Stress Appraisal and Perceived Coping Strategies among Zagazig University Retired Employees

EmanShokryAbd-Allah[1], Reda Abdel-Rahman Ahmed[2],
Fatma Mohammed Ahmed[3]

[1] *professor of Community Health and Gerontological Nursing ⸱Faculty of Nursing, Zagazig University,* [2] *Assistant Lecturer of Gerontological nursing, faculty of nursing, Zagazig University,* [3]*lecturer of Community Health Nursing, Faculty of Nursing, Zagazig University*
Corresponding Author:EmanShokryAbd-Allah

Abstract:
Background: *Retirement is a major event in the person's life and a transition that marks the end of middle age and the beginning of old age. Retirement is typically associated with attendant stress for the average employees.*
Aim *of the current study was to assess stress appraisal and perceived coping strategies among Zagazig University retired employees.*
Design *of the present study was cross- sectional descriptive design.*
Setting: *This study was conducted at Zagazig University, Egypt, where 100 retired employees were selected randomly.*
Tools: *Four tools were used for data collection; Tool I: Socio-demographic data. Tool II: Consisted of three parts; stress appraisal measure, personality measures* and *stress Inventory, and sources of stress. Tool III: T*he coping strategies for adjustment to retirement questionnaire. *Tool IV: T*he depression happiness scale.
Results *of the present study revealed that around two-thirds of the retired employees had high stress appraisal and high personality measures (67% for each), additionally, 42% of them had high stress levels, and 77% reported high concerns about retirement. Also, more than half (55% & 61%) of them highly used both pro-active and passive coping strategies respectively. Finally, 51% of them were depressed.*
Conclusion:*Statistically significant positive correlation was found between stress appraisal and personality measures, stress levels, and stress sources. Meanwhile, a statistically significant negative correlation was found between stress appraisal and passive coping and happiness/depression.*
Recommendations: *Employees should be provided with pre-retirement education about coping with post-retirement stress. Post-retirement counseling about effective strategies* for *managing post-retirement concerns is suggested. Also, the establishment of self-help groups including old and new retirees is recommended.*
Keywords:*Stress Appraisal, Coping Strategies, and Retired Employees*

I. Introduction

Population ageing is one of the most significant trends of the 21st century. One in eight people in the world is aged 60 or over. As long as life expectancy continues to rise, older people will steadily increase as a proportion of the population. The world is ageing rapidly. People aged 60 and older make up 12.3 % of the global population, and by 2050, that number will rise to almost 22 % about 2 billion, up from 900 million in 2015 according to the report of United Nations population fund.[1]On the other hand, the statistics of the Central Agency for Public Mobilization and Statistics, Egypt[2] revealed that older persons in Egypt reached 5.9 million (2.9 million male, 3 million female) in 2012, 7.1% of total population and is expected to increase to 11.5% in 2030.

Retirement is not the end of the "Book of Life," but just another chapter. Retirement is a transition that marks the end of middle age and the beginning of old age. Retirement transition is one of the major events in a person's life. For an individual, retirement may simply mean withdrawal from employment, a change into a role with new norms, duties and rights. For some, retirement may mean a longed-for end to strenuous work, and for others, losing the meaning of life. Retirement may promote a sense of well-being of workers moving out of demanding and /or stressful career jobs. On the other hand, it may lead to diminished well-being for individuals who lose their occupational attachments, social networks and identities.[3]

The standard retirement age varies from country to country but it is generally between 55 to 70 years. In some countries, this age differs according to being males or females. The standard age of retirement in Egypt

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is considered 60 years with some exceptions where some employees retire at the age of 70 or a little bit earlier such as members of judiciary, university staff and researchers at the research centers.[4]

Retiring is a major event in life. It has many consequences on different aspects of life such as the financial situation, the allocation of time, social relations, as well as physical and mental health. These changes are likely to affect individual well-being in various ways. Retirement should not be seen as a stage in one's lifetime which hinders or stops the retiree from continuing being creative and capable of contributing to society. Thus, having adequate coping skills in the transition to retirement could positively influence the outcome of this transition.[5]

The retirement transition is associated with some stress situations like economic, social, psychological and occupational stress. Nonetheless the case is worsened when the retiree is not adequately prepared to face this ultimate phase of life. Stress means different things to different people, and hence perception of stress is often highly individualized. Although stress often relates to negative thoughts and reactions, it must be noted that not all types of stress are bad. Among the elderly, retiring from work is a significant stressor resulting from the physical, mental and behavioral changes experienced by the retirees.[6]

Adjustment to retirement is affected by the individual's flexibility as well as the society's readiness and the availability of other resources such as income, health, and social support system (friends, relatives, neighbors). Furthermore, other affecting factors include the level of control over the time of retirement; the importance of work for him/her; role as main caregiver for parents and/or spouse; marriage status (married or not); personality type and lifestyle; the intergenerational relationship and how the retiree adapts with previous life transitions.[7]

Gerontologicalnurses can assist aging individuals with their retirement preparations to enhance their health and well-being in late life. Nurses can encourage aging individuals to establish and practice good health habits such as following a proper diet; avoiding alcohol, drug, and tobacco use; and having regular physical examinations. Helping retirees to recognize stress, choose appropriate and safe responses, employ coping strategies that are most effective, and identify new sources of satisfaction.[8]

1.1 Significance of the Study

Life is a progression of stressful experiences, which result from variables in the environment. The transition from full time employment to complete retirement is an important step in a worker's life. Retirement has been identified as a significantly stressful event that does not mean a cessation of a job, but can also lead to loss or reduction of income, influence authority, status, relationship, activity, professional skill and an increase in unstructured time. Retirement is a period of stress and storm. Retired persons can face financial, emotional, family, and social challenges. **Gandhi** [9] pointed out that the retired persons have low ability to cope with stress.Henceforth, can retirement be considered as a beginning of stressful life, or an end to stressful life, and also how retired persons perceive coping strategies. Therefore, the current study will be conducted to assess stress appraisal and perceived coping strategies among Zagazig University retired employees.

1.2 Aim of the study

The aim of the current study was to assess stress appraisal and perceived coping strategies among Zagazig University retired employees.

1.3 Research Question:
- How do zagazig university retired employees appraise their stress?
- What are the stress levels among zagazig university retired employees?
- What are the stressors perceived by zagazig university retired employees?
- What are the coping strategies used by zagazig university retired employees?
- Is there a relationship between stressappraisal, coping strategies and zagazig university retired employees wellbeing?

II. Subjects And Methods

2.1 Research design:
Cross sectional descriptive design was used to conduct the present study.

2.2 Research setting:
The present study was conducted at Zagazig University from both faculties and administrative system. Where the administrative system Included (Public Affairs, Medical Administration, Youth Welfare, Legal Affairs, Budget and accounts, Benefits, Engineering Affairs, Education and Student Affairs, Personnel affairs). The faculties were four theoretical faculties (Arts, Education, Law, and Commerce), and three practical faculties (Engineering, medicine and Nursing). Such places were randomly selected based on the retiring schedule.

2.3 Subjects:

The subjects of the existing study were 100 retired employees at Zagazig University who were randomly selected according to the following inclusion criteria:recently retired employees, both sexes, and free from any communication problems.

2.4 Sampling technique:

Asystematicrandom sampling technique was used for selection of individuals to be included in the current study. An ordered list containing names and places of all employees to be retired was obtained from the General Department of Personnel affairs, Public cadre department/ files, Zagazig University and it was 260 employees.By March 2016 the number of retired employees was 230 (30 employees retired from January to March). The researcher selected the participants as follow;

- Interval = 230\100= 2, 3
- The starting point was selected randomly
- From the list each second retiree employee was selected until the desired number completed.

2.5 Tools of data collection

*Tool I: Socio- demographic characteristics:*It included data about sex, residence, income,education level, marital status…etc.

Tool II:Consisted of three parts;

Part 1: The stress appraisal measure [SAM].[10]This measure was concerned with the thoughts about various aspects of the potentially stressful situations previously identified by the retiree. It consisted of 7 factors divided into three main categories they were: A. Primary appraisal (Centrality,challenge, and threat)B. Secondary appraisal (Control by self, control by others, and uncontrollability)C. Stressfulness: a global measure of stress appraisal**.**

Scoring system:

Items were scored 5, 4, 3, 2, and 1 for the responses "extremely", "considerably","moderately", "slightly", and "not at all", respectively. The scoring was reversed for negative items. For each type of stress, the scores of the items were summed-up and the total divided by the number of the items, giving a mean score for the part. These scores were converted into percent scores. The elderly was considered to have high stress appraisal if the percent score was 60% or more and low if less than 60%.

Part II: Personality measuresandStress Inventory.[11]

It was used to obtain data on stress levels and stress inventory manifested by the respondents. This inventory measure individual stress set in the context of a normal and habitual lifestyle comprising of environment, symptoms & personality.

Scoring system:

Personality measures: Items were scored 5, 4, 3, 2, and 1 for the responses "strongly agree", "agree", "uncertain", "disagree", and "strongly disagree", respectively. For each area, the scores of the items were summed-up and the total divided by the number of the items, giving a mean score for the part. These scores were converted into percent scores. The elderly was considered to have a high level if the percent score was 60% or more and low if less than 60%.

Stress inventory: Items were scored from 0 to 3 for the responses "never", "almost never", "frequently", and "almost always", respectively. The scores of the items were summed-up and the total divided by the number of the items, giving a mean score, which was converted into a percent score. The elderly was considered to have a high level if the percent score was 60% or more and low if less than 60%.

Part III: Sources of stress.

It was developed by the researcher to assess the different sources of stress among retiredemployees.It was structured into seven main sources they were(financial concerns, health worries, caregiving, relationships, Psychological and social factors, environmental factors, and retirement).

Scoring system:

Items were scored 1 for the response "Yes," and Zero for "No." For each source, the scores of the items were summed-up and the total divided by the number of the items, giving a mean score for the part. These scores were converted into percent scores. The elderly was considered to have a high level of stress source if the percent score was 60% or more and low if less than 60%.

Tool III:The Coping Strategies for Adjustment to Retirement Questionnaire [CSARQ].[12]

It consisted of 10 strategies *each* strategy of the ten strategieshad a cognitive, affective and behavioral component. The ten strategies were assessed by thirty items, comprising ten cognitive, ten affective, and ten behavioral items and categorized into two main styles they were:*A.pro-active*(Avoid stress, set goals,keeping active, have a positive outlook, maintain family contacts, believe in god and prayer, and exercise)*B. Passive* (Rely on back-up care, deny the existence of stress, and use no strategies).

Scoring system:

Items were scored 5, 4, 3, 2, and 1 for the responses "strongly agree", "agree", "uncertain", "disagree", and "strongly disagree", respectively. For each area of coping, the scores of the items were summed-up and the total divided by the number of the items, giving a mean score for the part. These scores were converted into percent scores. The elderly was considered to have a high coping level if the percent score was 60% or more and low if less than 60%.

Tool IV: The Depression Happiness Scale [DHS].[13]

It was used to provide a quick and overall assessment of subjective wellbeing, and consisted of 25 items where 13 items described depression state and 12 items described happiness state.

Scoring system:

Items were scored from 0 to 3 for the responses "never", "rarely", "sometimes", and "often", respectively. A higher score indicates happiness and a lower score indicates depression. The scores of the items were summed-up for each of the happiness and depression items, and the total divided by the number of the items, giving a mean score, which were converted into percent scores. The elderly was considered to be happy if the percent score was 60% or more and depressed if less than 60%.

2.6 Validity

The tools were revised by five Experts from nursing and medical staff who reviewed the tools' content for clarity, relevance, comprehensiveness, and understandability. All recommended modifications were applied.

2.7 Reliability

The reliability of the tool**s** was tested by measuring its internal consistency. It demonstrated a good level of reliability with Cronbach's alpha as follow:

Tool	N of Items	Cronbach's Alpha
Stress appraisal scale	28	0.757
Personality scale	12	0.618
Stress levels scale	15	0.887
Coping scale	30	0.576
Happiness / depression scale	25	0.972

2.8 Pilot study

A pilot study was carried out on a sample of 10 retired employees (10% of the calculated sample) they were selected randomly from Zagazig University. The purpose of the pilot study was to test the clarity and applicability of the study tools and to determine the time needed to fill out the questionnaire sheet.

2.9 Fieldwork

Before starting any step in the study, an official letter was issued from post graduate department, Faculty of Nursing, Zagazig University to the General Secretary of Zagazig University to request permission and cooperation to conduct the study, and to provide the researcher with a list of all retired employees in Zagazig University 2016.

Once permission was granted to proceed with the study, the researcher started to prepare a schedule for collecting the data by sketching a map of name and faculty of those employees who will retire in the time of data collection. Then, Participants were interviewed by the researcher while they were ending the pension papers. The researcher introduced herself and explained the aim of the study briefly; the nature of tool used for data collection, and reassured them that information obtained is strictly confidential and would not be used for any purposes other than research. The self-administered questionnaire was filled out in 15 to 25 minutes. The fieldwork was executed over four months (it extended from the beginning of April 2016 to the end of July 2016), from Sunday to Tuesday each week.

2.10 Ethical considerations:

Firstly, the study protocol was approved by the pertinent committee (Research Ethics Committee) at Faculty of Nursing, Zagazig University. Then at the time of data collection participants were informed that by filling out the questionnaire they accept to participate in the study. Participants were given the opportunity to refuse participation, and they were notified that they could withdraw at any time of filling the questionnaire, and also to withdraw it after participation. They were assured that the information would be confidential and used for research purpose only.

2.11 Data management:

Data entry and statistical analysis were done using SPSS 20.0 statistical software package. Data were presented using descriptive statistics in the form of frequencies and percentages for qualitative variables, and

means and standard deviations and medians for quantitative variables. Cronbach alpha coefficient was calculated to assess the reliability of the developed tools through their internal consistency. Qualitative categorical variables were compared using chi-square test. Whenever the expected values in one or more of the cells in a 2x2 tables was less than 5, Fisher exact test was used instead. Spearman rank correlation was used for assessment of the inter-relationships among quantitative variables and ranked ones. In order to identify the independent predictors of the various stress and personality scores, multiple linear regression analysis was used and analysis of variance for the full regression models was done. Statistical significance was considered at p-value <0.05.

III. Results

The retired employees enrolled in the current study were mainly males (60%), belonged to urban areas (55%), and had university education (60%). In addition, 69% of them occupied leadership and specialized positions, 76% of them were married, and 85% of them lived with their family. Considering income, it came from pension and was insufficient 83% and 82% respectively.

Table 1 clarifies retired employees stress appraisal. As the table illustrates, 65% of retired employees highly used primary appraisal, where centrality was the highly reported (75%). On the other hand, 90% of them reported lower use of secondary appraisal, where control by self was the highly reported (61%). Ultimately, 67% of the retired employees highly used stress appraisal.

Regarding personality measures and stress levels among retired employees in the study sample, **Table 2** clarifies that 67% of the retired employees had high personality measures, with an effect on speech mostly as reported by 72% of them. Furthermore, 42% of them had high stress levels.

Considering total stress sources among retired employees in the study sample, **Figure 1** portrays that the highly perceived stress sources among retirees were retirement followed by relationships and financial concerns (77%, 60% and 52%) respectively.

Table 3 clarifies coping strategies among retired employees in the study sample. As the table shows, 55% of the retired employees highly used pro- active coping strategies, where 100% of them believed in god and prayer and 97% of them maintained family contact. On the other hand, 61% of them highly used passive coping strategies, where 84% of them denied the existence of stress and 65% of them relied on backup care.

Concerning depression and happiness among retired employees in the study sample, **Figure 2** sketches that 51% of the retired employees were depressed.

Table 4 clarifies the correlation matrix of retired employees' scores of stress appraisal, personality measures, stress levels, sources, pro-active and passive coping, and happiness-depression. The table indicates a statistically significant positive correlation between stress appraisal and personality measures, stress levels, and stress sources (p<0.01). Whereas a statistically significant negative correlation was found between stress appraisal and passive coping and happiness/depression (p<0.01).

IV. Discussion

Traditionally, retirement has been viewed as the gateway to old age. Work is more than earning a living. It is a way to live. Retirement is not only an occupational career transition, but a family transition as well. Retiring from the workforce can represent a significant change for many individuals. Changes can be felt on a financial, social and emotional level.[14] Retirement is a fluid concept because it connotes different things and is fraught with different experiences for different people. While some individuals view it positively and anticipate it with longing others dread its eventuality with great anxiety. Retirement is a time of significant transition as far as the use of time is concerned. However, the importance of retirement is made more glaring by the fact that the retired person is made to face some challenges because of his/her new status as a retired person. It has been postulated that the moment retirement comes knocking on the door of an employee it enters with challenges and expectations. Retirement is typically associated with attendant stress for the average employees.[15] Hence, the current study aimed to assess stress appraisal and perceived coping strategies among Zagazig University retired employees.

It is clear from the findings of the current study that around two– thirds of the retired employees in the study sample had high stressfulness and high total stress appraisal. This might be due to that during the working years the person's life is organized around the job. So after retirement many retirees may find themselves adjusting to a new routine or no routine, moving away from friends or family, feeling socially isolated and dealing with increasing medical issues. Money stress often accompanies retirement due to living on a fixed income at a lower standard of living. Retirees are confronted with important potential stressors in retirement often relating to loss of work and changes related to aging. For many retirees, this life stage brings losses to cognitive and physical capacities, health, and loved one. The same point is confirmed by **Oniye**[15] in Nigeria where the findings of the study revealed that retired civil servants were experiencing stressful retirement. Similar findings were reported by **Nweke**[16] in Nigeria who found that retirees face many challenges which put them under stressful conditions.

Concerning personality measures and stress levels of the retired employees, around two-thirds of the retired employees had high personality measures. Furthermore, around half of them had high stress levels. Such result can be explained by that retirees are likely to have multiple issues with varying degrees of impact. The downside of moving to an unfamiliar location (e.g., the absence of old friends and former social networks from one's hometown), the loss of continuity, and a sense of identity fracture to the familiar roles that constituted a work/life structure where one person could retire to be at home alone while the other continued to work. Retirees' values, personality characteristics, and worldviews held during their careers could affect their levels of life satisfaction in retirement. Many retiring today have been working in one role for many years and haven't experienced much variation in their daily routine for a long time, such a major change of lifestyle is often very stressful .

In the same context, the results of study conducted in Kenya by **Osano**[17]revealed that most of the participants were experiencing high levels of stress.Similarly, **Heybroek**[18]in Australia found that retirement may be associated with low levels of life satisfaction and high levels of stress.On the other hand, more than half of the retired employees had low stress levels, possible explanation of this result is that retirement might not cause stress at all, but might be instead a relief from a stressful working life. Retirement can be an incredibly creative, enjoyable time to start a new hobby or business, travel hours of relaxation, visiting family and doing many of the activities. The same point is confirmed by **Coursolle et al.** [19] in USA who found that retirement may come more as a relief than a stressor for individuals previously experiencing high levels of work demands interfering with family life.

Concerning the stressors perceived by the retired employees, the present study findings revealed that most of the retired employees reported high concerns about leisure time management, insufficient pension, retirement, leaving colleagues. This might be attributed to being dependent in terms of low pension, increased life expectancy and having comorbidity, the increased the cost of living and medical care as diabetes, hypertension, musculoskeletal and digestive problems…etc. In addition to being alone as a result of death of partner, marriage of children which can lead to feeling of worthless, boredom, and stress. In the same stream, the American Psychological Association (APA) comprehensive survey revealed that concerns over money, work, family, and health were major sources of stress.[20] As well, **Oguzor et al.**[21]in Nigeria found that the causes of stress were financial problems, excessive travelling, non-payment of gratuity and pension, being unable to cope with the new situation of retirement, and death of a family member.

The current study findings revealed that all of the retired employees had high coping strategies of both pro- active and passive coping styles. The results indicated that the highly used coping strategies where the belief in god and pray, maintenance of family contact, denying of existence of stress and relying on backup care. This result might be attributed to the experience of older people which make them more adaptable and accept situations they cannot change. They also place a strong emphasis upon family and friends. Such behaviors are pre-existent and augur well for navigating the transition to retirement. On the same way, **Glenn** [22]in Australia found that most of the participants used pro- active and passive coping styles for retirement adjustment. In line with this result, **Herzig**[23] in Canada clarified that more successful coopers appear to have a repertoire of many coping strategies and strategically select combinations of coping strategies for use in particular situations.These findings go in line with **Nunes et al.** [24]in Brazil who indicated that, among all the coping strategies, the most used were the Religious Practices.

Considering the retired employee's well-being (depression/ happiness), more than half of the retired employees were depressed. Such finding may be attributed to the transition from work-life to retired-life which can bring a lot of emotions including sadness. Some retirees may feel loss of identity when they are no longer defined by a job title. Others are unsure of how to fill their extra time. Also, this kind of depression usually stems from dashed expectations, financial trouble or feeling lost, lonely, and sense of purposelessness .

In agreement with this result, **Doshi et al.** [25] in USA found that depression and depressive symptoms were significantly associated with retirement in late middle-aged U.S. workers.In the same line, **Kolodziej**[26] in Holland found that being retired has a negative impact on an individual's well-being and increase the severity of depression.These findings go in line with that of **Rabiei et al.** [27]in Iran where findings revealed a significant relationship between depression and being retired.On the contrary, **Coursolle et al.** [19] in USA found that retirement is associated with relatively fewer depressive symptoms.Such discrepancy between results might be attributed to the differences in benefits after retirement in terms of health services, income, and the availability of social services.

Concerning the relation between retired employees' stress appraisal, coping, and wellbeing, the current study results revealed a statistically significant negative correlation between stress appraisal and coping and well-being, where retired employees who had low stress appraisal had high coping and were happy. This might be attributed to people's interpretation of events, rather than events themselves tend to cause distress, anxiety or depression. Stress is experienced when one's environment is appraised as threatening to one's well-being. Therefore, individual differences in perceived threat play an important role in experienced stress, in adjustment

to retirement, and in coping strategy selection. In line with this result, **Wolsko et al.[28]** in USA found that participants reported experiencing greater psychosocial stress, less happiness, and less coping.Similar findings were reported by **Herzig[23]**in Canada who found that stress appraisal and perceived control moderates coping with retirement and well-being.

V. Conclusion

The results of the current study bring about the conclusion that;retirement is stressful for retired employees of Zagazig University, where around two-thirds of the retired employees had high stress appraisal and high personality measures especially noticed on their speech, and 42% of them had high stress levels. In addition, sources of stress excel mostly in retirement concerns followed by relationships and financial concerns. Moreover, more than half of the retired employees highly used both pro-active and passive coping strategies. Ultimately, around half of the retired employees were depressed and a statistically significant positive correlation was found between stress appraisal and personality measures, stress levels, and stress sources and a statistically significant negative correlation with passive coping and happiness/depression.

VI. Recommendations

On the basis of the current study findings, the following recommendations are suggested; employees should be provided with pre-retirement education about coping with post-retirement stress, post-retirement counseling about effective coping strategies for managing post-retirement concerns, the establishment of self-help groups including old and new retirees, replicate the current study in different settings on larger samples to permits for generalizations, and further studies are suggested to address the impact of pre-retirement planning on physical and psychosocial wellbeing of retirees.

Table 1: Stress appraisal among retired employees in the study sample (n=100)

Domains	N	%
Primary appraisal (high: 60%+):		
• Centrality	75	75.0
• Challenge	50	50.0
• Threat	69	69.0
Total primary:		
• High	65	65.0
• Low	35	35.0
Secondary appraisal (high: 60%+):		
• Control by others	29	29.0
• Control by self	61	61.0
• Uncontrollability	22	22.0
Total secondary:		
• High	10	10.0
• Low	90	90.0
Stressfulness (global) :		
• High	69	69.0
• Low	31	31.0
Total stress appraisal:		
• High	67	67.0
• Low	33	33.0

Table 2: Personality measures and stress levels among retired employees in the study sample (n=100)

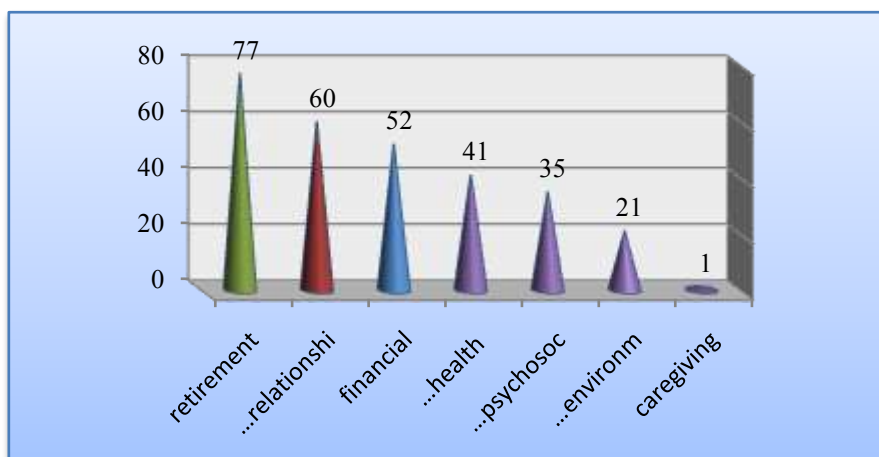| Items	N	%
Personality measures (high: 60%+):		
• General behavior	64	64.0
• Speech	72	72.0
Total personality:		
• High	67	67.0
• Low	33	33.0
Total stress levels:		
• High	42	42.0
• Low	58	58.0

Figure1: Total stress sources among retired employees in the study sample (n=100)

Table 3: Coping strategies among retired employees in the study sample (n=100)

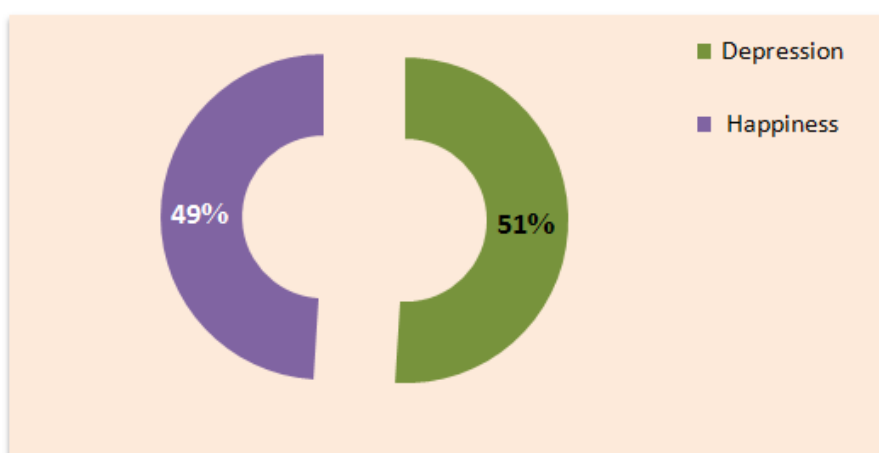| Domains	N	%
Pro-active coping (high: 60%+):		
• Avoid stress	67	67.0
• Set goals	46	46.0
• Keep active	49	49.0
• Have a positive outlook	24	24.0
• Maintain family contact	97	97.0
• Believe in God and prayer	100	100.0
• Exercise	33	33.0
Total pro-active coping:		
• High	55	55.0
• Low	45	45.0
Passive coping (high: 60%+):		
• Rely on backup care	65	65.0
• Deny existence of stress	84	84.0
• Use no strategies	36	36.0
Total passive coping:		
• High	61	61.0
• Low	39	39.0

Figure 2: Depression –happiness among retired employees in the study sample (n=100)

Table 4: Correlation matrix of retired employees' scores of stress appraisal, personality measures, stress levels, sources, pro-active and passive coping, and happiness-depression (n=100)

Items	Spearman's rank correlation coefficient						
	1	**2**	**3**	**4**	**5**	**6**	**7**
1. Stress appraisal							
2. Personality	.613**						
3. Stress levels	.719**	.764**					
4. Stress sources	.627**	.768**	.742**				
5. Pro-active coping	-.106	-.166	-.184	-.002			
6. Passive coping	-.339**	-.542**	-.442**	-.750**	-.069		
7. Happiness-depression	-.752**	-.553**	-.526**	-.548**	.225*	.327**	

(*) Statistically significant at p<0.05   *(**) Statistically significant at p<0.01*

References

[1]   United Nations Population Fund [UNFPA]: Ageing in the Twenty-first Century: A Celebration and a Challenge. New York. [Online]. 2015 [cited 2016 July 23]; Retrieved fromhttps://www.unfpa.org/sites/default/files/pub-pdf/Ageing%20report.pdf.

[2]   Central Agency for Public Mobilization and Statistics: Arab Republic of Egypt [CAPMAS]: A Press Statement on Sunday 30/9/2013 on the occasion of "International Day of Older Persons". [Online]. 2013[cited 2016 Mar 24]; Retrieved from http://www.capmas.gov.eg/pepo/473_e.pdf

[3]   Bamberger, P. A., &Bacharach, S. B. (2014). *Retirement and the Hidden Epidemic*. New York: oxford university press. p.14.

[4]   Fadila, D. E., &Alam, R. R. (2016). Factors affecting adjustment to retirement among retirees' elderly persons. *Journal of Nursing Education and Practice;6(8)*: 113-114. DOI: 10.5430/jnep.v6n8p112.

[5]   Thuku, P. W. (2013). Influence of Retirement Preparation on Happiness in Retirement: a case of Nyeri County, Kenya. *International Journal of Education and Research*; *1(3)*: 122-130.

[6]   Tew, S. &Idris, A. (2016). An Evaluation of Stress Management and Coping Strategies Among Urban Retirees. *Transylvanian Review*; *24(6)*:586-596.

[7]   Asamoah, N. (2012). Adjustment towards Retirement. Published master thesis, Institute of Distance Learning, Kwame Nkrumah University of Science and Technology, Ghana. p.50.

[8]   Eliopoulos, C. (2014). *Gerontological Nursing* (8th Ed). Philadephia: Wolters Kluwer Health│Lippincott Williams & Wilkins. pp. 40& 42.

[9]   Gandhi, R. (2013). A study to assess the level of stress and coping pattern among the retired persons in selected suburban areas in bangalore. Published master thesis, Joscocollege of nursing, bangalore, Karnataka (India), p.77.

[10]   Peacock, E. J., Wong, P. T. P. (1990). The Stress Appraisal Measure (SAM): A Multidimensional Approach to Cognitive Appraisal. *Stress Medicine; 6:*227-236.

[11]   Melgosa, J. (2001). *Less Stress*. Madrid : Editorial Safeliz. p.189.

[12]   Sharpley, C., & Yardley, P. (1999). The relationship between Cognitive Hardiness, Explanatory style and Happiness-Depression in post-retirement men and women. *Australian Psychologist, 34(3)*: 82-101.

[13]   McGreal, R. & Joseph, S. (1993). The Depression Happiness Scale. *Psychological Reports, 73(3f)*: 1279-1282.

[14]   Loureiro, H. M., Mendes, A. M., Camarneiro, A. P., Silva, M. A., &Pedreiro, A. T. (2016). Perceptions About The Transition To Retirement: A Qualitative Study. *TextoContextoEnferm*; *25(1)*: 2-8. http://dx.doi.org/10.1590/0104-070720160002260015.

[15]   Oniye, A. O. (2012). Retirement stress and management strategies among retired civil servants in kwara state: Counseling implication and interventions. *International journal of educational management*; *26(5)*: 43-52.

[16]   Nweke, J. O. (2015). Post-Retirement Stress under Non-Contributory Pension Regime: A Study of Retired Civil Servants in Ebonyi State Nigeria. *Canadian Social Science;11(6)*: 109-117.

[17]   Osano, S. O. (2011). Impact of retirement on stress levels of retired primary school teachers between 1995-2004: a case of rachuonyo district, Kenya. Published master thesis, Egerton University, Kenya. p.44.

[18]   Heybroek, L. (2011). Life Satisfaction and Retirement: A Latent Growth Mixture Modeling Approach. 10th Anniversary Research Conference of Household Income and Labor Dynamics in Australia (HILDA), University of Melbourne, Australia. p.15.

[19]   Coursolle, K. M., Sweeney, M. M., &Raymo, J. M. (2010). The Association Between Retirement And Emotional Well-Being: Does Prior Work-Family Conflict Matter? *Journal of gerontology: psychological sciences and social sciences; 65B (5)*: 609–620.

[20]   American Psychological Association [APA]: Stress in America 2010. [Online]. 2010[cited 2017 Jun 21]; Retrieved from https://www.apa.org/news/press/releases/stress/2010/national-report.pdf.

[21]   Oguzor, N. S., Adebola, H. E., &Opara, J. A. (2011). Understanding Stress among Retirees of Higher Educational Institutions in Nigeria. *Bulgarian Journal of Science and Education Policy (BJSEP)*; *5(2)*:6.

[22]   Glenn, M. R. (2007). Retirement: Effects of a Psychoeducational Program. Unpublished PHD thesis, Bond University, Faculty of Humanities and Social Sciences, Queensland, Australia. P.80.

[23]   Herzig, A. J. (2014). Optimizing well-being in retirement: Summarizing three decades of research on successful coping in retirement. *Mind Pad;4(7)*: 32-37.

[24]   Nunes, R. P., de Melo, R. L. P., Júnior, E. G., &Eulálio, M. D. (2016). Relationship between coping and subjective well-being of elderly from the interior of the Brazilian Northeast. *Psychology: Research and Review; 29*:33. Doi: 10.1186/s41155-016-0032-x.

[25]   Doshi, J. A., Cen, L., &Polsky, D. (2008). Depression and Retirement in Late Middle-Aged U.S. Workers. *Health Services Research*; *43(2)*: 693–713.

[26]   Kolodziej, I. W. K. (2011). The Relationship Between Retirement and Mental Health: Investigating the Causal Relationship in Eleven European Countries.   Published Master Thesis, Erasmus University Rotterdam, Holland. p. 90.

[27]   Rabiei, M. A., Ghaleiha, A., Hosseini, S. M., Nikooseresht, M., &Zahirnia, M. (2015). Depression Prevalence and Underlying Risk Factors in the Elderly of Hamadan, Iran. *Avicenna Journal of Neuro Psych Physiology*; *2(1)*: 223-30. DOI: 10.17795/ajcmi-35761.

[28]   Wolsko, C., Lardon, C., Mohatt, G. V., & Orr, E. (2007). Stress, Coping, And Well-Being Among The Yup'ik Of The Yukon-Kuskokwim Delta: The Role Of Enculturation And Acculturation. *International Journal Of Circumpolar Health*; *66(1)*:51-61.