

STRESSES SELF- ASSESSMENT AMONG COMMUNITY DWELLING OLDER ADULTS

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Abstract:

Stress is a common problem facing older adults. It is a complex, multidimensional, and multifactorial phenomenon with huge repercussions on functioning, quality of life and elderly people outcomes. Moreover, 75% of older adults reported experiencing moderate to high levels of stresses in 2016. **Aim:** to identify the Stresses Self- Assessment among community dwelling older adults. **Method:** A descriptive design was used. **Setting:** This study was carried out at elderly clubs and elderly homes affiliated to the Ministry of Insurance and Social Affairs in Damamhur City. **Subjects:** 190 elders, 30 elderly persons from elderly homes and 160 from elderly clubs. **Tools:** Data was collected using 4 tools, Tool I: Socio demographic and clinical data structured interview, Tool II: Perceived Stress scale, Tool III: Ardell Wellness Stress Scale, Tool IV: Coping Resources Inventory Scale. **Results:** the study revealed that about three quadrant of the studied elders were very often felt nervous and stress, slightly more than one quarter of the studied elders were below average stresscoper. **Conclusion:** Based on findings of the present study, it can be concluded that stress is common among elderly population. The prevalence of stress was high and significant number of elders has been found to be suffering from stress, below average stress coping and having negative effects on their wellness because of their stresses so, candidate for additional training in how to deal with stress. **Recommendations:** Developing educational program for elders about stress, stressful life events, effect of stress on health and wellbeing, consequences of stress and stress coping strategies.

Key words: stresses assessment, community dwelling, Elderly.

Introduction:

The ageing process represents the universal biological changes that occur with age and are unaffected by disease and environmental influences. It reduces physiological capacity, which makes the elderly more susceptible to many health threats (Lepeule, Bind, Baccarelli, Koutrakis, Tarantini, Litonjua, Sparrow, Vokonas&Schwartz 2014). Also, it differs because of a number of reasons such as health problems, functional abilities, personal resources or the amount of social support (Hautsalo et

al.2012).

The global population is rapidly ageing. Between 2013 and 2050, the proportion of the world's older adults is expected to double from about 11.7% to an estimated 21.1% (World Health Organization (WHO) 2013). The extension of average life expectancy and consequent increase in the population of older adults will lead to the emergence of various social problems (Jeste et al.2013). In addition, society has a fixed perception that as older adults' physical, cognitive

and psychological functions gradually decline, their lives become helpless and they impose a burden on society (Wells, 2014). Factors that influence successful ageing are reported to reflect cultural differences, including not only general characteristics but also physical health, perceived health status, leisure activities, social support, depression, self-efficacy, resilience and stresses (Byun & Jung 2016).

Older age is generally a time during which one experiences various stress-promoting incidents in accordance with an increase in age, such as the decline of physical functions, the risk of chronic diseases, a reduction in economic power, and social isolation and loneliness (Cha et al. 2012). The majority of stresses induced in older age are caused by one's everyday lifestyle, which is strongly influenced by both chronic and minor problems and is not engendered by particular incidents (Byun & Jung, 2016). Daily stresses accumulate little by little in one's daily life and have a continuous negative effect on the individual's health and well-being (Whitehead & Bergeman, 2012). Chronic daily stresses can lead to physical and mental disabilities that have an adverse effect on the health and well-being of older adults and exert a negative influence on successful ageing (Koo et al. 2014). There are two main types of stresses that impact the body and the aging adult responds differently depending on which type of stresses is occurring. The first form of stresses is acute stresses. It can be caused by reacting to an event such as having a new job interview, being involved in a fender bender. The second type of stresses that may impact health is called chronic stresses. This form of stresses occurs over a period of time and becomes persistent. Chronic stresses can cause health problems which include headaches or insomnia. Aging adults who have a difficult time getting out of bed in

the morning, frequent headaches or have inability to sleep at night should look at the possibility of stresses and the impact they may be having on their life. By helping aging adults identify which type of stresses they are experiencing and providing them with effective stresses management techniques, it may prevent future health problems (Chang, 2015).

Many older adults face a variety of daily stressors, such as living on a fixed income, adjusting to retirement, bereavement, loss of mobility, coping with developmental changes associated with aging, caretaking responsibilities, exposure to patronizing talk in intergenerational encounters, and relocation. Each of these stressors may negatively affect older adults on a daily basis. This is also true of retirement, bereavement, loss of mobility, and a variety of other stressors commonly experienced by older adults (Heok & Mahendran 2016). Stresses can have both positive and negative consequences if not well managed. It is important to investigate the stresses as it is difficult to handle stresses as an elderly adult. High levels of stresses are believed to affect elders' health and body functions. If the stresses are not dealt with effectively, feelings of loneliness, nervousness, sleeplessness and worrying may result. It is important to look at the different factors of stresses to help them cope effectively (Vasunilashorn, Lynch, Gleib, Weinstein & Goldman 2014). Stresses Management involve, at the simplest level: recognizing the symptoms of stresses, identifying the causes, taking action to address the causes and thereby reduce the symptoms where necessary, taking interim steps to relieving the symptoms until the underlying causes have been addressed, looking at old age from a positive perspective, and once pain from illness is lessened and one is able to adapt well and handle the process of ageing, it is possible to age successfully; because of this, interest in successful ageing has gradually increased (Seaward, 2016).

Aim

The aim of the study was to identify Stresses Self- Assessment among community dwelling older adults.

Research question:

What are the Stresses Self- Assessment among community dwelling older adults?

Subjects and Method

Study design: Descriptive design was used in this study.

Setting: The study was carried out at elderly clubs and elderly homes affiliated to the Ministry of Insurance and Social Affairs in Damanhur City, named al-faddy elderly club, al- rabei elderly club, al- safwa elderly club, al-wafaa elderly home, al- amel elderly home and al-rabei elderly home.

Subjects

The subjects of the study were including all elders attending the previously mentioned settings within three months (N=190) and were selected according to the following criteria: Age 60 years and above, able to communicate, willing to participate in the study and able to read and write.

Study tools: In order to collect the necessary information for the study, three tools were used to collect the necessary data.

Tool I: demographic and clinical data structured interview sheet**Tool I: Demographic structured interview sheet**

This tool was developed by the researcher to assess socio- demographic characteristics and medical status of elders and includes 12 items and divided into two main parts.

Part I: socio- demographic characteristics of the study subjects. It contains 7 items including age, sex, marital status, residence, level of education, occupation before retirement and income.

Part II: medical profile of elders' status questionnaire sheet:

It consists of 4 items which include: -

- Present medical diseases e.g. respiratory system diseases, heart and artery diseases, hypertension, renal diseases, diabetes, skeletal and digestive system diseases.
- Current pharmacological treatment which include prescribed or not prescribed and type of medication e.g. analgesic, vitamins, minerals, diuretics and antibiotics.
- Hospital admission during the last year and the cause of last hospital admission.
- Present complains which include 1) present symptoms e.g. headache, tense muscles, sore neck and back, fatigue, anxiety, worry, phobias, difficulty falling asleep, irritability, insomnia, bouts of anger/hostility, boredom, depression, eating too much or too little, diarrhea, cramps, gas, constipation, restlessness, itching and tics.2) duration of symptoms e.g. less than one week, from one week to four weeks and more than four weeks.

Tool II: Perceived Stress Scale (PSS)

This scale was developed by Sheldon cohen in 1983. It will be used to measure stress. It consists of 10 items and the total score is calculated by finding the sum of 10 items. The PSS has a range of scores between 0 and 40. A higher score indicates more stress. Scores ranging from 0-13 would be considered low stress. Scores ranging from 14-26 would be considered moderate stress. Scores ranging from 27-40 would be considered high perceived stress (Cohen S, Kamark T &Mermelstern R 1983).

Tool III: The Ardell Wellness Stress Test

This test was developed by Don Ardell (1977) and updated by Don Ardell in 2011 and used for stress assessment. It is unique in its holistic approach to stress. It includes a multi-dimensional assessment of health

and understanding stress. The Ardell Wellness Stress Test incorporates physical, mental, emotional, spiritual, and social aspects of health for a balanced assessment. It consists of 25 items. Rate elder's satisfaction with each item by using this scale: + 3 = Ecstatic, + 2 = Very happy, 0 = Indifferent, -1 = mildly disappointed, - 2 = Very disappointed, + 1 = mildly happy, - 3 = completely dismayed.

Scores ranging from + 51 to + 75 would be considered a self-actualized person, scores ranging from + 25 to + 50 would be considered to deal creatively and efficiently with events and circumstances, scores ranging from + 1 to + 24 would be considered a wellness-oriented person, scores ranging from 0 to - 24 would be considered a candidate for additional training in how to deal with stress, scores ranging from - 25 to - 50 would be considered a candidate for counseling and too pessimistic and scores ranging from - 51 to - 75 would be considered a candidate for major psychological care with virtually no capacity for coping with life's problems (Matheny KB & McCarthy CJ 2000).

Tool IV: The Coping Resources Inventory (CRI)

This inventory was developed by Hammer and Marting (1988). It measures how people handle stress, conceived in five basic ways which correspond to the measure's scales. The five CRI scales are Cognitive (COG), Social (SOC), Emotional (EMO), Spiritual/Philosophical (S/P), and Physical (PHY). It consists of 32 questions. Each question should be answered as honestly as possible. Sum of scores for each group of questions represents a scale. A perfect score on each scale would be 4. Sum of the scale scores can be interpreted by 3.5+ suggests superior stresscoper, 2.5-3.4 suggests above average

stresscoper, 1.5-2.4 suggests average stresscoper and less than 1.5 suggests

below average stresscoper(Matheny KB &Curlette WL 2011).

Method

- Official approval for conducting the study was obtained from the responsible authorities.
- The director of each elderly club and elderly home was informed about the purpose of the study & time of data collection.
- The tool I was developed by the researcher after the reviewing of relevant literature.
- Tool II (Perceived Stress Scale (PSS)), tool III (The Ardell Wellness Stress Test) and tool IV (The Coping Resources Inventory (CRI)) were translated into Arabic and were tested for content validity of the tools (tool II, III, IV) was identified through literature reviewing extensively about stress self- assessment among elders. The content of data collection tools was validated by a jury of seven experts in medical and nursing (gerontological, psychiatric and community health nursing) experts from Mansoura, Damanhur and Alexandria University to check clarity of sentences, appropriateness of content, sequence of items, accuracy of scoring, relevancy and coverage of the questions. Accordingly, their recommended modifications had been done and the final form was used for data collection and tools reliability with cronbach's alpha test = 0.86.
- Verbal and informed consent was obtained after explanation of the purpose of the study and assured that data collection will be used only for the purpose of the study.
- Each elderly was interviewed individually to collect the necessary data using the study tools.
- The Pilot study was carried out on (10%) of older adults (will be excluded

from the sample size) to evaluate the clarity and applicability of the tools that were used in the study for data collection. According to the data analysis of pilot results, modifications of the tools were done.

Ethical consideration

- Prior to the study, written consent was obtained from each older adult enrolment in to the study, and after clarification of the nature purpose of the study.
- The investigator emphasized participation is voluntary and each participant has the right to withdraw from the study at any time.
- Anonymity, privacy, safety and confidentiality were absolutely assured throughout the whole study.

Statistical analysis

• Data were analyzed using the statistical package of social science “SPSS” software version 20.0. The quantitative data were presented as numbers, percentages. The P value of < 0.05 indicate a significant result while, P value > 0.05 indicates a non-significant result. Tool II (Perceived Stress Scale (PSS)), tool III (The Ardell Wellness Stress Test) and tool IV (The Coping Resources Inventory (CRI)) were translated into Arabic and The content of data collection tools were validated by a jury of seven experts in medical and nursing(gerontological, psychiatric and community health nursing) experts from Mansoura, Damanhur and Alexandria University to check clarity of sentences, appropriateness of content, sequence of

items , accuracy of scoring, relevancy and coverage of the questions. Accordingly, their recommended modifications had been done and the final form was used for data collection and tools reliability with Cronbach’s alpha test = 0.86.

Results

Table (1): Shows the distribution of elders according to their socio-demographic characteristics. Out of 190 elderly people, 84.2% were in elderly clubs and 15.8% were in elderly homes. Females were more prevalent in the study sample than males. They constituted 55.8% of the studied elders, while only 44.2% were males. All of them were from urban areas. The age of the studied elders ranged from 60-70 years with average 65.51 ± 3.64 years.

Concerning marital status 68.4% of the studied elders were married, 7.4% were single and 6.8% were divorced. Regarding the educational level, the table shows that read and write was prevailing among 37.4% of the studied elders, 32.6% had mideducation while 30.0% completed to university.

Concerning elder's working before retirement, it was observed that the majority of the studied elders (73.7%) were working. All of not working elders were females.

Regarding working now, it was observed that the majority of the studied elders 66.7% were skilled work, 33.3% were private work. Regarding the income reported by the studied elders, the table shows that 48.9% had enough and 13.7% had enough and save.

Table (1) Socio-demographic characteristics of the studied elders(N=190)

Items	N =190	%
Suffering from disease		
Yes	190	100.0
Type of disease#		
Hypertension	120	63.2
Heart diseases	55	28.9
DM	54	28.8
Renal diseases	49	25.8
GIT diseases	32	16.8
Respiratory diseases	17	8.9
Medication use		
Yes	190	100.0
Type of medication#		
Analgesic	186	97.9
Antihypertensive	127	66.8
Diuretics	102	53.7
Antibiotic	69	36.3
Vitamins and minerals	57	30.0
Antacid	55	28.9
Anticoagulant	54	28.4
DM medication	49	25.8
Neurologic medication	35	18.4
Ant rheumatic	27	14.2
Cortisone and anti-inflammatory	26	13.7
Liver support	21	11.1
Hospital admission		
No	157	82.6
Yes	33	17.4
Cause of admission n=33		
%		
Hypertension	13	34.4
Renal disease	8	24.2
Heart disease	5	15.2
Diabetes mellitus	5	15.2
Skeletal disease	2	6.1

more than one answer

Figure (1): The figure shows the percentage distribution of elders according to their complaint, out of 190 elderly people, it was observed that all the studied elders 100% had stress symptoms. The highest percentage was for headache 100% but the lowest percentage was for boredom 4.2% as symptoms of stress.

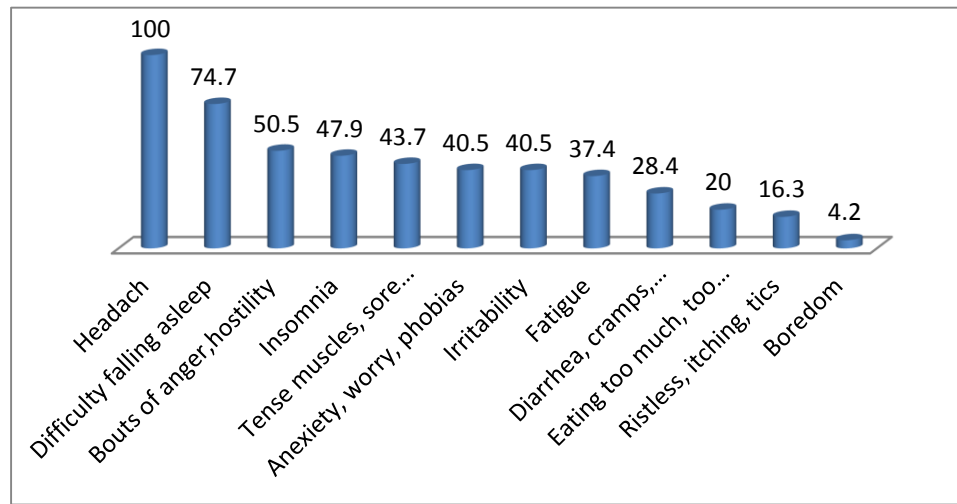


Figure (1): Percentage distribution of the studied elders according to their complaint

Table (3): the table show the duration of stress symptoms complaint, it was noticed that 38.9% had complained since one week to 4 weeks and 26.3% had complained for less than one week.

Table (3) The duration of stress symptoms complaint

Duration of stress symptoms complaint	N	%
1 -4 weeks	74	38.9
> 4 weeks	66	34.7
Less than one week	50	26.3

Table (4):The table shows the distribution of the studied elders 190 according to perceived stress scale (PSS) and it was noticed most of the studied elders, out of 190 elderly person, 93.2% were fairly often being upset because of something that happened unexpectedly, 91.1% fairly often

felt that they were unable to control the important things in their life, 87.4% fairly often had been angered because of things outside control, 86.8% fairly often felt difficulties were piling up so high that they could not overcome them, 74.7% were very often felt nervous and stress in the last month, 62.6% almost never had been able to control irritations in their life, 57.4% sometimes felt confident about their ability to handle their personal problems, 53.2% sometimes felt that they were on top of things, 48.9% sometimes found that they could not cope with all the things that they had to do, 45.8% sometimes felt that things were going their way and no one of the studied elders answered never for any question.

Table (4) Distribution of the studied elders according to perceived stress scale (PSS)

Items of the scale	Response				
	never	almost never	Sometimes	fairly often	very often
In the last month, how often have you been upset because of something that happened unexpectedly?	–	–	10 (5.3%)	177 (93.1%)	3 (1.6%)
In the last month, how often have you felt that you were unable to control the important things in your life?	–	5 (2.6%)	9 (4.7%)	173 (91.1%)	3 (1.6%)
In the last month, how often have you felt nervous and stressed ?	–	–	12 (6.4%)	36 (18.9%)	142 (74.7%)
In the last month, how often have you felt confident about your ability to handle your personal problems ?	–	3 (1.6%)	109 (57.3%)	78 (41.1%)	–
In the last month, how often have you felt that things were going your way?	–	10 (5.3%)	87 (45.8%)	80 (42.1%)	13 (6.8%)
In the last month, how often have you found that you could not cope with all the things that you had to do?	–	5 (2.7%)	93 (48.9%)	89 (46.8%)	3 (1.6%)
In the previous month, how many times have the potency to rule agitations in your life?	–	11 (62.6%)	7 (3.7%)	64 (33.7%)	–
In the last month, how often have you felt that you were on top of things?	–	53 (27.9%)	101 (53.2%)	36 (18.9%)	–
In the last month, how often have you been angered because of things that happened that were outside of your control?	–	6 (3.1%)	15 (7.9%)	166 (87.4%)	3 (1.6%)
In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?	–	3 (1.6%)	19 (10.0%)	165 (86.8%)	3 (1.6%)
Total score	Minimum + maximum		Mean ±SD		
	16.0 + 31.0		27.24 ± 2.82.		

Table (5): The table shows the distribution of the studied elders according to AWST grouping. it was noticed that out of 190 elderly people only 1.1% were evaluated as they had actualized their dreams and achieved the world record, almost protected from the severely damaging effects of stress. There are little, either, challenges possible to cross person

from a feeling of close to entire prosperity and 46.3% were evaluated as candidate for additional training in how to deal with stress. A sudden increase in potentially negative events and circumstances could cause a severe emotional setback. For the group that ranged from -25 - -50 and the group that ranged from -51 - -75, there was no one belonged to them.

Table (5) Distribution of the studied elders according to the Ardell Wellness Stress Test grouping

AWST	Groups	N	%
+51 - +75	Considered he/she had actualized his/her dreams and achieved the world record, almost protected from the severely damaging effects of stress and have sense of total well-being. There are little, either, challenges possible to cross person from a feeling of close to entire prosperity.	2	1.1
+25 - +50	Mastering the life wellness approach and creative and efficient in dealing with events and circumstances	25	13.2
+1 - +24	Wellness-oriented person, able to develop as a perfect person, and person can be extra attuned to skill building and most favorable health imports	75	39.4
0 - -24	Applicant for further training in stress coping. Exposed to a severe emotional setback because of a sudden increase in potentially negative circumstances and events	88	46.3
-25 - -50	Candidate for stress coping counseling. have severe problems in dealing with stress or too pessimistic	-	-
-51 --75	applicant for considerable psychological care, substantially not capable of facing problems of his/her life	-	-

Table (6): The table shows the average score of CRI items CRI overall score. It was noticed that the wellness scale was ranged from 1.43 – 3.14 with average score 2.318 ± 0.485 , Thought control scale was ranged from 1.0 – 2.67 with average score 1.712 ± 0.465 , Active coping scale was ranged from 0.86 – 3.43 with average score 1.877 ± 0.728 , Social ease scale was ranged from 1.00 – 3.00 with average score 2.004 ± 0.622 , Tension reduction scale was ranged from 1.00 – 3.00 with average score 1.168 ± 0.379 , Spiritual practice scale was ranged from 1.00 – 3.25 with average score 1.974 ± 0.613 and overall score was ranged from 1.07 – 2.86 with average score 1.842 ± 0.478 .

Table (6) The average score of Coping Resources Inventory items and Coping Resources Inventory overall score

Items	Range	Mean±SD
Wellness scale	1.43 – 3.14	2.318 ± 0.485
Thought control scale	1.0 – 2.67	1.712 ± 0.465
Active coping scale	0.86 – 3.43	1.877 ± 0.728
Social ease scale	1.00 – 3.00	2.004 ± 0.622
Tension reduction scale	1.00 – 3.00	1.168 ± 0.379
Spiritual practice scale	1.00 – 3.25	1.974 ± 0.613
Overall score	1.07 – 2.86	1.842 ± 0.478

Figure (2): The table shows the level of coping with stress according to CRI overall score, it is noticed that out of 190 elderly people, there is no one was superior stresscoper, 63.2% was within average, 26.3% were below average and only 10.5% Of the studied elders were above average stress coping.

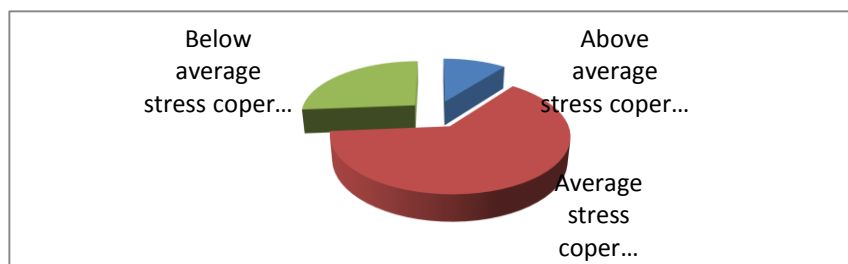


Table (7): The table shows the relationship between different scales, it was noticed that part (a) pointed to average score of PSS in different levels of AWST and was noticed that there is significant increase in average score of PSS with decreasing level of AWST, part (b) pointed to average score of PSS in different levels of CRI and was noticed that There is significant increase in

average score of PSS with decreasing level of CRI and part (c) pointed to the relationship between different level of AWST and CRI and was noticed that There is a significant increase in the percentage of average and below average CRI with decreasing level of AWST

Figure (2): Level of coping with stress overall score according to Coping Resources Inventory

Table (10) : Relationship between perceived stress scale, Ardell Wellness Stress Scale and Coping Resources Inventory

A: average score of PSS in different levels of AWST						
AWST	N	PSS		Significance test		
		Mean	SD			
+51 - +75	2	16.00	0.0	F = 52.032 P 0.000*		
+25 - +50	25	23.60	4.12			
+1 - +24	75	27.71	1.78			
0 - -24	88	28.23	1.42			
B: average score of PSS in different levels of CRI						
CRI	NO	PSS		Significance test		
		Mean	SD			
Above average stress coper	20	21.70	4.08	F = 86.577 P 0.000*		
Average stress coper	120	27.69	1.72			
Below average stress coper	50	28.54	1.50			
C: relationship between different level of AWST and CRI						
AWST	NO	CRI				Significance test
		Above average	average	Below average		
					X ² =207.9 P 0.000*	
+51 - +75	2	2 100.0	0 0.0	0 0.0		
+25 - +50	25	18 72.0	7 28.0	0 0.0		
+1 - +24	75	0 0.0	75 100.0	0 0.00		
0 - -24	88	0 0.0	38 43.2	50 56.8		

*Significant P≤0.05.

Discussion

The aging process reduces physiological capacity, which makes the elderly more susceptible to many health threats (**Lepeule et al, 2014**). The ageing process varies because of a number of reasons such as health problems, personal resources, the amount of social support and functional abilities (**Hautsalo, Rantanen&Astedt-Kurki, 2012**).

Furthermore, Older age is generally a time during which one experiences various stress-promoting incidents in accordance with an increase in age, such as the decline of physical functions, the risk of chronic diseases, a reduction in economic power, and social isolation and loneliness (**Cha, Seo & Sok, 2012**). In particular, the majority of stress induced in older age is caused by one's everyday lifestyle, which is strongly influenced by both chronic and minor problems and is not engendered by particular incidents. Factors that influence successful ageing are reported to reflect cultural differences, including not only general characteristics but also physical health, perceived health status, leisure activities, social support, depression, self-efficacy, resilience and stresses (**Byun& Jung, 2016**). Depending on methods for handling stress, a person might practice behaviors that either preserve and promote health or affect it negatively, thereby affecting one's quality of life. As the ability to adapt to the various physical and mental changes experienced in older age, and as a resource for handling stress (**Chung, 2011**).

Concerning socio demographic characteristics of the studied elders, the present study showed that females were more prevalent than males slightly more than one half of the studied elders and slightly more than 3 quadrant of the studied elders were frequently visiting elderly clubs. This result may be attributed to the availability of the study subjects at

the time of data collection. This result in contrast with the study of **Hsu and Jones, (2012)** in which more than half of stress elderly were male. Urban areas report a higher prevalence of stress and this in accordance with study done by **Gosschalk and Carozza (2013)**. Regarding age, the present study showed that slightly less than one half of the studied elders were with 60 -< 65 years old, slightly less than 3 quadrant of the studied elders were widow, slightly less than one quadrant of the studied elders was not working before retirement and all of them were females but little percentage only were working now and their type of work were private and manual and slightly more than one quadrant was having not enough income and this was in the same line with **Cruz (2013)**. This may be due to people with low-income, education and living in elderly homes are less able to afford healthy life surroundings, spend time participating in physical activity, tend to have more stress and do not have access to high quality diseases prevention, early detection, and treatment services in which there is limited access to health care. Moreover, a lack of knowledge about the causes of stress, as well as the understanding of symptoms, when to go to the psychologist and how to cope with stress, greatly affects both the development of negative consequences of stress as well as the prognosis of it to serious problems (anxiety, depression or even suicidal ideation).

Concerning health status of elders, the present study showed that all of them suffering from diseases (**Table 2**). This result is in agreement with the study by **Shaw, Werstuck and Chen (2014)** who conducted a study about "Oxidative stress and aging diseases" and presented that oxidative stress, which can be enhanced by smoking and dietary habits, is known to increase the risk for many diseases

associated with aging. In addition, result of this study is consistent with study results of **Kamble and Pathak (2016)** who conducted a study about "Stress and Its Association with Health and Well Being". The researcher show that this may be due to Systemic oxidative stress not only results in accumulation of reactive oxygen species (ROS), but also damages DNA or modifies DNA structures at an epigenetic level, altering expression of genes that associate with the aging process. Local oxidative stress and ROS can affect cell signaling as well as trigger apoptosis, cellular senescence, inflammation, and even necrosis.

Hypertension is a common health problem in Egypt. More than 50% of individuals older than 60 years suffered from hypertension (**Ibrahim,2013**). The results of the present study showed that the most common comorbid disease in older adults was hypertension followed by diabetes mellitus. This finding may be explained by the fact that chronic diseases and co-morbidities increase with advancing age. Hypertension was the most common co morbid disease with stress. The present study showed that slightly more than half of the studied elders were suffering from hypertension and slightly more than one third of them had admitted because of sudden increase in blood pressure (**Table 2**), and the result of this study is in consistent with study results of **Chrissobolis, Dinh, Drummond and Sobey (2017)** who conducted a study about "Role of Stress in Hypertension" showed that stress is a key player in the pathogenesis of hypertension and there is a strong association between blood pressure and stress-related parameters. In addition, the same result was found by **Dikalov and Ungvar (2013)** who reported that there was significant relation between high level of stress and increases systolic blood pressure and increases diastolic blood pressure. The researcher show that

Hypertension is a major cardiovascular risk factor. The pathophysiology of hypertension, cardiac, vascular and renal damage due to oxidative stress is excess bioavailability of reactive oxygen species. In hypertension, oxidative stress promotes endothelial dysfunction, vascular remodelling and inflammation, leading to vascular damage.

Concerning medication use, the present study showed that all of them were taking prescribed and non-prescribed medication. The majority of the studied elders were taking analgesics, slightly more than half of them were taking antihypertensive drugs (**Table 2**). The result of this study is consistent with study results of **Clyne, Cooper, Hughes, Fahey and Smith (2016)** who conducted a study about "Potentially inappropriate or specifically appropriate" and indicated that elders have multiple, inter-related factors influence Potentially inappropriate prescribing.

Polypharmacy, multimorbidity, and fragmentation of care have all been identified as contributing to a complex prescribing environment. In addition, the result of this study is in agreement with study results of **Tannenbaum et al (2017)** who conducted a study about "An Ecological Approach to Reducing Potentially Inappropriate Medication Use" and reported that polypharmacy is a complex problem that most commonly reported in the aging population. The researcher show that result may be due to People over the age of 65 years have a higher prevalence of multimorbidity, requiring multiple medications to manage symptoms and prevent future events. These combined health care needs, coupled with age-related changes in pharmacokinetics and pharmacodynamics make prescribing in this population a complex task with an increased risk for adverse outcomes including drug-drug interactions, adverse drug reactions and potentially

inappropriate prescribing included in inappropriate dose or duration of medication, drug–drug interactions, drug–disease interactions, and use of medications that have a significant risk of an adverse drug event.

Regarding the elders complains, the present study showed that all the studied elders had stress symptoms. All the studied elders were suffering from headache (**Figure 1**). The result of this study are consistent with **Talarico, Caramelli, Nitrini and Chaves (2009)** who conducted a study about "Stress symptoms and coping strategies in healthy elderly subjects" and presented that stress manifestation during the aging process may be strongly associated with changes in the sources of stress, increasing therefore the vulnerability to a more intensive manifestation of the stress. The researcher concluded that result may be due to the aging process may be strongly associated with changes in the sources of stress, increasing therefore the vulnerability to a more intensive manifestation of the stress. Thus, given that the majority of elderly assessed in the current study presented high levels of stress, this may partially reflect the impact of the several biological, cognitive, functional, social and economic changes as a result from the aging process. Such modifications represent stressful situations, since they can expose the elderly to new and unpredictable events. Regarding the stress manifestation, physical symptoms, such as headache and difficulty falling asleep while emotion symptoms like bouts of anger/ hostility, worry, anxiety and irritability were predominantly presented in the participants. These results suggest that the stress intensity was expressively high in the current sample.

Regarding the distribution of the studied elders according to perceived stress scale (PSS) the present study showed that

slightly three quadrant of the studied elders were very often felt nervous and stress (**Table 4**).The result of this study are in agreement with **Osmanovic-Thunström, Mossello, Åkerstedt, Fratiglioni and Wang (2015)** who conducted a study about "Do levels of perceived stress increase with increasing age after age 65" and presented the levels of perceived stress increase with increasing age among men and women aged 66–97 living at home and in institutions. The association was robust and independent of gender, education, economic status and living arrangements. Also a study conducted by **Aldwin and Yancura (2010)** studied the "Effects of stress on health and aging" Two paradoxes, the Findings of this study suggest that older adults are thought to experience more stress and to be more vulnerable to its adverse effects.

On the other hand, the results of this study disagree with results by **Vasunilashorn et al., (2015)** who conducted a study about "Exposure to stressors and trajectories of perceived stress among older adults" and presented the (a) perceived stress tended to decrease over time (b) stress exposure in general elevates perceived stress but does not change the fundamental decline in any domain of perceived stress over age, even when exposure itself is modeled as a process; and (c) change in health-related exposure to stressors does affect change in almost every domain of perceived stress. In short, it appears that exposure and perception were only weakly associated across age in later life. Only health-related stress exposures appeared to predict trajectories of perceived stress, and although exposures predicted perceived stress in any given wave, the general pattern of perceived stress was one of decline across age. And, the results of this study are in disagree with study results of **Kamble and Pathak (2016)** who indicated a study about "Stress and Its

Association with Health and Well Being” and presented that Younger group have more stress than older group as older individuals have learned to appraise and cope differently with stress. This protects them in spite of their increased physiological vulnerability and may increase the possibility of stress-related growth and optimal aging and these results are inconsistent with the results of this study that revealed that, there is no statistical significant relationship was found between average PSS score and sex, age, age group. As the elderly are a particularly vulnerable group, stress and its complications may lead to disability and so it is a major health concern in this group. It can exacerbate the age-related decline in functional ability, which causes frailty, impairs quality of life, and results in increases admission to elderly home. Therefore, it is alarming for conducting this study and for all researchers to shed light on this huge problem.

Regarding the distribution of the studied elders according to AWST grouping, the present study showed that slightly less than one-half of the studied elders had negative effects on their wellness because of their stresses and were evaluated as candidate for additional training in how to deal with stress. A sudden increase in potentially negative events and circumstances could cause a severe emotional setback (Table 5). These results are in agreement with **Tawatsupa, Yiengprugsawan, Kjellstrom, Seubsman and Sleigh (2012)** who conducted a study on "stress, health and well-being". Also results of this study are agree with study results of **Chen, Lin, Chuang and Chen (2017)** who conducted a study about "The Relationship of Physio psychosocial Factors of stress and Spiritual Well-Being in Elderly Residents". On the other hand this result is disagree with study results of **Kamble and Pathak (2016)** who indicated that Younger group have more

stress than old group and their well-being results also show is affected, and their health also becomes low and both physical and psychological health affected in younger group than older group. The researcher show that the negative health and well-being outcomes (low-energy level, emotional problems and low life satisfaction) associated with increasing frequency of stress interfering with daily activities (physical, spiritual or social) of elderly people and effective coping with stress.

Regarding the types of stress, the present study showed that by ranging scales, psychological stress expressed in tension reduction scale, thought control scale and active coping scale taking the proceeding then spiritual stress expressed in spiritual practice, social stress expressed in social ease scale and finally physical stress expressed in wellness scale (Table 6) and this are in consistence with study results of **Kennedy (2011)** who conducted a study about "Age and types of stress: a comparison of college-age and elderly adults" suggested that elders suffer from many types of stress but the most common is psychological and social stress as they have life surroundings make them more vulnerable to psychological problems but physical stress were predominant in college-age than psychological stress. Also, the result of this study are consistent with study results of **Lazarus and DeLongis (2014)** who conducted a study about "Psychological stress and coping in aging". On the other hand, these results are in disagreement with the study results done by **Wright and Brown (2017)** about Physical Well-being among Older Adults: types of stress in elderly people who suggest that physical stress is most serious among older adults and exposing them to increasing frailty and mortality rates. The researcher show that result may be due to that elders suffer from many types of stress but the most common is

psychological and social stress as they have life surroundings make them more vulnerable to psychological problems especially those who live in elderly homes.

Regarding the level of coping with stress according to CRI overall score, the present study showed that slightly more than one quarter of the studied elders were below average stresscoper (**Figure 2**) and this are in consistence with study results of **Aldwin (2011)** who conducted a study about "Stress and coping across the lifespan". On the other hand, these results are in disagreement with the study results done by **Monteiro, Balogun and Oratile (2014)** about Managing stress: the influence of gender, age and emotion regulation on coping among older adults in Botswana who presented that older adults have more effective coping resources (**Hamarat et al., 2011**). They also indicate that as people mature, they are better able to adopt a range of behavioral, cognitive and emotional strategies to cope with stressful life events. In this study the researcher show, that ability to cope with stress decrease across the lifespan and older adults use less nuanced coping strategies but may be better at emotion regulation especially in interpersonal situations. Therefore, it is an urgent desire to perform health education sessions for elders in how to cope with stressful life situations to foster them in facing life challenges and to avoid negative and harmful consequences of stress.

Regarding the relationship between different scales, there was significant increase in average score of PSS with decreasing level of AWST, and this result was consistent with study results done by **Seib et al (2017)** about "Exposure to stress across the life course and its association with wellness". There was significant increase in average score of PSS with decreasing level of CRI, and this result was consistent with study results done by **Furman, Miller-Perrin and Joseph**

(2017) about "Coping Strategies as a Moderator Between Perceived Stress and Health Indicators". There was a significant increase in the percentage of average and below average CRI with decreasing level of AWST and this result was consistent with study results done by **Storey and Dambo (2017)** about "Educational Leadership Sustainability: Maintaining Wellness, coping with Stress, and Preventing Burnout". The researcher show that the negative health and well-being outcomes (low-energy level, emotional problems and low life satisfaction) associated with increasing frequency of stress and increases levels of perceived stress interfering with daily activities (physical, spiritual or social) of elderly people and effective coping with stress.

During the ageing process, coping with the situations of everyday life and meeting its demands become even more personal than before. From the old person's point of view, the decreased functional ability and suffering from various health complaints also means dependency on others for carrying out activities of daily living, which may be more or less hard to live with. Therefore, here is an urgent need to promote resilience and successful ageing at all levels of society. Nurses are at the forefront of care for ageing populations, and there is a critical need to devise nursing policies and plans to help older people manage stress (**Andersson, Hallberg& Edberg, 2008**).

Conclusion

From the results of the present study, it can be concluded that:

Ageing is generally a time during which one experiences various stress-promoting incidents in accordance with an increase in age, such as the decline of physical functions, the risk of chronic diseases, a reduction in economic power, and social isolation and loneliness. Based on findings of the present study, it can be concluded that stress is common among elderly

population. The prevalence of stress was high and significant number of elders has been found to be suffering from stress, below average stress coping and having negative effects on their wellness because of their stresses so, candidate for additional training in how to deal with stress. A sudden increase in potentially negative events and circumstances could cause a severe emotional setback. Older adults' income, working condition, comorbidities, and functional status and institutionalization were the main factors affecting their psychological health negatively. A strong relation was found between elders' stress perception and marital status, education, working now and income (i.e. levels of stress perception increased with widows, lower educated, and elders not working now and with not enough income).

A strong relation was found between elders' health and wellness and place, age, marital status, education, working now and income (elders' health and wellness being worse in those in elderly home, age 70+, widow, less education, working before retirement and not working now and those with not enough income). Also, a strong relation was found between elders' coping with stress and sex, age, marital status, education, working now and income (males, age 70+, widow, less education, single and divorced, not working now and those with not enough income were below average stress coping and need additional training in effective coping with stress). These findings indicate that early exploring of stress and the effective ways to cope with stress should be a main concern in the educational program of elderly population and more attention must be given to detecting changes in the psychological state of vulnerable older adults with stress.

Based on the results of the present study, the following recommendations are suggested:

1. Health educational program for elders about meaning of stress, manifestations of stress, types of stress, stressful life events, effect of stress on health and wellbeing, consequences of stress and stress coping (coping resources and strategies) at the elderly homes and elderly clubs to improve their knowledge towards the effective coping with stress.
2. Reinforce a trusted relationship between elders and their families to increase elders' adherence to advice and consequently to reduce the serious consequences of stress.
3. It should be emphasized the importance of health care professionals' role in elderly homes for assessing elders' stress symptoms appropriately and providing explicit and relevant information, hence, more time should be spent with elders in an attempt to relieve their stress.

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