Quality of Life among Elderly People with Sleep Disorders

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Abstract

Background: Sleep disorders have been linked with adverse long-term health outcomes, including diminished quality of life and physical and psychological morbidity. **Aim of the study**: The present study aimed to assess quality of life among elderly people with sleep disorders. **Design**: A descriptive research design was utilized to conduct this study. **Setting:** The study was conducted at Psychiatric Outpatient Clinic which affiliated to Benha University Hospital. **Sample**: Convenience sample of 60 elderly people was taken. **Tools**: Three tools were used for data collection. **I:** An interviewing questionnaire was used to assess A): Socio-demographic characteristics of the studied elderly people, B): Elderly people' knowledge about sleep disorders, and C): Elderly people' reported practices regarding sleep disorders. **II:** Quality of life scale to assess elderly people's quality of life. **III:** Athens Insomnia Scale (AIS) for assessment of sleep disorders degree. **Results**: 41.7% aged ≥70 years with mean age of 71.24 ± 5.45years old, while 61.7% were females, 65.0% of the studied elderly people had poor total knowledge level, 78.3% had unhealthy total reported practice level regarding sleep disorders, 56.7% had fair total quality of life level, and 50.0% of the studied elderly people had moderate degree of sleep disorders. **Conclusion**: There was a highly statistically significant relation between the total quality of life level of the elderly people and their total sleep disorders degree. **Recommendations:** Health educational program should be conducted for elderly people with sleep disorders to improve their sleeping pattern and quality of life.

Keywords: Elderly people, Sleep disorders, Quality of life.

Introduction

Aging is the progressive accumulation of changes with time that are associated with or responsible for the ever-increasing susceptibility to disease and death which accompanies advancing age. The aging process is associated with a gradual decline in the function of the body systems of a healthy and matured adult and a decrease in physiological capacity. Therefore, nowadays, paying attention to the components of health in healthy people has gained especial importance. These time-related changes are attributed to the aging process **(Barbalho et al., 2022).**

The world's elderly population is projected to reach 8 billion on 15 November 2022. The latest projections by the United Nations suggest that the global elderly population could grow to around 8.5 billion in 2030, 9.7 billion in 2050 and 10.4 billion in 2100. Population growth is caused in part by declining levels of mortality, as reflected in increased levels of life expectancy at birth. Globally, life expectancy reached 72.8 years in 2019, an increase of almost 9 years since 1990. Further reductions in mortality are

projected to result in an average longevity of around 77.2 years globally in 2050 (**Pandey et al., 2022).**

Sleep disorders are a global issue and are associated with physical and mental health comorbidities, common especially in the geriatric age group. Elderly people mostly have trouble with sleep, insufficient sleep, abnormal movements during sleep or excessive amount of perceived sleep, frequent night wakeups, 3–4 times per night, and early morning walking. Total duration of sleep may also decrease slightly. Elderly people have a less dreamless or deep sleep, have lighter sleep in comparison to earlier age time, and this could be attributed to often feeling of rapid switch between sleep and wakeup. The International Classification of Sleep Disturbances (ICSD-3)2 identifying seven major categories that include insomnia disorders, sleep-related breathing disorders, central disorders of hypersomnolence, circadian rhythm sleep–wake disorders (**Vaccaro, 2020 & Berdina et al., 2023).**

sleep disorders is a potential risk factor for major health problems. Sleep disorders may be related to several mental and cognitive disorders including persistent delusions, depression, anxiety and dementia and often coexist with major medical conditions, such as hypertension, diabetes and cancer, sleep disorders is an important therapeutic target for healthcare. The American Psychiatric Association (APA) recommends three treatments for sleep disorders: pharmacological therapy, psychotherapy and complementary and alternative therapy. Among these, pharmacological therapy is the most common treatment which is the use of sleep-inducing drugs can lead to negative effects such as drowsiness, gait disorders and cognitive impairment (**Danny et al., 2023).**

Quality of life is a perception of what is relevant to one's goals, expectations, standards, and interests in the context of the culture and value system in which one lives. QOL is also explained as a broad concept that encompasses an individual's physical and psychological health, independence, social relationships, and personal belief environment. QOL also refers to subjective well-being that includes concepts such as happiness, life satisfaction, and positive emotions. Quality of life of the elderly people improved by addressing fields of psychology, physical education, medicine, and social welfare (**Kim & Hwang, 2022).**

The impact of sleep disorders is important to consider when assessing quality of life in the elderly people. Sleep disorders are negatively affect all domain of quality of life. It has been reported that those suffering from impaired the functioning and diminishes the quality of life, as it is associated with low scores of mental as more memory problems, impaired concentration and social such as less satisfaction with relationships , loonies' and isolation, anxiety and depression, physical component summary of quality of life. Also sleep disorders increases the risk of falls and accidents especially during hospitalization and in nursing home (**Blay et al., 2022).**

Community health nurse have an integral role in primary health care with diverse roles such as providing health education and promotion through to complex chronic disease management. CHN have important roles in identifying the factors causing sleep problems, reducing the negative consequences of insomnia through a systematic approach for diagnosis, evaluation, and management of insomnia. Effective management of sleep disorders is necessary for improving quality of life, which is a primary issue for the elderly and their families. Therefore, insomnia among

elderly warrants thorough attention from CHN who provides care for elderly people and maintaining and improving the regular sleeping pattern (**Horii et al., 2021**).

Significance of the study:

In Egypt the number of older people reached 5.8 million in 2011 and was estimated 7.3% of total population, and it is expected to increase to 11.6% in 2030 due to the development of health services. In this rapidly expanding older portion of the population, one of the major changes that commonly accompany the aging process is an often-profound disruption of an elderly's daily sleep-wake cycle. Sleep-related problems among the Egyptian elderly people. 77.8%, 59.2%, and 29.5%, reported insomnia, daily sleepiness, and sleep deprivation respectively. Approximately 50% reported afternoon naps. Sleep education and counseling for appropriate lifestyle and proper sleep practice may minimize the magnitude and effects of these problems. Insomnia is a highly prevalent complaint among elderly, and it is associated with significant morbidity (**Molla, 2021**).

Aim of the study:

The study aimed to assess quality of life among elderly people with sleep disorders.

Research question:

- What is the elderly people's knowledge regarding sleep disorders?
- What are the elderly people's reported practices regarding sleep disorders?
- What is the quality-of-life level among elderly people with sleep disorders?
- What is the sleep disorders degree among studied elderly people?
- Is there a relation between socio demographic characteristics and elderly

people knowledge regarding sleep disorders?
- Is there a relation between the degree of sleep disorders and quality of life of elderly people?

Subjects and Method:

Research design:

A descriptive research design was utilized in this study.

Setting:

This study was conducted at Psychiatric Outpatient Clinic which affiliated to Benha University Hospital which is found in the ground floor in the last corridor and consisted of one room for examination and follow up, the Psychiatric Outpatient Clinic works three days per week (Sundays and Tuesdays and Thursdays) from 9 am to 1pm.

Sampling:

Convenience sample of 60 of elderly people suffering from sleep disorders were taken from the previously mentioned setting through a period of six months. Elderly people were taken according to the following inclusion criteria:

-Free from any chronic diseases

Tools of data collection:

Three tools were used in data collection:

Tool I: An interviewing questionnaire: was developed by researchers and revised by supervisor staff, based on reviewing related literatures, and written in Arabic language, consisted of three parts to assess the following.

First part: Socio-demographic characteristics of the studied elderly people. It included eight closed-ended questions about age, gender, marital status, level of education, occupation,

monthly income, residence place and family type.

Second part: It was concerned with the studied elderly people knowledge about sleep disorders which included of nine closed ended questions (multiple choice type) about meaning, risk factors, causes, symptoms, types, diagnosis, prevention, treatment of sleep disorders, and complication.

Scoring system: The scoring system for the studied elderly people' knowledge was calculated as follows: (2) score for complete and correct answer, while (1) score for correct and incomplete answer, and (0) score for do not know.

The total knowledge score = 18 point

The total knowledge score was considered good if the score > 75% (>13point), while considered average if it equals 50-75% (13-9point), and considered poor if it equals < 50% (< 9point).

The Third part: It was concerned with the studied elderly people reported practices toward sleep disorders which included 7 items, 46 questions divided into bed time routine, the sleeping environment, nutritional habits, exercise, daily living activities, stress management, and control of insomnia.

a) **Bed time routine;** which included 10 questions such as set fixed bedtime, avoid afternoon naps, take some time to relax before bed each night by: reading book, listening to soft music, or taking a warm bath, avoid electronic devices as phone and computer before bed time, avoid any exertion before sleep, avoid smoking before sleep, try to lose excessive body weight, avoid taking medication that increase sleepiness, and avoid caffeine intake before bed such as tea, coffee, and cola, and choose a suitable sleeping position.

b) **The sleep environment,** which included 8 questions such as use comfortable and suitable bed, provide calm and quiet environment, avoid noise in bedroom, avoid bright light in bedroom, avoid pets on bed, keep bedroom clean and tidy, keep good room ventilation, and keep moderate room temperature.

c) **Nutritional habits;** which included 11 questions such as avoid drinking excessive water before sleep, avoid drinking caffeine, fast and preserved food before sleep, eat fresh vegetables and fruits, eat foods rich in protein as meat, milk, and egg, avoid eating foods high in fats, reduce intake of sweets, snacks and sweet drinks, eat at least three meals per day, eat meals at fixed and regular time daily, avoid acidity foods such as lemon and orange, avoid spicy and seasoning foods, and avoid large meals before bedtime.

d) **Exercise,** which included 4 questions such as do regular exercise as walking every day, do relaxation exercises, sit in open and quiet place, do deep and slow breathing exercises and avoid doing hard work or exercise before bedtime immediately.

e) **Daily living activities,** which included 6 questions as practice all house works alone, able to drive a car and travel by public transportation alone, able to do shopping, and choose needs and carry them alone, use telephone, look for numbers and make phone calls alone, prepare foods and eating meals alone, and take medications in right dose, and route and time.

f) **Stress management,** which included 3 questions as share with friends and family what happen to reduce stress and depression, set time for eating, relax, and enjoy, and avoid mental and psychological stress.

g) **Control of insomnia,** which included 4 questions as pray on time, keep the

doctorng books before bed, listen to calm music, and take sleep medication as doctor ordered.

Scoring system:

The scoring system for the studied elderly people' reported practices regarding sleep disorders was calculated as follows (2) score for regularly done and (1) score for irregularly done and (0) score for not done. These were respectively scored for positive items and reserved for negative items. Total reported practices score = 92

The total reported practices score was considered healthy if the score > 60% (55> score) and considered unhealthy if the score <60% (<55 score).

Tool II: It was concerned with quality-of-life scale for the studied elderly people regarding sleep disorders adopted from **(Hallit et al., 2019)** and modified by the researchers to assess physical, psychological and social domains of quality of life of the studied elderly people regarding sleep disorders. It was translated into Arabic by the researchers and included three domains divided into 38 items as follows:

1- Physical health status (13 statements): Feel pain in the body and discomfort, feel tired and fatigue, find difficulty in doing the work, find difficulty in carrying out the activities of daily living as bathing and dressing, find difficulty to sleep, feel a loss of appetite or change in eating habits, find difficulty to concentrate, find difficulty carrying out things to self as cooking, shaving and cutting nails, find difficulty to drive, find difficulty to do strenuous activities such as carrying heavy things or doing very strenuous sport, find difficulty to climb stairs, restrict in taking care of home, and family understanding the diseases effect on physical health and difficulty in movement to meet needs.

2- Social status (6 statements): Feel alone and isolated from people, enjoy life with others, feel satisfied with personal relationships, avoid participating in social events, feel having restrictions regarding social activities such as visiting relatives and friends, and feel satisfied with family life.

3- Psychological status (19 statements): Feel afraid from in accommodation with illness, feel afraid of becoming a load on family and friends, feel afraid of isolation and social distance, feel afraid of the lack of medication when needed, feel afraid of a losing the life due to illness and lack of concentration, feel afraid and quarrel with family and friends as a result of my diseases, feel distressed, irritability and impatient, feel easily relaxation, feel loss of hope and self-confidence, have negative feelings such as anxiety, depression and frustration due sleep disorders, feel satisfied with family members interaction, feel changes in life due to illness, able to control important things in life, get psychological and emotional support from others, look at bright side of life, feel like a happy person, feel well – being and love, feel full of vitality and life, and feel full of calm and psychological peace.

Scoring system:

The quality-of-life scale for the studied elderly people regarding sleep disorders score was calculated as follows: (2) score for always, (1) score for sometimes, (0) score for never. These were respectively scored for positive items and reversed for negative items. Total quality of life score =76 points.

The total quality of life score was considered good > 75% (>57points), while considered fair if it is 50-75% (38-57 points)

and considered poor if it is < 50% (<38 points).

Tool III: Athens Insomnia Scale (AIS): was adopted from **(Cook et al., 2016)** for assessment of sleep disorders. The AIS was used to assess sleep complaints and identify possible cases of sleep disorders. The AIS was concerned with degree of sleep disorders for the studied elderly people. It translated in to simple Arabic language. It consisted of 8 questions. The first five items cover night – time symptoms of sleep disorders (sleep induction, awakenings during the night, final awakening earlier than desired, total sleep duration, overall quality of sleep) while the last three items ask for daytime consequences of disturbed sleep (problems with sense of well – being, overall functioning (physical and mental) and sleepiness during the day.

Scoring system:

The scoring system of AIS was given as follows (1) for mild, (2) for moderate, (3) for severe. The total scoring system for AIS scale for the studied elderly people with sleep disorders is considered mild if the total score > 12 points while considered moderate sleepiness from 12- 18 points and considered severe sleepiness from higher than 18.

Content validity:

The tools validity were assessed by 5 members of Faculties staff Nursing experts from the Community Health Nursing Specialists who reviewed the tool for clarity, relevance, comprehensiveness, applicability, and easiness for implementation and according to their opinion minor modification were carried out.

Content reliability:

Reliability of the tools refer to consistency of the results when the test repeated more than one on different occasion. Reliability of

the tools was applied by the researchers for testing internal consistency of the tools, by administration of the same tool to the same subjects under similar condition on one or more occasion. The reliability was done by the Cronbach"s alpha coefficient test which revealed that reliability statistics for knowledge was 0.798, reliability statistics for reported practices was 0.967, and reliability statistics for quality of life was 0. 896, reliability statistics for sleep disorders degree scale was 0. 892.

Ethical consideration:

All ethical issues were assured; a written consent has been obtained from the studied elderly people before conducting the interview and given them a brief orientation to the purpose of the study. They were also reassured that all information gathered would be treated confidentially and used only for the purpose of the study. The studied elderly people had the right to withdraw from the study at any time without giving any reasons. The study had not any physical, social or psychological risks. Ethics, values and cultures were respected.

Pilot study:

The pilot study was carried out on 6 of the studied elderly people who represent 10% of the total of the study subjects. The pilot study was made to assess the tools clarity, applicability and time needed to fill each sheet as well as to identify any possible obstacles that may hinder the data collection. The pilot study was not excluded as no modifications were made.

Field work:

The actual field work was carried out over a period of 6 months from the beginning of May 2022 up to the end of October 2022. The studied elderly's consent was obtained before collection of data. The researchers introduced herself to the studied elderly people in the outpatient clinic, explained the aim and

component of the questionnaires to the studied elderly people in the psychiatric outpatient clinic setting. The researchers visited the psychiatric outpatient clinic setting from 9 am to 1pm, two days per week (Sundays and Tuesdays) to collect the data from the studied elderly. The average time needed to fill the tool was around 30- 45 minutes, the average number interviewed daily was 1 -2 the studied elderly people each time depending on understanding and response of the elderly people.

approval and cooperation for data collection.

Statistical analysis:

All data collected were organized, tabulated and analyzed using appropriate statistical test. The data were analyzed by using the Statistical Package for Social Science (SPSS) Version 22, which was applied to calculate number and percentages for qualitative data and mean ± S.D for quantitative data as well as test statistical significance and associations by using chi-square test and correlation test (r) to detect the associations between the variables for (p value).

The level of significance:

The observational differences and associations were considered as the following:
-Highly significant (HS) when   P≤0.01.
-Significant (S)   when p ≤ 0.05.
-Non- significant (NS) when P>0.05

Results:

Table (1): Reveals that 41.7% of the studied elderly people aged greater than or equal 70 years with mean age of 71.24 ± 5.45years old, while 61.7% of the studied elderly people were females and 45.0% of them were married. Also 36.7% had middle education and 33.3% of them had free business. While 38.3% of them did not have enough monthly income and 66.7% of them lived in urban areas. While 65.0% lived in extended family.

Figure (1): Indicates that 65.0% of the studied elderly people had poor total knowledge level, while 23.3% of them had average total knowledge level and 11.7% of them had good total knowledge level regarding sleep disorders.

Figure (2): Illustrates that 21.7% of the studied elderly people had healthy total reported practices level and 78.3% had unhealthy total reported practice level regarding sleep disorders.

Figure (3): Shows that 23.3% of the studied elderly people had good total quality of life level, while 56.7% had fair total quality of life level, and 20.0% had poor total quality of life level.

Figure (4): Indicates that 6.7% of the studied elderly people had mild degree of sleep disorders, 50.0% of the studied elderly people had moderate degree of sleep disorders and 43.3% had sever degree of sleep disorders.

Table (2): Shows that there was a statistically significant relation between the studied elderly people total knowledge level and level of education, and there were not a statistically significant relation between the studied elderly people total knowledge level and age, gender, marital status, occupation, monthly income, residence place and family type.

Table (3): Shows that there was highly statistically significant relation between total quality of life level of the studied elderly people and their total sleep disorders degree.

Quality of Life among Elderly People with Sleep Disorders

Table (1): Frequency distribution of the studied elderly people regarding their socio-demographic characteristics (n=60).

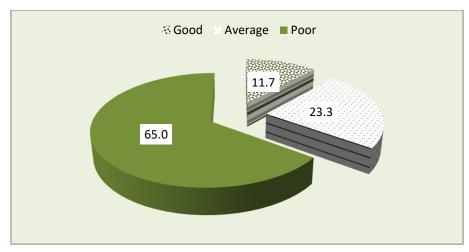| Socio-demographic characteristics	No	%
Age in years		
60 : < 65	17	28.3
65 : < 70	18	30.0
≥70	25	**41.7**
Mean ±SD 71.24 ± 5.45		
Gender		
Male	23	38.3
Female	37	**61.7**
Marital status		
Single	10	16.7
Married	27	**45.0**
Widowed	14	23.3
Divorced	9	15.0
Level of education		
Not read and write	14	23.3
Basic education	15	25.0
Middle education	22	**36.7**
University education	9	15.0
Occupation		
Employed	10	16.7
House wife	11	18.3
Retired	19	31.7
Free business	20	**33.3**
Monthly income		
Enough and save	22	**36.7**
Enough	15	25.0
Not enough	23	**38.3**
Residence place		
Rural	20	33.3
Urban	40	**66.7**
Family type		
Nuclear family (Elder and her wife))	21	35.0
Extended family(Grandparents, parents and their children)	39	**65.0**

Figure (1): Percentage distribution of the studied elderly people regarding total knowledge level about sleep disorders (n=60).
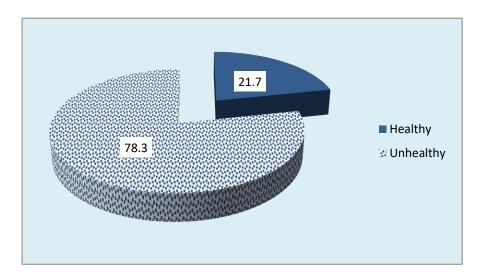

Figure (2): Percentage distribution of 80% the studied elderly people regarding their total reported practices level about sleep disorders (n=60).
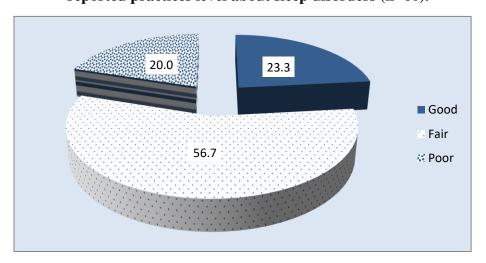

Figure (3): Percentage distribution of the studied elderly people regarding their total quality of life level (n=60).

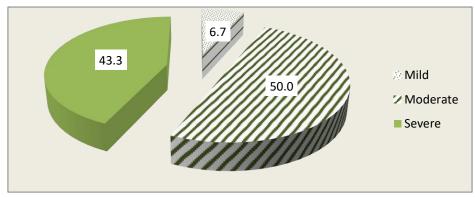## Quality of Life among Elderly People with Sleep Disorders

Figure (4): Percentage distribution of the studied elderly people regarding their total sleep degree (n=60).

Table (2): Statistically relation between the studied elderly' socio-demographic characteristics and their total knowledge level during sleep disorders (N=60).

Socio demographic characteristics	Total knowledge level						X²	p-value
	Poor (N=39)		Average(N=14)		Good (N=7)			
	No	%	No	%	No	%		
Age in years								
60 : < 65	13	33.3	3	21.4	1	14.3		
65 : < 70	12	30.8	2	14.3	4	57.1	6.265	0.18
≥70	14	35.9	9	64.3	2	28.6		
Gender								
Male	17	43.6	3	21.4	3	42.9	2.209	0.331
Female	22	56.4	11	78.6	4	57.1		
Marital status								
Single	9	23.1	1	7.1	0	0.0		
Married	17	43.6	5	35.7	5	71.4	8.968	0.175
Widowed	6	15.4	6	42.9	2	28.6		
Divorced	7	17.9	2	14.3	0	0.0		
Level of education								
Not read and write	11	28.2	2	14.3	1	14.3		
Basic education	13	33.3	2	14.3	0	0.0	16.38	.012*
Middle education	12	30.8	8	57.1	2	28.6		
University education	3	7.7	2	14.3	4	57.1		
Occupation								
Employed	9	23.1	1	7.1	0	0.0		
House wife	6	15.4	2	14.3	3	42.9	9.721	0.137
Retired	13	33.3	3	21.4	3	42.9		
Free business	11	28.2	8	57.1	1	14.3		
Monthly income								
Enough and save	16	41.0	3	21.4	3	42.9		
Enough	10	25.6	3	21.4	2	28.6	2.996	0.559
Not enough	13	33.3	8	57.1	2	28.6		
Residence place								
Rural	14	35.9	3	21.4	3	42.9	1.294	0.524
Urban	25	64.1	11	78.6	4	57.1		

Table (3): Statistically relation between the studied elderly people total sleep disorders degree and total quality of life level (N=60).

Total sleep disorders degree	Total Quality of life level						X^2	p-value
	Poor (n=12)		Fair (n=34)		Good (n=14)			
	No	%	No	%	No	%		
Mild (n=4)	4	33.3	0	0.0	0	0.0	41.219	.000**
Moderate (n=30)	8	66.7	22	64.7	0	0.0		
Severe (n=26).	0	0.0	12	35.3	14	100.0		

Discussion:

Elderly people had age-related sleep changes, including an advanced sleep phase and decreased slow-wave sleep, which result in fragmented sleep and early awakening. Multiple etiologies contribute to insomnia in the elderly, elderly people are likely to have comorbid conditions and medications. When elderly people complain of insomnia, it is important to assess treatable medical conditions and medication use that may be responsible for the insomnia before the use of hypnotics is initiated. Also, screening for primary sleep disorders, such as sleep apnea syndrome, restless legs syndrome and rapid eye movement sleep behavior disorder, is essential. Sleep disorders commonly observed in the elderly and describe the diagnosis and management **(Okada et al., 2019).**

Sleep is a key indicator of quality of life. Therefore, changes that occur in sleep during the aging process affect quality of life negatively. Sleep is also a required to feel rested. Health practices (e.g., diet, exercise, and substance use) and environmental factors (e.g., light, noise, temperature, and mattress) that may be either detrimental or beneficial to sleep are assessed **(Brewer, 2019).**

Regarding to socio- demographic characteristics (age, gender, and marital status) of the studied elderly people with sleep disorders, the current study revealed that, nearly two fifths of the studied elderly people were aged greater than or equal 70 years with mean age of 71.24 ± 5.45years old, more than three fifths of the studied elderly people were females, and slightly more than two fifths of them were married, less than two fifths of them had secondary education, less than two fifths of elderly people didn't have enough monthly income, and more than three fifths lived in urban area.

The current study clarified that more than three fifths of the studied elderly people' had poor total knowledge level. This finding agreed with **Chattu et al. (2018),** who conducted a study about " The global problem of insufficient sleep and its serious public health implications " in Netherlands (n= 1959) who found that (85%) of participants had unacceptable level of knowledge about sleep problems. This might be due to the lack of health education and nearly two fifths of them had middle education.

Concerning to the studied elderly people ' total reported practices about sleep disorders, the current study showed that the majority of them had total healthy reported practices about sleeping environment. This finding agreed with **Bullock et al. (2020), who** studied " Optimizing sleep in older adults: Where does high-intensity interval training fit" in Canada (n=83) who found that (90.3%) of older adults had healthy habits to sleeping environment. This might be due to healthy sleeping environment decrease risk factors to sleep disorders and improve sleep quality and quantity.

Regarding to the studied elderly people' total reported practices about sleep disorders, the present study described that the most of the studied elderly people had total unhealthy reported practices to exercise. This finding disagreed with **Peng et al. (2019),** who

studied " Factors associated with insomnia in older adult outpatients vary by gender: a cross-sectional study " in China (n=400) who found that (80%) of older adult had healthy habits regarding exercise. This might be due to decreased awareness of elderly people about the importance of exercise to prevent sleep disorders.

The current study showed that more than one fifth had healthy total reported practices level regarding sleep disorders and more than three quarters of them had unhealthy total reported practices regarding sleep disorders. These findings agreed with **Konstantoulas et al. (2021),** who studied " Sleep quality monitoring with human assisted corrections" in Greece (n=847) who found that (66.9%) of participants had unsatisfactory practices score regarding sleep disorders, and (33.1%) had satisfactory practices score regarding sleep disorders. This might be due to decreased awareness and education of elderly people about sleep disorders.

Regarding to quality of life level among elderly people with sleep disorders, the current study showed that one fifth had poor total quality of life level. This finding disagreed with **Yang et al. (2020),** who conducted a study about " Socioeconomic status, social capital, health risk behaviors, and health-related quality of life among Chinese older adults " (n= 4868) who reported that (74.8%) of participant reported poor QOL and insomnia has a large impact on an individual's ability to maintain work, physical, and social performance as well as overall quality of life. This might be due to increase sleep problems affect negatively on all domains of quality of life.

According to sleep disorders degree among elderly people, the current study revealed that less than tenth of the studied elderly people had mild degree of sleep disorders, while half of them had moderate degree of sleep disorders, and less than two fifths had severe degree of sleep disorders.

These findings were in the same line with **Okajima et al. (2020),** who conducted a study about " Evaluation of severity levels of the athens insomnia scale based on the criterion of insomnia severity index " in Japan (n= 1666) who found that (23%) had mild degree of insomnia, (59%) had severe degree of insomnia, and (80.6%) had moderate degree of insomnia. This is might be related to difference of sleep disorders degree among elderly people that impaired health status and require treatment.

The current study showed that there were a statistically significant relations between total knowledge level of the studied elderly people and level of education, while there were not a statistically significant relation between the studied elderly people total knowledge level and age, gender, marital status, occupation, monthly income, residence. These findings agreed with **Dehghankar et al. (2022),** who conducted a study about " Association of sleep quality with socio-demographic characteristics in elderly referred to health centers in Qazvin, Iran " (n=400) who found that there was a significant association between total knowledge level and literacy level, and there were no associated results between elderly people total knowledge and gender, marital status, monthly income, and residence. This might be due to the knowledge level of elderly people increased with educational level.

The current study clarified that there was highly statistically significant relation between total quality of life level of the studied elderly people and their total sleep disorders degree. This finding disagreed with **Kołtuniuk et al. (2022),** who conducted a study about "Sleep disturbances, degree of disability and the quality of life in multiple sclerosis patients" in Poland (n=152) and found that there was statistically significant relation between total quality of life level of the studied elderly people and their total sleep disturbance degree. This might be due to

increased sleep disorders degree affected quality of life level of the studied elderly people negatively.

Conclusion:

Approximately nearly two fifths of them were aged greater than or equal 70 years with mean age of 71.24 ± 5.45years old, and more than three fifths of them were females. More than three fifths of elderly people' had poor total knowledge level, while more than tenth of them had good total knowledge level regarding sleep disorders. Also more than one fifth had healthy total reported practices level regarding sleep disorders. Also less than one quarter of them had good total quality of life level, and one fifth had poor total quality of life level. As well as less than tenth had mild degree of sleep disorders, while half of them had moderate degree of sleep disorders, and less than two fifths had sever degree of sleep disorders.

There was a highly statistically significant relation between total quality of life level of the elderly people and their total sleep disorders degree. Also there was highly statistically significant correlation between total degree of sleep disorders and total reported practices level and total quality of life level, also between total practices and total quality of life level, but no statistically significant correlation between total knowledge level and degree of sleep disorders, total reported practices level and total quality of life level.

Also there were statistically significant relations between total knowledge level of elderly people and level of education, while there were not a statistically significant relation between the studied elderly people total knowledge level and age, gender, marital status, occupation, monthly income, residence and family type. There was a highly statistically significant relation between total quality of life level of the elderly people and their total sleep disorders degree.

Recommendations:

- Health educational program should be provided for elderly people with sleep disorders to improve their sleep quality and quality of life.
- Regular exercise program for elderly people to improve their quality of life and sleep disorders degree.
- Illustrated booklets should be available and distributed to all psychiatric out- patient clinics and provided for elderly people with sleep disorders.
- Effective behavioral and non-pharmacological interventions must be identified to improve sleep patterns in elderly people.
- Further studies concerning about factors influencing sleep disorders and quality of life in elderly people.

Referance:

Barbalho, S., Direito, R., Laurindo, L., Marton, L., Guiguer, E., Goulart, R., and Araújo, A. (2022). the aging process: A narrative review. Ginkgo biloba in Antioxidants; 11(3): 525.

Berdina, O., Madaeva, I., Bolshakova, S., Ukhinov, E., Sholokhov, L., and Rychkova, L. (2023). Sleep EEG oscillation associations with plasma amyloid-β42 in apneic adolescents: a cross section study. The European Physical Journal Special Topics; 13(4): 1: 9.

Blay, N., Sousa, S., Rowles, M. and Murray-Parahi, P. (2022). The community nurse in Australia. Who are they? A rapid systematic review. Journal of nursing management; 30(1): 154:168.

Brewer, D. (2019). The Science, Techniques and Tips for How to Get To Sleep,1st ed., California, Lulu. Com;9-55.

Bullock, A., Kovacevic, A., Kuhn, T., and Heisz, J. (2020). Optimizing sleep in older adults: Where does high-intensity interval training fit?, Frontiers in Psychology; 11(4):576-316.

Chattu, K., Manzar, D., Kumary, S., Burman, D., Spence, W., and Pandi-Perumal, R. (2018). The global problem of insufficient sleep and its serious public health implications. In Healthcare; 7(1) :124.

Cook, CM., Bolinger, E., Suhr, J.(2016): Rating scale infrequency index for

Danny, Y., Angus, Y., Li, S., Chan, R., Fong, Y., Chan, K., and Siu, M. (2023). Effects of Tai Chi and cognitive behavioral therapy for insomnia on improving sleep in older adults: Study protocol for a non-inferiority trial. Journal of Exercise Science and Fitness; 21(1): 67:73.

Dehghankar, L., Ghorbani, A., Yekefallah, L., Hajkarimbaba, M., and Rostampour, A. (2022). Association of sleep quality with socio-demographic characteristics in elderly referred to health centers in Qazvin, Iran, Sleep Hypn; 20(3): 227-332.

detection of sleep disorders symptoms. Arch clin neuropsychol, 31(4),64-358.

Hallit, S., Hajj, A., Sacre, H., Al Karaki, G., Malaeb, D.and Kheir, N. (2019):

Horii, S., Nguyen, M., Pham, H., Amaike, N., Ho, T., and Aiga, H. (2021). Effectiveness of a standard clinical training program in new graduate nurses' competencies in Vietnam: A quasi-experimental longitudinal study with a difference-in-differences design. Plos one; 16(7): 238: 254.

Impact of sleep disorders and other factors on the quality of life in general population: a cross-sectional study. The Journal of Nervous and Mental Disease, 207(5), 333-339.

Kim, R., and Hwang, H. (2022). Analysis of Major Factors Affecting the Quality of Life of the Elderly in Korea in Preparation for a Super-Aged Society. International Journal of Environmental Research and Public Health; 19(15): 9618.

Kołtuniuk, A., Kazimierska, Z., Pogłódek, D., and Chojdak, J. (2022). Sleep disturbances, degree of disability and the quality of life in multiple sclerosis patients.

International Journal of Environmental Research and Public Health;19(6): 3271.

Konstantoulas, I., Kocsis, O., Dritsas, E., Fakotakis, N., and Moustakas, K. (2021). Sleep Quality Monitoring with Human Assisted Corrections, In IJCCI;15(7):435-444.

Molla, A., and Wondie, T. (2021). Magnitude of Poor Sleep Hygiene Practice and Associated Factors among Medical Students in Ethiopia: A Cross-Sectional Study. Sleep disorders;55(9):455.

Okada M., Suzuki, K., Miyamoto, M., & Hirata, K. (2017). Sleep disorders in the elderly: Diagnosis and management. Journal of general and family medicine;18(2): 61-71.

Okajima I., Miyamoto T., Ubara A., Omichi C., Matsuda A., Sumi Y., Matsuo M., Ito K., and Kadotani H. (2020). Evaluation of Severity Levels of the Athens Insomnia Scale Based on the Criterion of Insomnia Severity Index, Int J Environ Res Public Health;17(23):878-929.

Pandey, M., Tripathi, R., Kar, K., Vidya, L., and Singh, N. (2022). Mental health promotion for elderly populations in World Health Organization South-East Asia Region: Needs and resource gaps. World Journal of Psychiatry; 12(1): 117.

Peng, T., Hsu, H., Chou, Y., Chu, S., Su, S., Liang, K., and Lin, T. (2021). Factors associated with insomnia in older adult outpatients vary by gender: a cross-sectional study. BMC geriatrics; 21(1): 1-12.

Vaccaro, A. (2020). Sleep loss can cause death through accumulation of reactive oxygen species in the gut. Cell; 181(6): 1307:1328.

Yang, Y., Wang, S., Chen, L., Luo, M., Xue, L., Cui, D., and Mao, Z. (2020). Socioeconomic status, social capital, health risk behaviors, and health-related quality of life among Chinese older adults, Health and Quality of Life Outcomes; 18(1): 1-8.

جوده حياة كبار السن المصابين باضطرابات النوم

عبير هارون ابوزيد- ابتسام محمد عبدالعال- بسمة محمد عبدالرحمن

ارتبطت اضطرابات النوم بنتائج صحية سلبية طويلة الأجل ، بما في ذلك انخفاض جودة الحياة والصحة الجسدية والنفسية. لذا هدفت هذه الدراسة إلى تقييم جودة الحياة بين كبار السن الذين يعانون من اضطرابات النوم. و تم استخدام تصميم بحث وصفي لتحقيق هدف هذه الدراسة. وقد أجريت الدراسة في العيادة الخارجية للطب النفسي التابعة لمستشفى جامعة بنها على عينة ملائمة من 60 مسنا. واظهرت النتائج ان 41,7٪ تتراوح أعمارهم بين ≤70 سنة مع متوسط عمر 71,24 ± 5,45 سنة ، بينما كان 61,7٪ من الإناث ، و 65,0٪ من كبار السن الذين شملتهم الدراسة لديهم مستوى معلومات إجمالي ضعيف ، و 78,3٪ لديهم مستوى إجمالي غير صحي فيما يتعلق باضطرابات النوم ، و 56,7٪ لديهم مستوى جودة حياة إجمالي عادل ، و 50,0٪ من كبار السن الذين شملتهم الدراسة لديهم درجة متوسطة من اضطرابات النوم. كما كانت هناك علاقة ذات دلالة إحصائية عالية بين مستوى جودة الحياة الكلي لكبار السن ودرجة اضطرابات النوم الكلية لديهم. واوصت الدراسة بإجراء برنامج تثقيفي صحي لكبار السن الذين يعانون من اضطرابات النوم لتحسين نمط نومهم ونوعية حياتهم.