Relation Between Mindfulness Skills and Resilience among Elderly People at Zagazig City

Esraa Ali Ahmed[(1)], **Eman Shokry Abd Allah**[(2)], **Hanaa Hamdy Ali Elzeiny**[(3)], **Bothina Elsayed Said Mohamed**[(4)]

Assistant Lecturer of Psychiatric and Mental Health Nursing, Faculty of Nursing -Zagazig University 1

Professor of Community Health Nursing and Gerontological Nursing, Faculty of Nursing -Zagazig University 2

Professor of Psychiatric and Mental Health Nursing, Faculty of Nursing -Zagazig University 3

Assistant Professor of Psychiatric and Mental Health Nursing, Faculty of Nursing -Zagazig University 4

Abstract

Background: Aging come with various physical and psychological challenges. For coping with these challenges in a healthy manner, mindfulness skills and resilience are important. The current study ***aimed*** to investigate the relation between mindfulness skills and resilience among elderly people at zagazig city. ***Design:*** cross-sectional design was utilized. ***Setting:*** the geriatric social club at El-Qawmia in Zagazig City. ***Sample:*** A purposive sample of 60 elderly people. ***Tools:*** three tools were used; Structured Interview Questionnaire consisted of two parts (demographic characteristics & socio-economic level of the studied elderly people), The Kentucky Inventory of Mindfulness Skills, and Resilience scale. ***Results:*** the majority of studied elderly people had low levels of total mindfulness, and resilience. Moreover, there were highly statistical significant positive relation between the studied elderly people' mindfulness skills and resilience. Also, elderly people' educational level was a statistically significant positive predictor for resilience. While elderly people' marital status and crowding index were statistically significant negative predictors for resilience. ***Conclusion:*** the majority of studied elderly people had low levels of total mindfulness, and resilience. Moreover, there were highly statistical significant positive relation between the studied elderly people' mindfulness skills and resilience. ***Recommendations:*** Conducting mindfulness-training program at geriatric social clubs, health care settings and on large sample to achieve successful aging, improve mindfulness skills and resilience is recommended**.**

Keywords: Mindfulness skills, Resilience, Elderly people.

TobRegul Sci. ™ 2023; 9(1): 7660 – 7674
DOI: doi.org/10.18001 /TRS.9.1.542

Introduction

The number of adults older than 65 will reach upwards of 88.5 million by 2050, which will surely place a higher demand for healthcare providers and hospital systems. As the increase in life expectancy is associated with several biological, psychological, and mental changes such as

subjective cognitive decline, dementia, and mental health difficulties, including anxiety and depressive symptoms **(D'elia et al., 2024).**

Mindfulness includes purposefully directing attention, being fully engaged in the present moment and being non-judgmental. Mindfulness helps older adults to view disturbing sensations, cognition, affect and experiences with a broader perspective as passing events in the mind. Additionally, it helps provide a way to passively disengage attention from whatever impinges on the mind resulting in therapeutic growth and personal development. It helps an individual to live in the present with an optimistic attitude and reduce levels of worry **(Dutta et al., 2023).** Additionally, mindfulness helps to increase focus, sustained attention, positive affect, and overall well-being, while decreasing self-perceived stress, anxiety, depressed mood, negative affect, and rumination (**Mirabito & Verhaeghen, 2022).**

Resilience is the ability to tackle obstacles head-on while remaining optimistic. In addition, resilience is defined as the ability to remain buoyant, adjust flexibly, or perhaps grow in the face of pressures or adversity **(Bogaerts et al., 2021).** Moreover, resilient people are often optimistic, emotionally sensitive, socially sensitive, preserve their physical and mental health, recover more quickly from the effects of adverse experiences, and able to face problems without losing perspective or the capacity to carry out daily chores (**Oh et al., 2022).** One of the characteristics that diminishes in older adults due to age related issues is resilience. Resilience is among the most crucial factors for effectively confronting the challenges of any stage of life, particularly old age. Conversely, the decline in physical and mental functions among older adults tends to increase their perceived stress and decrease their resilience (**Parandin, 2024).**

High level of mindfulness skills is associated with psychological well-being and high level of resilience among individuals across diverse age groups and populations, including older adults. Whereas; mindfulness involves cultivating present moment awareness with openness, curiosity, and acceptance. Subsequently, helping individuals develop greater self-awareness, emotional regulation, and non-judgmental acceptance of their experiences and promoting resilience (**Jain, 2024).**

The psychiatric nurse can improve resilience among elderly people through cultivating them to take positive beliefs of stress and adversity and helping them to change negative beliefs about stress and adversity. Also, encouraging the elderly people to join social groups such as recreational groups to have more interactions with others in the community and to strengthen their social relationship with others in the community and promoting sense of community among them. In addition to promoting filial support towards older people which not only directly contribute to their life satisfaction but also improve their psychological resilience **(Zheng et al., 2020).**

Significance Of The Study

Globally, all regions and areas are experiencing population ageing and will continue to do so over the next several decades. Developed countries are expected to move to a more advanced stage of population ageing, with the proportion of older persons rising from 20 per cent in 2023 to 28 per cent in 2050 (**United Nations Department of Economic and Social Affairs, Population Division, 2023).** Also, Egypt is going through a demographic transition as the

number of persons aged 60 and above is expected to be more than double between 2020 - 2050 from 8.4million (8% of the total population) to 22 million (14%) (**United Nations Population Fund, 2024).**

Advanced age is associated with decline in mindfulness skills and resilience because of multiple factors such as physical limitations, increased dependency on others, lack of financial resources, the hardest situations of life, lack of support from society and community, and feeling of weakness and hopelessness (**Mazhar et al., 2023).** In order to cope with these challenges in a healthy manner, the traits of mindfulness, self-efficacy and resilience are of immense importance (**Choudhary et al., 2021).** Thus, this study was conducted to assess the relation between mindfulness skills and resilience among elderly people at zagazig city.

Aim of the Study

The current study aimed to assess the relation between mindfulness skills and resilience among elderly people at zagazig city.

This aim was fulfilled through the following objectives: -

1- Assess the levels of mindfulness skills and resilience among elderly people.

2- Examine the relation between mindfulness skills and resilience among elderly people.

Research Questions:

1- What are the levels of mindfulness skills and resilience among elderly people?

2- What is the relation between mindfulness skills and resilience among elderly people?

Subjects And Methods

Research design:

A cross-sectional design was utilized to conduct the study.

Study Setting:

The study was carried out at the geriatric social club at El-Qawmia in Zagazig City.

Subjects: A Purposive sample composed of 60 elderly people in the above-mentioned setting and who met the following inclusion criteria: age 60years and above, agree to participate in the study, both sex, free from communication problems (speech and hearing problems), Having no psychiatric disease, and attending the geriatric social club (the study setting) regularly.

Sample size:

The sample was randomly selected. The sample size was calculated using a power and sample size estimate program to provide a power of 80% at a confidence level of 95%. The sample size was valued using the following formula:

Tools of data collection:

Three tools were utilized for data gathering:

Tool I: Interview questionnaire composed of two parts:

Part 1: Demographic characteristics:-

This section was established by the researcher to collect data on the demographic characteristics of the elderly people including name, age, gender, residence, marital status, educational level, current job, previous job, with whom do you live, and source of family income.

Part 2: Socio-economic level:

This section was established by **Fahmy et al., (2015)** to assess the socio-economic level of the elderly people as it served to gather information regarding family income, healthy environment at home, computer availability, the number of family members, and number of rooms in the house.

Scoring system: to determine the socio-economic class of the elderly people, score less than 40% was considered as a low socio-economic class, from 40% to less than 70% considered as a middle class, and score of 70% or more considered as a high social class.

Tool II: The Kentucky Inventory of Mindfulness Skills (KIMS):

It was developed by **Baer et al., (2004)** for measuring mindfulness skills. It consisted of 39 items divided into four subscales which include *Observing* (12 items), *Describing* (8 items), *Act With Awareness* (10 items), and *Accept Without Judgment* (9 items). There were reversed items in Describe (3 items), in Act With Awareness (6 items), and in Accept Without Judgement (9 items).

Scoring system: Items were rated on a 5-point Likert-type scale ranging from: 1 (never) to 5 (always). The level of mindfulness was categorized as follow: low 39-91, moderate (>91-143), and high (>143-195).

Tool III: Resilience scale (CD-RISC):

It was developed by **Connor & Davidson (2003)** to assess resilience of the elderly people. It included 25 items.

Scoring system: Items were rated on a 5-point Likert-type scale ranging from: (0) not true at all to (4) true nearly all of the time. The scale was rated based on how the subject has felt over the past month. The total score ranged from 0–100, with higher scores reflecting greater resilience. Cut off point 50%. The resilience was categorized as follow: low if the percent was (<50%), moderate if the percent (50-75%), and high if the percent (> 75%).

Content Validity and Reliability

A panel of three psychiatric academic staff from Zagazig University's nursing and medicine faculties evaluated the tools for clarity, application, relevance, comprehensiveness, understanding, and ease of implementation.

Reliability:

The reliability of tools was determined by estimating test-retest reliability and measuring internal consistency. Cronbach alpha coefficients were used to assess the tools' internal consistency.

The Cronbach alpha coefficients for the Kentucky Inventory of Mindfulness Skills (KIMS) (a=0.721) and the Resilience Scale (CD-RISC) (a=0.807) demonstrated strong reliability.

Pilot study

A pilot study was conducted on 6 elderly people, representing 10% of the calculated total sample size. The purpose was to test the feasibility and clarity of the tools and to help know the time needed for filling out the data collection forms. From the pilot study results, the average time to fill-in the tool was 30-45 minutes. The elderly involved in the pilot study were included in the main study sample since no modification was needed in the data collection form.

Fieldwork:

Once permission was granted to proceed with the study, the researcher started to prepare a schedule for collecting the data. The fieldwork was carried out within the period of two months, starting from the beginning of March 2023 up to the end of April 2023. The researcher allocated two days weekly (Sunday and Wednesday) from 10 am to 12 pm. The researcher was meeting with the elderly people at a wide hall for members' social sitting.

Administrative and ethical consideration

An official permission for data collection was obtained by submission of official letters issued from the Dean of the Faculty of Nursing at Zagazig University to the director of the Geriatric Social Club in Zagazig City. Moreover, the researcher visited the study setting, met with the director of the club, explained to her the study aim and the importance of the study, and asked for her cooperation. The study protocol was approved by the Research Ethics Committee at the Faculty of Nursing, Zagazig University with code M.DZUnur/113/15/11/2022. An informed consent for participation was taken verbally from each of the elderly subjects after fully explanation of the aim of the study. Participants was given the opportunity to refuse the participation, and they was notified that they could withdraw at any stage of the data collection interviews; also they was assured that the information would be confidential and used for the research purpose only. The researcher assured maintaining anonymity and confidentiality of subjects' data. The researcher phone number and all possible communicating methods were identified to the participants to return at any time for any explanation.

Statistical analysis

All data were collected, tabulated and statistically analyzed using SPSS 20.0 for windows (SPSS Inc., Chicago, IL, USA 2011)). Quantitative data were expressed as the mean ± SD and qualitative data were expressed as absolute frequencies (number) & relative frequencies (percentage). Marginal homogeneity was used to compare between two dependent groups of categorical data. Paired t-test was used to compare between two dependent groups of normally distributed variables. Percent of categorical variables were compared using Chi-square test or Fisher's exact test when appropriate. Person correlation coefficient was calculated to assess relationship between study variables, (+) sign indicate direct correlation & (-) sign indicate inverse correlation. Multiple linear regression (step-wise) was also used to predict factors which affect life satisfaction and resilience. Cronbach alpha coefficient was calculated to assess the reliability of the scales through their internal consistency. P-value < 0.05 was considered statistically significant, p-value < 0.001 was considered highly statistically significant, and p-value ≥ 0.05 was considered statistically non-significant.

Results

Considering the demographic characteristics of Participants, **Table 1** displays that (80.0**%)** of Participants aged less than 70 years old with Mean ± SD (67.42±5.19). Also, (75.0**%**) of them were females. (83.3**%**) of them were residing in urban areas. Moreover, (66.7%) of them were unmarried and (50.0%) of them had a high level of education. As well, the same table reveals that (100%) of participants were unemployed while 68.3% of them were previously unemployed. Additionally, (80.0**%**) of them living with family and (93.3%) of them depends on pension as a source of monthly income.

As **Figure 1** clarifies, (58.30%) of studied elderly people were in the middle class. Meanwhile, only 16.70% had a low socio-economic level.

As displayed **figure (2),** (85%) of elderly people had a low level of mindfulness while only (15%) had a moderate level of mindfulness.

As clarified in **figure 3** (88.3%) of studied elderly people had a low level of resilience while only 11.7%had a moderate level .

Table (2), demonstrates only a highly statistically significant relation between elderly people' mindfulness and resilience scores (p=0.001).

In multivariate analysis **table (3)** illustrates that elderly people' educational level was a statistically significant positive predictor for resilience. While elderly people' marital status and crowding index were statistically significant negative predictors for resilience.

Discussion

Regarding demographic data, the present study results revealed that more than three-fourths of studied elderly people aged less than 70 years old. In addition, three- fourths of them were females. Although the higher percentages of women might reflect the distribution of the gender attendants of the geriatric social club, likely due to our recruitment of participants at community centers (used more commonly by women). It might at the same time reflect the higher life expectancy of women in general as shown in the Central Intelligence Agency (CIA) report where the life expectancy was 73.5 years for male and 76 years for female people **(Central Intelligence Agency, 2024).** Also, a study conducted by **Lalani et al., (2023)** in USA revealed that the age of most participants ranged between 65–74 years and the majority of them was females.

Considering residence, the majority of studied elderly people were residing in urban areas. This might be because the culture of joining a club is more common in urban areas than in rural areas. Additionally, this might be due to the geriatric club location which is present in urban area. As for the current marital status, about two-thirds of studied elderly people were unmarried (widowed or divorced). A possible explanation for that with advancing age, there is a high likelihood for the elderly to have lost his/her spouse in view of the life expectancy in Egypt. Moreover, they went to the club to meet their friends and not staying alone at home and feeling bored. This study result was consistent with the study performed by **Hsiung et al., (2023)** in

Taiwan, who found that the majority of seniors were un married (widowed, divorced, and single). And from urban areas (northern and central Taiwan).

As well, all of studied elderly people were currently unemployed as all them were retired. Moreover, the present study findings indicated that the sample's socio-economic level was representative of the Egyptian community, with more than half of them were in the middle class, with smaller percentages at the low and high extremes. Also, three-fourths of the studied elderly people reported having sufficient income. However, this makes them more vulnerable to the financial problems associated with retirement since the retirement pension is much lower compared with their current salaries. A similar situation was found by **Xie et al., (2023)** in a study in China, who found that on average older adults reported moderate amount of pension.

Concerning total mindfulness level of studied elderly people, the current study results showed that the majority of studied elderly people had a low level of mindfulness. This may be attributed to cognitive changes associated with aging which affect their ability to focus and maintain their attention to present moment and avoid rumination. In line with this present study finding, **Yagi et al., (2023)** in a study in Bangkok reported low level of mindfulness scores for their subjects.

Conversely, this result was in disagreement with the study results reported by **Galluzzi et al., (2024) & Lee et al., (2021)** in Italy and china respectively which indicated the higher score of mindfulness skills for their participants.

Regarding resilience, this study results revealed that the majority of studied elderly people had a low level of resilience. This might be due to the adverse conditions such as; lacking of sufficient care and emotional support from significant others leading to adverse psychological outcomes; as feeling of loneliness and sadness which affected their resilience. Moreover, resilience decreases with advancing age which is supported by **Palmes et al., (2021)** in Western Philippines who found that age was negatively correlated with resilience; signifying that younger individuals tend to be more resilient. These study findings were consistent with the study results of **Bahrami et al., (2021)** in Tehran which revealed that the level of resilience of the majority of studied elderly people was from moderate to low.

Regarding the relation between mindfulness skills and resilience, the present study results revealed that there was a highly statistically significant positive relation was found between elderly people' mindfulness and resilience scores. This result indicated that elderly people with higher levels of mindfulness had higher levels of resilience. This might be due to individuals with higher levels of mindfulness can take a more detached view of adverse conditions, which is beneficial for enhancing resilience. Highly mindful individuals easily step back from negative emotions. Subsequently, they may reperceive the present moment, which enables them to view the current emotional state objectively as witnesses. Hence, when facing hardships, individuals equipped with higher levels of mindfulness are less likely to be stuck into passive emotions, which is helpful for building resilience (**Zhang et al., 2023).** Additionally, his might be due to mindfulness buffers the negative impact of inevitable events on psychological distress, also resilience barriers the negative consequences of stressful events on mental health **(Vos et al., 2021).**

This result was in harmony with the foregoing, the findings concluded from the studies of **Kütük et al., (2023)** and **Diachenko et al., (2021)** conducted in Turkey and Denmark

respectively which showed the significant and positive relationship between mindfulness and resilience among studied elderly people.

Finally, in multivariate analysis, the current study result showed that elderly people' educational level was a statistically significant positive predictor for resilience. While, crowding index and marital status were statistically significant negative predictors for resilience. This means that older people without partner had higher level of resilience. This might be explained by living alone without partner makes senior independent, deals with difficulties without asking for help. Also, In terms of functionality, resilience has been associated with the ability to stay active and not develop depressive symptoms in the face of adversity. This study finding was similar to the study of **Linnemann et al., (2020)** in Germany, which found higher resilience in participants with higher education. Moreover, the present study results were supported by the results of the scoping review conducted by **Riva et al., (2022)** which reported that overcrowding caused a worsening in overall mental health and was correlated with higher level of stress and lower level of resilience.

Conclusion

Based upon the findings of the present study and answer of questions, it was concluded that, the majority of studied elderly people had low levels of total mindfulness skills, and resilience. Moreover, there were highly statistical significant positive relation between the studied elderly people' mindfulness skills and resilience. Furthermore, elderly people' educational level was a statistically significant positive predictor for resilience. While elderly people' marital status and crowding index were statistically significant negative predictors for resilience.

Recommendations

- ***In view of the current study findings, the following recommendations are suggested:***

☞ Mindfulness-training program should be implemented in the study setting to improve mindfulness and resilience of older adults.

☞ Coordination with different social and recreational clubs for application of this mindfulness-training program for older adults to achieve successful aging and improve their mindfulness and resilience.

☞ Coordination with different health care setting for application of this mindfulness-training program for older adults as non-pharmacological interventions to improve physical, mental health and spiritual well-being which typically decline overtime.

☞ Written, simple booklet about mindfulness and its exercises should be provided & available for older adults in different social clubs and health care settings.

☞ Incorporation of passive control groups to clearly establish the causal role of mindfulness practices in promoting resilience in older adults.

☞ Replication of the study on a large sample from different geographical areas is recommended for generalization of results.

References

[1] **Baer, R. A., Smith, G. T., & Allen, K. B. (2004).** "Assessment of mindfulness by self-report: The Kentucky inventory of mindfulness skills". Assessment. 11 (3): 191–206. doi:10.1177/1073191104268029.

[2] **Bahrami, L., Mohammadi-Shahboulaghi, F., Rahgoy, A., & Biglarian, A. (2021).** Predicting Coping Strategies based on Spiritual Health and Resilience in the Elderly in Tehran. *Iranian Journal of Psychiatric Nursing*, *9*(1), 56-65. URL: http://ijpn.ir/article-1-1740-en.html

[3] **Bogaerts, S., van Woerkom, M., Erbaş, Y., De Caluwé, E., Garofalo, C., Frowijn, I., Jeandarme, I., Masthoff, E., & Janković, M. (2021).** Associations Between Resilience, Psychological Well-Being, Work-Related Stress and Covid-19 Fear in Forensic Healthcare Workers Using a Network Analysis. *Frontiers in psychiatry*, *12*, 678895. https://doi.org/10.3389/fpsyt.2021.678895

[4] **Central Intelligence Agency (CIA). (2024).** Explore All Countries- Egypt. Available at: https://www.cia.gov/the-world-factbook/countries/egypt/

[5] **Choudhary, S., Pandey, P., & Maral, P. (2021).** Role of mindfulness and self-efficacy in resilience among young and older people. *Turkish Journal of Physiotherapy and Rehabilitation*, *32*(3), 26415-26436.

[6] **Connor, K. M., & Davidson, J. R. (2003).** Development of a new resilience scale: The Connor-Davidson resilience scale (CD-RISC). Depression and anxiety, 18(2), 76-82.

[7] **D'elia, Y., Whitfield, T., Schlosser, M., Lutz, A., Barnhofer, T., Chételat, G., ... & Wirth, M. (2024).** Impact of mindfulness-based and health self-management interventions on mindfulness, self-compassion, and physical activity in older adults with subjective cognitive decline: A secondary analysis of the SCD-Well randomized controlled trial. *Alzheimer's & Dementia: Diagnosis, Assessment & Disease Monitoring*, *16*(1), e12558. https://doi.org/10.1002/dad2.12558

[8] **Diachenko, M., Smith, K. K., Fjorback, L., Hansen, N. V., Linkenkaer-Hansen, K., & Pallesen, K. J. (2021).** Pre-retirement employees experience lasting improvements in resilience and well-being after mindfulness-based stress reduction. *Frontiers in psychology*, *12*, 699088.

[9] **Dutta, T., Chhajer, R., Nag, S., & Dhir, S. (2023).** Impact of intolerance of uncertainty on well-being during COVID-19 pandemic in India: Does practising gratitude and mindfulness help?. *IIMB Management Review*, *35*(3), 286-297. https://doi.org/10.1016/j.iimb.2023.07.004

[10] **Fahmy, S. I., Nofal, L. M., Shehata, S. F., El Kady, H. M., & Ibrahim, H. K. (2015).** Updating indicators for scaling the socioeconomic level of families for health research. Journal of the Egyptian Public Health Association, 90(1), 1-7.

[11] **Galluzzi, S., Lanfredi, M., Moretti, D. V., Rossi, R., Meloni, S., Tomasoni, E., & Pievani, M. (2024).** Cognitive, psychological, and physiological effects of a web-based mindfulness intervention in older adults during the COVID-19 pandemic: an open study. *BMC geriatrics*, *24*(1), 1-16. DOI: https://doi.org/10.1186/s12877-024-04766-z

[12] **Hsiung, Y., Chen, Y. H., Lin, L. C., & Wang, Y. H. (2023).** Effects of Mindfulness-Based Elder Care (MBEC) on symptoms of depression and anxiety and spiritual well-being of institutionalized seniors with disabilities: a randomized controlled trial. *BMC geriatrics*, *23*(1), 497. https://doi.org/10.1186/s12877-023-04220-6

[13] **Jain, S. (2024).** Impact of Mindfulness on Resilience and Quality of Life among Young Adults. *International Journal of Indian Psychology*, *12*(2). DOI: 10.25215/1202.322

[14] **Kütük, H., Hatun, O., Ekşi, H., & Ekşi, F. (2023).** Investigation of the Relationships Between Mindfulness, Wisdom, Resilience and Life Satisfaction in Turkish Adult Population. Journal of Rational-Emotive & Cognitive-Behavior Therapy, 41(3), 536-551. https://doi.org/10.1007/s10942-022-00468-w

[15] **Lalani, N., Dongjuan, X., Cai, Y., & Arling, G. W. (2023).** Structural equation model of coping and life satisfaction of community-dwelling older people during the COVID-19 pandemic. *Journal of Patient-Reported Outcomes,* 7(1), 46. https://doi.org/10.1186/s41687-023-00583-x

[16] **Lee, E. K. P., Wong, B., Chan, P. H. S., Zhang, D. D., Sun, W., Chan, D. C. C., ... & Wong, S. Y. S. (2021).** Effectiveness of a mindfulness intervention for older adults to improve emotional well-being and cognitive function in a Chinese population: A randomized waitlist-controlled trial. *International Journal of Geriatric Psychiatry*, *37*(1). https://doi.org/10.1002/gps.5616

[17] **Linnemann, P., Wellmann, J., Berger, K., & Teismann, H. (2020).** Effects of age on trait resilience in a population-based cohort and two patient cohorts. *Journal of Psychosomatic Research*, *136*, 110170. https://doi.org/10.1016/j.jpsychores.2020.110170

[18] **Mazhar, K., Malik, A. S., & Javed, N. (2023).** The Ego Resilience and Life Satisfaction in Elderly People Living in Old Age Homes and with Families: A Quantitative Analysis. *Journal of Development and Social Sciences*, 4(3), 684-694.

[19] **Mirabito, G., & Verhaeghen, P. (2022).** The effects of mindfulness interventions on older adults' cognition: A Meta-analysis. *The Journals of Gerontology: Series B*, *78*(3), 394-408. DOI:10.1093/geronb/gbac143

[20] **Oh, V. K. S., Sarwar, A., & Pervez, N. (2022).** The study of mindfulness as an intervening factor for enhanced psychological well-being in building the level of resilience. *Frontiers in psychology*, *13*, 1056834. https://doi.org/10.3389/fpsyg.2022.1056834

[21] **Palmes, M. S., Trajera, S. M., & Ching, G. S. (2021).** Relationship of coping strategies and quality of life: parallel and serial mediating role of resilience and social participation among older adults in western philippines. *International Journal of Environmental Research and Public Health*, *18*(19), 10006. https://doi.org/10.3390/ijerph181910006

[22] **Parandin, S. (2024).** The Effectiveness of Mindfulness-Based Stress Reduction Therapy on Resilience and Perceived Stress in Older Residents of Nursing Homes. *Aging*, *9*(4), 419-436. DOI:10.22126/JAP.2024.10178.1754

[23] **Riva, A., Rebecchi, A., Capolongo, S., & Gola, M. (2022).** Can homes affect well-being? A scoping review among housing conditions, indoor environmental quality, and mental health outcomes. *International Journal of Environmental Research and Public Health*, *19*(23), 15975.

[24] **United Nations Department of Economic and Social Affairs, Population Division (2023).** World Population Ageing 2023: Challenges and opportunities of population ageing in the least developed countries. UN DESA/ POP/2023/TR/NO.5. https://www.un.org/development/desa/pd/sites/www.un.org.development.desa.pd/files/undesa_pd_2024_wpa2023-report.pdf. retrieved at 27/8/2024 at 9:00 am

[25] **United Nations Population Fund, (2024).** Country profile: The rights and wellbeing of older persons in Egypt. *UNFPA Help page International*. available at https://arabstates.unfpa.org/sites/default/files/pub-pdf/country_profile_-_egypt_10-1-2024_0.pdf. retrieved at 27/8/2024 at 8:41 am.

[26] **Vos, L. M., Habibović, M., Nyklíček, I., Smeets, T., & Mertens, G. (2021).** Optimism, mindfulness, and resilience as potential protective factors for the mental health consequences of fear of the coronavirus. *Psychiatry Research*, *300*, 113927. https://doi.org/10.1016/j.psychres.2021.113927

[27] **Xie, X., Qiao, X., Huang, C. C., & Sitar, S. (2023).** Mindfulness, pension, and life satisfaction of retired older adults in China: mediation effects of positive and negative affect. *Current Psychology*, 1-11. https://doi.org/10.1007/s12144-023-04899-1

[28] **Yagi, S. R., Napa, W., Awirutworakul, T., Ittasakul, P., Yagi, N., & Hartelius, G. (2023).** Effects of a brief interpersonal mindfulness program embedded in a psychiatric nursing practicum: A controlled pilot study. *Journal of Professional Nursing*, *47*, 46-55. https://doi.org/10.1016/j.profnurs.2023.04.005

[29] **Zhang, J., Mao, Y., Wang, Y., & Zhang, Y. (2023).** The relationship between trait mindfulness and resilience: A meta-analysis. *Personality and Mental Health*, *17*(4), 313-327. DOI:10.1002/pmh.1581

[30] **Zheng, W., Huang, Y., & Fu, Y. (2020).** Mediating effects of psychological resilience on life satisfaction among older adults: A cross-sectional study in China. *Health & Social Care in the Community*, 28(4), 1323-1332

Table (1): Demographic Characteristics of Participants Included in the Intervention Program (n=60).

Socio-demographic Characteristics	No.	%
Age (years)		
60-<70	48	80.0
≥70	12	20.0
Mean ± SD	67.42±5.19	
Gender		
Male	15	25.0
Female	45	75.0
Residence:		
Rural	10	16.7
Urban	50	83.3
Current marital status		
Unmarried	40	66.7
Married	20	33.3
Educational level		
Basic	20	33.3
Intermediate	10	16.7
High	30	50.0
Current job:-		
Employee	0	0.0
Un employee	60	100.0

Previous job		
Employee	19	31.7
Un employee	41	68.3
Living with family		
Yes	48	80.0
No	12	20.0
Source of monthly income		
Pension	56	93.3
property income	4	6.7
Social assistance	0	0.0
Assistance from relatives	0	0.0

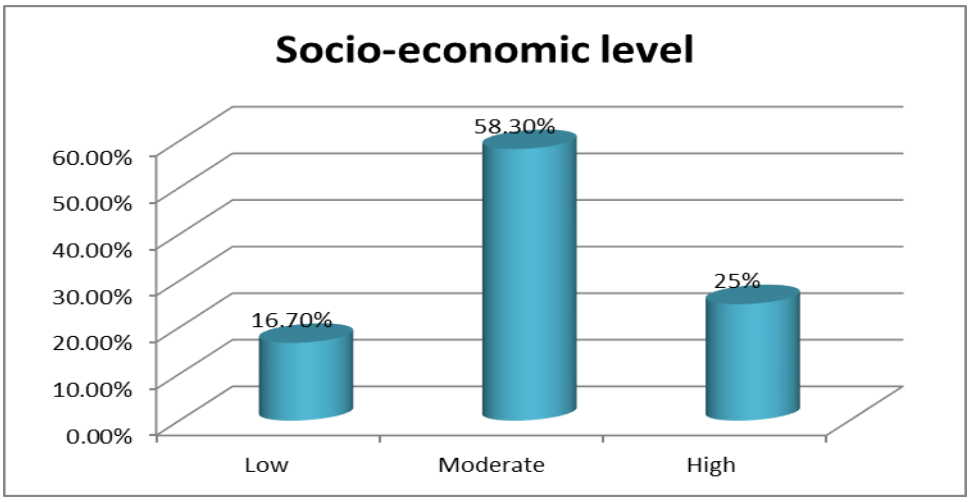

Figure 1: Percent of Socio-economic Level of Studied Elderly People (n=60).

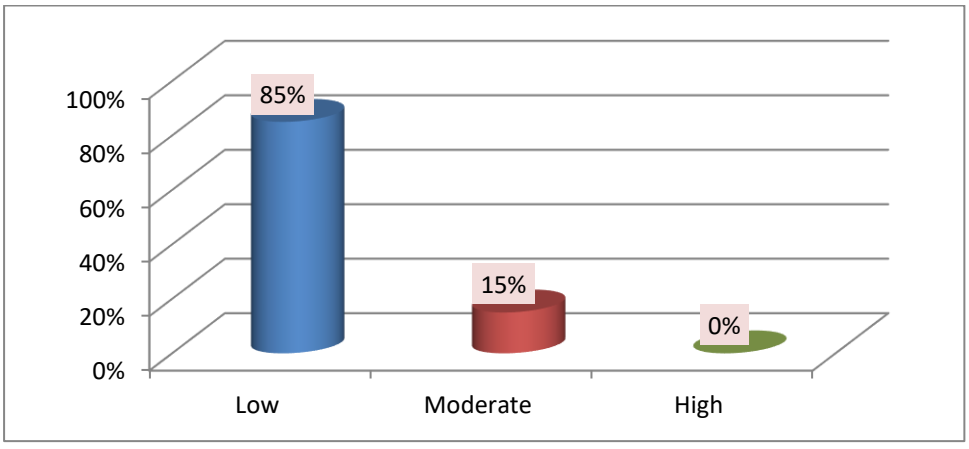

Figure 2: Mindfulness Level of Studied Elderly People (n=60).

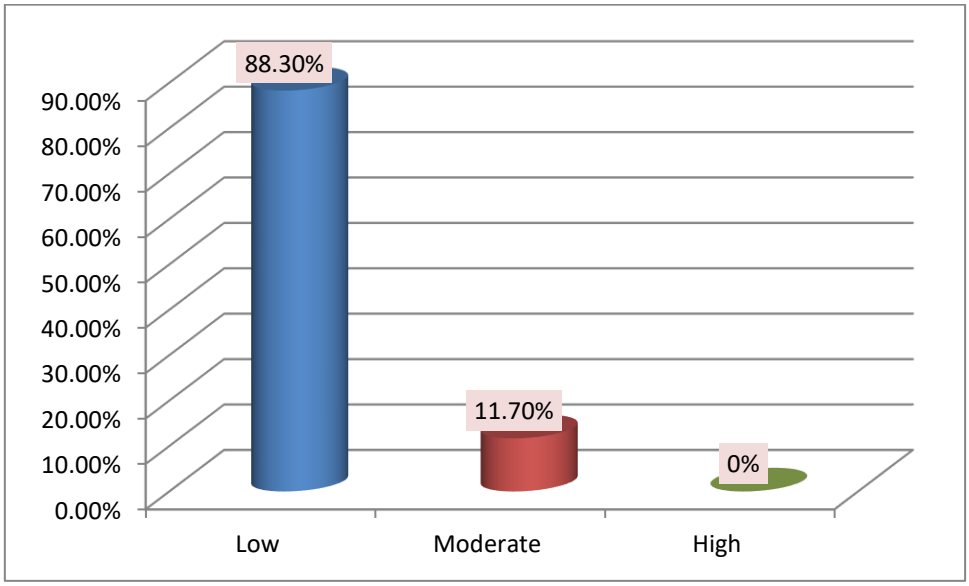

Figure 3: Resilience Level of Elderly People (n=60)

Table (2): Relation Between Mindfulness skills and Resilience Scores Among Elderly People (n=60).

Items	mindfulness skills score				FET p-value
	Low=51		Moderate=9		
	No	%	No	%	
Resilience score					
Low	51	100.0	2	22.2	0.001**
Moderate	0	0.0	7	77.8	

FET: Fisher exact test, Non significant (p>0.05), **: statistically highly significant (p<0.001)

Table (3): Multiple Linear Regression Model to Predict Factors That Affect Resilience Score Among Elderly People (n=60).

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
(Constant)	47.038	6.156		7.640	.000	34.700	59.375
Education level	2.653	1.112	.285	2.385	0.021*	.424	4.883
Marital status	-5.313-	2.041	-.299-	-2.603	0.012*	-9.404-	-1.222-
Crowding index	-3.778-	1.867	-.226-	-2.024	0.048*	-7.519-	-.037-

*: statistically significant (p<0.05)

R-square=0 .454, ANOVA: F= 11.428 , P<0.001

Variables entered and excluded: age, gender, residence, living with, source of income, family income, healthy environment at home, computer availability, socio-economic level, mindfulness.