁽¹⁷⁴⁾ On the other side, a higher prevalence of anxiety was reported among elderly home residents. Rodda et al (2008) reported that older people living in residential aged care have a higher rate of anxiety disorders than other groups of elderly people.⁽¹⁷⁷⁾ Junginger et al (1993) reported higher prevalence among the homebound, nursing home residents, and patients with chronic illness.⁽²⁶⁵⁾ A study carried out in Sydney (Australia, 1996) reported that about one third of nursing home residents experiencing generalized anxiety symptoms.⁽²⁶⁶⁾ In a Regional study done in UAE (2010) found that anxiety disorders among elderly in UAE in general population were (5.6%).⁽²⁶¹⁾ In the current study, elderly residents in elderly homes had higher percentages of anxiety (moderate and severe) than elderly living in community (18% in compare to 10%). These might be explained by increase prevalence of physical disabilities and memory difficulties in elderly residents in elderly homes than elderly living in community.

The prevalence of dementia increases with age but it is not a typical part of ageing. In developed community, as in Europe, the European dementia Consortium (Eurodem) found prevalence of dementia rose from 1% for 60–65 year olds to 13% for 80–85 year olds and 32% for 90–95 year olds.⁽²⁶⁷⁾ In an Australian study done by Jorm & Henderson (1998) estimated that the prevalence of dementia is 0.7% at age 60-64, increasing to 23.6% at age 85 and over.^(268.) Another study carried out in Sydney (Australia, 1996) reported that the majority of nursing home residents are cognitively impaired (80%).⁽²⁶⁶⁾ Ortiz et al ⁽²⁶⁹⁾ and Chen et al. ⁽²⁷⁰⁾ found that cognitive changes in hospitalized elderly were predicted by age. In developing community, as in an Indian study done by Seby et al.(2011) reported a prevalence of dementia among elderly was 14.9%.⁽²⁷¹⁾ Another Indian study by Nagaraj el at (2012) used MMSE (Mini Mental Status Examination) and identified mild cognitive impairment in 20% of elderly living in community in comparing to 24% in old age home resident.⁽²¹⁷⁾ in a Malaysian study done by Aznan el at (2007) Based on the ECAQ (Elderly Cognitive Assessment Questionnaire) reported that the percentage of cognitive impairment was 33.3% among elderly resident in nursing homes and this finding is higher if compared to other community's studies.⁽²²⁶⁾ Similarly, in an Egyptian study by Esmayel et al (2013) reported significant association in cognitive impairment was noticed only with age.⁽²⁷²⁾ Moreover, Khater and Abouelezz (2011) identified cognitive impairment in 38.3% of their 120 elderly living in elderly homes.⁽²⁷³⁾

From all above the percentage of cognitive impairment was higher among older elderly group and among elderly resident in nursing homes than those in the community. This finding agree with the present study, as there was a significantly higher percentage of pre-dementia among elderly resident in elderly homes than those living in the community (22% versus 6%). On the other hand, in the current study we found that there was no reported dementia score among both groups of the study. Similarly, in an Indian study carried out by Singh and kumar (2012) revealed that only one patient among 120 elderly (60 elderly living in old age homes and 60 elderly from the general population) had dementia (0.9%) of Alzheimer's type. ⁽²⁷⁴⁾ They explained this result by the limited size of study sample. The absence of dementia in the present study could be attributed to the small sample size. Add on, policy of elderly homes that refuse the admission of elderly people with dementia.

As regard memory, in Columbia (USA) a study done by Brickman and Stern (2009) found that Short-term memory (recent memory) appears to remain relatively stable until about age 70 years, at which point it begins to drop and semantic abilities (remote memory) appear to remain relatively stable, at least until late life. ⁽²⁷⁵⁾ Krauss and Altman (1996) found that people residing in nursing homes had higher percentages of short-term memory loss than long-term memory loss (15.4% versus 2.6%). ⁽²⁵⁰⁾ Consistent with the previous studies, the present study revealed that remote memory were intact in the majority of both groups of elderly (84%) for community group and (80%) for elderly homes group. On the other side, the percentage of intact recent memory (good score) were higher in elderly living in community than those resident in elderly homes (70% versus 40%). Along with the previous, elderly resident in elderly homes had a higher percentages of recent memory deterioration (poor score) than remote memory deterioration (34% versus 4%). These results can be explained that in our study elderly aged 80 years and over were prominent in elderly homes. So the recent memory deterioration was significantly higher among them.

SUMMARY

Aging is the accumulation of changes in a person over time. Aging in humans refers to a multidimensional process of physical, psychological, and social change. Good health is the key for older people to remain independent and to play a part in family and community life. Elderly is an important part of all human societies reflecting the biological changes that occur, but also reflecting cultural and societal conventions. Older people make important contributions to society as family members, volunteers and as active participants in the workforce. The wisdom they have gained through life experience makes them a vital social resource.

Traditionally, older people are cared for mainly by family, especially spouses and children. Family considers the most important source of financial or social support for elderly. Increasingly in modern societies, elderly care is now being provided by government or charitable institutions. The reasons for this change include decreasing family size, the greater life expectancy of elderly people and the geographical dispersion of families.

The aim of the current research is to study the differences in psycho-social profile in elderly living in the community and those residents in elderly homes in Alexandria. The studied sample was one hundred elderly subjects (65 years and above). They were divided into two equal sub samples; the first fifty elderly subjects were living in the community and the second fifty were resident in elderly homes in Alexandria.

To accomplish the aim of this study, four tools were used to collect the data.

- Tool I:** Structured interviewing questionnaire (personal data, socio-demographic characteristics, Social activities) to collect descriptive data about the studied elderly sample.
- Tool II:** Physical Self-Maintenance Scale, which includes Activity of Daily Living Scale (ADLs) and Instrumental Activity of Daily Living Scale (IADLs) for assessment of disability of the studied elderly sample.
- Tool III:** Psychological tests (Cooper Smith self-esteem inventory, Beck's Depression Inventory Scale, Taylor's Manifest Anxiety Scale, Irritability, Depression, Anxiety (IDA) Scale, memory tests (Immediate, recent and remote) and Dementia Screening Scale.) for assessment of psychological state of the studied elderly sample.
- Tool IV:** Comparing between profile of elderly living in the community and elderly resident in elderly homes as regard all mentioned above.

The main results obtained from this study were as follows:

Tool I: Descriptive data of the studied elderly sample:

A- Personal data of the studied elderly sample:

- The most frequent age represented among the studied elderly sample was between 65 years to less than 75 years (60%), with a mean of (73.94 ± 7.61) .
- Nearly half of the studied elderly sample was widow (47%), one third was married (33%) and the remaining (20%) were either single or divorced.
- About one half (52%) of the sample had three or more offspring and (23%) didn't have any offspring.

B-Socio-demographic characteristics of the studied elderly sample:

- One third of the studied elderly sample (36%) was highly educated, (28%) were middle education, (25%) were basic education and (11%) were illiterate.
- The majority of the studied elderly sample (59%) were retired compared to (15%) were working.
- The majority of the studied elderly sample (78%) had pension from governmental sector compared to (14%) had pension from private sector. One fifth (21%) of them had financial help from others.
- One third of the studied elderly sample (31%) had high annual income, one fourth (26%) had low annual income and (43%) had middle annual income.

C- Social activities of the studied elderly sample:

- The majority of outdoor visits done by the studied elderly sample to their offspring (62%) and relatives (46%) and the majority of indoor visits to the studied sample done by their offspring (72%) and relatives (65%)
- Nineteen percent of the studied elderly sample can't do any outdoor visits.

Tool II: Physical Self-Maintenance Scale (ADLs and IADLs) for assessment of disability of the studied elderly sample:

- Two fifth (40%) of the studied elderly sample was completely independent in ADLS compared to (36%) of them was partially dependent.
- Toileting and ambulatory activity were the highest ADLS for dependence among the studied elderly sample (47% and 46% respectively).
- Feeding and dressing were the highest ADLS for independence among the studied elderly sample (76% and 74% respectively).
- More than half (56%) of the studied elderly sample was partially dependent in IADLS, (23%) of them was completely dependent and (21%) was completely independent.
- Laundry and housekeeping were the highest IADLS for dependence among the studied elderly sample (78% and 66% respectively).
- Responsibility for own medications, ability to handle finance and ability to use telephone were the highest IADLS for independence among the studied elderly sample (85%, 76% and 76% respectively).

Tool III: psychological tests for assessment of psychological state of the studied elderly sample:

- The majority (77%) of the studied elderly sample had high level of self-esteem.
- The majority (71%) of the studied elderly sample had certain degree of depression; (35%) had score of mild depression, (29%) had score of moderate depression and (7%) had score of severe depression.
- Two fifth (38%) of the studied elderly sample had certain degree of anxiety; (24%) had score of mild anxiety, (12%) had score of moderate anxiety.
- The majority (82%) of the studied elderly sample had score of good remote memory compared to nearly one half (55%) of them had score of good recent memory.
- About one half (51%) of the studied elderly sample had a score of borderline dementia and nearly one sixth (14%) of them had score of pre dementia.

Tool IV: Comparing between profiles of elderly living in the community and elderly resident in elderly homes:

A- Descriptive data of the studied elderly sample:

- Oldest old age was more frequent represented among elderly resident in elderly homes than in the community group as (26%) of elderly homes resident their age were 85years and over as compared to none in the other group. These differences were highly statistically significant ($\chi^2=18.292$ and $p = 0.001$).
- The mean age of elderly resident in elderly homes was 77.0 ± 8.63 years (median=76years) as compared to 70.88 ± 4.85 years (median= 69.50 years) in the community group.
- Females were more represented in elderly homes than males (52% versus 48%) while in the community group the ratio was reversed as male (52.0%) and females (48.0%). But these differences were insignificant.
- The majority (62%) of elderly resident in elderly homes were widow as compared to one third (32%) of those living in the community, while the majority (58%) of elderly in the community group were married as compared to only (8%) of those living in elderly homes. These differences were highly statistically significant ($\chi^2=33.324$ and $^{MC}P < 0.001$).
- Number of offspring was significantly higher among elderly living in the community than elderly resident in elderly homes as two fifth (40%) of the elderly resident in elderly homes hadn't any offspring as compared to only (6%) in the community group. The majority (68%) of elderly living in the community had three or more offspring as compared to (36%) in the elderly homes group. these differences were statistically significant ($\chi^2=20.129$ and $^{MC}P= 0.001$).
- There was no significant difference between the two elderly groups as regards their level of education.
- The majority (72%) of elderly resident in elderly homes were retired as compared to (46%) of the community group, while (30%) of elderly living in the community were working in private sector as compared to none in the elderly homes group. these differences were statistically significant where ($\chi^2=18.018$ and $p < 0.001$).
- There was no significant difference between the two groups as regard to their source of income except for Salary from the private sector as (30%) of elderly

living in the community had salary from private sector as compared to none in elderly homes.

- The percentages of elderly which had low annual income were higher in elderly resident in elderly homes than those living in the community (30% versus 22%) and (26%) of elderly resident in elderly homes received help from others in compare to (16%) for community group .The differences in annual income between the two groups were insignificant.
- One third (34%) of elderly resident in elderly homes didn't do any outdoor visits as compared to (4%) of elderly living in the community and this difference was highly statistically significant ($\chi^2=14.620$ and $p < 0.001$).
- Indoor visits done by relatives were higher to elderly homes group than to community group (74% compare to 56%).

B- Assessment of disability of the studied elderly sample:

- The percentages of dependence in ADLs were significantly high among elderly resident in elderly homes group than in the community group (74% versus 46%). Moreover, the percentages of dependence among elderly resident in elderly homes ranged between mostly dependent (20%) and moderate dependent (20%) and only (26 %) were complete independent as compared to (2%, 4% and 54% respectively) for community group.
- There were significantly higher percentages of dependence among elderly resident in elderly homes group than in the community group in all ADLs except for toileting as following; dressing (44% vs 8%), physical ambulation (62% vs 30%), grooming (56% vs 24%), feeding (40% vs 8%), bathing (50% vs 24%) and toileting (58%vs 36%).
- physical ambulation is the highest activity for dependence (62%), and especially in complete dependence (18%), among elderly resident in elderly home followed by toileting (58%), grooming (56%), bathing (50%) , dressing (44%) and lastly in feeding (40%).
- The majority (86%) of elderly resident in elderly homes was dependent (either partially or completely) in IADLs and the percentages of completely dependent in elderly resident in elderly homes were significantly higher than among elderly in community group (44% versus 2%).
- Laundry, food preparation, shopping, housekeeping and transportation are the highest IADLs for dependence among elderly resident in elderly home (84%, 80%, 80%, 72% and 70% respectively).
- There was significantly higher percentages of dependence among elderly resident in elderly homes group than in the community group in all IADLs except for using telephone as following; transportation (70% vs 20), food preparation (80%vs 34%) and shopping (80%vs 48%).

C- Assessment of psychological state of the studied elderly sample:

- The score of very high self-esteem was higher in the elderly home group than in the community group (42% vs 36%) and the scores of low and very low self-esteem in the elderly home group were also higher than in the community group (26% vs 20%).
- The score of mild depression was higher among elderly living in the community than in elderly resident in elderly homes (38% vs 32%). On the other hand, the

score of severe depression was higher among elderly resident in elderly homes than in elderly living in the community (12% vs 2%).

- About one half (46%) of elderly resident in elderly homes had certain degree of anxiety as compared to (30%) of elderly in community group.
- The scores of inwardly directed irritability and borderline were higher among elderly subjects resident in elderly homes than between elderly subjects living in the community (10% and 30% compared to 4% and 24% respectively).
- The score of borderline outwardly directed irritability were higher among elderly subjects resident in elderly homes than between elderly subjects living in the community (28% compared to 14%)
- The majority of elderly in both groups had score of good remote memory; (80%) for elderly homes group and (84%) for community group.
- There was statistically significant difference between the two groups regarding their recent memory as the majority (70%) of the studied elderly subjects living in the community had good recent memory score as compared to (40%) for elderly resident in elderly homes group. ($\chi^2=11.028$ and $P= 0.004$)
- One fifth (22%) of the studied elderly subjects resident in elderly homes had score of pre dementia as compared to only (6%) for community group. These differences were statistically significant ($\chi^2=5.991$ and $^{MC}p=0.048$).

CONCLUSIONS

From the results of the present study, it was concluded that:

- The percentage of old age (75-84 years) and oldest-old age (85years and above) were more prominent in elderly homes than in the community.
- Female represented in elderly homes more than male.
- The majority of elderly homes resident were widow.
- The majority of elderly resident in elderly homes had less number of offspring than those in the community.
- The majority of elderly depend on pension as a source of income.
- The majority of the elderly lost their independence in doing activities of daily living (60%) and instrumental activities of daily living (79%).
- Disabilities in (IADL and ADL) were predominant in elderly homes group than in community group.
- Disabilities in IADL among elderly resident in elderly homes are more prominent than disability in ADL (86% vs 74%).
- The most daily living activities in which elderly lost their independence were Physical ambulation and toileting.
- The most instrumental daily living activities that elderly were independent in are using telephone, taking own medication and handling finance.
- The most instrumental activities of daily living in which elderly lost their independence were doing laundry and shopping.
- The majority of elderly had high level of self-esteem.
- Elderly in both groups had high percentage of depression score, although the percentage of severe depression score was higher in elderly homes group.
- Elderly resident in elderly homes had higher percentage of anxiety score than those who living in the community.
- Elderly living in the community had good recent memory score than those residents in elderly homes.
- The majority of elderly in both groups had good remote memory score.
- Elderly resident in elderly homes had a higher percentage of pre dementia score than those who living in the community. None of the elderly in this study had dementia score.