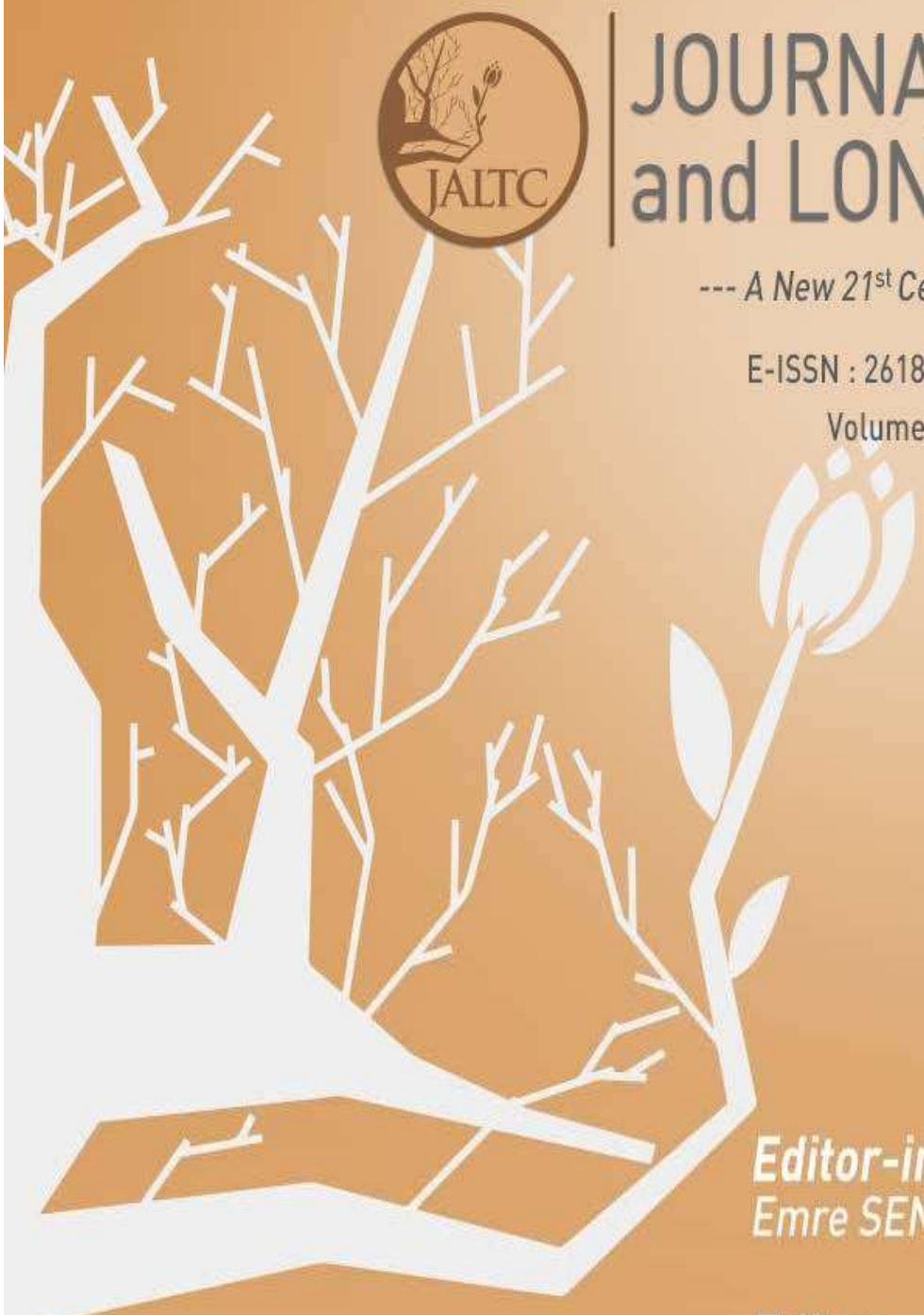

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The Association Between Medical Diseases and Late-Life Depression: The Presence, Number, and Type of Medical Diseases

Emre Senol-Durak[1] Mithat Durak[1]

Abstract

Medical diseases are highly prevalent among older adults and lead to several changes in psycho-social life. One effect of those problems is seen on depression. On the other hand, whether the type or the number of medical diseases are associated with late-life depression have not examined in the literature. The aim of the present study is to examine whether the place of residence, type of illnesses or a number of illnesses would make a difference on late-life depression. For this purpose, older adults living at home (N= 1100) and nursing home (N=1177) participated in the present study. The Demographic Information Form, including the type and number of medical diseases, and the Geriatric Depression Inventory were applied. Results demonstrated that older adults having two or more medical diseases had higher scores of late-life depression than those with one medical disease and those without suffering any medical disease. Older adults with suffering only psychiatric disease or digestive system disease had a higher level of late-life depression. Besides, older adults having chronic medical diseases had higher scores of late-life depression such as patients with psychiatric disorders, digestive system diseases, cardiovascular system diseases, metabolic and endocrine disorders, rheumatic and musculoskeletal diseases, central nervous system - neurological disorders, urinary system diseases, and sensory system disease. Results were discussed in the light of literature about medical diseases, late-life depression, and caring needs of older adults.

Keywords: Older adults, late-life depression, medical diseases, disorders, type of disease, number of physical illness

Key Practitioners Message

- Older adults with chronic disease experience higher depression than the other ones.
- Developing screening tools among older adults with physical problems are recommended since there are some overlapping symptoms of depression and medical illnesses among patients with medical diseases in late-adulthood.
- Educating doctors about early recognition of depression among older adults are encouraged when dealing with multiple diseases.
- Giving information to older adults about the medical disease is also recommended to handle depression.

One of the psychological disorders seen among older adults is depression. Depression prevalence is noted as 5% of older adults living at their home, and 42% of older adults living in long-term care service (Luppa et al., 2012). It is estimated that among half of older adults, the first onset of depression is likely to see in late adulthood (Fiske, Wetherell, & Gatz, 2009). Depression among older

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adults is also called late-life depression, which is observed as changes in cognitions and somatic complaints mostly (Fiske et al., 2009). However, inadequate empirical evidence is mentioned about somatic complaints and depression relationships in late-life depression (Haigh, Bogucki, Sigmon, & Blazer, 2018). Besides, psycho-social variables are noted as necessary for late-life depression, which is highly seen among ones being separated and divorced and having no formal education (Subramaniam et al., 2016; Lue et al., 2010). Similarly, higher education and lower late-life depression are reported (Fiske et al., 2009; Zivin et al., 2010). Also, loneliness and lower social support effect depression scores of older adults who have medical diseases (Fiske et al., 2009). In respect to gender, women participants are more likely to suffer more depression than the others (Lue et al., 2010). On the other hand, genetic markers of medical diseases are reported to affect men more than women in the case of depression (Petkus et al., 2017). Similarly, it is mentioned that stressful life events affect aged men more than women (Forlani et al., 2014). Therefore, controversial results appear in the relationship between gender and late-life depression. Besides, researchers question whether late-life depression is different from depression in adulthood. The prognosis of depression in late adulthood is different from other life periods that relapse is more likely to see due to the effect of medical diseases (Haigh et al., 2018). Also, it is highlighted in the literature that difficulties related to medical diseases combine with challenges about aging that lead to difficulty evaluate depression (Saracino, Rosenfeld & Nelson, 2016). Therefore, examining medical disease and depression relationship is essential to reveal the nature of late-life depression.

Medical diseases are highly prevalent among older adults. Hypertension, cardiac problems, diabetes, sensory problems are some of the commonly seen medical diseases among them. Those health problems affect daily life and lead to several changes in the psycho-social lifecycle. For instance, older adults with diabetes monitor blood glucose levels and dietary in every day and attend sports activities. All of those changes in activities are necessary to regulate medical diseases and include additional energy, which is quite challenging in old age. Also, sleep disturbance problems arise commonly among older adults (Bao et al., 2017; Garfield, Llewellyn, & Kumari, 2016) whose energy is affected adversely by sleep problems. When older adults have the inability to make psycho-social changes in lifestyle, their difficulty with medical diseases arises since physical and psycho-social life are interconnected. For instance, physical disability and frailty influence individuals (Collard et al., 2017) that older adults having a high functional disability has higher scores of suicidal ideations (Fässberg et al., 2016). It is noted that older adults with severe health problems experience burnout (Boe et al., 2017; Subramaniam et al., 2016) that some of them commit suicide, therefore. Similarly, suicidal behavior is associated with depression and medical diseases in old age (Cheung & Sundram, 2017). Likewise, higher physical disability and higher depression are more likely to seen among older adults that re-admission to the health care centers and mortality rates are results (Hummel et al., 2017). Similarly, low physical activity and high depression are mentioned to be associated (McIntyre et al., 2019). Also, medical diseases are revealed to limit social life that affects higher depressive feelings (Petkus et al., 2017). Therefore, it can be concluded that medical diseases, restrictive social life, activity level, and depression are highly related.

In addition to the influence of medical diseases, it is questioned whether there is a difference between types of diseases on depression. In a study inquiring about the type of medical disease, depression is highly seen among older adults with heart problems, diabetes, ischemic attacks, physical impairments (arthritis), asthma, cough, internal disease (stomach or intestine), and paralysis (Subramaniam et al., 2016). Also, depression is seen among older adults with cancer patients (Saracino et al., 2016). In another study, older adults with lung and heart disease problems are reporting higher depression, whereas patients with diabetes, hypertension, and stroke

reported lower levels of depression (Zivin et al., 2010). Besides, more inadequate health perceptions about medical disease and higher late-life depression are associated with each other (Lue et al., 2010).

Understanding the nature of depression and its relation to weakness in health is crucial among older adults uniquely to define risk factors (Collard et al., 2017). Also, exploring psycho-social factors increasing the incidence of late-life depression is highlighted to be important in prevention (Lue, Chen, & Wu, 2010). The medical disease and depression relationship are dynamic (Zivin et al. 2010). The bidirectional relationship between health problems and depression among older adults living in different places would help professionals to figure out early intervention strategies. On the other hand, whether the type and number of medical health problems in older adults are associated with late-life depression has not been extensively examined in the literature. Although screening studies have been conducted with older adults who are admitted to hospital or resident in a nursing home, studies with older adults living in their own homes are rarely seen in the literature. The number of studies conducted with large samples is also limited.

The present study aims to investigate the relationship between late-life depression and the number or type of medical diseases in a large sample of older adults. The aim of this study is to investigate whether late-life depression is related to the number and type of physical illnesses that older adults suffer from. In this frame, three hypotheses are tested:

1- Late-life depression levels of older individuals with any medical diseases are higher than healthy older adults.

2- The late-life depression levels of older adults suffering from medical diseases in more than one health category are higher than those having health problems in one health category.

3- The late-life depression level varies according to the type of medical health problem experienced.

Method

Participants

The data of the study were collected with 2277 older adults aged 60 and over. The age range ranged from 60 to 100 for older adults (M = 72.92, SD = 8.21) and 52.0% of the participants were men (n = 1183) and 48.0% were women (n = 1094). The rate of the participants living in the nursing home is 51.7% (n = 1177) and the percentage of the participants living in their own home is 48.3% (n = 1100). The majority were married (37.7%, n = 859) and widowed participants (39.1%, n = 890); 13.1% (n = 299) of the divorced, 6.7% (n = 152) of the unmarried and 3.4% (n = 77) of the separate.

Measures

The Demographic and Health Information Form: The form prepared before data collection includes questions to be asked to the participants regarding age, gender, place of residence, marital status, and type or number of diseases/disorders.

The Geriatric Depression Scale (GDS): The Geriatric Depression Scale (GDS) is a 30-item scale developed by Yesavage et al. (1983) to be answered as "yes" and "no" format. Some of the items of the scale are "Are you basically satisfied with your life?", "Are you hopeless about the future?", "Do you feel very sorry about the past? It is a scale that excludes somatic complaints and substances that may cause a reaction in older adult patients with low diagnostic value. Turkish validity and reliability study was conducted by both Ertan et al. (1996) (test-retest consistency, r = .77; internal consistency coefficient = .92) and Sagduyu (1997) (test-retest consistency, r = .87; internal consistency coefficient = .72). In this form of the cutting point adapted to Turkey scale 13/14, the sensitivity of this breakpoint .90. The scale adapted by Sagduyu (1997) was used in the study.

Procedures

Before collecting the data, researchers received ethical approval from the research board of the university. In order to reach a large sample size, the data of the study were collected from old-

er adults living at a nursing home or their own homes who were voluntarily involved in the present study. Informed consent was taken before data collection. It took 10-15 minutes to complete the questions.

Data Analysis

All statistical analyses were conducted by using the SPSS-25 (IBM, Armonk, NY, USA). The p-value threshold used to decide statistical significance was established at .05.

Results

Frequencies of the Diseases and Disorders

Participants were asked whether they experienced diseases or disorders in thirteen medical health problem categories: (1) Respiratory system diseases, (2) cardiovascular system diseases, (3) hematopoietic system diseases, (4) diseases of the digestive system, (5) endocrine and metabolic disorders, (6) urinary system diseases, (7) breast diseases, (8) immune system diseases, (9) dermatological diseases, (10) sensory system diseases, (11) central nervous system disorders / neurological disorders, (12) rheumatic and musculoskeletal diseases, and (13) psychiatric disorders. The six most common categories of diseases in the present study are listed as follows: Cardiovascular system diseases (38.12%), metabolic and endocrine disorders (15.46%), psychiatric disorders (12.38%), rheumatic and musculoskeletal diseases (9.00%), central nervous system / neurological disorders (7.64%), and respiratory system diseases (6.98%). The categories of medical health problems, the diseases or disorders in the categories, and the frequencies of disease categories in the sample of the present study are shown in Table-1.

The Relationship Between the Number of Diseases and Late-Life Depression

The relationship between the number of diseases and late-life depression was tested by One Way ANOVA. The number of diseases is categorized into three groups: No illness-disorder, one illness-disorder category, two or more illness-disorder categories. One Way ANOVA test result is significant, [F (2, 2274) = 71.20, p = 1.02^{e-30}]. According to the results of the Bonferroni post-hoc comparison, groups are statistically different from each other. The older individuals who report disease from at least two disease categories (two or more illness-disorder group; M = 11.93, SD = 7.20, n = 502) are more depressed than older individuals who report disease from one disease category (one illness-disorder group; M = 9.88, SD = 6.94, n = 1220) (p = 3.11^{e-08}) and older individuals who do not report any disease (no illness-disorder group; M = 7.03, SD = 5.80, n = 555) (p = 1.02^{e-30}). Moreover, the older individuals who report disease from one disease category (one illness-disorder group) are more depressed than older individuals who do not report any disease (no illness-disorder group) (p = 8.92^{e-16}). According to these results, the first two hypotheses of the research were accepted. The results of the One-Way ANOVA test are shown in Figure-1.

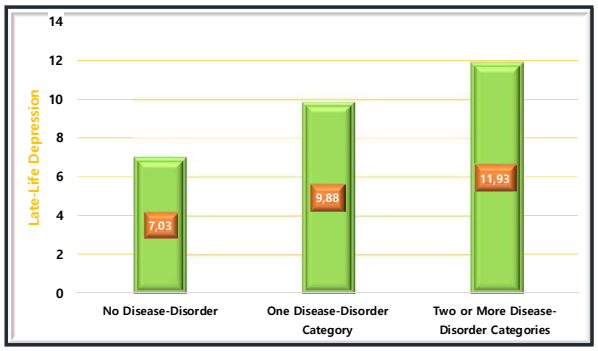


Figure-1. The relationship between the number of diseases and late-life depression

The Relationship Between the Type of Diseases and Late-Life Depression

The participant numbers, late-life depression means and standard deviations of ten disease categories, except the disease categories of hematopoietic system diseases, breast diseases, and immune system diseases that cannot be investigated because their observed frequencies are low, are shown in Table-2.

Psychiatric disorders are associated with a high level of late-life depression, alone (M = 12.67, SD

= 7.81) or in the presence of other accompanying diseases (M = 13.86, SD = 6.99). As expected, depressive symptoms are frequently seen with other psychiatric diseases.

After psychiatric disorders, digestive system diseases are the second category of diseases associated with high levels of late-life depression, alone (M = 11.63, SD = 7.89) or in the presence of other accompanying diseases (M = 11.98, SD = 7.21).

The presence of one or more diseases causes many diseases to be associated with high levels of depression among people with cardiovascular

Table-1. The categories of medical health problems

	Categories of Medical Health Problems	Medical Health Problems	Frequencies	%
1.	Cardiovascular System Diseases	Rhythm and conduction disorders, coronary artery diseases, vascular diseases and inflammation, peripheral artery disease, hypertension, etc.	868	38.12
2.	Metabolic and Endocrine Disorders	Diabetes mellitus, elevated cholesterol, graves' disease, Hashimoto thyroiditis, Addison's disease, goiter, obesity, epiphysis, thyroid, parathyroid, thymus, liver, pancreas, intestinal system and other conditions associated with insufficiency or excess of adrenal gland hormones	352	15.46
3.	Psychiatric Disorders	Anxiety disorders, depression, bipolar disorder, obsessive-compulsive disorder, social phobia, panic disorder, obsessive-compulsive disorder (OCD), post-traumatic stress disorder (PTSD), schizophrenia eating disorders, personality disorders, substance abuse, etc.	282	12.38
4.	Rheumatic and Musculoskeletal Diseases	Inflammation, infections, and deterioration of muscle, joints, and bones, rheumatoid arthritis (arthritis), Systemic lupus erythematosus (SLE), etc.	205	9.00
5.	Central Nervous System / Neurological Disorders	Paralysis, epilepsy, meningitis, rabies, Alzheimer's, dementia, sleep disorders, multiple sclerosis (MS), amyotrophic lateral sclerosis (ALS), Parkinson's, balance disorders, myasthenia gravis, Guillain-Barré Syndrome and so on.	174	7.64
6.	Respiratory System Diseases	Upper and lower respiratory diseases, acute bronchitis, chronic bronchitis, Chronic Obstructive Pulmonary Disease (COPD), pneumonia, tuberculosis, asthma, lung cancer, and so on.	159	6.98
7.	Diseases of the Digestive System	Diarrhea, constipation, reflux, indigestion, hemorrhoids, breech fractures (anal fissures), colitis, stomach cancer, bowel cancer, liver cancer, gallbladder cancer, pancreatic cancer, esophagus cancer, salivary gland cancer, gastric ulcer & bleeding , gastritis problems, gallstones and inflammations, diseases of the stomach and duodenum, diseases of the small intestine, diseases of the large intestine, diseases of the rectum, bleeding from the esophagus varicose veins, stomach and intestinal polyps, cirrhosis, etc	112	4.92
8.	Urinary System Diseases	Kidney infection, bladder infection, infection of other organs of the urinary tract, inflammation of the prostate and other connected organs (prostatitis), urinary production and excretory system-related disorders, urinary production and excretory system-related anomalies, urinary production and excretory system-related obstructions, stones, malignancies	109	4.79
9.	Sensory System Diseases	Diseases and disorders related to the sense of sight, hearing, smell, and taste.	56	2.46
10.	Dermatological Diseases	Eczema, atopic dermatitis, acne, skin infections through sexual contact, warts, herpes, shingles, fungal diseases, benign and malignant tumors of the skin, diseases of the scalp, nail disorders, moles, allergic and itchy skin diseases, vitiligo, etc.	17	0.75
11.	Hematopoietic System Diseases	Leukemias, lymphomas, multiple myeloma, myelodysplastic syndrome, hemophilia, Mediterranean anemia, pernicious anemia, aplastic anemia, thrombocytopenia, and so on.	12	0.53
12.	Breast Diseases	Breast tissue anomalies, fat tissue loss, ductal obstruction, cysts, cancers	2	0.09
13.	Immune System Diseases	Psoriasis, psoriatic arthritis, inflammatory bowel disease (IBD), immune vasculitis, celiac disease, Sjogren's syndrome, HIV, etc.	0	0.00

Table-2. The relationship between the type of diseases and late-life depression

	Presence of the Disease (PD)						Absence of the Disease (AD)					
	One Disease Category			Multiple Disease Categories			One Disease Category			Multiple Disease Categories		
	n	M	SD	n	M	SD	n	M	SD	n	M	SD
Cardiovascular	512	9.17	6.55	356	11.33	6.97	708	10.38	7.17	146	13.40	7.55
Endocrine	151	9.39	6.73	201	12.21	6.91	1069	9.94	6.97	301	11.74	7.39
Psychiatric	49	12.67	7.81	233	13.86	6.99	1171	9.76	6.88	269	10.25	6.96
Musculoskeletal	118	9.70	6.93	87	10.77	7.17	1102	9.89	6.94	415	12.17	7.19
Neurological	117	10.63	6.99	57	12.84	8.29	1103	9.80	6.93	445	11.81	7.05
Respiratory	96	10.83	7.85	63	9.54	6.56	1124	9.79	6.85	439	12.27	7.22
Digestive	65	11.63	7.89	47	11.98	7.21	1155	9.78	6.87	455	11.92	7.20
Urinary	68	10.82	7.12	41	12.85	7.87	1152	9.82	6.93	461	11.85	7.14
Sensory	29	8.69	5.56	27	11.00	7.50	1191	9.90	6.97	475	11.98	7.18
Dermatological	8	7.13	3.64	9	7.00	7.35	1212	9.89	6.95	493	12.02	7.17

Note-1. n = number of participants, M = mean, and SD = standard deviation

Note-2. Disease = Disease or disorder.

Note-2. Since the observed frequencies are low, the hematopoietic system diseases, breast diseases, and immune system diseases are not included.

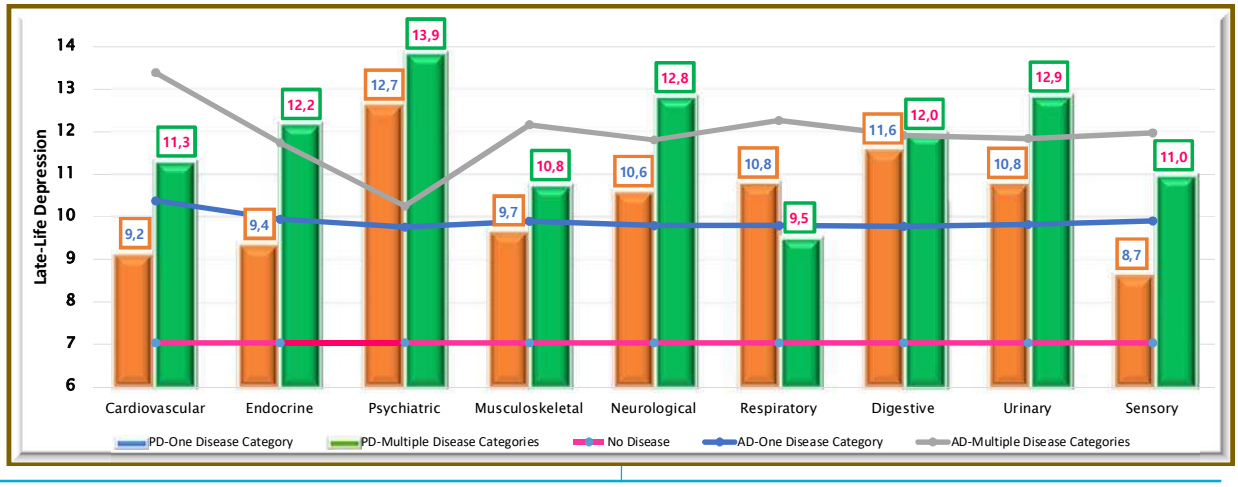
system diseases, metabolic and endocrine disorders, rheumatic and musculoskeletal diseases, central nervous system - neurological disorders, urinary system diseases, and sensory system diseases. In the presence of another or more diseases, cardiovascular system diseases, metabolic and endocrine disorders, rheumatic and musculoskeletal diseases, central nervous system - neurological disorders, urinary system diseases, and sensory system diseases are related to a high level of late-life depression. Two exceptions to this condition have been observed: Respiratory system diseases and dermatological diseases (see Figure-2).

Discussion

The present study aimed to explore medical diseases comorbidity with depression among aged adults. Researchers suggested an understanding of the association with medical diseases and depression to define risk factors and prevention strategies (Collard et al., 2017; Lue et al., 2010). This study investigates the role of the type and the number of medical diseases on late-life depression.

In respect to the percentage of diseases or disorders, cardiovascular system diseases, metabol-

Figure-2. Graphical demonstration of the relationship between disease types and late-life depression



ic and endocrine disorders, psychiatric disorders, rheumatic and musculoskeletal diseases, central nervous system / neurological disorders, and respiratory system diseases are the six most commonly observed categories of diseases. As expected, older adults having two or more medical diseases category has higher scores of late-life depression than those with one medical disease category or those without any medical disease. Individuals exposed to two or more medical disease might experience more boredom than the others when considering burnout and medical disease relationship (Boe et al., 2017; Subramaniam et al., 2016). Those people should adhere to treatment, which is requiring high effort.

Likewise, seen in other studies (Subramaniam et al., 2016), the types of medical diseases are related to late-life depression. In the present study, higher depression is seen among participants who have psychiatric disease and digestive system alone. Since depression is one of the psychiatric disorders, higher depression among patients with any psychiatric disorder is understandable. Patients might feel hopeless and helpless about the treatment of a psychiatric disorder that those symptoms are part of depression. The digestive system is also called the second brain since it supports the immune system for healthy functioning (Lipski, 2012). Therefore, higher late-life depression among patients with digestive diseases is understandable since individuals' capability to digest well is limited, which leads to difficulty in life. Besides, in the case of multiple diseases, patients with psychiatric disorders, digestive system diseases, cardiovascular system diseases, metabolic and endocrine disorders, rheumatic and musculoskeletal diseases, central nervous system - neurological disorders, urinary system diseases, and sensory system disease. Besides, as cited in the literature, older adults with chronic disease experience higher depression (Zivin et al., 2010). Similar findings were seen for higher depression with respiratory and heath disease (Zivin et al., 2010). A possible reason is those problems have restrictive value on the daily life of older adults. For instance, older adults with urinary problems should use restrooms frequently during the day, which limits the life cycle. Also, older adults with metabolic or endocrine system disorder should monitor blood glucose levels and use a restrictive diet every day. Patients with rheumatic and musculoskeletal diseases have the inability to move in places that also limit the level of solid functionality. In case of experiencing multiple diseases, older adults have higher caring needs. Managing the medicine cycle (i.e., taking pills) becomes complicated. Therefore, having more than one chronic disorder and a higher depression relationship is expected.

There are certain limitations to the present study. Association between types of and the number of illness and depression were investigated cross-sectionally. It is recommended to examine whether the time is contributing to results. Therefore, longitudinal studies can help to investigate physical changes in time relation to depression. Also, individuals' ratings about the importance of the disease in their daily life are recommended for future studies in case especially patients with multiple disorders. On a behind of limitations, the present study participants are composed of older adults who are living at a hospital, in a nursing home, or in a home. Also, using a large sample is one of the strengths of the present study.

In clinical settings, developing screening tools among older adults with physical problems are recommended (Saracino et al., 2016; Subramaniam et al., 2016) since there are some overlapping symptoms of depression and medical illnesses among patients with medical diseases in late-adulthood (Haigh et al., 2017; Saracino et al., 2016). Also, collaborations between psychologists and doctors are necessary (Subramaniam et al., 2016). Moreover, it is highlighted to educate doctors about early recognition of depression (Fiske et al., 2009). Also, pharmacological treatment to be less efficacious (Haigh et al., 2017). Therefore, psychological treatment is necessary. Giving information to older adults about medical disease is also recommended to handle depression (Fiske et al., 2009). Besides, as seen in a meta-analysis, encouraging older adults' social support groups (Forsman, Schierenbeck, & Wahlbeck, 2011) and applying cognitive-behavioral

psychotherapy treatment (Hummel et al., 2017) are helping to recovery from late-life depression.

Briefly, older adults with chronic medical diseases and late-life depression relationship are revealing the bidirectional functions of the physical and psychological system. Future studies are encouraged to examine those relations between the systems.

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References

Bao, Y. P., Han, Y., Ma, J., Wang, R. J., Shi, L., Wang, T. Y., ... & Lu, L. (2017). Cooccurrence and bidirectional prediction of sleep disturbances and depression in older adults: Meta-analysis and systematic review. *Neuroscience and Biobehavioral Reviews*, *75*, 257-273. Crossref.

Cheung, G. & Sundram, F. (2017). Understanding the progression from physical illness to suicidal behavior: A case study based on a newly developed conceptual model. *Clinical Gerontologist*, *40*(2), 124-129. Crossref.

Collard, R. M., Arts, M. H. L., Schene, A. H., Naarding, P., Voshaar, R. O., & Comijs, H. C. (2017). The impact of frailty on depressive disorder in later life: Findings from the Netherlands Study of depression in older persons. *European Psychiatry*, *43*, 66-72. Crossref.

Ertan, T., Eker, E., & Sar, V. (1997). Validity and reliability of the Geriatric Depression Scale in the Turkish elderly population [Geriatrik Depresyon Ölçeğinin Türk yaşlı nüfusunda geçerlilik ve güvenilirliği]. *Archives of Neuropsychiatry, 34*, 62-71.

Fässberg, M. M., Cheung, G., Canetto, S. S., Erlangsen, A., Lapierre, S., Lindner, R., ... & Duberstein, P. (2016). A systematic review of physical illness, functional disability, and suicidal behaviour among older adults. *Aging and Mental Health*, *20*(2), 166-194. Crossref.

Fiske, A., Wetherell, J. L., & Gatz, M. (2009). Depression in older adults. *Annual Review of Clinical Psychology*, *5*, 363-389. Crossref.

Forlani, C., Morri, M., Ferrari, B., Dalmonte, E., Menchetti, M., De Ronchi, D. & Atti, A. R. (2014). Prevalence and gender differences in late-life depression: A population-based study. *American Journal of Geriatric Psychiatry, 22*, 370-380. Crossref.

Forsman, A. K., Schierenbeck, I., & Wahlbeck, K. (2011). Psychosocial interventions for the prevention of depression in older adults: Systematic review and meta-analysis. *Journal of Aging and Health*, *23*(3), 387-416. Crossref.

Garfield, V., Llewellyn, C. H., & Kumari, M. (2016). The relationship between physical activity, sleep duration and depressive symptoms in older adults: The English Longitudinal Study of Ageing (ELSA). *Preventive Medicine Reports*, *4*, 512-516. Crossref.

Haigh, E. A., Bogucki, O. E., Sigmon, S. T., & Blazer, D. G. (2018). Depression among older adults: A 20-year update on five common myths and misconceptions. *The American Journal of Geriatric Psychiatry*, *26*(1), 107-122. Crossref.

Hummel, J., Weisbrod, C., Boesch, L., Himpler, K., Hauer, K., Hautzinger, M., ... & Dutzi, I. (2017). AIDE-acute illness and depression in elderly patients. Cognitive-behavioral group psychotherapy in geriatric patients with comorbid depression: A randomized, controlled trial. *Journal of the American Medical Directors Association*, *18*(4), 341-349. Crossref.

IBM (2017). *IBM SPSS Statistics for Windows, Version 25.0*. Armonk, NY, USA: IBM Corp.

Lipski, E. (2012). *Digestive Wellness: Strengthen the Immune System and Prevent Disease Through Healthy Digestion*. New York, NY, USA: McGraw-Hill.

Lue, B. H., Chen, L. J., & Wu, S. C. (2010). Health, financial stresses, and life satisfaction affecting late-life depression among older adults: A nationwide, longitudinal survey in Taiwan. *Archives of Gerontology and Geriatrics*, *50*, S34-S38. Crossref.

Luppa, M., Sikorski, C., Luck, T., Ehreke, L., Konnopka, A., Wiese, B., ... & Reidel-Heller, S. G. (2012). Age- and gender-specific prevalence of depression in latest-life: Systematic review and meta-analysis. *Journal of Affective Disorders,136,* 212-221. Crossref.

McIntyre, E., Lauche, R., Frawley, J., Sibbritt, D., Reddy, P., & Adams, J. (2019). Physical activity and depression symptoms in women with chronic illness and the mediating role of health-related quality of life. *Journal of Affective Disorders*, *252*, 294-299. Crossref.

Petkus, A. J., Beam, C. R., Johnson, W., Kaprio, J., Korhonen, T., McGue, M., ... & IGEMS Consortium. (2017). Gene-environment interplay in depressive symptoms: Moderation by age, sex, and physical illness. *Psychological Medicine*, *47*(10), 1836-1847. Crossref.

Saracino, R. M., Rosenfeld, B., & Nelson, C. J. (2016). Towards a new conceptualization of depression in

older adult cancer patients: A review of the literature, *Aging and Mental Health*. *20*(12), 1230-1242. Crossref.

Sagduyu, A. (1997). Depression Scale for Older Individuals: A reliability and validity study compared to the Hamilton Depression Scale [Yaşlılar için Depresyon ölçeği: Hamilton Depresyon Ölçeği ile karşılaştırmalı güvenilirlik ve geçerlilik çalışması]. *Turkish Journal of Psychiatry, 8*(1), 3-8.

Subramaniam, M., Abdin, E., Sambasivam, R., Vaingankar, J. A., Picco, L., Pang, S., ... & Chong, S. A. (2016). Prevalence of depression among older adults: Results from the well-being of the Singapore elderly study. *Annals Academy of Medicine Singapore*, *45*, 123-33.

Yen, I. H., Michael, Y. L., & Perdue, L. (2009). Neighborhood environment in studies of health of older adults: A systematic review. *American Journal of Preventive Medicine, 37*(5), 455-463.

Yesevage, J. A., Brink, T. L., Rose, T. L., Lum, O., Huang, V., Adey, M., & Leirer, V. O. (1983). Development and validation of a geriatric depression screening scale: A preliminary report. *Journal of Psychiatric Research, 17*(1), 37-49. Crossref.

Zivin, K., Llewellyn, D. J., Lang, I. A., Vijan, S., Kabeto, M. U., Miller, E. M., & Langa, K. M. (2010). Depression among older adults in the United States and England. *The American Journal of Geriatric Psychiatry*, *18*(11), 1036-1044. Crossref.

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The Culture of Retirement in Lebanon: Obstacles and Opportunities for Addressing the Transition to Public and Private Sector Post-Employment Life

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Abstract

Retirees in Lebanon currently experience a number of socio-cultural and economic obstacles that limit their ability to experience retirement in a meaningful and productive way. The current paper draws on research and programming in Lebanon that was developed to understand and promote a healthy culture of retirement in Lebanon where the needs of retirees were explored by a joint initiative by the government and civil society. Results of two focus groups and the implementation of community enrichment pilot programs for retirees fed into the development of a framework to highlight the ways in which investments in retirees could be optimally realized at the national and municipal levels in Lebanon. Future plans for research and programming to test this model further were also generated as part of this overall project. These results provide a framework for how retirees may be further engaged in civil society and a roadmap for conceptualizing programs for retirees that need minimal large-scale government action.

Keywords: Retirement, social support, social norms, culture, intervention, Lebanon

Key Practitioners Message

- This may be a beneficial model for those practitioners working in countries in middle income and post-war transitional phase governments where significant legislative commitments to retirees may be slow to enact.

Introduction

The nature of retirement and the role retirees play in society is an economic, cultural, and social issue that governments around the world often face. In middle and low-income countries, ensuring the financial security with high quality of life in the community for retirees has become increasingly challenging (Rached, 2012; Tohme, Yount, Yassine, Shideed, & Sibai, 2011); increased life expectancy, a growing proportion of retirees in the population, and the economic burden of providing robust social security benefits and pensions to retirees are active issues.

Lebanon has experienced pronounced obstacles to supporting retirees due to a number of demographic factors, including an aged population (mainly women) coupled with an outdated social insurance system (Sibai, Sen, Baydoun, & Saxena, 2004). This has left the country in need of economic, social, and societal reforms. Many retirees live alone (17.3% men and 6.2% women) and they end up with a meager income in old age, with 74.8% of their income supplied by their children (Tohme et al., 2011), vulnerable to falling into poverty with over half of Lebanon's older adults population considered "economically deprived" (Rached, 2012). This prevalent poverty status among older adults contributes to their deprivation from access to health services, water, electricity, and housing (Rached, 2012). Saxena (2008) asserted that

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the burden of supporting Lebanese pensioners would increase from 10.8% in 2000 to over 27% in 2050. To add to their struggle, the aftermath of the July 2006 War resulted in older adults as the most vulnerable population having more severe difficulty in attaining their needs (Sibai, Yount, & Fletcher, 2007). This is due to the current system not attending to the needs of Lebanese adults older than 65, including retirees, and that the political situation does not allow for any foreseeable reform (Saadeh & Mikhael, 2016; Sibai, 2000; SSA: Social Security Administration, 2010). The local and foreign institutions have proposed to institute a non-contributory social security scheme to counteract this troubling economic reality (Rached, 2012). Unfortunately, to date, no government propositions have been realized (Table-1).

This paper turns to other types of governmental and civil support that may not be monetary but rather based on educating, socially valuing, empowering, and better understanding retirees. These resources and supports begin with providing aid to retirees in financial planning as they age, such as covering benefits, pension plans, health and continued education as well as developing projects for retirees to contribute productively to society and their local community. These are also resources and programs that with cultural adaptations, may provide frameworks for countries outside of Lebanon navigating similar issues with their population of retirees to implement.

This paper will introduce the "culture of retirement," a concept very new to the Lebanese population. The culture of retirement is likened to an educational pedagogy where we need to gain knowledge and culture to understand it and have it prosper. We write with the hope that this conceptual framework will be utilized, revised, and practiced to serve the needs of diverse Lebanese communities. Like any new concept, it remains in its nascent form and will need multiple iterations through evaluation and monitoring to understand what works and what does not. The core structure of this model may also serve as a template for other communities to develop their own national or community-specific paradigms.

Literature Review

Lebanon is a country in the Middle East located in the Eastern Mediterranean. It has a population estimated at 6.86 million, though no official census has been conducted since 1932. The population pyramid favors youth with citizens younger than 54 years of age, constituting 84% of the population. Having said that, the portion of the population 55-64 years of age accounts for 8.34% of the total population (241.206 males; 267.747 females) and people aged > 65 years of age as 7.03% (185.780 males; 243.015 females), numbers that are on the rise (Sibai et al., 2004; SSA, 2010). Twenty-five percent of the Lebanese population lives below the poverty level (ReliefWeb, 2017). Despite this predicted rise in population demographics and increased financial insecurity, little research has taken place in Lebanon to gauge the climate of retirement in the country.

Recent protests took the streets demanding for equality and the end of corruption (BBC, 2019). Many were demanding reforms in all sectors, including urgent retirement reforms and end-of-job security. 28% of Lebanon's 1.5 million healthy workforces are covered by a 1963 pension law. 80% of Lebanon's population aged > 65 years of age lacks pension and health coverage, as most have worked in the informal economy or private sector (ILO: International Labor Organization, 2013). The remaining 20% of workers are from the public and military sectors and have their own retirement scheme (SSA, 2010). The social security in Lebanon is regulated by an outdated law of 1963, which provides for a social insurance system granting end-of-service indemnity (EOSI) lump-sum benefits only with no further security benefits. There is no monthly payment, and all benefits, including health coverage, end at retirement (Abdulrahim, Ajrouch, & Antonucci, 2014; Rached, 2012; The Presidency of the Council of Ministers, 2019). The system covers employees in the industry, commerce, and agriculture sectors. Public sector employees and teachers are covered by a separate system. The employers contribute solely to the fund constituting 8.5% of the payroll, leaving a real strain on employers also at the end of service as they must muster a large

sum when the employee retires (Rached, 2012). The insured person does not have to make any contribution. The old-age benefit is available from age 60 but is compulsory after 64.

This benefit consists of a lump sum of the final month of earnings (or one month of average monthly earnings during the previous twelve months, if higher) multiplied by the number of years of service up to 20 years plus 1.5 months of earnings per year of service beyond 20 years or up to age 64 (The Presidency of the Council of Ministers, 2019) (Table-1). Public pensions make up 3% of Lebanon's Gross Domestic Product (GDP) and operate on the pay-as-you-go system. The most recent pension increase was granted in 2012. In 2017, a new bill to compensate for the increase in salary and new pension plans for a salary increase was complicated by a tax hike and was debated in parliament (The Daily Star, 2017).

The NSSF currently operates in the private sector and helps provide end of service pension plans, covers sick leave, maternity leave, portions of medical care, and a handful of additional service benefits that are only available to working members of society employed in the private sector and who are insured (SSA, 2010). Most individuals working in the private sector (excluding those who are self-employed) rely on the NSSF for end of service benefits (Jarmuzek & Nakhle, 2016; SSA, 2010). The National Social Security Fund (NSSF) and additional private sector social security schemes also do not address the financial needs of those who have never been employed, a demographic in Lebanon primarily comprised of women (Abdulrahim et al., 2014) (Table-1).

With this scheme above, Lebanon is one of the shrinking minority of countries that maintain EOSI (Sibai, 2000). In comparison, other countries in the region such as Jordan, UAE, Syria, Iraq, and Saudi all cover regular pension. Moreover, in comparison to low-income countries in the African continent, Lebanon continues to fall behind in services offered and reforms enacted to meet the needs of its retirees. Uganda (population 42.86 million) covers 10.2 % of its total workforce and allows for a pension plan, annuity, and lump sum (Munyambonera, Katunze, Munu, & Sserunjogi, 2018). In fact, in 2018, Uganda had to expand pension coverage as retirees' numbers increased, and the coverage was uneven (Munyambonera et al., 2018). In another example, Rwanda (population 12.21 million) maintained a social security law framework since 1956 with reformed laws in 1974, 2003 and 2015 for their national pension scheme. Salaried workers (temporary and casual), professionals, trainees, civil servants, politicians and government employees in Rwanda are all covered. Even self-employed citizens have voluntary coverage of up to 50%. The employee starts with 3% of covered earnings and can go up to 30% after 3 years while the employer covers 3% of payroll. At the end of employment, the retiree is offered a lump sum in addition to a monthly pension. There is even a disability coverage, sickness and maternity coverage as well as survivor pension. In 2016, Rwanda enacted a new reform to cover self-employed women, often in agriculture and small-scale artisans, in their maternity security coverage as well as end-of-work indemnity (SSA, 2017).

There is no doubt that Lebanon could gain a great deal from reviewing its own law and moving towards the acceptable global reality when it comes to social security. Many reform proposals have been drafted, essentially to transform the lump sum payment, which is rapidly spent when citizens need it most to cover healthcare and other expenses, into a monthly pension for the remainder of their lives as it will be best for the retirees and also easier on the employers. In 2004, the government proposed a flat indemnity for the public sector to individuals who have not worked enough and a minimum pension for those who had enough contributions (Rached, 2012). In 2011, there was another new draft which promoted individuals to pay a contribution from their salaries and receive at least 40 % of their wages if they have worked for more than 30 years (ILO, 2013). World Health Organization (WHO) also proposed an investment policy to increase the monthly contributions and get; as a result of a monthly lifetime pension under ethical principle to protect and "senior citizens have the right to be fully insured" (Hamade, Ghobeira, & Yassin, 2015).

Table-1. Comparison of public vs. private retirement schemes in Lebanon

	PUBLIC SECTOR	PRIVATE SECTOR
Retirement Age	Maximum retirement age 64 for civil servants Maximum retirement age 58-64 for military members depending on military rank.	The maximum age is 64 for eligibility to accrue end of service indemnity.
Benefits	< 20 years service receives an end of service payment > 20 years service received choice between lifetime pension of end of service payment > 40 years service receives both a lifetime pension and end of service payment Dependents can inherit pension upon death of the employee	Once the end of service indemnity is claimed, retiree received lump sum totally one month's worth of salary for every year worked, and 1.5 month's worth of salary for every subsequent year worked after 20 years. The downfall is that they lose all benefits, including health services, after retirement
Contributions	6% of basic salary; retirees do not have to contribute during retirement	Employees do not contribute. Employers contribute 8.5% of employees taxable income
Exceptions		University teachers, private school teachers, and private syndicates have alternative or additional retirement schemes

Collaborative Framework for a Proactive Initiative

With little meaningful research and difficulties in delivering a developed contemporary policy for retirees in Lebanon, we joined efforts with the Lebanese Ministry of Social Affairs (MOSA) to explore alternative avenues to empower retirees and value their contribution to Lebanese society. MOSA assumes a pivotal role in developing the older adults' welfare pension scheme and has the power to solidify partnerships with United Nations Development Programs (UNDP) for pieces of training and more. Other stakeholders for such programs have been historically International Labor Organization (ILO), the World Bank, Ministry of Finances, and Ministry of Labor, NGOs, civil society, media, senior citizens. Our collaborative project aimed to develop a richer and more nuanced picture of the nature of retirement in Lebanon. A primary aim of the study was to determine what additional social, cultural, health, and economic factors hindered retirees in Lebanon and what concrete steps could be taken to incentivize greater political and community investment in retirees. These recommendations were then presented in a larger framework with the potential benefits of a new social contract between Lebanese retirees and civil society.

Research Design and Methodological Approach

Overview

In December of 2013, two focus groups were conducted with retired civil servants in Beirut by the first author upon an invitation from the Lebanese Ministry of Social Affairs (MOSA). The focus groups provided insight on a variety of challenges faced by retirees and possible mechanisms for creating a healthy culture of retirement beyond increased pensions or social security benefits. The focus groups comprised of individuals from diverse Lebanese regions. Their responses were then adapted to set a pilot plan exploring what could be done to disseminate a healthier retirement culture in Lebanon. This initial endeavor included new opportunities for education, community development programs in the six municipalities of the country, fundraising, and a retiree appreciation day. Of note, the six municipalities volunteered to take part in the pilot program. As MOSA serves all Lebanese, it always divides its fieldwork and projects to cover 6 *mohafazat* (counties).

Focus Groups

The two focus groups were comprised of a total of 30 participants; n=18 in one group n=12 in the second (Figure-1). Members of the focus groups

were retired civil servants and military members convened by MOSA in Beirut. The two groups were both heterogeneous in age, socioeconomic status, and religion. All participants but one were men. An interview guide was developed to probe for challenges facing retirees in Lebanon and how an ideal culture of retirement could be implemented in the country.

Programming

With data gathered in the focus group and after participants' consent given to MOSA organizers for the dissemination of the results of the focus groups, retirees from the public and private sector, NGO donors, experts on aging and finances, and municipal councils set to explore and test multiple approaches to improve retirement culture in Lebanon.

Results of the Focus Groups

Retirees in the focus groups generated a number of challenges they felt were most salient in characterizing the lack of retirement culture in Lebanon.

Challenge 1: Inactivity of the Government

Members of the focus groups felt that the primary responsibility for facilitating efforts to serve retirees in Lebanon was with the government. Both focus groups described the government's current role as "idle" and that "the government offers no support" with respect to its stance on aiding retirees. While policy reforms by the government had been enacted in the past, before the start of the civil war in 1975, the retirees felt that these reforms were often not realized in the community. No bills of this nature have been brought to parliament to vote on, especially as the country continues to be divided along sectarian lines and has never made it out of a post-war transitional phase to a stable good governance phase. Since 2013, there has been a public slogan that the social protections enacted through a robust and equitable pension plan is within reach (ILO, 2013). Unfortunately, this plan has not transpired.

Retirees in the focus group stated that some way to monitor government implementation of policies toward retirees was critical for building their trust. A "watchdog" group to oversee external supervision of the government would also need to include retirees. It was also a desire of the retirees to see that these social policies from the government were sustainable and could remain enacted in the long term. One participant in the focus groups stated that "a bill with new rights" for retirees would be an essential next step to achieve this.

Challenge 2: Lack of Financial Planning Resources

A significant worry for retirees, per the focus groups, was that there are few resources in Lebanon for retirees to learn how to be financially savvy and independent after they no longer work. As one participant stated, "it is helpful to get training to prepare for this new phase, but no one offers anything." Courses on financial planning, wealth management, navigating inheritances, and family responsibilities in retirement were suggested as a way in which retirees could better prepare for the economic challenges engendered by the current system.

Moreover, Lebanon is seeing a prominent migration of working individuals to other countries. It is currently estimated that there is a more significant Lebanese diaspora than the current population of Lebanon (Abdulrahim et al., 2014). Traditionally, working family and community members have played a direct role in assisting retirees. However, the shifting demographics of Lebanese society leave many retirees to navigate the management of their finances alone and without many resources for preparation and guidance. The government may not be able to provide support to retirees through the more substantial end of service payments. However, it could improve the quality of their transition into retirement by providing the tools needed to manage their finances better and think early on to include education to their financial future throughout their productive working years.

Challenge 3: Gender

In the current generation of retirees in Lebanon, most women have not worked and therefore are

not eligible for even the meager financial benefits provided at the end of service for workers in the private sector. The focus groups noted that any meaningful social policy enacted by the government for retirees needs to accommodate the current reality where men and women retire differently (Sibai, 2000; Sibai et al., 2004; Sibai et al., 2007). Traditionally, women who have not worked are not supported by the NSSF end of service indemnities, private syndicate schemes, or pension plan of a spouse. Unfortunately, public sector pension plans are the only schemes that ensure a worker's pension will pass on to a surviving spouse if the retiree dies (Jarmuzek & Nakhle, 2016). For women of retirement age, factors such as childbirth and family life have often prevented even those women who have worked in their lifetime from being employed the number of years needed to receive maximum NSSF or pension benefits. According to the Lebanese League of Women in Business, over 15 pieces of legislature and amendments to the legislature as of 2011 have specifically aimed to add benefits for Lebanese women workers or to make their access to benefits more equitable to male counterparts. To date, almost all proposed items are "pending follow-up by the Lebanese Parliament" (MENA Group**:** World Bank Middle East and North Africa Social and Economic Development Group, 2009).

Challenge 4: Lack of Appreciation

Not all problems with the current culture of retirement in Lebanon discussed by the focus group were financial. Retirees stated that their psychosocial needs were not being met and that these too were requirements for a meaningful retirement culture. There was a general feeling among members of the focus groups that retirees were underappreciated by the government. Retirees viewed their experience in the community, their desire for productivity, and the years of investments made in them by the government while working to be an untapped resource. One participant described that "one should not surrender to retirement but should have a project." Rather than an idle period, the retirees viewed retirement as another phase in the "continuum" of their productive lives. Positive cultural recognition of retirement and retirees was a necessary ingredient for any social contract between them and the government. However, the resources needed to galvanize such efforts, such as money and governmental support, were lacking.

Challenge 5: Former Military Members Disengaged

How retirement in the military field should be better addressed was a primary concern for the focus groups. When individuals are active in their military careers, the government of Lebanon invests heavily in their professional development. These career investments include receiving rigorous training locally and abroad. Retirees from the army thus felt dismayed by the sense of feeling severed from the military at the end of their careers. One participant in the focus groups described that once retirement begins, "we leave and vanish into thin air." After the resources that had been provided for their career development, the former military members of the focus group stated that they wished to both give back to the military through other forms of service. Instead of being "retired" from the military, a more favorable term posited by the focus groups was an "end of service." (Figure-1).With this background in mind, the outcomes from the focus groups centered on the new initiatives detailed below.

Day of the Retiree

On the national level, a Retiree Loyalty day was planned by MOSA and celebrated June 2, 2015, at the United Nations Educational Scientific and Cultural Organization (UNESCO) palace. Additional sponsorship also was provided by Lifeline and First National bank. There were 264 participants, among them 179 retirees who were involved in the municipality planning, 42 retirees from the public sector, and six retirees from the National Commission of the Elders. Many people were honored, and the event made national news. A pledge ensued to keep the celebration on a yearly basis in the period of May-June. Retirees on the planning committee wanted to connect to other groups worldwide to brainstorm and learn about how other nations promote an active, fruitful, and

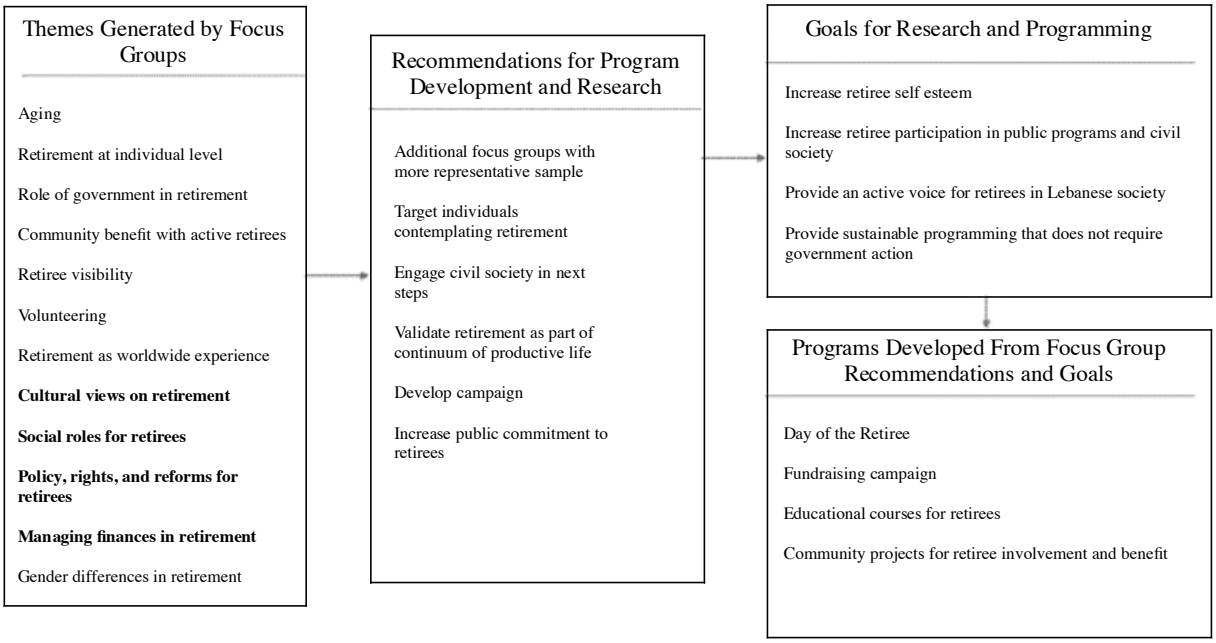

Figure-1. General themes about the nature and challenges of retirement in Lebanon

Note 1: These general themes were stated in the focus groups. Themes were translated into recommendations and goals for future programming, resources, and legislature in Lebanon for retirees. Programming developed as a result of the focus group was included in this model.

Note 2: Bolded text indicates theme discussed by both focus groups.

fulfilling retirement phase where retirees are financially independent.

Fundraising

Civil society groups, private donors, and the government also collaborated to implement a staged fundraising campaign. The purpose of the fundraising campaign was to raise money to help implement a national program for retiree engagement in multiple municipalities in Lebanon. The fundraising campaign collected a total of $46.000 (USD). This money would help augment the $12.000 (USD) a year that municipalities are participating in the pilot program already received annually from the Lebanese Ministry of Internal Affairs to spend on local projects.

Education Courses

Prior to the start of the development project planning process, region retirees attended presentations to help them better prepare for life during retirement. These presentations were conducted by medical professionals, financial advisors, and occupational therapists. Presentation topics for the retirement community included wellbeing, healthy aging, productive time management, as well as managing finances in retirement. These courses were provided in part to meet the retirees' desire to receive education for planning retirement as well as to help provide information for community leaders to inform the pilot projects.

Pilot Development Programs

This arm of the program was conducted in six municipalities located in five regions of Lebanon (Table-2). Lebanon is divided into six *mohafazat*: Beirut, Mount Lebanon, North Lebanon, South Lebanon, Bekaa, and Nabatieh. In February of 2015, representatives from NGO civil society donors *Likaa el Athnayn*, MOSA staff, members of the municipal councils, and four retirees (two men and two women) in each municipality were selected to plan, engage their communities, and oversee the implementation of chosen pilot development projects to help promote retiree engagement within the community. Money raised in the fundraising portion of the program was used to help the municipalities cover the cost of their projects.

Each municipality that participated in the pilot development project portion of the study developed a program that was implemented in the communities (Table-2).

Table-2. Completion status of pilot development programs by region and municipality

Region	Municipality	Program	Phases of completion
North	Halba	Established agricultural coop, irrigation tools, and farmland to grow crops. Crops sold at a lower price to retirees and non-retirees paid full price. Full price lower than the regular market price to make coop produce more lucrative in the community.	Completed and launched
North	Zgharta	Committee established a retiree club and education center. Started education workshops by retirees for retirees and the public. Workshops based on the teaching retiree's interest and specialty.	Completed and launched
Chouf	Amateur	Established a retiree club and local meeting place for social gatherings or for study. Aimed at increasing socialization and to provide opportunities for retirees to work on projects and be consultants on community projects.	Completed and launched
Bekaa	Rachaya	Bus purchased to help retirees conduct business within the region and outside of the municipality. The aim was to expand the capacity for retirees to be productive and involved with various projects taking place in the region.	Completed and launched
South	Nabatieh	Constructed a sports club for members of the community, including retirees. Membership for community members to the club was free to individuals who wished to be physically active but had limited financial resources.	Completed and launched
Mount Lebanon	Jounieh	Constructed a retiree club for social gatherings, studying, and community projects. Prioritized the work of retirees on aspects of local urban development projects and expansion.	Construction plans completed. Awaiting contractors bids

Conceptual Framework for a New Social Reality for Lebanese Retirees

The current literature on the economic pitfalls of retirement in Lebanon and the results of the focus group generated new ideas to explore in the field and advanced a conceptual framework for developing a healthy retirement culture in the country (Figure-2). The top part of the model outlines potential investments that could be made by civil society in retirees. These investments fall into three categories: socio-cultural, health, and economical. Within these categories are suggestions generated by the focus groups and the literature on retirement in Lebanon. On either side of this "investment funnel" are those challenges that limit and restrict the investment potential in retirees and development of retirement culture. Limiting factors fall into the category of "socio-cultural" and "economic." The amount of investment directed into the development of a positive retirement culture in Lebanon then yields potential returns. These benefits fall on a spectrum of tangible returns that are concrete and easily measured and those that are less tangible but may hold crucial cultural relevance (Figure-2).

Potential Benefits Through the New Concept of "Culture of Retirement"

Increased integration of retirees into Lebanese civil society could have meaningful impacts, both tangible and intangible across the country. Preliminary data highlighted the desire of retirees to be more productive members of society. These benefits have been integrated into the conceptual model and are presented from most tangible to most intangible.

Involvement with national and local service

Though no longer working in a profession, retirees may still remain a source of assistance in communities. Lebanon is currently a leader economically in the Middle East and North Africa (MENA) region and has one of the largest retiree communities in the area (Abdulrahim et al., 2014; Saadeh & Mikhael, 2016). Investments in retirees, which mobilize them as a demographic with the potential for economic productivity, may ultimately advance the country's financial growth, rather

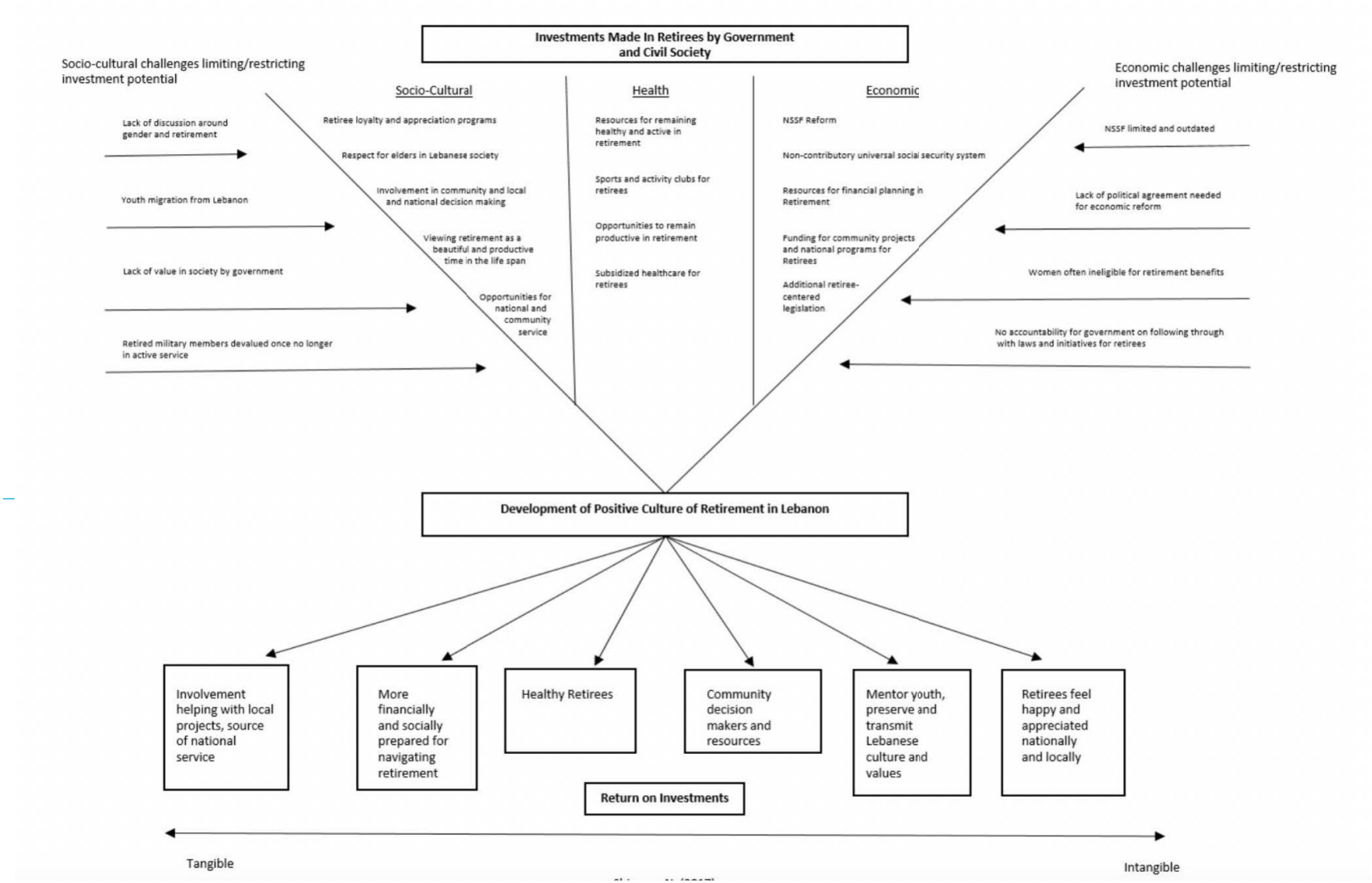

Figure-2. A conceptual framework for a new social reality for Lebanese retirees

Note: An "investment funnel" of socio-cultural, health and economic investments that can be made in Lebanese retirees is presented alongside factors that restrict this investment potential. The model then describes the benefits that may be reaped from the development of a positive culture of retirement in Lebanon on a spectrum of more tangible to intangible returns on retiree investments.

than hinder it due to the cost of this type of social investment.

Better financially and mentally prepared for navigating retirement

Currently, there is no foreseeable change to the structure and purpose of the NSSF. While awaiting the reforms, in lieu of a stagnant social insurance system, educational courses and materials for individuals nearing and in retirement to promote health and financial planning may be a useful start and meaningful measure in aiding retirees. Even simple resources to help retirees remain active and healthy during retirement and able to navigate the costs that increase during that phase of life, such as health care, could have the potential to improve retiree quality of life and potential for productivity significantly. Future public health research on this demographic can better determine what resources would be most effective in promoting retiree health and financial management acumen. These types of public policy measures require less enactment of political agreement as well as little economic restructuring at the national level (National Social Security Fund).

Opportunities to collaborate with the international community

The international community can help Lebanon with developmental programs targeting the preparation for retirement (Sayed & Robalino, 2009). While they continue to await Lebanon's partnership, in their mutual trades with the Lebanese government, the international community and economic donors and players could enforce that such plans are conducted on the ground for the procurement of a stronger social protection net and stabilized economy in Lebanon. This, in fact, would work as an incentive for Lebanon to ensure that its government abides by basic international employment and retirement law and hence benefit from more funding. In return, the international community will benefit from a stable and prosperous Lebanese economy.

Community resources, mentors, and cultural transmitters

On a local level, mutual benefits to retirees and Lebanese civil society through a new collaborative era may not be tangible or always quantifiable. Yet, these benefits may nonetheless be culturally impactful. In the focus groups, retirees expressed that the potential to mentor youth in their communities was important to them. The retirees recognized they might have a unique role to play in both preserving and transmitting Lebanese culture and values to younger generations. Lebanon is experiencing rapid demographic shifts, particularly in younger generations. Caring for members of society who no longer work has been a longstanding cultural value in Lebanon and a source of pride (Abdulrahim et al., 2014). However, this type of respect is not felt in the way the government treats retirees. Acknowledging the prevailing cultural tendency to view retirees as individuals with wisdom, insight, and leadership may strengthen national pride and adherence to social values across age groups. Initiatives from civil society to bolster this positive attitude could be done by tapping into local NGOs and committed Lebanese activists.

Retirees feel happy and appreciated

An easily overlooked benefit of addressing the pitfalls of retirement culture in Lebanon per the focus group data is that retiree self-perception may likely improve with a societal shift. It will boost their morale, giving them a sense of value and self-confidence and impact positively on their wellbeing and quality of life. Previously discussed benefits have focused primarily on harnessing retiree potential for improving Lebanese civil society as a whole. Some reluctance in trusting the Lebanese government's ability to deliver on policies to benefit retirees stemmed from the belief that it does not prioritize the appreciation and comfort of retirees. Feeling appreciated and that policies for retirees were in the interest of forwarding their vision of retirement was of deep personal significance to those in the focus group

Limitations of the New Concept

These efforts to explore effective pathways for creating a positive culture of retirement in Lebanon have been some of the first of their kind in the country. However, significant limitations did

exist with this project that requires further research into the lives and needs of retirees. One of the critical limitations of this work was that the focus groups were made up of former civil servants and military officials. All those interviewed for the focus groups were among the minority of Lebanese retirees who were eligible for a lifetime, ensured pension plans from the government due to their employment in the public sector.

Information provided about the needs of retirees may have been biased by the sample being relatively privileged benefits-wise compared to retirees from the private sector. For these individuals, themes in the groups focused primarily on improved quality of life, cultural appreciation, and more significant investment from the government in the productivity of retirees. Data from a more representative sample of retirees may have yielded different results and priorities for improving the challenges associated with retirement in Lebanon. Additionally, the focus groups were comprised of almost entirely men. Women retirees themselves were not sharing their experiences in retirement, though gender was stated as a critical issue in the focus groups. The selection of participants was not under the control of the author, who led the group. Further research with an economically representative sample and greater gender representation is needed for future studies, particularly on women in retirement or who have a spouse in retirement if they themselves have not worked. Focus groups or qualitative interviews targeting the retirement experience of women might better clarify what specific programs would most benefit this demographic in Lebanon.

For continuing research and community programming to promote retiree wellbeing, pre and post measures should be taken to quantify better and characterize the changes taking place as a result of these programs. Prior to the pilot development projects, no data regarding the status of and attitudes towards retirees was gauged by the study team and collaborators. Data were not collected during or after the implementation of the projects to measure the effectiveness of these programs in meeting their stated goals. Measures of retiree satisfaction with the government before and after new programming, preferences surrounding programming, changes in the way non-retirees perceive retirees after programming is implemented, and the health outcomes of retirees in communities with more significant opportunities for retirees could all serve as possible ways to track significant changes in the culture of retirement in Lebanon.

As a healthy retirement culture is streamlined, it would be in the interest of researchers and civil society leaders to expand their focus to the period of time spent in preparation for retirement. Retirees may be better served to receive resources that allow them to plan ahead of time for their health and financial wellbeing. At present, members of the private sector tend to be cut off very quickly from their NSSF benefits the moment they retire. Viewing individuals five years prior to retirement as part of the target group for social resources and programming might help provide a "head start" in preparing for a stable and productive life after employment. These resources might include financial planning courses, checklists for retirement preparation, embracing community volunteer work prior to retirement, or retiree led talks for soon to be retirees in their communities.

Conclusion

Many challenges currently inhibit retirees in Lebanon from feeling supported by the Lebanese government and civil society. However, with specific types of investment in the social and economic wellbeing as well as in the health of retirees, the Lebanese society as a whole may benefit from a happier, more active, engaged, and visible retiree population. Moreover, we find the conceptual model of "retirement culture" could strengthen the values of intergenerational work, increase and empower collaboration between civil society and the government. Ideally, the current efforts that have been made to develop a healthy culture of retirement in Lebanon will be disseminated throughout the country and serve in a more extensive global dialog on how to best support retirees in the MENA region and/or other middle-income countries.

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References

Abdulrahim, S., Ajrouch, K. J., & Antonucci, T. C. (2014). Aging in Lebanon: Challenges and opportunities. *The Gerontologist, 55*(4), 511-518.

BBC (2019, 21.10.2019). Lebanon Protests: Huge Crowds on Streets as Government Acts. Retrieved from https://www.bbc.com/news/world-middle-east-50118300

CAS (The Central Administration of Statistics) (2019). Lebanese Republic: The Presidency of the Council of Ministers, The Central Administration of Statistics. Retrieved from http://www.cas.gov.lb/

Hamade, A. S. H., Ghobeira, M. G., & Yassin, N. (2015). *Assessing the Lebanese Elderly Welfare Pension Reform: Time for a New Policy*: American University of Beirut

ILO (International Labor Organization) (2013, 20.05.2013). Lebanon's Long Awaited Pension Reform Within Reach. Retrieved from http://www.oit.org/global/about-the-ilo/newsroom/features/WCMS_207664/lang--en/index.htm

Jarmuzek, M., & Nakhle, N. (2016). *Sustainability and Equity Challenges; Some Arithmetic on Lebanon's Pension System*: International Monetary Fund.

MENA Group (World Bank Middle East and North Africa Social and Economic Development Group) (2009). *The Status and Progress of Women in the Middle East & North Africa*. Washington, DC: World Bank Middle East and North Africa Social and Economic Development Group.

Munyambonera, E., Katunze, M., Munu, M. L., & Sserunjogi, B. (2018). *Expanding the Pension Sector in Uganda (Report No: 677-2018-5024)*.

Rached, M. (2012). *Social Security in Pensions in Lebanon: A Non-Contributory Proposal*. Beirut, Lebanon: Lebanese Economic Association.

ReliefWeb (2017, 31 Dec 2017). Lebanon Humanitarian Fund - Annual Report 2017. Retrieved from https://reliefweb.int/report/lebanon/lebanon-humanitarian-fund-annual-report-2017

Saadeh, L., & Mikhael, M. (2016). *Lebanon's Pension System* Beirut, Lebanon: Blominvest Bank.

Saxena, P. C. (2008). Ageing and age-structural transition in the Arab countries: Regional variations, socio-economic consequences and social security. *Genus*, 37-74.

Sayed, H., & Robalino, D. (2009). Lebanon: Moving Forward With Pension Reform in Lebanon. In H. Larbi (Ed.), *The Financial Crisis: Impact on the Middle East (No: 57793)* (pp. 12-16). Washington, DC: The World Bank Middle East Department.

Sibai, A. M. (2000). The elderly in Lebanon In *The status of disadvantaged population groups in Lebanon–Population and Housing Survey. Beirut: Ministry of Social Affairs and UNDP* (pp. 48-124). Beirut, Lebanon.

Sibai, A. M., Sen, K., Baydoun, M., & Saxena, P. (2004). Population ageing in Lebanon: current status, future prospects and implications for policy. *Bulletin of the World Health Organization, 82*, 219-225.

Sibai, A. M., Yount, K., & Fletcher, A. (2007). Marital status and living arrangements as predictors of mortality among middle-aged and older men and women during wartime in Beirut: Gains and liabilities. *Social Science and Medicine, 64*(1), 64-76.

SSA (Social Security Administration) (2010). Social security programs throughout the world: Asia and the Pacific, 2010. Retrieved from https://www.ssa.gov/policy/docs/progdesc/ssptw/2010-2011/asia/lebanon.html

SSA (Social Security Administration) (2017). *Social Security Programs Throughout the World: Africa, 2017 (Publication No. 13-11803)*. Washington, DC Social Security Administration Office of Retirement and Disability Policy Office of Research, Evaluation, and Statistics.

Star, T. D. (2017, 23.07.2017). Protesters Decry Tax Increases in Downtown Beirut. Retrieved from http://www.dailystar.com.lb/News/Lebanon-News/2017/Jul-23/413680-protesters-decry-tax-increases-in-downtown-beirut.ashx

Tohme, R. A., Yount, K. M., Yassine, S., Shideed, O., & Sibai, A. M. (2011). Socioeconomic resources and living arrangements of older adults in Lebanon: who chooses to live alone? *Ageing & Society, 31*(1), 1-17. Crossref

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BRIEF REPORT

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A Game-Based Health Program for Improving Functional Health and Social Engagement in Long-Term Care Residents

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Abstract

After entering long-term care (LTC), many residents experience continued declines in functional status, activities of daily living (ADLs), and increased fall risk. Therefore, there is a significant need for activities capable of improving/maintaining functional status, decreasing social isolation, and increasing residents' quality of life. Bingocize®, a strategic combination of exercise, education, and the game of bingo, is an innovative program shown to fulfill this need. The purpose of this article is to describe an on-going United States (U.S.) Center for Medicare and Medicaid Civil Money Penalty (CMP) grant-funded project to implement Bingocize® in multiple LTC facilities. As part of this project, local universities and their faculty and students from across the state help LTC staff administer the program. Over 800 trained LTC staff and students, and most importantly, over 1300 residents have successfully participated so far. Bingocize® can be a positive addition to LTC activities because the program helps improve/maintain functional status and social engagement. Applying for CMP funding either individually, or in partnership with a local university, is a pragmatic way for LTC facilities to access and sustain Bingocize® and other evidence-based programs.

Keywords: Exercise, quality of life, range of motion, intergenerational, Center for Medicare and Medicaid, therapy, physical activity, social engagement

Key Practitioners Message

- A lack of social engagement and physical activity are major contributors to the continued decline in functional status and quality of life of LTC residents.
- Bingocize®, a strategic combination of exercise, education, and the game of bingo, is an innovative program shown to improve quality of life.
- A U.S. Center for Medicare and Medicaid Civil Money Penalty grant is a pragmatic way to access Bingocize® and is also available for other projects or programs capable of improving nursing home residents' quality of life.

Problem - Significance

A lack of social engagement and physical activity are major contributors to residents' continued decline in functional status, activities of daily living (ADLs), and increased fall risk in long-term care (LTC) residents (Dipietro, Campbell, Buchner, et al., 2019). Therefore, there is a significant need for easy-to-use and enjoyable activities capable of improving/maintaining functional status, decreasing social isolation, and increasing residents' quality of life. Bingocize®, a combination of exercise, education, and the game of bingo, is an innovative health promotion program that addresses these needs (Crandall, Fairman, & Anderson, 2015).

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Innovation

Bingocize® is an innovative and strategic combination of physical exercise and the game of bingo. The program consists of two 45-60-minute sessions each week. A session begins with a group of LTC residents sitting at tables with individual bingo cards in an area large enough to accommodate the residents. Trained LTC staff members, often with help from trained university students, serve as program leaders. University students positively affect LTC residents' quality of life, and the students, in turn, are positively impacted. Students report being more empathetic to the needs of LTC residents with increased interest in aging-related careers (Neils-Strunjas, Crandall, Shackelford, et al., 2018). See university students leading a Bingocize® session for long-term care residents in Figure 1. All participants provided permission for the use of video and still photography.

Figure 1: University students leading long-term care residents in a Bingocize® session. *

The residents complete a series of gentle physical exercises followed by the program leader calling a bingo letter/number combination. This pattern of movement followed by calls of bingo is continued until a participant wins the bingo game. After the first game is completed, additional games of bingo allow for completion of the exercises and to keep the residents' interest in the game. The program exercises improve components of functional mobility such as endurance, strength, and balance (Dipietro et al., 2019). There is a special emphasis on ensuring residents complete at least 15 minutes of active range of motion exercises to help satisfy the U.S. Center for Medicare and Medicaid (CMS) requirements. The strength exercises closely resemble functional exercises that can improve ADLs and functional status as well as reduce fall risk. For example, therapy balls are used to increase grip strength which can lead to an improvement in the daily activity of dressing. In fact, restorative therapists may successfully integrate residents' therapy into Bingocize® sessions because the exercises are adaptable for a wide range of residents' physical and cognitive abilities.

Bingocize® is recognized by the U.S. Administration on Community Living and National Council on Aging as an evidence-based program. Multiple investigations, funded by the Kentucky

* The authors obtained permission from the students and residents to take this photo and use for this manuscript.

Science and Engineering Foundation, the Retirement Research Foundation, and the National Institutes of Health, confirmed the positive effects of Bingocize® on older adults. In one investigation, a group of older adults attended over 80% of the sessions, and significantly improved muscular strength, flexibility, balance, and cardiorespiratory fitness over 10 weeks (Crandall et al., 2015). In a second investigation, older adults significantly improved on 7 of 8 functional performance measures when compared to a waitlisted control group. Just as crucial, the adherence rate was 97%, and over 86% of participants were retained in the experimental group (Crandall & Steenbergen, 2015). In a recent investigation, participants improved functional performance, health knowledge, gait parameters, patient activation, and aspects of cognition (Shake et al., 2018, Falls et al., 2018; Dispennette et al., 2019).

The effects of the program on social engagement in older adults suffering from dementia at a memory care facility were also examined. Bingocize® provided a focused activity that tapped into the remote memory of bingo games combined with the encouragement to follow movements demonstrated and prompted by university student leaders. Residents displayed more nonverbal (i.e., following commands, gestures directed towards others) and task-related verbal behavior during Bingocize® than during other activities (coloring, listening to music, eating a snack, etc.) (French et al., 2016). Residents were also found to talk with others and report being happy during Bingocize® (Stevens, 2019).

Implementation

Recognizing the potential for Bingocize® to create a culture change within LTCs, our research team was awarded Kentucky Civil Money Penalty (CMP) funding with the primary goal of training LTC staff to lead Bingocize® in 28 LTC facilities across the state. The CMP funding mechanism is available to nursing homes and other organizations to help improve nursing home residents' quality of life. The funds come from monetary penalties imposed against skilled nursing facilities for either the number of days or for each instance a facility is not in substantial compliance with one or more Medicare and Medicaid participation requirements for LTC Facilities (Code of Federal Regulations (CFR) 42 Part 488.430).

Because Bingocize® can facilitate strong community partnerships between educational institutions and LTC, our secondary goal of this project was to create partnerships between faculty and students at 10 universities and LTC staff. This has proven to be an important and productive partnership in three ways. First, the program provides students the opportunity to build technical knowledge, as well as relationships and empathy-building skills, which are essential to working with older adults (Yu & Kirk, 2008). Second, the program leads to students from multiple disciplines (e.g. social work, physical therapy, psychological sciences, occupational therapy, communication sciences and disorders, gerontology, and exercise science) to acquire a deep and thorough understanding of complex issues related to aging and long-term care. Finally, Bingocize® also helps prepare students for future aging-related careers by significantly improving students' attitudes towards older adults after implementing a Bingocize® program (Neils-Strunjas et al. 2018). This is critically important considering the ongoing shortage of qualified LTC staff and high turnover rates among the LTC workforce. To understand the impact of their experiences, students complete written reflections and/or create videos highlighting their experiences. Others complete research projects that demonstrate the physical and social benefits of Bingocize®. The final student projects are presented to the LTC staff and residents.

Bingocize® leader training is required of all participating LTC staff, university faculty, and students. The training is presented online and consists of self-paced modules taking approximately one hour to complete. Leaders learn basic exercise information including recruitment/motivational strategies, safety and training principles, and fall prevention information. They also learn techniques to communicate with residents suffering from varying degrees of dementia. Leaders can print a "Certificate of Completion" after success-

fully completing a post-training assessment with a score of ≥ 80%.

After completing training, LTC staff members schedule a Bingocize® program at their respective facility and invite qualified students from the partnering university to attend the weekly sessions to aid the LTC staff. During scheduled university breaks, the LTC staff administer the program without the students.

Each LTC is provided "Bingocize® in a Box." The box includes a training manual for future reference, a leader t-shirt, prizes for game-winners, and therapy balls. Winners of Bingocize® receive prizes such as lotions, paper towels, sugar-free candy, crossword puzzles, or other small personal/household items. To motivate residents to continue participating in Bingocize® and create group cohesion, Bingocize® t-shirts are available for residents.

Evaluation

The CMP project objectives are evaluated by 1) tracking the number of trained LTC staff and university faculty/students, 2) tracking the number of residents in attendance at each session, and 3) monitoring residents using Minimal Data Set (MDS 3.0) items that focus on fall risk, ADLs, and social engagement. After two years, over 1300 residents (mean age 79.12 ± 92 12.77 years) with a baseline Brief Interview for Mental Status (BIMS) score of 10.22 ± 4.47 participated in the program; thus, indicating that LTC residents with a wide range of ages and cognitive abilities can participate in Bingocize®. Additionally, 800 university students have participated. MDS 3.0 data analyses are ongoing.

Comment

The U.S. Center for Medicare and Medicaid supported this project because Bingocize® provides current and future LTC residents the opportunity to participate in an innovative evidence-based program capable of improving/maintaining functional performance and increase social engagement. Applying for CMP funding either individually, or in partnership with a local university, is a pragmatic way to access Bingocize® and sustain the program over time. CMP funding is also available for other projects or programs capable of improving nursing home residents' quality of life.

Conflict of Interest Statement: The Western Kentucky University Research Foundation (WKURF) has a registered trademark for the term Bingocize®, and author KJC and WKURF may benefit financially if WKURF is successful in marketing products related to this research. The terms of this arrangement have been reviewed and approved by Western Kentucky University in accordance with its policy on Financial Conflict of Interest in Extramural Contracts & Grants.

References

Crandall, K. J., Fairman, C., & Anderson, J. (2015). Functional performance in older adults after a combination multicomponent exercise program and bingo game. *International Journal of Exercise Science, 8*(1), 38-48.

Crandall, K. J., & Steenbergen, K. I. (2015). Older adults' functional performance and health knowledge after a combination exercise, health education, and bingo game. *Gerontology and Geriatric Medicine*, 1-7. Crossref

Dipietro, L., Campbell, W. W., Buchner, D. M., Erickson, K. I., Powell, K. E., Bloodgood, B.,... Vaux-Bjerke, A. (2019). Physical activity, injurious falls, and physical function in aging: An umbrella review. *Medicine and Science in Sports and Exercise, 51*(6), 1303-1313. Crossref

Dispennette, A. K., Schafer, M. A., Shake, M., Clark, B., Macy, G. B., Vanover, S., & Crandall, K. J. (2019). Effects of a game-centered health promotion program on fall risk, health knowledge, and quality of life in community-dwelling older adults. *International Journal of Exercise Science, 12*(4), 1149-1160.

Falls, D., Shake, M., Norris, E., Arnett, S., Taylor, J., & Crandall, K. J. (2018). Bingocize®: Utilizing a mobile application to improve gait in commu-

nity-dwelling older adults. *American Journal of Recreation Therapy, 17*(2), 9-19. Crossref

French, M., Tade, M., Neils-Strunjas, J., Crandall, K. J., Glascock, A., McAlpin, K., & Schaefer, S. (2016). *A qualitative analysis of persons with dementia & their experience with the game Bingocize®*. American Speech-Language-Hearing Association, Philadelphia, PA; November 2016.

Neils-Strunjas, J., Crandall, K. J., Shackelford, J., Dispennette, K., Stevens, L. R., & Glascock, A. (2018). Students report more positive attitudes toward older adults following an interprofessional service-learning course. *Gerontology and Geriatrics Education, 12*, 1-11. Crossref

Shake, M. C., Crandall, K. J., Mathews, R. P., Falls, D. G., & Dispennette, A. K. (2018). Efficacy of Bingocize®: A game-centered mobile application to improve physical and cognitive performance in older adults. *Games for Health Journal, 7*(4), 253-261. Crossref

Stevens, L. (2019). *Observation and self-report of fun and social engagement of nursing home residents during Bingocize®* (Master's thesis), Western Kentucky University, 2019.

Yu, J. & Kirk, M. (2008). Measurement of empathy in nursing research: Systematic review. *Journal of Advanced Nursing, 64*(5), 440-454. Crossref

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ORIGINAL RESEARCH

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Islamic Religiosity Among the Older Adults in Turkey: The Association Among Religious Activities, Health Status, and Life Satisfaction

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Abstract

Religiosity and religious activity increase with age. On the other hand, it is less known whether religiosity is related to satisfaction and physical and psychological health status. Associated variables with being religious in old age are aimed to examine in this empirical research held in Turkey among the older adults over the age of 60. Religious practices of the older adults (N=150) such as attending to the mosque, practicing daily prayers, and praying (often, rarely never) were compared with respect to their physical and psychological health, life satisfaction, self-serenity and fear of death. According to Chi-square results, participants who rated both physical and psychological health status as good, the number of participants performing often praying was higher than the number of people who were rarely praying or did not ever praying. People who rated their both life satisfaction and self-serenity as "good", the number of participants visiting a mosque often was higher than the number of people who were rarely visiting or did not ever visiting. Also, people who describe their fear of death as "never", the number of participants never performing daily prayers was lower than the number of people who often prayers and rarely prayers. Results revealed the possible association between physical/psychological health outcomes and religious participation.

Keywords: Religiosity, gerontology, psychological, health, life satisfaction, fear of death

Key Practitioners Message

- In practice, considering possible roles of religious activity on physical and psychological health is recommended.
- Religious participation, including active engagement like daily praying and praying, is associated with better physical and psychological health outcomes.

Religion has always been an important part of life around the World (Badkar, 2018; Dollahite, Marks, & Dalton, 2018). Its effect on building human relations (Dollahite et al., 2018) and forming traditions in culture (Yang, 2019) has been mentioned in several studies. The discussions are more about the image of religion than the religious beliefs themselves.

The sociological explanation of religion is spread on a wide spectrum regarding the theoretical analysis. Religion is defined as part of social life (Wiebe, 2019). According to some researchers, religion has the power to rebuild the generations' continuity (Bell, 1979) and regulates social life (Wiebe, 2019). Next, when the anthropologic thesis is regarded, the function of religion is to tolerate the unresolvable problems of individual and social life emotionally and to create symbols to perceive the society as a "unit" (Hillmann, 2007). Finally, religion is also one of the dimensions of pedagogical education, which is taught by using a pedagogical methodology (Schweitzer, 2005). Religion

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is learned through education (Demirel Ucan, & Wright, 2019).

The importance of religion is observed, especially among older adults in societies. There is a remarkable increase in the number of publications carried about religion in the field of gerontology in western societies (Koenig, Peteet, & Balboni, 2017; Levin, 1997; Shaw, & Stevens, 2019; Sperling, 2004). This increment shows the significance of religion among older adults; however, it does not mean that the tendency to practice religious activities more increases in old age. It is highlighted that the religious and symbolic world is important for human being regardless of old age (Sperling, 2004).

The relationship between religion and aging is one of the critical focuses of gerontology. The findings of studies, however, are controversial. Regarding the disengagement theory, religious practices decrease by age (Argyle, 2000; Koenig, 1992). Although, some researchers state that religion helps to overcome the fear of death among older adults (Fortuin, Schilderman, & Venbrux, 2019; Wittowski & Baumgaertner, 1977), others believe that it is not possible to cope with the pressure of the end of life with religion (Templer & Datson, 1970). Death is perceived as a way of reaching God (Menzies & Menzies, 2018). Also, it is pointed out that older adults having religious participation has higher scores from fear of death (Fortuin et al., 2019).

Religious activity is defined as the frequency of attendance at religious services, or an amount of participation in religious activities (Witter, Stock, Okun, & Haring, 1985). It is proved that people performing religious activities feel content about themselves (Witter et al., 1985). Additionally, religious activities increase subjective well-being more than religiosity, which is defined as the importance of religion or interest in religion (Witter et al., 1985). Intrinsic religiosity has a negative correlation with the negative perception of death (Hood et al., 1996). The fear of death decreases when there is a belief in endless life and there is a spiritual meaning of death (Dittmann-Kohli, 1990; Utsch 1992).

There is a discussion about the age in religious behavior. The younger generation is refusing the traditional religious concept. They are more autonomous, praying less, practicing meditation more, and have less expectancy from religious communities than older adults (Dieckmann & Maeillo 1980). There is also a gender difference, where women are found to be practicing religion more than men (Dieckmann & Maiello 1980).

The Theoretical Model of the Research

The frequency of attending religious ceremonies, the visit of religious settings (church, mosque, and synagogue), praying and practicing religion are accepted as criteria of being religious (Seprling, 2004). The interest of gerontology with respect to religion is its contribution to health (Kruse, 2007). The Turkish population is aging, and the frequency of chronic illness is increasing in old age. Therefore, the question of whether religion helps to contribute to preventing health problems seems to be necessary. Around 27% of the people between the age of 60 and 64 are handicapped and in most cases, the reason is a chronic illness. Over the age of 80, the percentage of being handicapped is over 54% (DIE 2002, as cited in Tufan, 2007).

Devotion to religion is a multidimensional development process. Besides its religious- cultural content, its importance for individuals should be taken into consideration (Sperling, 2004). In a study, the importance of the fact that religious needs can be fulfilled by praying, meditation, and joining religious discussions (Sulmasy, 2002).

Hays, Meador, Branch, and George (2001) have created a tool to determine the development of individual devotion to religion. During an individual lifetime, the spirituality help someone gets, the importance of religion in family bibliography, the supports gathered over religious beliefs and disadvantages of being religious has been taken into consideration.

Idler and her colleagues (2003) draw attention that all the factors indicated here should be accepted as religious dimensions such as the religion, the

effects of religion of private life, the religious experiences, the religious practices, participation in religious activities, the supports due to religion, the commitment for the religious community, and the forgiving tendency of religiosity (I do forgive myself, others and know that God forgives me). Researches about older adults usually show a positive effect of religion on subjective health status, life satisfaction, and happiness. (Levin, 1997; Sperling, 2004).

Hypotheses

The hypothesis before the research was that subjective health, life satisfaction, and self- serenity are increasing with increased religious acts. The subjects were asked to evaluate their individual health status, life satisfaction self-serenity, and fear of death.

Method

Participants

The sample consists of 150 people. While selecting participants, an equal number of men (n = 75) and women (n = 75) was assigned to each group with respect to the frequency of their practicing daily prayers[1]. Daily prayers were divided into three groups: never (n = 50), rarely (n = 50), and often (n = 50) practicing daily prayers. Participants' gender, marital status, and education level were distributed equally with respect to the sequence of daily prayers. The distribution of the participants in each group is demonstrated in Table 1.

It is well known that the education level has an essential effect on the economic status of the people in Turkey (Tufan, 2007). Therefore, balancing the number of people according to their educational level may mean the minimization of the effect of their economic status. Another factor affecting the economic status is gender. It is well known that women have a markedly lower education level and economic status than men. (Tufan, 2007). In this sampling, the effects of educational status and gender differences were avoided by selecting an equal number of people in each category since economic status might be a confounding factor physical and psychological well-being of individuals.

When looking at age groups, participants frequency of daily prayers aged 60-64 (n = 25), 65-69 (n = 35), 70-74 (n = 50), 75-79 (n = 25), 80 and above (n = 15) were shown at Table-2.

Procedure

Research has been performed in Antalya. The data collected by a questionnaire that was designed regarding theoretical and practical findings from the literature. The participants were informed about the aim of the present study, and their consent was obtained. All subjects participated voluntarily.

Table-1. The distribution of the participants in each group

		Gender		Marital Status			Educational Status			
		Male	Female	Single	Married	Widowed	Low (0-5 years)	Medium (6-11 years)	High (12-16 years)	Total
Frequency of Daily Praying	Never	25	25	10	20	20	20	20	10	50
	Rarely	25	25	10	20	20	20	20	10	50
	Often	25	25	10	20	20	20	20	10	50
	Total	75	75	30	60	60	60	60	30	150

1 Performing daily prayers (known as "namaz" into Turkish) is one of the five basic religious acts in Islam. Each Muslim is obliged to pray to Allah five times a day. Praying is a way of personal connection with Allah to express his/her gratitude. Each Muslim who performs prayers turns his face to the Kaaba in Mecca. The difference between daily prayers and praying is that daily payers is more systematic and time limited. On the other hand, praying does not need to be systematic, it can be done at any time of the day and can be performed verbally or heartily.

Interviews were conducted by specially trained 10 interviewers. Three groups have been developed based on the frequency of practicing daily prayers: Never practicing daily prayers (n = 50), rarely practicing daily prayers (n = 50), often practicing daily prayers (n = 50). Participants were rated their subjective physical health status, subjective psychological health status, life satisfaction, self-serenity, and fear of death by using a 3-point Likert scale (1= Bad, 2= Average, 3= Good; for fear of death 1= Often, 2= Average, 3= Never Exist).

Table-2. The distribution of the participants according to age and performing daily praying

		Age Groups					
		60-64	65-69	70-74	75-79	80+	Total
Frequency of Daily Praying	Never	8	12	17	4	9	50
	Rarely	12	12	15	11	0	50
	Often	5	11	18	10	6	50
	Total	25	35	50	25	15	150

Results

Data was computerized, and the hypotheses had been examined via the SPSS.

Physical Health

24.67% of participants (n = 37) reported as their physical health as "good," while 75.33% (n = 113) of the participants reported as their health as "bad".

A chi-square test of independence was performed to test the relationship between daily prayer and physical health status perception. As can be seen, by the frequencies cross-tabulation in Table-3, there was a significant relationship between daily prayers and health status perception, χ^2 (2, n = 150) = 22.46, p ≤ .001. Among those who describe their health status as "good", the number of participants performing daily prayers often (n = 24) was higher than the number of people who rarely prayers (n = 8) or did not ever prayers (n = 5).

A chi-square test of independence was performed to test the relationship between visiting a mosque and physical health status perception. As can be seen, by the frequencies cross-tabulation in Table-3, there was no significant relationship between visiting a mosque and health status perception, χ^2 (2, n = 150) = .93, p≥ 05.

A chi-square test of independence was performed to test the relationship between praying and physical health status perception. As can be seen, by the frequencies cross-tabulation in Table-3, there was a significant relationship between praying and health status perception, χ^2 (2, n = 150) = 23.32, p ≤ .001. Among those who describe their health status as "good", the number of participants performing praying often (n = 24) was higher than the number of people who were rarely praying (n = 9) or did not ever praying (n = 4).

Table-3. The distribution of the participants in each group according to the health status and religious participation

		Health Status "Good" (n = 37)		
		Practicing of daily praying	Visiting to the mosque	Praying
Frequency of The Religious Activity	Never	5	10	4
	Rarely	8	13	9
	Often	24	14	24

Psychological Health

22.67% of participants (n = 34) reported as their psychological health as "good," while 77.33% (n = 116) of the participants reported as their psychological health as "bad".

A chi-square test of independence was performed to test the relationship between daily prayer and psychological health status perception. As can be seen, by the frequencies cross-tabulation in Table-4, there was a significant relationship between daily prayers and psychological health status perception, χ^2 (2, n = 150) = 21.53, p ≤ .001. Among those who describe their psychological health status as "good", the number of participants performing daily prayers often (n = 22) was higher than the

number of people who rarely prayers (n = 9) or did not ever prayers (n = 3).

A chi-square test of independence was performed to test the relationship between visiting a mosque and psychological health status perception. As can be seen, by the frequencies cross-tabulation in Table-4, there was no significant relationship between visiting a mosque and psychological health status perception, χ^2 (2, n = 150) = .99, p≥ 05.

A chi-square test of independence was performed to test the relationship between praying and psychological health status perception. As can be seen, by the frequencies cross-tabulation in Table-4, there was a significant relationship between praying and psychological health status perception, χ^2 (2, n = 150) = 20.39, p ≤ .001. Among those who describe their psychological health status as "good", the number of participants performing praying often (n = 22) was higher than the number of people who were rarely praying (n = 8) or did not ever praying (n = 4).

Table-4. The distribution of the participants in each group according to the psychological health status and religious participation

		Psychological Health Status "Good" (n = 34)		
		Practicing of daily praying	Visiting to the mosque	Praying
Frequency of The Religious Activity	Never	3	9	4
	Rarely	9	12	8
	Often	22	13	22

Life Satisfaction

26% of participants (n = 39) reported as their life satisfaction as "good," while 74% (n = 111) of the participants reported as their life satisfaction as "bad".

A chi-square test of independence was performed to test the relationship between daily prayer and psychological health status perception. As can be seen, by the frequencies cross-tabulation in Table-5, there was no significant relationship between daily prayers and life satisfaction, χ^2 (2, n = 150) = 00, p≥ 05.

A chi-square test of independence was performed to test the relationship between visiting a mosque and life satisfaction. As can be seen, by the frequencies cross-tabulation in Table-5, there was a significant relationship between visiting a mosque and life satisfaction , χ^2 (2, n = 150) = 13.93, p ≤ .001. Among those who describe their life satisfaction status as "good", the number of participants visiting a mosque often (n = 22) was higher than the number of people who were rarely visiting (n = 11) or did not ever visiting (n = 6).

A chi-square test of independence was performed to test the relationship between praying and life satisfaction. As can be seen, by the frequencies cross-tabulation in Table-5, there was a significant relationship between praying and life satisfaction, χ^2 (2, n = 150) = 5.82, p ≤ .05. Among those who describe their life satisfaction status as "good", the number of participants performing praying often (n = 17) was lower than the number of people who were rarely praying (n = 15) or did not ever praying (n = 7).

Table-5. The distribution of the participants in each group according to the life satisfaction and religious participation

		Life Satisfaction "Good" (n = 39)		
		Practicing of daily praying	Visiting to the mosque	Praying
Frequency of The Religious Activity	Never	13	6	17
	Rarely	13	11	15
	Often	13	22	7

Self-Serenity

20.67% of participants (n = 31) reported as their self-serenity as "good," while 79.33% (n = 119) of the participants reported as their serenity as "bad".

A chi-square test of independence was performed to test the relationship between daily prayer and self-serenity status perception. As can be seen

by the frequencies cross-tabulation in Table-6, there was a significant relationship between daily prayers and self-serenity, χ^2 (2, n = 150) = 10.82, p ≤ .01. Among those who describe their self-serenity as "good", the number of participants never performing daily prayers (n = 3) was lower than the number of people who often prayers (n = 16) and rarely prayers (n = 12).

A chi-square test of independence was performed to test the relationship between visiting a mosque and self-serenity. As can be seen by the frequencies cross-tabulation in Table-6, there was a significant relationship between visiting a mosque and self-serenity, χ^2 (2, n = 150) = 23.01, p ≤ .001. Among those who describe their self-serenity status as "good", the number of participants visiting a mosque often (n = 21) was higher than the number of people who were rarely visiting (n = 8) or did not ever visit (n = 2).

A chi-square test of independence was performed to test the relationship between praying and self-serenity. As can be seen, by the frequencies cross-tabulation in Table-6, there was no significant relationship between praying and self-serenity, χ^2 (2, n = 150) = 1.06, p ≥.05.

Table-6. The distribution of the participants in each group according to the self-serenity and religious participation

		Self-Serenity "Good" (n = 31)		
		Practicing of daily praying	Visiting to the mosque	Praying
Frequency of The Religious Activity	Never	3	2	8
	Rarely	12	8	11
	Often	16	21	12

Fear of Death

20.67% of participants (n = 31) reported as their fear of death as "never," while 79.33% (n = 119) of the participants reported as their health as "often".

A chi-square test of independence was performed to test the relationship between daily prayer and fear of death. As can be seen by the frequencies cross-tabulation in Table-7, there was a significant relationship between daily prayers and fear of death, χ^2 (2, n = 150) = 7.40, p ≤ .05. Among those who describe their fear of death as "never", the number of participants never performing daily prayers (n = 4) was lower than the number of people who often prayers (n = 14) and rarely prayers (n = 13).

A chi-square test of independence was performed to test the relationship between visiting a mosque and a fear of death. As can be seen by the frequencies cross-tabulation in Table-7, there was a significant relationship between visiting a mosque and fear of death, χ^2 (2, n = 150) = 10.82, p ≤ .001. Among those who describe their fear of death status as "never", the number of participants visiting a mosque never (n = 3) was lower than the number of people who were rarely visiting (n = 12) or often (n = 16).

A chi-square test of independence was performed to test the relationship between praying and fear of death. As can be seen, by the frequencies cross-tabulation in Table-7, there was no significant relationship between praying and fear of death, χ^2 (2, n = 150) = 1.55, p ≥.05.

Table-7. The distribution of the participants in each group according to the fear of death and religious participation

		Fear of Death "Never Exist" (n = 31)		
		Practicing of daily praying	Visiting to the mosque	Praying
Frequency of The Religious Activity	Never	4	3	13
	Rarely	13	12	10
	Often	14	16	8

Discussion

The results of the research revealed the possible association between religious participation and physical or psychological health outcomes. Perceived physical and psychological health status, life satisfaction, self-serenity, and fear of death were taken into account when considering religious participation.

Participants who rated both physical and psychological health status as useful; the number of participants often performing daily prayers was higher than the number of people who rarely prayers or did not ever pray. In other words, people whose physical and psychological health status perception as good participated in daily prayers more often or vice versa. Similarly, participants who rated both physical and psychological health status as good; the number of participants performing often praying was higher than the number of people who were rarely praying or did not ever pray. In other words, people whose physical and psychological health status perception as good participated praying more often. Similar findings of religious participation health status relationships were mentioned in the literature (Kruse, 2007). On the other hand, there was no significant relationship between visiting a mosque and physical and psychological health perception. Therefore, visiting a mosque was independent of health perception.

When looking at life satisfaction, there was no significant relationship between daily prayers and life satisfaction. On the other hand, there was a significant relationship between visiting a mosque and life satisfaction. People who rated their life satisfaction status as "good", the number of participants visiting a mosque often was higher than the number of people who were rarely visiting or did not ever visiting. Those people with good life satisfaction might have more economic independence to visit a different mosque. Moreover, when looking at life satisfaction and praying relationships, people who describe their life satisfaction status as "good", the number of participants performing praying often was lower than the number of people who were rarely praying or did not ever praying.

When looking at self-serenity and religious participation, there was a significant relationship between daily prayers and self-serenity. Among those who describe their self-serenity as "good", the number of participants never performing daily prayers was lower than the number of people who often prayers and rarely prayers. The significant difference was also observed between self-serenity and visiting a mosque. Among those who describe their self-serenity status as "good", the number of participants visiting a mosque often was higher than the number of people who were rarely visiting or did not ever visiting. Findings for daily praying and visiting mosque and self-serenity revealed that participation in religious activities and a sense of content are associated (Witter et al., 1985). On the other hand, there was no significant relationship between praying and self-serenity. Therefore, on the basis of the type of religious participation, self-serenity and religious participation results might be different.

When looking at fear of death relationships with religious participation, there was a significant relationship between daily prayers and fear of death. Among those who describe their fear of death as "never", the number of participants never performing daily prayers was lower than the number of people who often prayers and rarely prayers. Also, people describe their fear of death status as "never"; the number of participants visiting a mosque never was lower than the number of people who were rarely visiting or often. In other words, people who never visit a mosque had a higher fear of death. Those results were showing a significant association between fear of death and both daily praying and visiting a mosque, all of which confirmed earlier studies revealing higher religious participation and fear of death relationship (Fortuin et al., 2019). On the other hand, there was no significant relationship between praying and fear of death, which means the importance of the type of religious participation in fear of death.

The practice of daily prayers and prayers are behaviors that are obviously different from visiting a mosque. In both of these religious activities, the body and soul need to be active. This reminds us of the disengagement and activity theories of gerontology. Praying is more a passive behavior and resembles the disengagement of the older adults. The practicing of daily prayers and visitings to the mosque is keeping one active, and this increases life satisfaction and self-confidence and helps to maintain health in old age.

This research was limitedly evaluating the relationships between religious participation, physical and psychological health outcomes. Daily praying, visiting a mosque, and praying were taken as religious participation in the Islamic religion. Those connections between religious participation and health outcomes should be considered in the light of Islamic religion that could not be generalizable. Also, further studies are needed to a causal relationship between other religious participation variables into Islamic religion as well as other religions from the perspective of gerontology.

References

Argyle, M. (2000). Psychology of Religion. An Introduction. Routledge: London, New York.

Badkar, H. (2018, June). Mahatma Gandhi's Philosophy of Religion. In *Proceedings of the XXIII World Congress of Philosophy* (Vol. 61, pp. 25-29).

Bell, D. (1979). *Die Zukunft der westlichen Welt. Kultur und Technologie im Widerstreit.* Fischer: Frankfurt/M.

Bortz, J. & Döring, N. (2006). *Forschungsmethoden und Evaluation für Human- und Sozialwissenschaftler,* 4. Aufl., Springer: Heidelberg.

Demirel Ucan, A., & Wright, A. (2019). Improving the pedagogy of Islamic religious education through an application of critical religious education, variation theory, and the learning study model. *British Journal of Religious Education*, *41*(2), 202-217.

Dieckmann, B. Maiello, C. (1980a). "Glaube und Lebensalter. Zusammenhaenge religionssoziologischer Merkmale mit dem Lebensalter" pp. 53-80 in *Was Menschen wirklich glauben* edited by K.P. Jörns, C. Grosseholz. Kaiser&Gütersloh: Gütersloh.

Dieckmann, B. Maiello, C. (1980b). "Glaube und Geschlecht. Zusammenhaenge von religiösen Überzeugungen und theologischen Lehrmeinungen mit den Interessen und Einstellungen der Geschlechter" in *Was Menschen wirklich glauben* edited by K.P. Jörns, C. Grosseholz. Kaiser&Gütersloh: Gütersloh.

Dittmann-Kohli, F. (1990). "Sinngebung im Alter" pp. 145-183 in *Entwicklungsprozess im Alter* edited by P.Mayring, W.Saup. Kohlhammer: Stuttgart.

Dollahite, D. C., Marks, L. D., & Dalton, H. (2018). Why religion helps and harms families: A conceptual model of a system of dualities at the nexus of faith and family life. *Journal of Family Theory & Review*, *10*(1), 219-241.

Fortuin, N. P., Schilderman, J. B., & Venbrux, E. (2019). Religion and fear of death among older Dutch adults. *Journal of Religion, Spirituality & Aging*, *31*(3), 236-254.

Hays, J. C., Meador, K. G., Branch, P. S., & George, L. K. (2001). The spiritual history scale in four dimensions (SHS-4): Validity and reliability. *Gerontologist, 41,* 239-249.

Hillmann, I. (2007). *Ausgewählte Beiträge zu einer religionswissenschaftlichen Definition von Religion*. Munich: GRIN Verlag.

Hood, R.W. Jr. et al. (1996). *The Psychology of Religion. An Empirical Approach* (2nd ed.). Guilford Press: New York, London.

Idler, E. L., Musick, M. A., Ellison, C. G., George, L. K., Krause, N., Ory, M. G. et al. (2003). Measuring multiple dimensions of religion and spirituality or health research: Conceptual background and findings from the 1998 General Social Survey. *Research on Aging, 25,* 327-365

Koenig, H. G., Peteet, J. R., & Balboni, M. (2017). Religion and spirituality in gerontology. *Spirituality and Religion Within the Culture of Medicine: From Evidence to Practice*, 109.

Koenig, H.G. (1992). "Religion and mental health in later life" pp. 177-188 in *Religion and mental health* edited by J.F. Schuhmacher. Oxford University Press: New York, Oxford.

Kruse, A. (2007). *Das letzte Lebensjahr. Zur körperlichen, psychischen und sozialen Situation des alten Menschen am Ende seines Lebens.* Kohlhammer: Stuttgart.

Levin, J. S. (1997). "Religious research in gerontology, 1980-1994: a systematic review" in *Journal of Religious Gerontology,* 10, 3-31.

Menzies, R. G., & Menzies, R. E. (2018). Fear of death: Nature, development, and moderating factors. *Curing the Dread of Death: Theory, Research, and Practice*, 21.

Schweitzer, F. (2005). "Religiöse Erziehung" Pp. 1490-1498 in *Handbuch- Sozialarbeit/Sozialpädagogik,* 3.Aufl., edited by H.-U. Otto, H. Thiersch, Verlag Reinhardt: München, Basel.

Shaw, R., & Stevens, B. (2019). Religion and spirituality in end-of-life care. In *Encyclopedia of Gerontology*

and Population Aging. Springer.

Sperling, U. (2004). "Religiosität und Spiritualität" Pp. 627-642 in *Enzyklopädie der Gerontologie – Alternsprozesse in multidisziplinärer Sicht* edited by A. Kruse, M. Martin. Verlag Huber: Bern, Göttingen, Toronto, Seattle.

Sulmasy, D.P.(2002). "A biopsychosocial-spiritual model for the care of patients at the end of life "in *The Gerontologist,* 42, Special Issue III, 32-40.

Templer, D.I. & Datson, E. (1970). "Religious Correlates of Death Anxiety" in *Psychological Reports,* 26, 895-897.

Tufan, I. (2007). The First Turkey-Aging Report [*Birinci Türkiye Yaşlılık Raporu*]. GeroYay: Antalya.

Utsch, M. (1992). "Religiösitaet im Alter: Forschungsschwerpunkte und methodische Probleme" in *Zeitschrift für Gerontologie,* 25, 25-31.

Wiebe, D. (2019). Explanation and the scientific study of religion. In *The Science of Religion: A Defence* (pp. 23-46). BRILL.

Witter, R. A., Stock, W. A., Okun, M. A., & Haring, M. J. (1985). Religion and subjective well-being in adulthood: A quantitative synthesis. *Review of Religious Research, 26,* 332-342.

Wittkowski, J., Baumgaertner, I. (1977). "Religiositaet und Einstellung zu Tod und Sterben bei alten Menschen" in *Zeitschrift für Gerontologie,* 10, 61-68.

Yang, Y. (2019). Understanding and Correctly Evaluating the Relationship between Traditional Chinese Culture and Religion. 2nd International Conference on Arts, Linguistics, Literature, and Humanities (ICALLH, 2019)Proceedings Book.

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Journal Articles:

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Edited Book:

Whitbourne, S. K. (Ed.) (2000). *Wiley Series on Adulthood and Aging. Psychopathology in Later Adulthood*. Hoboken, NJ, US: John Wiley & Sons Inc.

Book Section:

Bowen, C. E., Noack, M. G., & Staudinger, U. M. (2011). Aging in the Work Context. In K. W. Schaie & S. Willis (Eds.), *Handbook of the Psychology of Aging (7th Ed.)* (pp. 263-277). San Diego: Academic Press.

Web Page:

Borji, H. S. (2016, 25.07.2016). Global Economic Issues of an Aging Population. Retrieved from http://www.investopedia.com/articles/investing/011216/4-global-economic-issues-aging-population.asp.

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The major goal of the ***Journal of Aging and Long-Term Care (JALTC)*** is to advance the scholarly contributions that address the theoretical, clinical and practical issues related to aging and long-term care. The ***JALTC***, while making efforts to create care services for older people at the best quality available that are more humane, that pay special attention to people's dignity, aims from the perspective of the whole aging process- to discuss Social Care Insurance as a human right, to contribute care for older people to be transformed into an interdisciplinary field, to integrate care services for older people and gerontological concepts and to create more effective collaboration between them, to enhance the quality of care services for older people and the quality of life of caregivers from medical, psychological and sociological perspectives, to highlight the cultural factors in care for older people, to increase the potential of formal and informal care services, to provide wide and reachable gerontological education and training opportunities for caregivers, families and the older people.

Aims and Scope

"National Association of Social and Applied Gerontology (NASAG)"has recently assumed responsibility for the planning and introduction of a new international journal, namely, the **Journal of Aging and Long-Term Care (JALTC)**. With world societies facing rapid increases in their respective older populations, there is a need for new 21st century visions, practices, cultural sensitivities and evidenced-based policies that assist in balancing the tensions between informal and formal long-term care support and services as well as examining topics about aging.

The **JALTC** is being launched as the official journal of the **NASAG**. The preceding journal aims to foster new scholarship contributions that address theoretical, clinical and practical issues related to aging and long-term care. It is intended that the **JALTC** will be the first and foremost a multidisciplinary and interdisciplinary journal seeking to use research to build quality-based public policies for long-term health care for older people.

It is accepted that aging and long-term care is open to a diverse range of interpretations which in turn creates a differential set of implications for research, policy, and practice. As a consequence, the focus of the journal will be to include the full gamut of health, family, and social services that are available in the home and the wider community to assist those older people who have or are losing the capacity to fully care for themselves. The adoption of a broader view of aging and long-term care allows for a continuum of care support and service systems that include home base family and nursing care, respite day care centers, hospital and hospice care, residential care, and rehabilitation services. It is also crucial to be aware that life circumstances can change suddenly and dramatically resulting in the need for transitional care arrangements requiring responsive, available, accessible, affordable and flexible health care service provision.

For further assistance and more detailed information about the JALTC and the publishing process, please do not hesitate to contact Editor-in-Chief of the JALTC via sending an e-mail: editor-in-chief@jaltc.net
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