Arab American University

Faculty of Graduate Studies

The Effect of Drama Therapy on Depressive Symptoms and Quality of Life among Older Adults in Residential Care Facilities

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Thesis Approval

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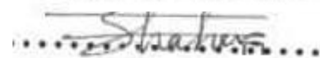
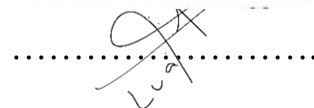
3. Prof. Shaher Hamaideh	External Examiner	
4. Prof. Loai Abu Sharour	External Examiner:	…………………… 

Declaration

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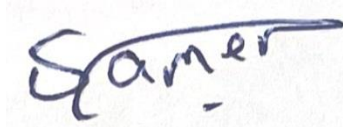
Signature: 

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Dedication

I dedicate this work to my supportive family especially, my parents who provided me with the strength to continue my journey.

Special thanks to my wife, who is always beside me and supports me all the time.

My kids, Kareem and Joud, thanks for the love and hope that you give to me.

Thanks to all my friends who supported me in accomplishing this dissertation.

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My deepest thanks go to the drama therapist and managers of residential elderly care facilities who assisted me in accomplishing this study.

Abstract

Background: Drama therapy is an effective therapeutic modality for managing psychological health and quality of life. There are limited studies examining the effect of drama therapy on depressive symptoms and quality of life among older adults globally and in Israel. Therefore, this study purposed to evaluate the effect of drama therapy on depressive symptoms and quality of life among older adults in residential care facilities in Israel.

Methods: A pre–post-test control group design was utilized and 160 older adults were selected using a simple random method from the residential care facilities in Israel, where they were distributed into a control group (n=80) and an experimental group (n=80). The experimental group received eight sessions of drama therapy and the control group received usual care. A self-reporting questionnaire included the Geriatric Depression Scale and the WHOQOL-OLD-BREF.

Results: The findings revealed that all participants in both groups had mild depressive symptoms (control M= 6.84, SD=1.55; experimental M= 7.23, SD=1.41) and poor quality of life (control M= 10.55, SD= 0.93; experimental M= 10.29, SD=0.77) before intervention and there were no differences between two groups. There was a reduction in depressive symptoms (control [M= 6.78, SD=1.46]; experimental [M=5.46, SD= 1.58]) and increasing in quality of life (control [M= 10.63, SD= 0.94]; experimental [M=12.64, SD= 0.89]) after intervention for both groups. Significant differences were found between the two groups after intervention in depressive symptoms and quality of life ($p < .001$), indicating that the experimental group had higher improvements in the aforementioned variables compared to control group.

Conclusions: Overall, drama therapy is an effective method for minimizing depressive symptoms and enhancing quality of life among older adults in residential care facilities. This therapy could be adjunct to usual care to minimize the levels of depressive symptoms and improve quality of life among older adults.

Keywords: depressive symptoms; drama therapy; quality of life; residential care facilities

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List of Abbreviations

Abbreviation	Meaning
ADL	Activity of daily living
APA	American Psychiatric Association
CES-D	Center for Epidemiologic Studies Depression
CVA	Cerebrovascular accident
CVI	Content validity index
EQ-5D	EuroQol-5 Depression
GDS	Geriatric depression scale
M	Mean
MMSE	Mini-Mental State Examination
OR	Odd ratio
QOL	Quality of life
SD	Standard deviation
WHO	World Health Organization
WHOQOL	World Health Organization Quality of Life
UK	United Kingdom
U.S.	United States
X^2	Chi-square

Chapter One

Introduction

1.1 BACKGROUND OF THE STUDY

Depression is considered the most common disorder globally; it is reported that 3.8% of people worldwide suffer from it, where its prevalence is 5.0% among adults and 5.7% among older adults (Institute of Health Metrics and Evaluation, 2019). Globally, around 280 million people experienced depression (Institute of Health Metrics and Evaluation, 2019). The highest prevalence of depression was reported in clinical areas among older adults ranging between 5.9 and 81% (Yanzón de la Torre et al., 2016). Additionally, the depression prevalence in community-dwelling older adults was between 5.94% to 27.0% (Tang et al., 2021; Wang et al., 2017).

Depression causes many consequences leading to deterioration in daily life functions and could lead to massive suffering (World Health Organization [WHO], 2021a). Further, it increases the use of healthcare services and therapeutic costs. Older adults who suffer from depressive symptoms are at high risk of poor functioning compared with those who experienced chronic illnesses. Moreover, they are more likely to experience suicide. Furthermore, depression can influence physical health status (Ma et al., 2021) and quality of life (QOL).

QOL refers to the recognition of physical and mental health status such as energy levels and mood, and their relatedness involving functional and economic status, social support, and health hazards and situations (Post, 2014). Poor QOL among older adults may be related to depression, difficulties preserving physical functions, and saving neighborhood standards, family relationships, and financial matters (Grassi et al., 2020).

Older adults are worthy members of their communities; therefore, the right to live with dignity must be respected (Shamsikhani et al., 2022). Moreover, this cohort group has sufficient knowledge, skills, and experiences to engage effectively in the community, thus, older adults are considered a worthy resource for all communities (Dahlin-Ivanoff et al., 2019). This target group requires positive aging by maintaining positive attitudes among themselves, which involves healthy physical and psychological dimensions, participation in the community, and obtaining a persistent and sufficient income (Wongsala et al., 2021).

Many modalities are used to manage mental health problems involving depressive symptoms, such as drama therapy (Dunphy et al., 2019). This therapy is a type of psychotherapy and is one of creative art therapy, where drama and theater methods are used to perform the therapeutic aims of alleviating symptoms and integrating emotional, physical, and personal growth. It helps assist people to resolve troubles and conflicts by exploring the experience by telling fictitious stories, fairy tales, and drama scenes to solve a problem, realizing the meanings of images, in addition to strengthening abilities to perceive and enhance flexibility between the roles (Schubert, 2020). Such therapy may also permit individuals to improve self-awareness, express emotions, and enhance relationships (Chang et al., 2019; Emunah, 2019).

Drama therapy involves many methods, including storytelling, role-playing, creative writing exercises, extemporization, games, guided visualizations, play-acting, and puppetry (Emunah, 2019). It has been documented that drama therapy is effective in treating depressive symptoms and enhancing QOL, for example, Lin et al. (2022) found that Taiwanese older adults with dementia who received drama therapy programs demonstrated a considerable enhancement in depressive symptoms and QOL. Zeisel et

al. (2018) found that treatment by drama was effective in enhancing QOL and minimizing depressive symptoms in older adults suffering from dementia in the U.S. Also, Jaaniste et al. (2015) revealed that this therapy enhanced QOL among Australian older adults suffering from dementia. Mondolfi et al. (2021) demonstrated that Spanish older adults with Parkinson's disease had better QOL and lower depressive symptoms. Furthermore, drama therapy can increase the self-confidence of older adults and improve their views of the world. It is used to spend interesting time and solve problems in a fun way (Grassi et al., 2020).

It is necessary to acquire more knowledge about the health status of older adults, especially mental health due to its effect on the QOL among the older population. Depression in older adults may vary according to socio-demographic and lifestyle factors such as gender females, low educational levels, marital status as being single, and sedentary lifestyles, which are associated with low levels of QOL (Paul et al., 2023; Richardson et al., 2020). The QOL and depressive symptoms depend on health factors and social environment, which may decrease QOL and increase depressive symptoms (Grassi et al., 2020).

1.2 STATEMENT OF THE PROBLEM

Developing countries have a rise in older adults and changes to family structures due to urbanization; therefore, enhancing psychological or mental health is necessary to improve QOL among older adults in residential care facilities. Depression is a prevalent problem in residential care facilities and is correlated with poor QOL. Al-Amer et al. (2019) found that 72.3% of Jordanian older adults in these facilities experienced depression with a score level of 6-9 on the geriatric depression scale (GDS). Concerning QOL dimensions, 84.5% of the participants endorsed suffering from pain, 80.6%

endorsed difficulties in carrying out daily activities, 81.9% endorsed anxiety/ depression, 63.2% endorsed mobility problems, and 75.5% endorsed difficulties in self-care. Additionally, it was estimated that the depression rate in residential care facilities or nursing homes was 23.5% among Iranian older adults (Majdi et al., 2011) and 37.5% among Egyptian older adults (Ahmed et al., 2014). In Israel, the prevalence of depressive symptoms among all populations was 4.6%, which ranked Israel 79 in the world (WHO, 2021b). Additionally, 24% of Israeli older community-dwellers suffered from depressive symptoms (Bentur & Heymann, 2020). Another study revealed that 37.5% of Israeli older adults experienced depressive symptoms and poor QOL (Levkovich et al., 2021).

Previous literature has found that many older adults experience disabilities caused by the developmental and aging processes, psychological and social problems, a decrease in mental and health abilities, and a lack of financial, social, and psychological resources (Abdi et al., 2019; Ross et al., 2017; WHO, 2018). Also, older adults in residential care facilities experienced low QOL due to loneliness and depressive symptoms (Herrera et al., 2021). Siette et al. (2022) found that older adults in residential facilities endorsed low QOL due to insufficient social interactions, they only interact with other residents in these facilities. This insufficient social interaction leads to loneliness and social isolation, which can lead to negative mental and physical outcomes that minimize their QOL.

Furthermore, in these facilities, this cohort group obtained little family and friends support, which is considered a protective factor for low QOL (De Maria et al., 2020). As a result of social isolation and loneliness, the older adults in these facilities are at a greater risk of depressive symptoms, which is a determinant of low QOL.

Unfortunately, there are shortages in healthcare services and counseling programs for older adults, which leads to difficulty in distinguishing older adults with depression from those with other conditions and hinders obtaining a proper diagnosis and treatment (Kar, 2016; WHO, 2018). Therefore, this target group requires therapeutic and counseling programs to help them enhance their roles in the community and improve their QOL.

Dram therapy is an effective therapeutic modality for psychological health, there are studies examining the impact of drama therapy on QOL and depressive symptoms among older adults with dementia (Lin et al., 2022; Jaaniste et al., 2015; Zeisel et al., 2018), and those with Parkinson disease (Mondolfi et al., 2021). However, there are few studies concerning drama therapy as an intervention for mental and psychological health in Arab countries, for example, Sakhi and colleagues (2022) conducted a study among Lebanese women in refugee camps. The findings demonstrated the lack of mental health services and stigma toward psychological and mental strategies. Thus, drama therapy was effective for those women, as it provided care and prevented stigma.

In Israel, there is a special concern for depressive symptoms and QOL among older adults, where these issues become a part of a national priority. The Ministry of Health implemented screening and treatment programs for these problems as a part of disease management programs for older adults in daycare centers (Bentur & Heymann, 2020). However, there are few studies concerning depressive symptoms and QOL in older adults conducted in Israel (Bentur & Heymann, 2020; Levkovich et al., 2021). Most of the services provided to older adults are focused on psychological counseling, unfortunately, there is little concern about the influence of drama therapy on minimizing depressive symptoms and improving QOL in older adults in residential care facilities.

There are only two studies evaluated the effect of programs based on this therapy on Israeli older adults (Keisari & Palgi, 2017; Keisari et al., 2022), which suggested drama and playback theater were effective in enhancing psychological well-being in community-dwellers older adults visiting medical centers and the drama therapy can improve older adults well-being and mental health. Remarkably, there are limited studies evaluating how drama therapy minimizes depressive symptoms and improves the QOL among older adults in residential care facilities.

1.3 SIGNIFICANCE OF THE STUDY

Drama therapy play a significant role in minimizing depressive symptoms and enhancing QOL This study is one of the first to evaluate drama therapy's effects on depressive symptoms and QOL in older adults in residential care facilities in Middle Eastern countries and Israel. This study's findings will give baseline data about these health conditions among older adults. These study findings could provide a specific and proper evaluation and a comprehensive image of the effect of drama on depressive symptoms and QOL in older adults before and after implementing drama therapy. Such a healing strategy might be necessary for policymakers, healthcare professionals, mental health counselors, and drama therapists to recognize the effectiveness of this therapy and promote the use of this therapy in clinical settings and academic institutions. The results of drama therapy were good due to serving as a creative intervention in elderly communities that suffered from depression, in addition to the positive results in a personal transformation and enhanced person's social engagement in the community (Keisar, 2020).

1.4 PURPOSE OF THE STUDY

This study purposed to evaluate the effect of drama therapy on depressive symptoms and QOL among older adults in residential care facilities in Israel.

1.5 STUDY QUESTIONS

This study was guided by these questions:

- Does drama therapy affect depressive symptoms among older adults in residential care facilities in Israel?
- Is there any effect of drama therapy on QOL among older adults in residential care facilities in Israel?

1.6 STUDY HYPOTHESIS

These hypotheses were developed based on previous studies and included:

- The older adults in residential care facilities who engage in drama therapy will endorse minimizing depressive symptoms more than those who receive usual care.
- The older adults in residential care facilities who will engage in drama therapy will endorse improving their QOL more than those who receive usual care.

1.7 DEFINITIONS OF THE STUDY VARIABLES

This study included dependent and independent variables. Dependent variables included depressive symptoms and QOL. While the independent variables included drama therapy and usual care.

1.7.1 Conceptual Definitions

These definitions are based on previous literature and include:

Depressive Symptoms/ Depression. It is a mental health problem that is associated with persistent sadness and losing interest in previously enjoyed activities and leads to many physical and emotional problems and loss of functioning (American

Psychiatric Association [APA], 2013). The depressive symptoms include depressed mood or sadness, loss of pleasure, appetite changes (increase or decrease), sleep problems, fatigue, feeling guilty, difficulty in concentrating, making decisions, and thinking, and suicidal or death thoughts (APA, 2013).

Quality of Life. It is defined as individuals' perception of their place in life within the context of their lived culture and value systems about their standards, goals, anticipations, and interests (WHOQOL Group, 1995). Also, it refers to the perceptions of both physical and mental health and well-being such as energy and mood levels, and their correlates involving social support, functional status, economic status, and health risks and situations (Hamming & De Vries, 2007).

Drama Therapy. It is an active and experimental way of creative therapy that could assist individuals to improve self-confidence and identify appropriate problem-solving skills. It integrates drama and psychotherapy approaches to provide new methods to express thinking or feeling to cope effectively with any behavioral and emotional problems (Schubert, 2020).

Usual Care. It is the expected care that targeted patients would receive as part of the standard practice (Yorganci et al., 2020).

Operational Definitions

Depressive Symptoms were evaluated utilizing the Geriatric Depression Scale (GDS) created by Sheikh and Yesavage (1986). It consists of 15 items to evaluate depressive symptoms in older adults in the past seven days. These items required a response of yes/no (Appendix A). The scores of this scale classified the depressive symptoms as follows: 0- 4 (normal), 5- 8 (mild), 9-11 (moderate), and 12-15 (severe).

Quality of life was measured utilizing WHOQOL-Old-BREF (WHOQOL Group, 1995) (Appendix A). It is composed of 24 items categorized into six domains, where each domain containing four items. These domains include sensory abilities, autonomy, activities, social participation, death and dying, and intimacy. The responses to these items were scored on a 5-point Likert scale ranging from 1 (very poor/very dissatisfied/ not at all/ never) to 5 (very good/very satisfied/very happy/extreme amount/ extremely/completely). The scores of this tool were calculated according to the mean, where < 12 indicated low QOL and ≥ 12 reflected high QOL.

Drama Therapy. This intervention program was created by Chang et al. (2019) and modified by national drama therapists to achieve the purposes of this study and social and cultural contexts. It was provided to an experimental group and consisted of eight sessions including activities such as storytelling, role-playing, creative writing exercises, games, guided visualizations, play-acting, and puppetry.

Usual Care. This care was provided to the control group and included the usual screening and mental health counseling.

1.8 SUMMARY

Older adults especially those in residential care facilities are suffering from many psychological and mental health problems including depressive symptoms and QOL. Drama therapy is considered an effective modality for enhancing QOL and minimizing depressive symptoms. There is a lack of studies examining the effect of this therapy on older adults in residential care facilities in Middle Eastern countries and Israel. Therefore, this study is conducted to assess the effect of drama therapy on depressive symptoms and QOL in older adults in residential care facilities in Israel. The

findings could provide baseline data for policymakers, counseling therapists, and drama therapists about the effectiveness of this program.

Chapter Two

Literature Review

The literature pertinent to the research variables is reviewed in this chapter. This review seeks to synthesize and analyze studies in the area and across a broad spectrum of the study problem. It tries to explain the therapeutic roles of drama therapy in depressive symptoms and QOL among older adults that may help minimize depressive symptoms and enhance QOL over time. This chapter is divided into these parts: the search process, theoretical framework, and framework of the study.

2.1 **SEARCH PROCESS**

The search terms involved "older adults" or "elderly" or "older people" or, "depressive symptoms" or "depressive disorder" or "depression," "quality of life or "health-related quality of life", "mental health", "drama therapy", and "residential facilities" or "nursing homes" or "long-term care facilities". For the search process, three academic databases (PubMed, Science Direct, and Ebsco) were searched, in addition to Google Scholar.

The publications were published between 2010 and January 2024 and in English. However, there are some exceptions for involving older studies, such as those that deal with measurement methods techniques, theoretical definitions, and missed data that will not be located during the specific time and not covered by outdated references.

As illustrated in Figure 1, the PRISMA flow chart was utilized in the search process, in which the duplicated studies were removed, and then, the titles, the abstracts, and the full text of the articles were screened using eligibility criteria. Finally, 62 articles were included in the final literature review.

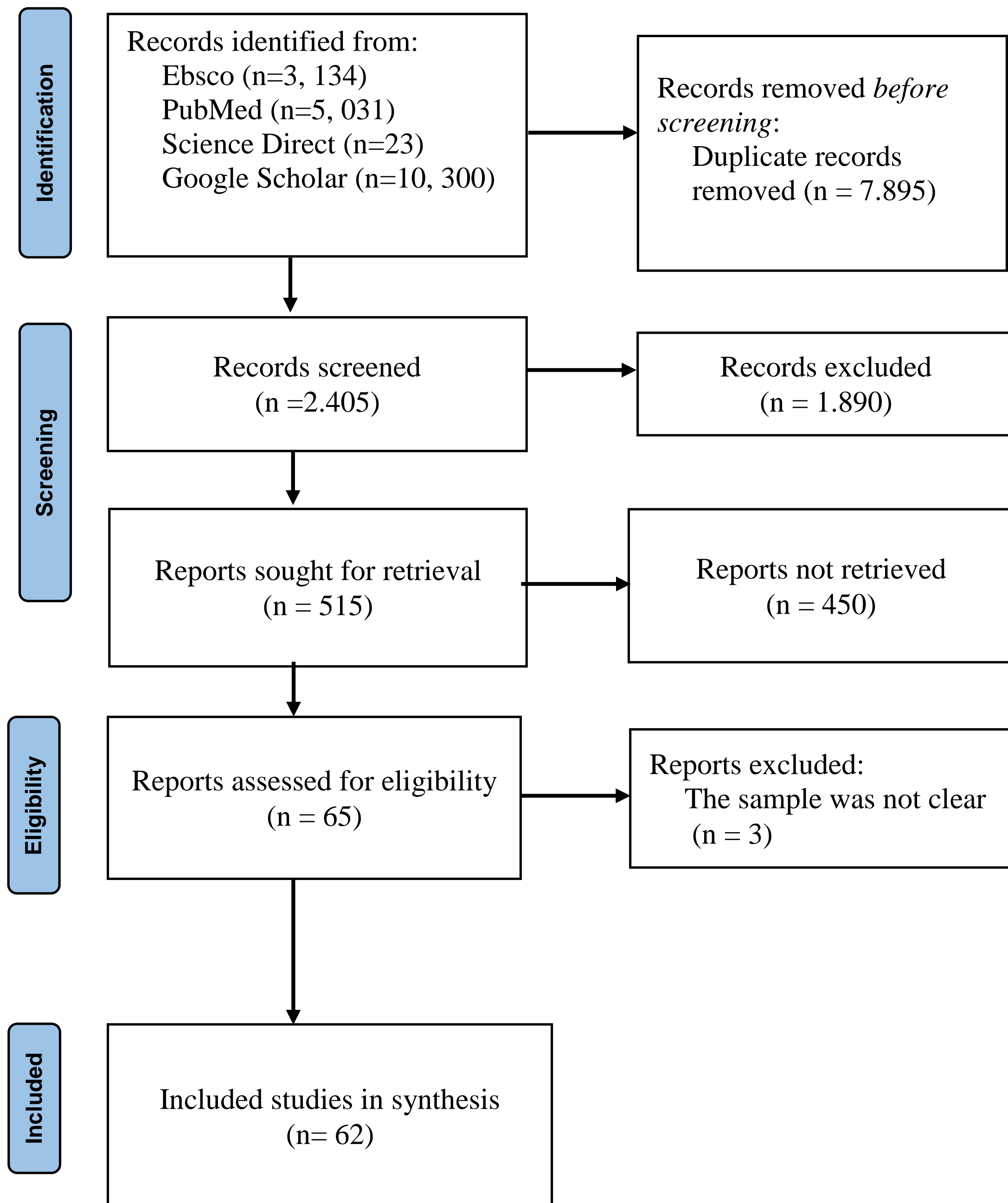

Figure 1: Prisma Flowchart

2.2 THEORETICAL FRAMEWORK

This section explains the theoretical part linked with the study variables including, older adults, depressive symptoms, QOL, and drama therapy.

2.2.1 Older Adults

According to the United Nations, an older person is an individual aged 60 or 65 years or older (Sanderson & Scherbov, 2020). The aging people is increasing globally, with a great rise in the percentage of persons aged 60 or more (World Health Organization [WHO], 2021b). This figure is predicted to escalate by 2030 to 1.4 billion and by 2050 to 2.1 billion (WHO, 2021b). Old age is associated with physiological, social, and mental changes that can result in unfavorable health outcomes (Bektas et al., 2018; Li et al., 2021). Older adults experienced a higher prevalence of chronic illnesses and impairments compared to other cohort age groups resulting in restrictions in their social and mental domains, which may influence their QOL (Maresova et al., 2019).

Older adults suffer from medical issues; due to aging, the heart, liver, lungs, kidneys, and brain lose mass, and the function of organs is reduced. While not inherently impaired, with a low functional impact on the body, it is necessary to understand the health status of older adults. The functional status declines with age, but self-rated health does not (Guo et al., 2022).

Older adults have large issues not just with health care but also with medical economics and drugs that are highly expensive. Many studies were interesting about non-drug therapy that is used in significant health problems, including mental disorders, when looking at medical expenses and life expectancies for patients, easy to notice that older adults due to most needed health care and any health problems may affect life

expectancies for them. With the increasing age of older people, living longer requires expensive medical care (Nardi et al., 2010).

In Israel, older age is determined as reaching a chronological age of 65 years, and maybe older than 65. Older adults are classified as early old adults (65 to 74 years) and late old adults (more than 75 years). This age is proper and consistent with national legislation, strategies, and implemented plans. According to the estimates of the Central Bureau of Statistics for the year 2023, the number of older Israeli people reached 1.202 million people (666000 females and 536000 males), constituting 12.2% of the total Israeli population (Central Bureau of Statistics, 2023). Approximately 61% of the older adults were married and 22% of them were widows or widowers. Concerning men, 76% were married, about 12% were divorced, about 3% were never married, and 9% were widows. Almost half of the women (48%) were married, 15% were divorced, about 5% never married, and about one-third (32%) were widows. Moreover, 34,000 of them lived in a household with a person who was not their relative (Central Bureau of Statistics, 2023).

2.2.2 Residential Care Facilities in Israel

In Israel, there are hundreds of licensed nursing homes, some of which are intended for older adults who are independent or frail, and some for those who are in nursing, debilitated, or have complex nursing conditions. A nursing home for independent and debilitated elderly people is considered a nursing home - and requires an operating license from the Ministry of Labor and Welfare, while a long-term care nursing home, a ward for mental exhaustion, or a complex nursing home is considered a hospital and requires an operating license from the Ministry of Health (Dror, 2023).

Dozens of sheltered housing are intended for independent, active seniors who wish to live in a protected and safe environment in the company of their peers. The sheltered housing homes are designed first and foremost for completely independent seniors, while some homes are not ready to accept frail seniors (who need minor functional help). Sheltered housing is considered a regular home and therefore does not require any operating license other than the usual permits for a residential home and is therefore not regularly monitored by the state. Most shelters offer ancillary departments - a nursing department, a mental health department, or supportive housing. Although these departments are in the same building, they are completely separate in terms of the infrastructure, the staff, and even the entrance to them is separate. The accompanying departments are required to obtain an appropriate operating license from the Ministry of Health as any nursing home/nursing home for the mentally ill. The sheltered housing offers a wide variety of activities and most of them contain facilities such as a 5-star hotel - swimming pool, gym, spa, lecture hall, indoor cinema, library, synagogue, and more (Dror, 2023).

In Israel's social and cultural system, the older generation contains a consciousness of history, experience, and tradition. However, the modern Western outlook and the fast pace of life in modern Israel point to limitations in society's ability to take care of the older generation in a thorough and orderly manner. The ongoing need to take care of those who can no longer take care of themselves caused the establishment of old people's homes throughout the country (Dror, 2023).

2.3 HISTORY AND DEVELOPMENT OF NURSING HOMES IN ISRAEL

Following the establishment of the State of Israel, Israeli society was dealing with multiple human and economic challenges, and at the same time, it was required to

respond to the elderly generation of Israeli street people. Its old age, due to the wars and the complex history of the Jewish settlement, reached the borders of the new state (Dror, 2023).

In the 1950s, there were old people's homes in the traditional style in Israel, most of which were run by confidential bodies or religious associations. The perception was that the religious community or the general public had a responsibility to take care of their elders, and so it was. The country itself, at that time, was busy building its physical and economic infrastructure, and old age was not prioritized as a priority on the national agenda (Dror, 2023).

Over the years, and as part of the global process of the reduction of societies, the understanding of the importance of investing in old age and the QOL of the elderly generation has increased. The frameworks in Israel became more sophisticated, and basic residential frameworks began to develop into more professional institutions, offering advanced medical, psychological, and social care (Dror, 2023).

The reasons for establishing the old people's homes began with the sense of social and moral responsibility for the elderly, but beyond that, there were also practical requirements. In Israel, as elsewhere in the world, the demographic process of population aging has begun to be felt. The public welfare system was established and the concept that old age was the sole responsibility of the nuclear family began to be undermined (Dror, 2023).

The public system began to intervene more, establish frameworks, and apply regulation. Especially in the 1970s and 1980s, a variety of government or government-funded nursing homes were established, offering solutions for the various needs of the older generation: from homes for people in good physical condition but in need of

social circulation, to geriatrics with advanced medical care for people in less good condition (Dror, 2023).

Over the years, not only the physical construction of nursing homes has changed, but also the perception of old age. If at the beginning the perception was that the old man is a negotiation of society, later on, an understanding was established that old age is a right and that the quality of life of the old person must be guaranteed. The development of nursing homes in Israel is a reflection of Israeli society's coping with the growing challenges of old age and demographic mathematics. This development is in response to the needs of the elderly generation, but also a kind of expression of the development of Israeli society and its value system (Dror, 2023).

Types of Nursing Homes

Nursing homes in Israel come in a wide variety of types, and accordingly, the service they offer to the elderly is varied. There are differences between the different types and discuss the professionalism, quality of service, and standards in each of them. Each nursing home responds to different needs and is suitable for different populations. The choice of the appropriate nursing home depends on the specific needs, the available budget, and the personal preferences of the old man and the family (Dror, 2023).

Government Nursing Homes. These institutions are owned by the state or local authorities. They receive financial support from the state and provide a service to the general public. The government homes have professional teams consisting of doctors, nurses, social workers, and others. The service is generally of a high standard, but there may be complaints regarding high occupancy or incompatibility with the specific needs of each elder (Dror, 2023).

Private Nursing Homes. These institutions are privately owned, and they provide services upon payment. The professional staff in confidential nursing homes may be higher, thanks to the ability to invest more to bring the best kosher. The service in private nursing homes can be very high, but it also depends on the cost of the service (Dror, 2023).

Religious Nursing Homes. These are nursing homes that operate according to the guidelines of Jewish law or according to other religious principles. The medical and social staff will have religious training, and they will follow religious guidelines. The service will suit the religious audience, and the emphasis will be on religious and spiritual fulfillment (Dror, 2023).

2.4 THE ECONOMIC AND SOCIAL CHALLENGES IN OPERATING NURSING HOMES

Nursing homes are important institutions in modern society that help take care of the elderly, sick, and people who need special care. Running nursing homes is a complex task that centers on a service provider. One of the main economic challenges is the cost of running nursing homes. Maintenance of an orderly environment and a provider of special care services will advise on significant expenses. Many of the nursing home residents suffer from economic and financial difficulties and it is difficult to maintain the quality of service while analyzing expenses.

The main social challenge is proper behavior and treatment of the residents in nursing homes. As of today, there are cases of abuse, inappropriate supervision, and fear of survivors among the residents. Monitors and medical teams are required to provide emotional and physical care at a high level and to maintain ethical and humane care levels. In addition, there are complex social challenges in operating nursing homes. The

peripheralization of nursing home residents from the outside society can make them feel socially alienated and cut off from normal social life. Fear of marginalization and social humiliation can affect the mental and emotional state of the residents (Dror, 2023).

To make the operation of old people's homes successful from an economic and social point of view, care must be taken to train professional and ethical staff, invest in appropriate medical and humanitarian infrastructure, and provide books while preserving human rights and the general good of the residents. Building a support system in the local society and a solution to the main weaknesses both at the economic and social levels can ensure that the residents receive the best care and services at a reasonable price (Dror, 2023).

2.5 DEPRESSIVE SYMPTOMS AND QUALITY OF LIFE

Depression is realized as an exhausting mental state that influences daily functioning and ranges from sadness and dissatisfaction to an intense feeling of hopelessness, negativity, and depression (APA, 2013). There are frequent changes in physical, cognitive, and social status, and involve changes in habits of feeding or sleeping, energy or drive reduction, distress in concentration or decision-making, and avoiding social recreation. It symbolizes several distinguished mental health problems (APA, 2013).

The most common symptoms of depression disorder include depressed mood or dysphoria (the first symptom), loss of interest in usual activities and life activities, sleep and appetite changes that may increase or decrease, guilt and hopelessness, severe sadness, fatigue, restlessness, concentration problems, and suicidal thinking (Bains & Abdijadid, 2023).

In a study conducted by Fried and Nesse (2015) to assess the distribution of depressive symptoms according to the levels of these symptoms. The findings showed that 1.8% of the people with moderate or severe depressive symptoms had no symptoms, while those with mild levels of depressive symptoms suffered from all symptoms including psychomotor retardation and /or agitation, feeling guilty (self-blame), sadness, weight and appetite problems, lack of interest, lack of energy, concentration problems, and sleep problems (insomnia). Additionally, only 1.24%of the people endorsed a combination al all depressive symptoms and 1.1% endorsed insomnia as a moderate or severe symptom.

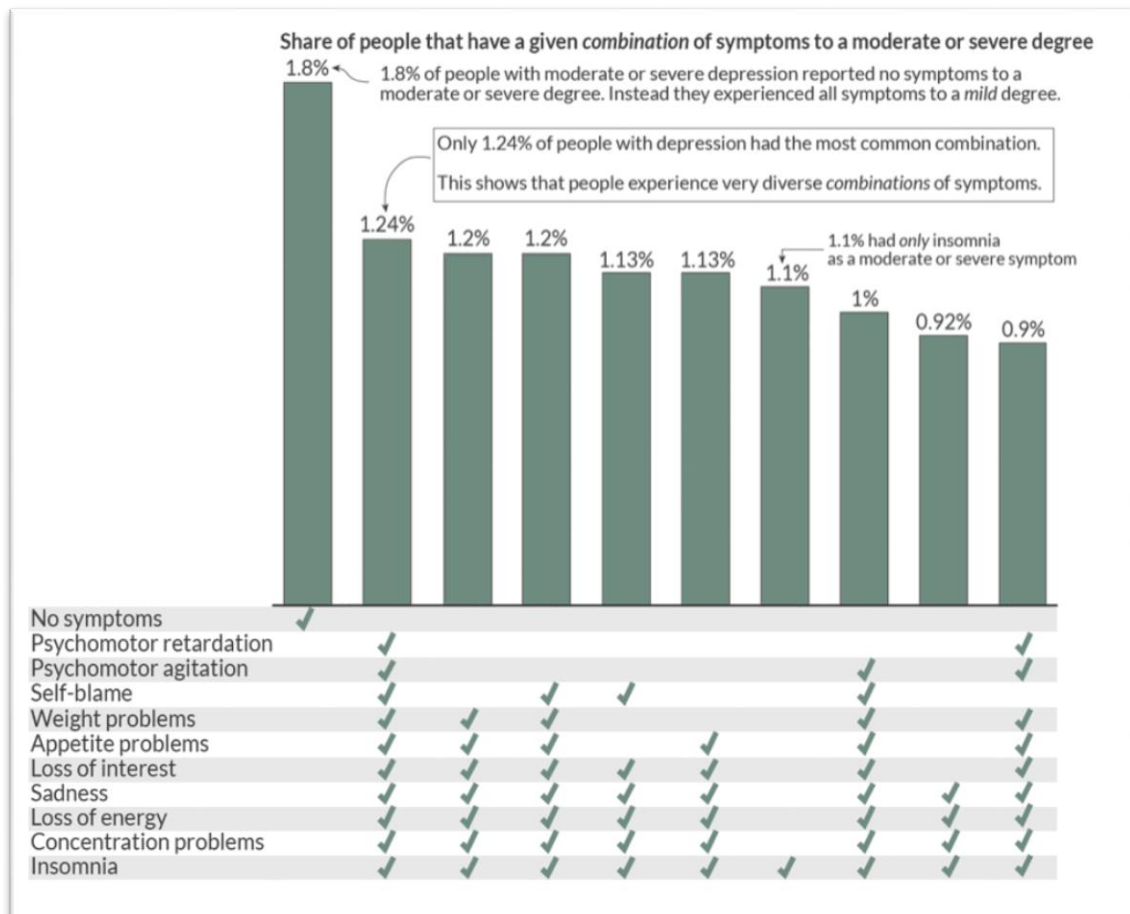

Figure 2: Distribution of depressive symptoms (Fried & Nesse, 2015)

These depressive symptoms affect many dimensions and functions (e.g., psychological and social) in older people, which may hinder their rehabilitation and make them susceptible to chronic health diseases (Wang et al., 2017). Elderly people who experience moderate or high depressive symptoms may suffer from a minimization in their QOL (Šare et al., 2021). Previous studies (Acharya Samadarshi et al., 2022; Rong et al., 2019) revealed a negative association between depressive symptoms and QOL among older people.

QOL is recognized as one of the most critical components of their overall health care. It is defined as levels of happiness and satisfaction accompanied by life aspects and the way they influence the person's life. QOL involves multi-aspects represented in physical, social, mental, physical, and cultural contexts (Wu et al., 2011). Unfortunately, older people live longer but their QOL is entirely poor (Astina et al., 2015. Also, QOL involves the perceptions of physical and mental health such as levels of energy and mood, in addition to their correlation involving functional status, economic status, social support, and health hazards and conditions (Post, 2014).

Poor QOL in older people has been suggested to be due to depressive symptoms and other problems in maintaining physical functions, and difficulty in maintaining neighborhood standards, family relations, and organizing financial affairs (Grassi et al., 2020). Furthermore, other factors associated with QOL involve physical capabilities, family relations, social support, social engagement, and utilization of health services (Acharya Samadarshi et al., 2022).

The QOL for patients with mental problems is important because it is required for growing old with dignity, especially for elderly patients who have a lifelong disability related to depression disorder or any other reason (Defar et al., 2023). QOL is

important for lifestyle outcomes and responsible for the challenging responsibilities of different branches of life (Defar et al., 2023).

QOL strongly relates to older adults' self-satisfaction and the meaning of a respectable life, whereas self-satisfaction is linked with depressive symptoms. The independence between life or personal conditions or events and subjective reports of well-being can affect the QOL in elderly patients (van Leeuwen et al., 2019) (Figure 3).

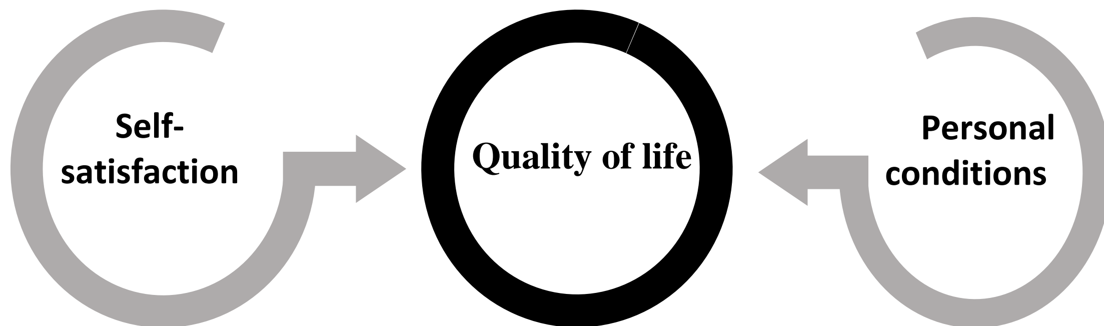

Figure 3: Relationship between quality of life and personal conditions and self-satisfaction

2.6 PREVALENCE OF DEPRESSION AND QUALITY OF LIFE AMONG OLDER ADULTS AND CORRELATING FACTORS

Depressive symptoms and low QOL are serious conditions that result in disability and mortality and are prevalent in high and low-income countries (Jemal et al., 2021). The prevalence of depressive disorder is high worldwide, it is estimated that 3.8% of people are suffering from depression, including 5% of adults (4% among men and 6% among women), and 5.7% of adults older than 60 years. That means that 280 million people in the world have depression (WHO, 2023). The WHO reported that the highest prevalence of depression was in the Southeast Asia Region with a prevalence of

27% followed by the Western Pacific Region (21%), while the lowest prevalence was in the African Region (9%) (WHO, 2021b) (Figure 4). Also, the country with the highest prevalence of depression was Ukraine (6.3%) followed by Australia (5.9%), Estonia (5.9%), the USA (5.9%), Brazil (5.8%), Portugal (5.7%), Greece (5.7%), Belarus (5.6%), Finland (5.6%), and Lithuania (5.6%) (WHO, 2021b).

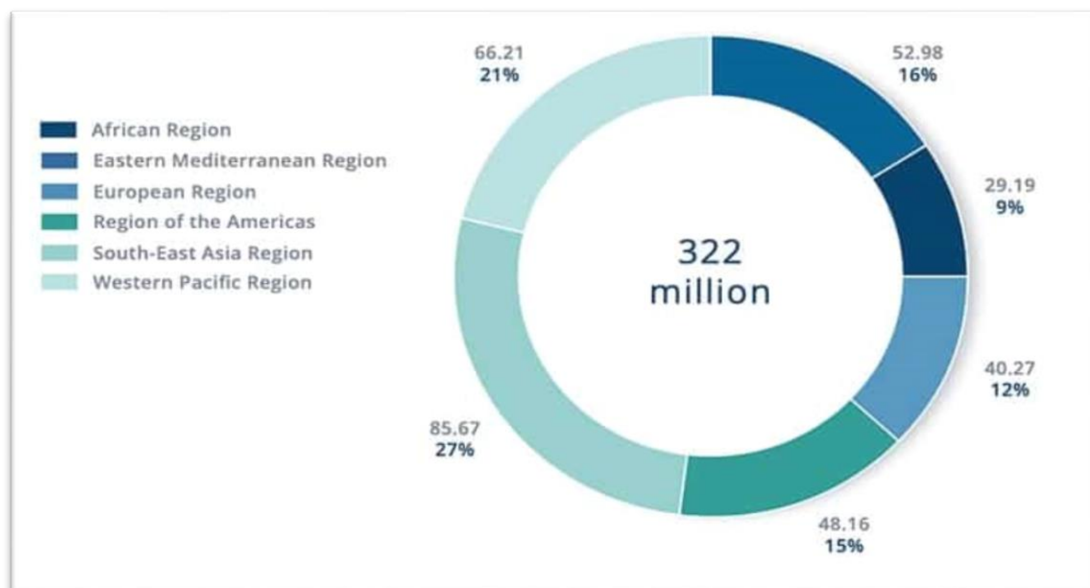

Figure 4: Cases of depressive disorder (millions) by region (WHO, 2021b)

In the U.S., the prevalence of depressive symptoms was 32.3% among all populations (Kaisar Family Foundation [KFF], 2023), also, 20.1% of the older adults aged 65 years and above suffered from depressive symptoms as shown in Figure 5.

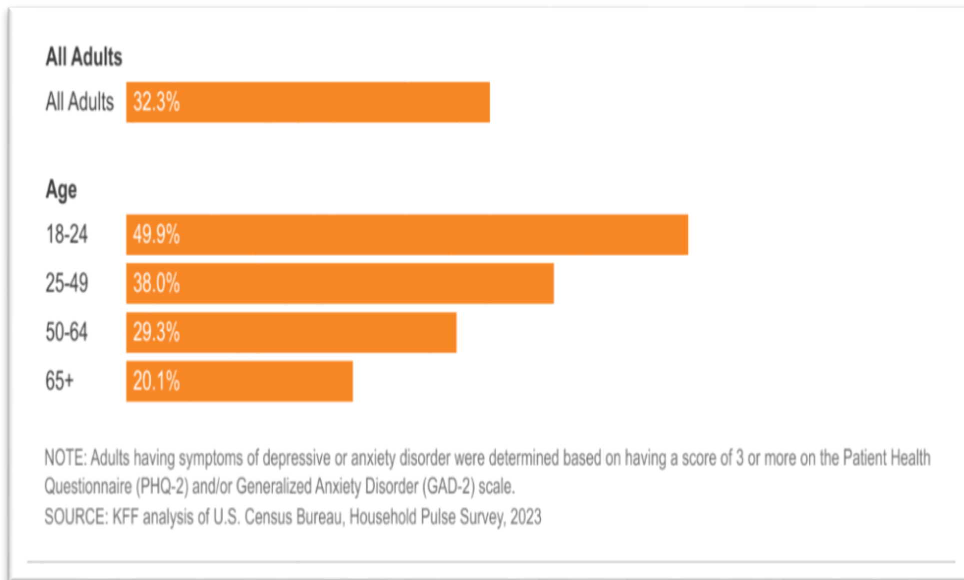

Figure 5: Prevalence of depressive symptoms in the U.S. (Kaisar Family Foundation [KFF], 2023)

Figure 6 illustrates the prevalence of depressive symptoms among populations in the UK. The prevalence of depressive symptoms among older adults aged ≥ was 220% (The Workplace Health Report, 2023).

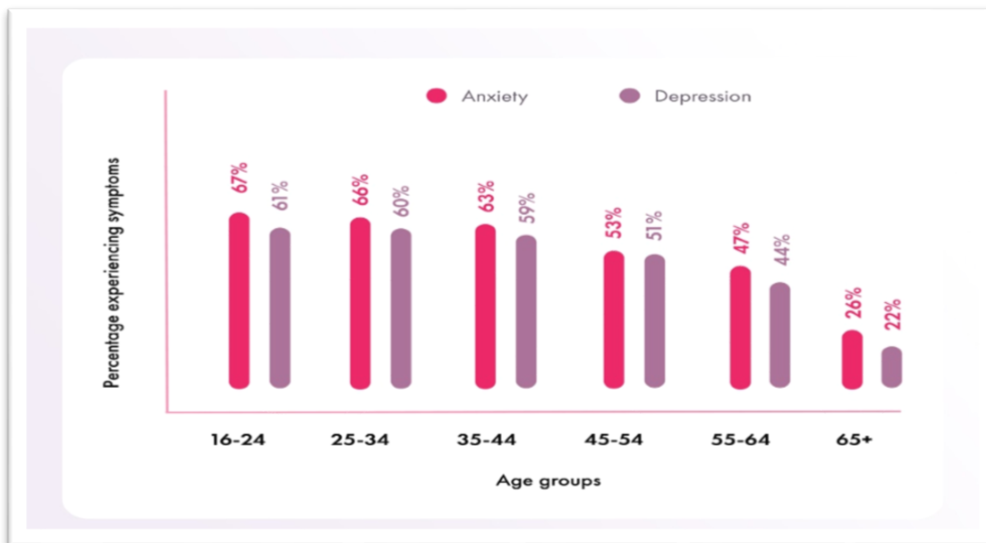

Figure 6: Prevalence of depressive symptoms in the UK (Champion Health: The Workplace Health Report, 2023)

In Israel, the prevalence of depressive symptoms was estimated to be 4.6% among all populations, which classify Israel to be in rank 79 in the world (WHO, 2021b). Unfortunately, Arab countries are among the countries where depression occurs in all stages of life and ages, especially among older adults, due to the living conditions they suffered and the cases they went through during their previous years of life. Figure 7 illustrates the approximate percentages of depression cases in the Arab world (Arab Barometer, 2020). Iraq reported the highest prevalence of depressive symptoms (43.0%) followed by Tunisia (40.0%), Palestine (37.0%), and Jordan (34.0%), however, Sudan had the lowest prevalence of depressive symptoms (15.0%) (Arab Barometer, 2020).

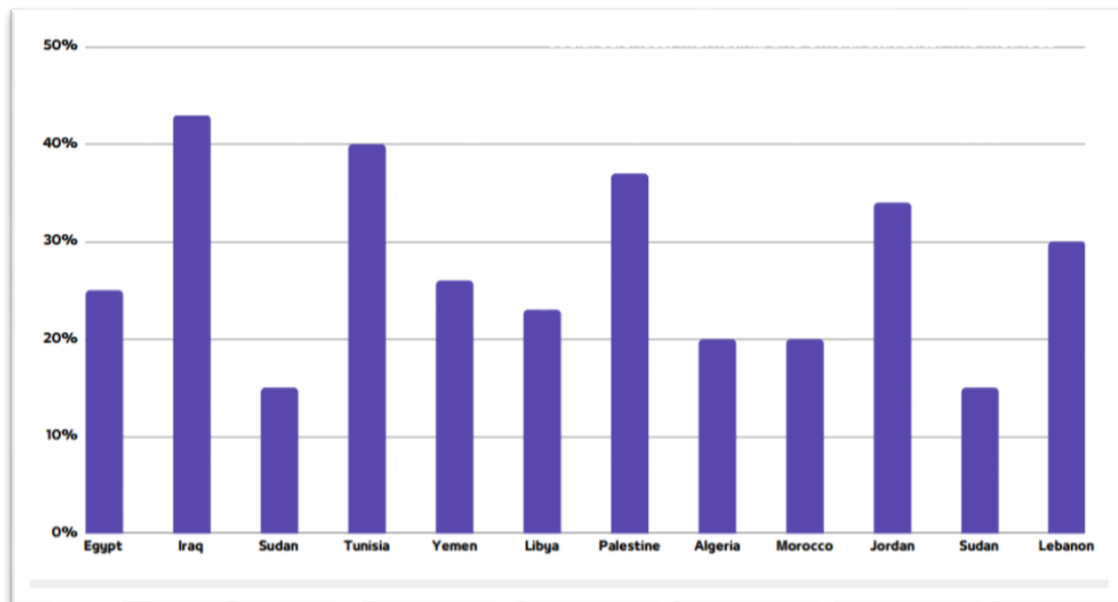

Figure 7: Percentages of depression in the Arab world (Arab Barometer, 2020)

Depression is a common mental problem that influences an important portion of older adults (Golboni et al., 2022; Wang et al., 2021). Depressive symptoms are higher among older adults living in residential care settings and these symptoms are usually undiagnosed (Ahmed et al., 2014). Depressive symptoms are one of the most common

psychiatric problems of the 20th century, especially in residential care settings with a prevalence of 43% to 86% (Vakylabad et al., 2012). It can lead to increased healthcare expenditures, deteriorated social functions, non-compliance to therapeutic measures, suicide, and eventually QOL (Jafari et al., 2021). The clinical settings had the highest prevalence of depressive symptoms among older people and varied between 5.9 % and 81.0% (Yanzón de la Torre et al., 2016). Moreover, the depressive symptoms prevalence in older community dwellers ranged from 5.94% to 27.0% (Tang et al., 2021; Wang et al., 2017).

Older people are exposed to negative life circumstances, including separation, loneliness, retirement, lack of independence, and bereavement (Czaja et al., 2021), which lead to age-associated psychological problems including anxiety, stress, and depressive symptoms (Rong et al., 2019; Tetsuka, 2021). The rates of depressive symptoms in the younger population are particularly higher than in the older age population, despite that, many detrimental factors are correlated to higher depressive symptoms rates in older adults (Blazer, 2003; Djernes, 2006). This decline could be related to the depression paradox, which is due to the phenomenon that depression prevalence decreases with advanced age (Blazer, 2003; Djernes, 2006).

Certain sociodemographic factors are considered risk factors for higher depressive symptoms in older adults, for example, being female (Ho et al., 2020; Horesh et al., 2020; Petkus et al., 2017; Poole et al., 2018; Porras-Segovia et al., 2018; Rantanen et al., 2018; Solomou & Constantinidou, 2020) was correlated with depressive symptoms. Earlier studies have revealed that younger elderly are at higher risk of suffering from depressive symptoms compared to older elderly (Gozansky et al., 2021; Horesh et al., 2020; Kar, 2016; Lipskaya-Velikovsky, 2021; Palgi et al.,

2020; Solomou & Constantinidou, 2020). Also, low levels of income and education were associated with higher depressive symptoms (Czaderny, 2020; De Oliveira et al., 2016; Park et al., 2018).

Many studies were conducted to assess depressive symptoms and correlating factors in different countries, for example, Zivin et al. (2010) examined the depressive symptoms in addition to correlating factors in older people in the U.S. and UK. A total of 8,295 U.S. and 5,208 UK older adults were recruited. The Center for Epidemiologic Studies Depression Scale- 8 items (CES-D-8) was utilized to evaluate depressive symptoms. Findings revealed that UK older people had higher rates of depressive symptoms (17.6%) compared to U.S. participants (14.66%). Also, the depressive symptoms adjusted rates in the UK were 19% higher in comparison with the U.S. Additionally, the lower depressive symptom levels in the US could be related to the U.S. participants having higher educational levels and net worth, despite, low activity of daily living (ADL) and impairment in instrumental ADL, use of smoking, and cognitive impairment.

Another study was carried out by Mohebbi et al. (2019) to examine depressive symptoms and correlated factors in older community dwellers in the U.S. and Australia. A large sample consisting of 19,114 older people (16,703 Australian and 2,411 U.S.) aged 65 years and more were engaged. CES-D-10 was adopted to measure depressive symptoms. Findings revealed that the prevalence of depressive symptoms was 9.8% (11% in females and 7.6% in males). The higher prevalence of depressive symptoms was among females, with lower levels of education (education for ≤12 years), living in residential care facilities or alone, current smokers, former alcohol users, minorities, and those endorsed poor physical and mental health status. Also, no difference existed

between current alcohol users and no alcoholics in the rates of depressive symptoms. Therefore, older people need special intervention for detection and treatment.

In Turkey, Yakar et al. (2021) carried out a study to examine the prevalence of depressive symptoms and correlated factors among older adults in family medicine outpatient clinics (N=195). A questionnaire that involved GDS-30 and demographic data was used to collect data. The findings revealed 46.67% (n=77) of the participants experienced depression. Older age (75 years and above) had higher depressive scores than other groups. Also, income, level of education, ability to do their own daily work, experiencing a hearing problem, history of falls, and sleep quality were independent factors that influenced the depressive symptoms.

In Iran, Golboni et al. (2022) conducted a systematic review to identify the prevalence of depressive symptoms among the older population. Findings indicated that the prevalence of depression was 53.7%. Also, depression was higher among women (50%) in comparison to men (42.2%). Therefore, effective strategies should be implemented to minimize this public issue. Another Iranian systematic review was carried out by Jafari et al. (2021) to examine the prevalence of depression in Iranian older people. The results showed that the depression levels were moderate to high with a prevalence of 52.15 %.

Another meta-analysis study was conducted by Sarokhani et al. (2018) to determine the prevalence of depression among the Iranian older population. The findings revealed that the prevalence of depression was 43% and the prevalence among women was 49% and 48% among men. Also, 45% of married participants and 37% of unmarried had depression. Furthermore, the percentage of very severe, severe, moderate, and mild levels of depression were reported to be 5%, 19%, 33%, and 38%

among the participants, respectively. Thus, more than one-third of the Iranian older population suffered from mild depression and married participants had the highest prevalence of depression.

Another Iranian study was conducted by Nazemi et al. (2013) to identify the prevalence of depressive symptoms and correlated risk factors in older people in residential care facilities. Two hundred forty-four participants were recruited and a questionnaire consisting of GDS-15, demographic data, and health and nutritional status was used to collect data. The findings found that 9.8%, 50.0%, 29.5%, and 10.7%, of the participants experienced no depressive symptoms, mild, moderate, and severe depressive symptoms, respectively. Also, low satisfaction with staff of residential care facilities and food quality correlated with higher depressive symptoms. Moreover, the lifestyle was correlated with depressive symptoms, where older adults who rested or walked endorsed a significantly higher risk of severe depressive symptoms in comparison to participants who did not. On the contrary, educational level was a protective factor.

In Peru, López et al. (2021) performed a descriptive study to assess the depressive symptoms prevalence among older people in residential care facilities and living in their homes. A total of 250 older people (125 in residential care facilities and 125 living in their homes) were recruited and GDS-15 was adopted to evaluate depressive symptoms. Findings found that 36.0% of the older people in residential care facilities suffered from moderate depressive symptoms and 17.6% experienced severe depressive symptoms. However, 69.6% of the participants living in their homes suffered from moderate depressive symptoms, and 12% experienced severe depressive symptoms. Also, there was a difference in depressive symptoms prevalence among

participants in residential care facilities (60.4%) and those living in their homes (36.6%) ($p < 0.01$). Married participants had a higher prevalence of depressive symptoms (19.5%). Therefore, it is necessary to provide health services for older adults.

In Ecuador, a cross-sectional study was conducted by Sisa and Viga (2021) to evaluate the prevalence of depressive symptoms among older people and correlating factors. A total of 5235 participants were recruited and GDS was used to assess the depressive symptoms. The findings indicated that the prevalence of depressive symptoms was 35.4%. Also, the participants were classified according to depressive symptoms as mild (23.7%), moderate (8.7%), and severe (~3%). Also, low educational levels, living alone, poor income, experiencing physical abuse, drinking alcohol, sedentary lifestyle, hearing problems, suffering from cancer and incontinence, and lack of functional abilities were correlated with high depressive symptoms.

A Nigerian cross-sectional study was carried out by Awunor et al. (2018) to evaluate the prevalence of depressive symptoms in addition to predictors among older adults in rural communities. A total of 600 participants aged 60 years and over were recruited. Depressive symptoms were evaluated using GDS. The findings revealed that 44.7% of the participants experienced depressive symptoms. Advanced age (more than 70 years) and poor educational levels were correlated with depressive symptoms ($p < 0.01$). However, educational level was the only predictor of depressive symptoms in older people.

In Ethiopia, a cross-sectional study was executed by Mulugeta et al. (2023) to evaluate the depressive symptoms prevalence and correlated factors in the older population in Yirgalem. A systematic sampling method was selected and 628

participants were recruited. Data were collected utilizing GDS-15 by interview. The findings revealed that 51.77% of the respondents experienced depressive symptoms. The main correlating factors for depressive symptoms were female gender, advanced age (≥ 90), loneliness, suffering a chronic disease, experiencing anxiety, and lack of social support. Therefore, counseling and psychiatric strategies need to be integrated into healthcare settings.

Moreover, Anbesaw and Fekadu (2022) conducted a cross-sectional study in Bahir Dar City, Ethiopia to identify the prevalence of depressive symptoms and correlated factors in older people. A total of 423 participants were recruited using a random sampling method. GDS-15 was adopted to measure depressive symptoms. The findings found that 57.9% of participants had depressive symptoms. Additionally, low educational levels with grades 5-8th and 9-12th grade, low income, cognitive impairment levels, family history of mental problems, and poor QOL were correlating factors for depressive symptoms.

Another Ethiopian cross-sectional study was carried out by Mulat et al. (2021) to determine the prevalence and correlated factors of depressive symptoms in older people in the Womberma District. A total of 959 participants were engaged utilizing a random sampling method. The data were collected using GDS-15. Findings demonstrated that 45% of participants experienced depressive symptoms. Also, gender as being female, advanced age (≥ 75 years), marital status as being divorced, or widowed, lack of social support, and presence of chronic diseases were correlated with depressive symptoms. Therefore, screening and management of depressive symptoms should be integrated with essential primary healthcare packages. Also, social support is needed by initiating

care centers for older adults, which may play a critical role in minimizing the suffering of older adults from marital loss produced loneliness and depression.

Another cross-sectional study was carried out in Ethiopia by Amha et al. (2020) to examine the prevalence of depressive symptoms and correlating factors in older adults in the Dega Damot district. A total of 813 participants were recruited and depressive symptoms were assessed using GDS-15. The results revealed that 45.9% of the older people experienced depressive symptoms. Also, female sex, advanced age (>75 years), marital status as widowed or divorced, retirement, suffering from chronic disease, and lack of social support were correlating factors for depressive symptoms. Thus, screening programs should be performed for depressive symptoms among older adults.

Also, Mirkena et al. (2018) carried out an Ethiopian study to identify the prevalence of depressive and correlated factors in older adults in Ambo Town. A cross-sectional study was chosen and 800 participants were recruited. Data were collected using GDS-15. The findings showed that 41.8% of the older people had depressive symptoms. The correlating factors with depressive symptoms were female gender, retirement, trading, and living with children. Thus, screening and depressive symptoms management are necessary and correlating factors should be considered.

In Ghana, Nakua et al. (2023) evaluated the depressive symptoms prevalence and correlated factors in older people in the Ashanti region using a cross-sectional study. A multi-stage random sampling method was adopted to engage 418 participants aged ≥ 60 years. Data were collected using the GDS-15. The results found that the depressive symptoms prevalence was 42.1%. Also, being female, advanced age (> 80

years), low economic status, single, having more than chronic disease, and decreased ability to manage personal affairs were correlated with depressive symptoms.

A study in South Africa was carried out by Padayachey et al. (2017) to evaluate the depressive symptoms prevalence and associated factors in older people attending primary healthcare clinics. A random sampling method was adopted to recruit 255 participants. Also, data were collected utilizing GDS-15 and socio demographic factors. The findings revealed that 40.0% of the participants had depressive symptoms was 40.0%. The detrimental factors for depressive symptoms involved being female, widowed, and perceived negative health status. While marriage was a protective factor. Also, no association was found between depressive symptoms and medical conditions.

A study in Thailand was conducted by Intarangkul and Thonkate (2023) to assess the prevalence of depressive symptoms in older people and the correlating factors. A cross-sectional study was utilized and 144 participants were engaged. The findings demonstrated that 16.67% of the participants suffered from depressive symptoms and males had a high prevalence in comparison with females (21.43% vs. 14.0%). There was an association between body mass index and depressive symptoms, where those with normal weight had higher depressive symptoms compared to obese participants. Thus, these results proposed the significance of developing intervention programs for the prevention and monitoring of depressive symptoms and subsequent complications.

Another cross-sectional study was conducted in Thailand by Charoensakulchai et al. (2019) to assess depressive symptoms and correlating factors among older community dwellers. A questionnaire consisting of the Thai GDS and family relationships was utilized to collect data and 433 participants aged ≥ 60 years were

recruited. The findings revealed that 18.5% of the participants had depressive symptoms and 54.1% of the participants lived in disturbed family types. Also, being female, illiteracy, current smoking, and disturbed family type (poor attachment, poor cooperation, and low alignment between members as detrimental factors for depressive symptoms.

In China, Fu et al. (2023) carried out a longitudinal study to evaluate the prevalence and detrimental factors of depressive symptoms in older community dwellers. A total of 6055 participants were recruited and the CES-D 10 was adopted for data collection. The results demonstrated that the prevalence of depressive symptoms was categorized as follows: living alone (47.8%), as a couple (33.2%), and with children (39.5%). Short sleep duration, poor ADL, and poor health perception were the significant risk factors for depressive symptoms. Additionally, female gender, low level of education, and experiencing chronic illnesses were the highest risk factors for depressive symptoms in participants living as a couple and with children. Engagement in economic activities and smoking were risk factors among those living with children and alone. Thus, interventions should be implemented and risk factors should be considered.

Another Chinese cross-sectional study was performed by Wang et al. (2021) to evaluate depressive symptoms in older people living in residential care facilities in low and high-altitude regions (N=632). Findings showed that 26.9% of the participants experienced depressive symptoms (11.1% among participants living in low-altitude and 59.4% among participants living in high-altitude regions. Perceptions of poor health status and having insomnia were correlated with a higher risk of depressive symptoms.

Living at a low altitude was correlated with a lower risk of depressive symptoms, which suggested that environmental factors are risk factors for depressive symptoms.

Also, Cong et al. (2015) assessed the prevalence and risk factors of depressive symptoms among Chinese older people aged > 60 years. A cross-sectional design was utilized and 1910 older community dwellers were recruited. The data were gathered utilizing a questionnaire consisting of GDS-30, socio demographic data, and other factors. Findings demonstrated that 10.5% of the participants had depressive symptoms (10.6% in men and 9.8% in women). Poor social engagement, lack of family support, presence of chronic diseases, and poor sleep quality were the main risk factors for depressive symptoms.

In Vietnam, Do et al. (2022) carried out a cross-sectional study to evaluate the depressive symptoms prevalence among older people aged > 60 years in a rural district (N=495). The data were collected utilizing GDS-15. The findings found that 28.7% of the participants had depressive symptoms. Also, a correlation was found between depressive symptoms and level of education, age, family support, and domestic violence. Therefore, screening programs and interventions that improve family support need to be developed to reduce depressive symptoms in older people.

In Indonesia, Wardhani et al. (2024) executed a cross-sectional study to identify the depressive symptoms prevalence among the older adult population. A total of 82,304,000 participants were engaged. The results reported that the highest prevalence of depressive symptoms was among participants aged 60-69 years, females (61.77%), living in urban areas (50.03%), having elementary education (32.63%), having no work (56.21%), and one expenditure level (24.36%)

Another Indonesian study was carried out by Gunawan and Huang (2022) who adopted a descriptive cross-sectional study to evaluate the depressive symptoms prevalence among older people in residential care facilities. A convenience sample was selected and 116 participants were recruited. The depressive symptoms were assessed using the GDS-15. The results revealed that 56.9% of the older people endorsed depressive symptoms, and 37.1%, 12.0%, and 37.1% of the participants suffered from moderate, severe, and mild depressive symptoms, respectively. Age, sex, educational level, marital status, ethnicity, history of disease, duration of stay, and frequency of visits. Thus, the study proposed a high prevalence of depressive symptoms among older adults requires psychological interventions.

Furthermore, Handajani et al. (2022) examined the prevalence and risk factors of depressive symptoms among Indonesian older people. A total of 4236 participants aged > 60 years were engaged. The data were collected using an interview which included socio demographic, health-related factors, and CES-D 10. The findings found that 16.3% of the older adults suffered from depressive symptoms. Depressive symptoms were correlated with economic status (low and moderate), poor life satisfaction, perceived poor health, suffering from falls and insomnia, and dependency on ADL. Also, participants with stroke, hearing impairments, and arthritis had higher depressive symptoms. Thus, improvement in health services, particularly prevention and rehabilitation could assist in minimizing depressive symptoms to enhance QOL.

Also, Pramesona and Taneepanichskul (2018) carried out another Indonesian cross-sectional study to determine the prevalence and correlated factors of depressive symptoms among older people in residential care facilities. A purposive sampling technique was adopted to recruit 181 participants aged 60 years and more. Data were

collected using a questionnaire including sociodemographic variables, health-related factors, social support, and GDS-15. The results found that 42.5% of the participants had depressive symptoms, whereas 31.5% of women and 11% of men suffered from depressive symptoms. Also, depressive symptoms were correlated with female gender, poor social support, having three or more chronic illnesses, and inadequate care. Therefore, health services should be provided to older adults in residential care facilities to minimize depressive symptoms among this cohort group.

Another cross-sectional Indonesian cross-sectional study was carried out by Gustryanti et al. (2017) to assess the prevalence and factors correlated with depressive symptoms in older adults in Cimahi. A random sampling method was used to recruit 267 participants from public health centers. The data were collected using a questionnaire consisting of socio-demographic data, a general health perceptions questionnaire, Chula Activities of Daily Living Index, and GDS-15. The result showed that the prevalence of depressive symptoms was 43.8%. Also, the factors correlated with depressive symptoms were age, marital status, health status, family history of depressive symptoms, and ADL ($p < 0.05$). Thus, new strategies need to be implemented to reduce depressive symptoms in older people.

Another Indonesian study was conducted by Anantapong et al. (2017) among older community-dwellers in Songkhla province in Thailand to determine the prevalence of depressive symptoms and correlated factors. A cluster sampling method was utilized and GDS-15 was used to assess depressive symptoms. The results revealed that 12% of the participants had depressive symptoms. No significant association existed between depressive symptoms and gender, age, and residence. Depressive symptoms were higher among Muslims, who live alone, and have low levels of

education. Therefore, some strategies and policies are required to manage this problem and consider correlating factors.

In Rwanda, Nshimyumuremyi et al. (2023) carried out a study to examine the prevalence of depressive symptoms and correlated factors among older people in the community. A convenience sample consisting of 107 participants was selected. Data were collected using a questionnaire including GDS, QOL enjoyment and satisfaction, family support, loneliness, neglect, and attitudes toward grief. Findings indicated that 64.5% of the older adults experienced depressive symptoms and women had higher symptoms compared to men. Also, QOL enjoyment and satisfaction, and family support were correlated with depressive symptoms. Thus, family-based strategies are required to improve older people well-being.

Additionally, in Pakistan, Ali et al. (2022) executed a cross-sectional study to assess the percentage of depressive symptoms and predictors in older adults in outpatient clinics in Karachi. A total of 232 participants were engaged and GDS-15 was utilized for collecting data. Findings demonstrated that 80.2% of the older adults had depressive symptoms. The main predictors of depressive symptoms were employment, financial levels, and peer groups.

In India, Debnath et al. (2023) executed a cross-sectional study to evaluate the depressive symptoms among the older adult population in rural and urban areas. A systematic random sampling method was utilized to recruit 230 participants. The Patient Health Questionnaire 9 (PHQ-9) was adopted to evaluate the depressive symptoms. Findings found that 68.2% of the older population experienced depressive symptoms. Additionally, depressive symptoms were correlated with age ($p < 0.01$), sex (being female) ($p < 0.05$), residence (urban) ($p < 0.01$), and having diabetes ($p < 0.01$). Thus,

screening programs and community services should be provided to this vulnerable group to minimize depressive symptoms.

Another Indian cross-sectional study was executed by Antony et al. (2023) to assess the depressive symptoms prevalence and correlated factors among the older population. A total of 479 participants were recruited and data were collected utilizing a questionnaire included Hindi Mini Mental Scale, GDS-15, and Hamilton Depression Rating Scale. The results revealed that the prevalence of depressive symptoms was 44.4%. The main risk factors for depressive symptoms were the presence of substance abuse among family members, a history of elderly abuse, and financial and physical dependency. However, living with children and the availability of recreational activity were significant protective factors of depressive symptoms.

Additionally, Roy et al. (2021) carried out Indian a cross-sectional analytical study to examine the prevalence of depressive symptoms among older adults in rural areas. A total of 292 participants were recruited and depressive symptoms were evaluated using GDS-15. The findings revealed that 64.1% of the participants experienced depressive symptoms. There was a correlation between depressive symptoms and marital status, educational level, patterns of sleep, family relationships, and spiritual intelligence. The participants with low spiritual intelligence and sleep disturbances had higher depressive symptoms.

In Nepal, Pokharel and Sharma (2019) conducted a study to evaluate depression among older adults in a geriatric home and to compare it with older people living in their homes. A cross-sectional observational study was performed, and older people aged > 60 years were selected as cases and those living in their homes as a comparative group. The GDS-30 was utilized to evaluate depressive symptoms. The findings

revealed that 69.2% of the participants in the study group experienced depressive symptoms and 19.2% of the participants in the comparison group suffered from depressive symptoms. The difference was statistically significant. Thus, this study proposed that depressive symptoms are higher in geriatric homes compared to living in homes.

In Malaysia, Sajali et al. (2021) conducted a cross-sectional study to identify the prevalence of depressive symptoms and correlated risk factors among Malaysian older people in residential care facilities. A total of 110 participants were engaged and a questionnaire that measured depressive symptoms, social support, and loneliness was utilized for collecting data. The results found that 60.9% of the participants had depressive symptoms. Also, gender as being male, poor health status, and loneliness were the main risk factors for depressive symptoms. Thus, screening programs for mental health are needed in residential care facilities and special training should be implemented for staff to overcome mental health issues among the older adults.

Another Malaysian cross-sectional study was carried out by Leong et al. (2020) to assess the prevalence and correlating factors among older people in daycare centers. A total of 159 participants were recruited and data were collected using a questionnaire that included GDS-15 and demographic data. Findings found that the prevalence of depressive symptoms was 59.1%. Marital status as being divorced, and low levels of education and income were the most risk factors correlated with depressive symptoms. Therefore, activities should be re-evaluated to satisfy the physical, mental, and emotional needs of older adults.

Additionally, Qamar et al. (2020) conducted a Malaysian cross-sectional study to identify the prevalence of depressive symptoms among older people in residential

care facilities and determine the predictors. A convenience sample consisting of 141 participants was recruited and a questionnaire consisting of socio demographic data and M-Geriatric Depression Scale-14 was utilized for gathering data. Findings revealed that more than 50% of the participants had depressive symptoms. There was a significant difference between the depressive symptoms and marital status ($p < 0.05$) and a history of heart disease ($p < 0.01$). Also, heart disease was correlated with depressive symptoms. Therefore, daily observation and screening should be performed to detect cases of depressive symptoms.

Another Malaysian cross-sectional study was conducted by Vanoh et al. (2016) to assess the prevalence of depressive symptoms and associated risk factors among older adults in the community. A total of 2264 participants (1083 were men and 1181 were women) were engaged in the study. Data were collected using a questionnaire that included GDS-15 in addition to demographic data and other factors (e.g., presence of comorbidities, social support, nutritional status, dietary habits, lifestyle, calorie restriction, psychosocial aspects, and cognitive function). The findings revealed that 16.5% of the participants suffered from depressive symptoms, and the women had higher depressive symptoms compared to men (56.6% vs.43.4%). Low educational levels, having neurotic disorder, low levels of ADL, low fitness level, and the presence of hypertension and osteoarthritis were risk factors for depressive disorders.

Another Malaysian study was conducted by Normala et al. (2014) to determine the prevalence of depressive symptoms and correlated factors among older adults in residential care facilities. A purposive sampling method was utilized and 98 participants were recruited. The GDS-30 was used to assess depressive symptoms. The results found that the prevalence of depressive symptoms was 70.4% (39.8% experienced mild

depression and 30.6% suffered from major depression). The main risk factors for depressive symptoms were loneliness, sadness, helplessness, isolation, and loss of interest in activities.

A Bangladesh study was carried out by Tabassum et al. (2023) to determine depressive symptoms among older adults in outpatient clinics (N=230). A questionnaire was used for data collection and included GDS-15, socio demographic factors, behavioral factors, and psychosocial factors. The findings revealed that 81.7% of the participants had depressive symptoms. Also, depressive symptoms were categorized as mild (52.6%), moderate (25.2%), and severe (3.9%). Marital status, working status, level of education, the status of physical activity, and the presence of cerebrovascular accident (CVA) diseases or stroke were correlated with depressive symptoms. Therefore, intervention programs should be implemented to minimize depressive symptoms among older adults.

In Saudi Arabia, Alkhammash et al. (2022) carried out a cross-sectional study to assess the prevalence of depressive symptoms and correlated factors among older adults. A total of 259 participants were recruited from family medicine clinics and GDS was utilized for evaluating depressive symptoms. The findings revealed that 43.2% of the participants experienced depressive symptoms. Also, 36.3% of the participants had mild depressive symptoms, 4.2% had moderate depressive symptoms, and 2.7% had severe depressive symptoms. The factors correlated with depressive symptoms were gender as being male, older age, and the presence of diabetes mellitus, asthma, and renal failure. Therefore, healthcare professionals should prioritize the treatment of older adults' depressive symptoms.

In Iraq, Shareef and Kadhem (2023) evaluated the depressive symptoms incidence and risk factors among older adults in primary health clinics in the Al-Nasiriya province. A cross-sectional study was adopted and 150 older adults were recruited. The GDS-15 and socio demographic variables were used to collect data. The findings showed that 43.33% of the participants suffered from depressive symptoms. Also, 22.33% of them had mild symptoms, 11.33% had moderate symptoms, and 9% had severe symptoms. Additionally, the factors correlated with depressive symptoms included being female, age (60-69 years), retirement, low educational level (illiterate), being married, having owned a home, experiencing a chronic illness, consuming many medications daily, having no physical disability or family history of mental problems, not being smoker, and having a large family
($p < 0.05$).

A Palestinian cross-sectional study was carried out by Maraqa et al. (2024) to evaluate the prevalence of depressive symptoms and correlated factors among older adults in primary healthcare centers. A total of 380 older adults aged 60 years and above were recruited and GDS-15 was utilized to assess depressive symptoms. The results indicated that 41.1% of the participants had depressive symptoms. Also, higher depressive symptoms were correlated with living in rural regions, being illiterate, and having no income. These results emphasized the importance of developing strategies and services for older adults in the West Bank.

A Lebanese descriptive study was conducted by Boulos and Salameh (2021) to evaluate depressive symptoms and correlated gender factors. A total of 823 rural older adults aged ≥ 65 years were engaged. The data about socio demographic variables, living conditions, and health and functional status were collected. Also, GDS-5 was

utilized to evaluate depressive symptoms. The findings demonstrated that women had a higher prevalence of depressive symptoms (39.5%) compared to men (26.2%) ($p < 0.001$). Among men, higher income and physical activity significantly minimized the depressive symptoms. Additionally, physical disability and loneliness significantly increased the risk of depressive symptoms. Among women, occasional or daily physical activity was correlated with reducing depressive symptoms in comparison with a sedentary lifestyle. Furthermore, digestive symptoms, inadequate nutritional status, and loneliness significantly increased depressive symptoms.

In Jordan, Hamdan-Mansour (2016) adopted a descriptive correlational design to assess depressive symptoms and the correlated psychosocial factors among older adults in non-institutionalized healthcare settings. Data were collected using a structured questionnaire to assess depressive symptoms, psychological distress, social support, and life satisfaction. The results found that 55.5% of older adults had no to slight depressive symptoms, 22% experienced mild depressive symptoms, 17.3% had moderate depressive symptoms, and 5.2% experienced severe depressive symptoms. Also, social support, psychological distress, life satisfaction, marital status, and employment status were correlated with depressive symptoms.

In Egypt, Ahmed et al. (2014) executed a cross-sectional study to evaluate depressive symptoms and correlating factors among older adults living in residential care facilities (N=240). The GDS-15 was used to assess depressive symptoms. The findings found that 37.5% of older adults suffered from depressive symptoms. The predictors of depressive symptoms were advanced age, gender (female), low social class, lack of income, the presence of comorbidity, and loneliness. The results supported the need for developing screening programs among older adults in residential care

facilities, particularly, a high-risk cohort group, and designing strategies to control this problem.

In Israel, a cross-sectional study was carried out by Bentur and Heymann (2020) to assess the prevalence and patterns of depressive symptoms among 2502 older adults aged 65 years and over. The findings showed that 24% of the participants had depressive symptoms. A significant correlation existed between depressive symptoms and increased hospitalizations, visits to the emergency department, and/or to family physicians and specialists. This result indicated a high prevalence of depressive symptoms. Thus, screening and early treatment should be a part of the national quality indicators which should be applied and integrated with disease management programs for older adults.

Concerning QOL, many studies were carried out in various nations, for example, in China, Liu et al. (2023) carried out a study to examine the QOL among Chinese older adults in older homes living in low and high-altitude areas. A total of 644 participants were involved and the data were collected using a questionnaire consisting of WHOQOL-BREF and demographic data. The findings found that participants living in the high-altitude areas had higher QOL, particularly in physical and social domains, but they had a lower psychological domain in comparison with older adults living in low-altitude areas. Also, for participants living in high-altitude areas, smoking was correlated with the higher social domain of QOL, good financial status was correlated with the physical domain, and health status was correlated with physical and psychological domains. Moreover, depressive symptoms were correlated with low QOL. Therefore, proper interventions are needed to minimize depressive symptoms and improve the health status of participants living in high-altitude areas to enhance QOL.

Also, in Ethiopia, Jemal et al. (2021) carried out a study to evaluate depressive symptoms, QOL, and correlated factors among Ethiopian older adults (N=822). A cross-sectional design was adopted and WHOQOL)-BREF and GDS were utilized to collect data. The findings demonstrated that 54.5% and 51.8 of the older adults experienced depressive symptoms and low QOL. The correlating factors included advancing age, being single, low educational level, living alone, and having more than one chronic disease. Also, depressive symptoms were associated with low QOL. The results suggested that older adults had a high risk of depressive symptoms and low QOL. Thus, monitoring older adults' health to identify their needs and develop necessary psychological interventions and ongoing education.

In Thailand, Ratmanee and Tongkumchum (2023) evaluated the QOL among older adults and assessed the effect of demographic characteristics on it. A total of 15,600 participants aged 60 years and above were recruited from Regional Health, the Ministry of Public Health, and Thailand. The QOL was assessed using the WHOQOL-BREF. The findings revealed that there were significant differences in the domains of QOL. The younger older adults had the highest scores in physical, psychological, and environmental domains but not in social relationships. Years revealed a slight increase in psychological, environmental domains, and social relationships but not the physical domain. Older adults from the regional health area had the highest scores for all QOL domains. Thus, health policymakers should assist older adults, particularly in physical health.

A cross-sectional study was conducted by Seangpraw et al. (2019) to assess QOL and correlating factors. The participants included older adults aged 60 years and above in Thailand. A total of 470 participants were recruited and data were collected

using a QOL (WHOQOL-OLD) questionnaire. The results demonstrated that the mean score of QOL in older adults was 87.4 and 87.2% of the older adults reported moderate levels of QOL in all domains. The main correlating factors included age, sex, educational level, employment, health status, and family relationships.

Also, some studies examined depressive symptoms and QOL, for example, A Jordanian cross-sectional study was conducted by Malak and Khalifeh (2023) to assess the correlation between depressive symptoms and QOL in Jordanian older community dwellers. A non-random sample (N = 602) was chosen and WHOQOL-BREF and GDS were used for data collection. The results revealed that 54.1% of the older adults suffered from moderate to severe depressive symptoms with a total mean score of 8.57 on a scale of 0 to 15, and the mean (SD) for the QOL was 12.12 (3.85) on a scale of 4 to 20. There were differences in QOL and depressive symptoms according to marital status ($p < 0.001$), level of education ($p < 0.001$), work status ($p < 0.01$), monthly income ($p < 0.001$), and number of chronic diseases ($p < .01$). Additionally, QOL was negatively correlated with depressive symptoms. Thus, healthcare professionals should develop strategies to enhance QOL to reduce depressive symptoms among older adults.

Another cross-sectional study was performed by Al-Amer et al. (2019) to assess the prevalence of depressive symptoms and QOL among Jordanian older adults in residential care facilities. A total of 155 participants were recruited and a questionnaire consisting of Mini-Mental State Examination (MMSE), GDS, and EuroQol-5D (EQ-5D) was utilized to collect data. The findings revealed that 72.3% of the participants experienced depressive symptoms. Concerning QOL domains, 84.5% of the participants endorsed suffering from pain, 81.9% endorsed anxiety/depression, 80.6% endorsed problems performing daily activities, 75.5% endorsed self-care problems, and 63.2%

endorsed mobility difficulties. The depressive symptoms were correlated with pain and anxiety/ depression. This study proposed that older adults in residential care facilities had a high prevalence of depressive symptoms and poor QOL, thus specific strategies should be developed to promote mental health and QOL among this target group.

In Israel, Levkovich et al. (2021) conducted a cross-sectional study to assess depressive symptoms and health-related quality of life among older patients aged 65 years and above. A total of 256 participants were recruited and data were collected using Symptoms of Depression (CES-D) and health-related quality of life (SF-12v2 Health Survey) questionnaire. The findings revealed that 37.5% of the participants had depression. Also, the participants suffered from moderate levels of depression and health-related quality of life. Optimism, social support, and health-related quality of life were positively correlated. Higher optimism and social support were associated with lower perceived susceptibility and lower depression.

2.7 DRAMA THERAPY

An extensive review of the literature related to older adults found that many of this target group suffered from disabilities and psychological and social difficulties imposed by the developmental nature and decline in mental and health capabilities due to a lack of financial, social, and psychological resources (Abdi et al., 2019; Ross et al., 2017; WHO, 2018). It may also be due to the shortages and shortcomings in healthcare and counseling programs for this cohort group, which causes difficulty in distinguishing older people with depressive symptoms from other conditions and hinders obtaining a proper diagnosis and treatment (Kar, 2015; WHO, 2018).

Older adults need counseling programs that can assist them in maintaining their role in society and enhancing their quality of life according to their age group.

There are many modalities for managing depressive symptoms and enhancing QOL such as drama therapy. Drama processes are used to carry out the therapeutic objectives of relieving symptoms and integrating emotional, physical, and personal growth (National Association for Drama Therapy, 2014). It helps explore the depth and breadth of experience by telling stories for solving a problem, recognizing the meanings of images, strengthening the ability to observe personal roles, and increasing flexibility between these roles (National Association for Drama Therapy, 2014). A previous study was performed on patients with dementia who had undergone drama therapy programs and demonstrated a significant improvement in depressive symptoms and QOL (Lin et al., 2022). Also, Jaaniste and colleagues (2015) found that drama therapy improved QOL among older people suffering from dementia.

Drama therapy is an active and experiential psychotherapy modality that entails the deliberate and systematic use of drama/theater activities to achieve psychological growth and change within a psychotherapeutic partnership (Feniger-Schaal & Orkibi, 2020). Drama therapy is currently in the critical stage of transitioning from clinical reporting of case studies and vignettes to evidence-based practice supported by empirical studies (Harel & Keisari, 2021). Compared to other psychotherapies and psychological interventions, research on drama therapy intervention is limited. Fortunately, drama therapy studies have yielded encouraging outcomes in the recent decade, demonstrating that drama therapy is a successful treatment option for a variety of populations. The majority of studies focused on people (adults and children) with

developmental disabilities, cognitive impairments, or both (Feniger-Schaal & Orkibi, 2020).

Drama therapy systematically applies drama and theater procedures to relieve suffering and promote health and well-being (Fernández-Aguayo, & Pino-Juste, 2023). Drama therapists typically work in four areas of psychiatric care: brief acute inpatient care, long-term inpatient care, outpatient care, and staff development (Fernández-Aguayo & Pino-Juste, 2023). Drama therapy may supplement allopathic treatments in acute psychiatry, offering gains in self-esteem and self-efficacy, distraction and release from worries and negative thoughts, insight, and social connection (Sajnani, 2021).

Drama therapy in outpatient care promotes social engagement, aids in emotional regulation, and provides a venue for practicing interpersonal skills (Bergs et al., 2022). Drama therapy successfully improves clients' mental health, with similar overall outcomes as other psychotherapies (Orkibi et al., 2023). In terms of staff development, drama therapeutic approaches may be utilized to assist staff in identifying and representing sentiments about their patients, as well as rehearsing answers to difficulties in the organizational structure, investigating the association between social circumstances and the presentation of psychiatric discomfort, and boosting their own sense of spontaneity and creativity (Sajnani, 2021).

Armstrong et al. (2019) performed a qualitative study to identify the major themes in drama therapy efficacy studies. The following themes have emerged from the analysis within an effectiveness context: emotional and behavioral symptoms, social skills and social interactions, self-confidence and self-esteem, sense of self and identity, self-expression, well-being, emotional regulation, empathy, academic performance, language and linguistic performance, stigma, bodily awareness, empowerment, and

spontaneity. Drama therapy has been shown to help different aspects of mental health in older adults. It promotes personal development and artistic expression while also strengthening group interrelationships. Drama therapy is a well-known approach to exploring life stories at a later age (Keisar, 2021).

2.8 EFFECT OF DRAMA THERAPY ON DEPRESSIVE SYMPTOMS AND QUALITY OF LIFE

Older people are important members of society, therefore, they need to live with dignity in their lives. Additionally, they have the skills, knowledge, and experiences to engage effectively in society, and as a result, the increasing number of older people is a worthy source for all societies (Tangchonlatip et al., 2019). older people need to have a positive aging process in all aspects of life by maintaining positive attitudes in them (Halaweh et al., 2018). Positive aging involves physical and psychological dimensions, participation in society, and ensuring a continuous and sufficient source of income (Wongsala et al., 2021).

Drama therapy showed an improvement in minimizing depressive symptoms and enhancing QOL, for example, Keisari et al. (2022) performed a study to evaluate the impact of life appraisal with playback theater which is a type of drama therapy on mental health in Israeli community-dwelling older people in day centers. A total of 78 subjects with an average age of 79.6 years participated in the study and were categorized into two groups (experimental and control groups), where the experimental group engaged in intervention sessions for 12 weeks and was evaluated three times (pre, post, and three months follow-up). The findings revealed that positive indicators of mental health and psychological growth were improved among those who conducted

intervention including depressive symptoms, satisfaction in relationships and life, well-being, and self-esteem.

Another study was performed by Lin et al. (2022) to determine the impact of drama therapy on enhancing depressive symptoms, QOL, and attention among Taiwanese patients suffering from senile dementia. A randomized controlled design was adopted with a pre-posttest of two groups in daycare centers (four centers as the experimental and four centers as the control). A total of 42 patients (23 in the experimental group and 19 in the control group) were engaged to perform this study. Findings demonstrated that after attending therapy for eight weeks, the experimental group reported a significant minimizing in depressive symptoms and improvement in attention and QOL. Moreover, after attending a therapy of twelve weeks, the experimental group endorsed a continuous considerable reduction in depressive symptoms and improvement in attention and QOL.

Also, Cheung et al. (2022) performed a pilot study to assess the impact of drama therapy for 12 weeks on people diagnosed with stable psychiatric problems in the USA. This study involved quantitative and qualitative approaches. The quantitative approach involved assessing the participants' pre and post-intervention. A qualitative approach involved a focus group interview one week after the intervention. A total of 6 people were engaged in this program. The results demonstrated no significant results pre-post intervention. Furthermore, five themes were developed, and concluded that drama therapy provided a chance for people with severe mental problems to perform, share their diseases and life, and build a healthy feeling of themselves in addition to increasing societal perception.

Moreover, Mondolfi et al. (2021) adopted a mixed method design to assess the influence of drama therapy on QOL, depressive symptoms, life purpose, and self-esteem among Spanish individuals suffering from Parkinson's disease. A total of eight individuals participated in this intervention that provided five workshops once every two weeks for ten weeks. The results for the quantitative method revealed no considerable differences in the aforementioned variables before and after intervention. While a qualitative method demonstrated enhancement in these variables post-intervention.

Additionally, Boersma et al. (2018) adopted a pre-posttest one-group design to examine the impact of drama therapy on QOL and interactions among individuals with dementia in-home care in the Netherlands. The trained nurses in drama therapy integrated this therapy into their 24-hour care. The QOL, facial expressions, and interactions with others were monitored pre-intervention and at nine months post-intervention. The findings found that QOL and interactions among those patients were significantly improved.

Keisari and Palgi (2017) carried out a study to investigate the influence of drama therapy on the psychological health and mental well-being of older people. A total of 55 Israelis aged 62-93 years were recruited from adult medical centers and distributed into two groups (27 in the experimental and 28 in the control) and the data were collected three times. The findings revealed a significant improvement in the intervention group over time. Additionally, the findings demonstrated improvement in self-acceptance, the feeling of life meaning, interactions with other people, the feeling of successful aging, and depressive symptoms among the intervention group.

Another study was performed in Israel by Orkibi et al. (2014) to evaluate the influence of drama therapy on psychological health including self-esteem and stigma among five individuals who experienced mental diseases and seven university students free from mental diseases who engaged in the same group. The assessment was made three times (pre-, post, and follow-up intervention). The results demonstrated significant differences in self-esteem and stigma in pre-intervention compared with other phases (post-intervention and follow-up). Also, no considerable differences existed in the results of the post-intervention and follow-up phases.

2.9 SUMMARY OF THE PREVIOUS STUDIES

Depression problem is widespread, underdiagnosed, and inappropriately treated among older adults. Many cross-sectional and systematic review studies have been conducted to assess the depressive symptoms prevalence and QOL and correlating factors internationally, however, there is a lack of studies in Arab countries and Israel. These studies demonstrated that depressive symptoms had a high prevalence worldwide in all ages and among older adults. The higher rates of depressive symptoms were in developing countries compared to developed countries. Also, the correlating factors for depressive symptoms among older adults included age (advanced age), female sex, single and widowed status, lower education, lower household income, impairment in at least one activity, lack of ADLs, severe cognitive impairment, poor QOL, family history, smoking, chronic diseases such as diabetes.

Unfortunately, there is a lack of studies about the impact of drama therapy on depressive symptoms and QOL in older adults in international and Middle Eastern countries. Few studies were conducted among different age groups, in small samples, and one group. These studies revealed improvement in minimizing depressive

symptoms and enhancing QOL after conducting drama therapy. Therefore, this study will be one of the first studies in Middle Eastern countries and among two groups (control and experimental) to assess the effect of drama therapy on depressive symptoms and QOL among older adults in residential care facilities.

2.10 CONCEPTUAL FRAMEWORK OF THE STUDY

Drama therapy assumes two theoretical ways, the first one depends on a psychological framework. This way was adopted in two previous studies that were performed to direct the psychological emotions of individuals experiencing dementia, where the prime goal of evaluating the results of this therapy in minimizing depressive symptoms and enhancing the QOL (Jaaniste et al., 2015). Additionally, this is consistent with the method of utilizing Erickson's theory (psychosocial development) to encourage impulse among individuals experiencing dementia and resolve psychological issues at an individual level (Cerejeira et al., 2012).

The other theoretical way of drama therapy depends on dramaturgical theory, which was developed by Goffman in 1956 and revised in 1959 and relates ordinary social interaction to theatrical performance. It has a stage, which is the setting or context of interaction. Also, there is the audience which refers to the people who are watching and actors who are acting. Additionally, every day humans are performing as if in a play (Goffman, 1959). Dramaturgical theory suggests that an individual's identity is not a steady and independent psychological unit, but it is continuously remade as the individual reacts with others. In this theory model, social interaction is inspected in the way individuals live their lives, resembling actors play on a stage (Macionis & Gerber, 2011). (Macionis & Gerber, 2011).

It utilizes theatre imagery to illustrate the significance of human and social action and interaction that the person refers to. The main concepts in this theory include performance, appearance, manner, front, and stage (front, back, and offstage) (Figure 8). Drama therapy depends on dramaturgical theory represented by dramatic creation taken out of activities of group theater performed in the lounge, where role-playing is executed using clothes and bodily poles (Boersma et al., 2018; van Dijk et al., 2012). Also, drama performance might use semi-structured scenarios that are congruent with the role model depending on the drama concept, where role-playing is utilized to assist persons in realizing social interrelationships, and characteristics, in addition to the nature of their roles, as a result of that, recreating themselves (Zeisel et al., 2018).

A previous study revealed activities that adopted psychological frameworks were appropriate for individuals who experienced mild to moderate levels of dementia. This way was performed one time per week with a duration from twelve to sixteen weeks, in which every session took 90-105 minutes. However, the dramaturgy framework is proper for individuals experiencing mild to severe levels of dementia and includes activities ranging from one session to several sessions lasting seven months, whereas the duration of the session is determined according to the activity length (Lu et al., 2022).

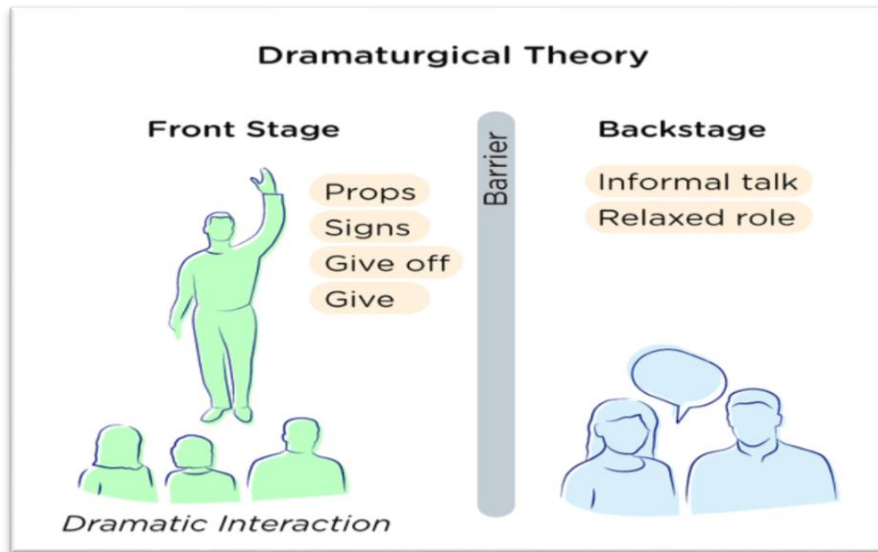

Figure 8: Dramaturgical theory: front stage (the behavior performed in front of the Audience) and backstage (players are together and no audience)

The drama therapy intervention in the current study adopted two approaches including psychological and dramaturgical. Also, the researcher developed the conceptual framework to interrelate all variables together. The current study was based on a model that developed after a review of previous studies, which suggested that drama therapy has a positive effect on minimizing depressive symptoms and improving QOL (Jaaniste et al., 2015; Keisari & Palgi, 2017; Lu et al., 2022). The model involved independent variables, including drama therapy and usual care, and dependent variables, represented in depressive symptoms and QOL. Thus, this conceptual model suggested that drama therapy has a positive effect on minimizing depressive symptoms and improving QOL among older adults in residential care facilities compared to usual care (Figure 9).

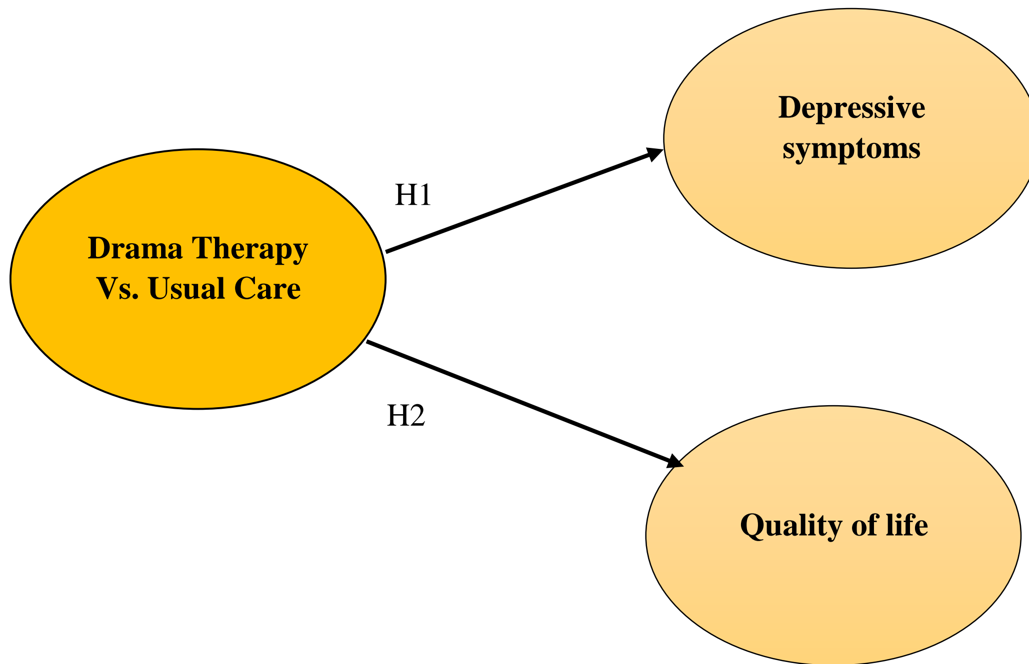

Figure 9. Conceptual framework of the study

Chapter Three

Methodology

This part includes the design of the study, setting, population and sample, measurement methods, intervention, procedures of data collection, ethical considerations, and data analysis.

3.1 DESIGN OF THE STUDY

A pre-posttest control group design was utilized to achieve this study. The participants of this study included older adults suffering from depressive symptoms and low QOL who are in residential care facilities in Israel. Those participants were categorized into two groups: the experimental group that received drama therapy and the control group that was provided with usual care.

3.2 SETTING

The residential care facilities in Israel were chosen to implement this study, these facilities provide the same usual care for older people including psychological services. Four centers were randomly selected, where two centers were assigned as the control group and another two centers were assigned as the experimental group. The experimental group included two centers which were Arbel Geriatric Center and Leon Recanati Nursing Home, while the control group included Ganei Gil Hzahav Hadera and Old Age Home Israel Mashadi Community.

Concerning the experimental group, Arbel Geriatric Center /Arbel Petach Tikva Nursing Home in Petah Tikva is located at Elkhanan Street 4, Petah Tikva Israel in a quiet and pleasant environment, close to shopping and cultural centers as well as public transportation lines. It was founded in 1973 and operates under the license and supervision of the Ministry of Health and operates approximately 217 beds and six

nursing wards. It has 217 inhabitants. The staff works every day with professionalism, harmony, and partnership, with each field bringing its best skills and abilities to provide the best comprehensive care. There is a team of about 150 employees employed in various professions, including doctors, nurses, nannies, physical therapists, occupational therapists, employment counselors, dieticians, social workers, cleaning, maintenance, kitchen, and management workers.

The caring staff at "Arbel" is committed to providing quality medical care while emphasizing a personal, warm, and caring attitude to all who come through its doors. Residents receive warm personal treatment and personalized care, under the supervision of a multidisciplinary team of experts in the field of geriatrics. Also, it provides social activities and classes, drawing, image therapy, ceramics, social games, therapeutic gardening, activity with animals, physical movement and sports, occupational therapy, physiotherapy, the meal that is supervised by an expert nutritionist in a spacious dining room, laundry services, doctor services, and others (Arbel Geriatric Center, 2023) (Figure 10).

Figure 10: Arbel Geriatric Center

Leon Recanati Nursing Home Petach Tikva is located at Albert Einstein Street 23 Petah Tikva. It is an integrated medical center for recovery, nursing, and QOL for the elderly. It enables the continuation of an active, vital, and happy urban lifestyle, in a relaxed atmosphere and a supportive environment. Recanati house**,** which includes sheltered housing, wards for the debilitated, and a nursing ward - has existed for over 60 years and is one of the cornerstones of nursing homes in Israel in general and in Petah Tikva in particular. It has 170 inhabitants. The home is supervised and licensed by the Ministry of Health (nursing department) and the Ministry of Welfare (departments for the debilitated). The staff is a professional and skilled team, warm and dedicated, attentive and available at all times to the inquiries of the residents and their families. The team consists of 130 employees including doctors and certified nurses, nurses and nursing assistants, physiotherapists, social workers, and occupational therapists**.**

The residents' rooms in the nursing home were planned and designed to provide the best medical and nursing care, without detracting from their comfort and well-being. All rooms are intended for a maximum of three inhabitants in the room, they are spacious, comfortable, and equipped with the best furniture and technology to maintain the comfort and safety of the tenants. The management of Moriah sees the encouragement of functional independence as a supreme value, which allows the residents to maintain a QOL and a sense of vitality, therefore it offers a wide variety of activities to strengthen and preserve mobility and enrich the mind and spirit in the elderly**.** Also, it provides social activities and classes, drawing, image therapy, ceramics, social games, therapeutic gardening, activity with animals, physical movement and sports, occupational therapy, physiotherapy, the meal that is supervised by an expert

nutritionist in a spacious dining room, laundry services, and doctor services (Leon Recanati Nursing Home, 2023) (Figure 11).

Figure 11: Leon Recanati Nursing Home

Concerning the control group, the Ganei Gil Hzahav Hadera center is located at Hillel Yaffe 20, Hadera. The place operates under the license and supervision of the Ministry of Health and was opened in 2019. It has five spacious wards and housing for about 180 inhabitants. This facility contains a professional team, such as doctors, nursing therapists, brothers and sisters, social workers, physiotherapists, occupational therapy experts, speech therapists, and more. The number of staff is 90 and the staff acts out of a mission and gives every resident security and careful attention. The staff is carefully selected and receives training from doctors and geriatric consultants to provide

optimal care to residents. There are different and invested activities in the place to provide the residents with a relaxed feeling, self-fulfillment, and maximum enjoyment, and this is in full accordance with their medical condition and their physical and medical abilities. The center provides warm and dedicated care to senior citizens, nursing home patients, and the mentally ill, and accepts privately funded residents as well as those eligible for Ministry of Health funding. It provides many services including advanced medical services (geriatrician), close nursing care, physiotherapy treatments, nutrition services, social services and psychology, and occupational therapy services to improve physical and cognitive abilities (Ganei Gil Hzahav Hadera, 2023) (Figure 12).

Figure 12: Ganei Gil Hzahav Hadera

Also, Old Age Home Israel Mashadi Community which is located at 106 Itzhak Ben Zvi Herzliya, 4639407 Israel. It was established in 1992 by the community of Mashhad expatriates and operates under the license of the Ministry of Health and the Ministry of Welfare and has 135 inhabitants. The house was designed and built to give its occupants a warm and pleasant home, a QOL, and a good place to live by a professional, skilled, kind, and dedicated team. The home provides medical services at the highest level, which include 24-hour medical supervision, medical examinations and treatments, preventive medicine, on-call mobile dentistry for dental treatments, diabetes care and monitoring, and drug delivery. The social service provides individual and group interventions, assistance in exercising rights, accompaniment, and support for all the needs of the resident's well-being.

The home also provides paramedical services involving physical therapy and occupational therapy. Welfare and psychological services are provided at home. Also, the nursing home has a multi-professional team available to the residents, which includes physical therapists, a social worker, an occupational therapist, employment counselors, a dietitian, and a communication therapist. In the wards, there are nurses regularly, alongside skilled nursing staff who accompany the residents and help them with treatment and functioning. The center provides creative activities, music, and movement, yoga, aromatherapy, sensory stimulation groups, therapeutic groups to improve the quality of life, therapeutic gardening, current affairs groups, a therapeutic animal petting class, resume writing, and much more (Old Age Home Israel Mashadi Community, 2023) (Figure 13).

Figure 13: Old Age Home Israel Mashadi Community,

3.3 POPULATION, SAMPLING, AND SAMPLE

The target population included older adults aged 65 years or more, and the older adults in the selected residential care facilities were an accessible population. A list of centers in all regions of Israel was generated, and the simple random sampling method was used to select four centers from the list. The choice of four centers is driven by practical implications, as conducting the study within a smaller number of centers allows for easier management and control of various factors, such as logistics, resources, and time constraints. From the four selected centers, a simple random sampling method was utilized to allocate two centers to the control group and two centers to the experimental group. The older adults in these centers who had the eligibility criteria were recruited in the current study.

The G* power analysis program version 3.0.10 was adopted to estimate sample size, where an effect size was 0.5 (based on previous literature), a probability was < 0.05, and a power was 0.85, with a t-test, thus, the required sample was 146 (73 participants in each group). Therefore, to avoid participants' dropout, the sample size was raised to 160 (80 in each group) The sample frame of this study is illustrated in Figure 14.

The inclusion criteria involved older adults aged 60 and more who suffer from mild and moderate depressive symptoms and lower QOL on preliminary assessment using the study questionnaire. The exclusion criteria involved older adults who a) experience any cognitive or mental health problems with a psychotic component based on elderly care facilities' reports and observations, b) received anti-depressant or psychotic treatment, c) suffered from severe depression because the severity may influence the participants' abilities to engage in this intervention therapy, and 4) diagnosed with diseases that lead to depression such as post-stroke, thyroid, chronic obstructive pulmonary disease, cancer or malignant tumor, and arthritis. Additionally, those who suffering from dementia were excluded. The dementia was screened by assessing the participants' medical records in residential care facilities.

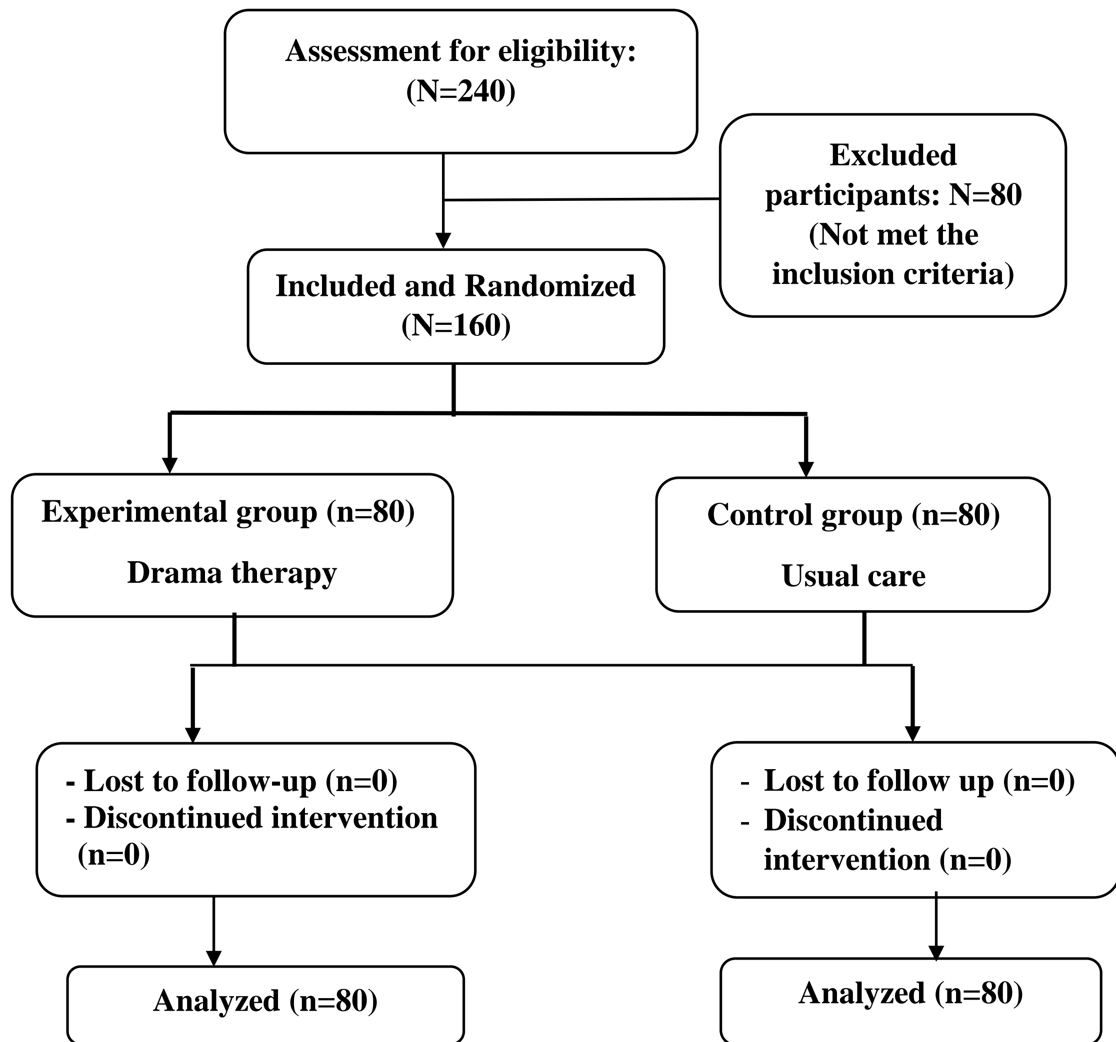

Figure 14: Sample frame of the study

3.4 STUDY MEASURES

A structured self-reporting questionnaire was used. The questionnaire included these measures: The Geriatric Depression Scale (GDS) and the World Health Organization Quality of Life (WHOQOL-Old-BREF), and a sheet contains socio-demographic data (e.g., sex, educational level, age, monthly income in dollars, marital status, and number of chronic diseases) (Appendix A).

A Geriatric Depression Scale (GDS) that consists of a 15-items was utilized to assess depressive symptoms during the past 7-day period adopting a yes/no response format (Appendix A). The scoring system for this scale was as follows: 0-4 (normal), 5-8 (mild depressive symptoms), 9-11 (moderate depressive symptoms), and 12-15 (severe depressive symptoms) (Sheikh & Yesavage, 1986). Also, the mean score was used to determine depressive symptoms level. This scale is valid (Herrmann et al., 1996) and reliable with Cronbach's alpha of 0.81 (Almeida & Almeida, 1999). The Hebrew version of this scale was utilized to collect data and it has validity and reliability, in which Cronbach’s alpha was 0.88 (Bentur & Heymann, 2020) (Appendix B). Additionally, Cronbach’s alpha was assessed for the Hebrew version in this study and was 0.88.

The WHOQOL-Old-BREF was created by the WHOQOL Group (WHOQOL Group, 1995) was used. It involves 24 items categorized into six subscales, in which each scale consists of four items. These subscales involve sensory abilities, autonomy, activities, social participation, death and dying, and intimacy. These items were answered on a 5-point Likert scale ranging from very poor/very dissatisfied/ not at all/ never = 1 to very good/very satisfied/very happy/extreme amount/ extremely/ completely = 5. There is a reverse for seven negatively phrased items, in which these negatively framed items were transformed into positively framed questions (Appendix A). The WHOQOL-Old manual was adopted for rating the total scale and each scale, in which the total scores ranged from 4 to 20, where higher results indicating a higher QOL (Power et al., 2005). The mean was used for calculating the scoring system of all scales, where a mean of < 12.00 indicates a low QOL and ≥ 12.00 reflects a high QOL.

The original WHOQOL-Old-BREF is valid and reliable with Cronbach's alpha from 0.84 to 0.90 (Peel & Bartlett, 2007; Gil-Lacruz et al., 2022).

Because Hebrew is the native language of the participants, thus, this tool was translated from English into Hebrew and then back-translated into English to attain accuracy (Appendix B). After that, the Hebrew translated version was evaluated by a Hebrew translator with a Ph.D. in Hebrew language. Then, content validity was evaluated using the content validity index (CVI). The CVI index was composed of four responses for each item in the scale, which were answered as follows: 1 (no relevance), 2 (somewhat relevant), 3 (relevance but needs to be modified slightly), and 4 (relevance) (Appendix C). This scale in addition to CVI was sent to three experts in psychology and geriatric care to evaluate the Hebrew version. After receiving the experts' responses, the CVI for the scale was calculated and was 1. This finding suggested the validity of this scale. After that, a pilot study was performed on older adults (N=10) who were excluded from the study to examine the clarity and understandability of the items. Then, reliability with internal consistency was assessed utilizing Cronbach's alpha on the pilot study participants and was 0.82, and for more accuracy, it was assessed on all participants and was 0.815. Also, the test-retest for the total scale was 0.926.

3.5 INTERVENTIONS AND DATA COLLECTION PROCEDURES

3.5.1 Interventions for Experimental and Control Groups

The intervention included drama therapy for the experimental group and usual care for the control group.

3.5.2 Drama Therapy as an Intervention for Experimental Group

The participants in the experimental group were exposed to drama therapy. This intervention was based on Chang et al. (2019) which composed of ten sessions of drama therapy that include sociometry, theatre games, mime, playback theatre, and mask projection, which involve storytelling, role-playing, creative writing exercises, extemporization, games, guided visualizations, play-acting, and puppetry.

Sociometry is used to assess the interpersonal relationships and interpersonal engagement or refusal in a group to identify the level of individual acceptance in that group, to find out existent relationships between persons, and to reveal the group structure itself (Chang et al., 2019). Theatre games help in constructing trust, expression, and implicit understanding and recognition of the group. This method includes relaxing the body, rhythmic the body, and releasing the body's energy during the rhythm. These games enhance body language, motivate groups, stimulate the sensory acuity of different bodies, and develop expressive body potential (Chang et al., 2019). It also involves movement and includes dance, which can be a strong form of self-expression that connects the body's wisdom and its instinctive healing ability.

Furthermore, mime consists of considering the body of participants as a clay sculpture. Drama sculpture possesses infinite probabilities of dramatic moments and verbalizations (Catherine & Suganthan, 2023; Chang, 2004). Mime can construct

significant scenes such as life situations, dreams, friends, and family (Change et al., 2019). It includes using sketches and proverbs.

Mask projection methods are used to assist participants in mirroring their personalities, social competencies, and other features, leading to the exploration of roles or situations. Role characters are created and the internal conflicts of various kinds of characters in the method of playing the roles of other people are expected to perform interpersonal psychological interactions (Chang et al., 2019). Playback theatre draws material from life situations and stories. This method utilizes fluid sculpture with a strong and fast rhythm to allow for catching simple feelings. Actors take turns showing one after the other when joining the stage by integrating into a “man-made statue” to pretend the feeling of the storyteller (Chang et al., 2019).

The study’s intervention was designed by an investigator who modified the original interventions to meet the study's purposes and participants' needs under the direction of a drama therapist. A drama therapist first assessed older adults’ needs, qualities, interests, and ability levels and considers techniques that could meet these needs. These designed activities in the intervention program were validated utilizing the content validity index (CVI) to assess the matching degree of these activities with the study purposes (Appendix D). The CVI was evaluated by asking three experts in psychology and sociology. The purposes, interventions, and the CVI form for evaluating the items related to the interventions were sent to experts by e-mail. After receiving the experts’ responses, the CVI revealed that interventions are clear, culturally acceptable, organized, and achieve study purposes.

The final drama therapy as the intervention composed of eight sessions as illustrated in Table 1 and was delivered over 2-3 months in the same residential care

facilities in the halls specified for this target. The participants were divided into groups, where each group consisted of 15- 20 participants who attended the sessions during the selected days of the week on an average of two times per week. Each group was engaged in all modalities through sessions. The duration of each session ranged between 3-4 hours, a total of 30 hours for all interventions. The intervention program was achieved by the drama therapist under the supervision of the investigator who observed the participants during all intervention sessions and guided any questions or interpretations. Additionally, feedback for 30 minutes was obtained from the participants at the end of each session, for example, participants expressed interest in this therapy which helped them to express their feelings and emotions properly and provided them with positive energy to adapt to any crisis. The intervention and data collection were completed over three months (September to December 2023). Figures 15-A, 15-B, 15-C, 15-D, 15-E, 15-F, 15-G, 15-H, 15-I, 15-J, 15-K, 15-L, 15-M, 15-N, 15-O, 15-P illustrate the intervention program for the experimental group.

Table 1. Intervention program for experimental group

Session and Duration	Theme & Duration	Activities	Objectives
2 (4 hours)	Storytelling	• Introduce a familiar and emotionally resonant story. Participants take turns retelling parts of the story.	• Encourage communication and social interaction. • Promote emotional expression through storytelling. • Connect participants with familiar themes and memories.

3 (3 hours)	Dramatic Play	• Participants use simple drama games with clothes to play hide and seek, express emotions, and enact non-verbal stories.	• Foster non-verbal communication and expression. • Allow participants to express emotions creatively. • Encourage engagement and immersion in dramatic experiences
4 (3 hours)	Group Dance	• Participants engage in a rhythmic and playful Lion Dance, using lion masks and fans, to chase away imaginary monsters.	• Cultivate a sense of joy attachment and playfulness in participants. • Provide an opportunity for attachment and shared group experiences. • Allow expression of emotions, such as anger, safely and creatively.
5 (4 hours)	Sharing individualized stories	• Individualized Stories: Each participant shares a personal story or memory. Group members provide support and validation.	• Promote individual expression and validation of experiences. • Strengthen group cohesion through sharing and listening. • Boost self-esteem and self-worth through recognition and validation.

6 (4 hours)	Role-playing	• Participants engage in role-plays to explore emotions and conflicts related to life experiences.	• Facilitate emotional expression and processing through role-play. • Encourage participants to explore emotions and conflicts in a safe environment. • Foster empathy and understanding among group members.
7 (4 hours)	Cultural celebration	• Participants engage in a celebration of different cultural elements, such as music, dance, or traditional	• Integrate elements of cultural significance to enhance engagement.

		stories.	• Promote a sense of identity and belonging through cultural celebration. • Offer opportunities for creative expression and learning about diverse cultures.
8 (4 hours)	Group Reflection and Closure	• Participants share their feelings and insights gained from the drama therapy program.	• Encourage participants to reflect on their experiences and emotions throughout the sessions. • Validate and acknowledge the personal growth and changes observed. • Provide closure to the drama therapy program.

Figure15-A: Intervention program for experimental group

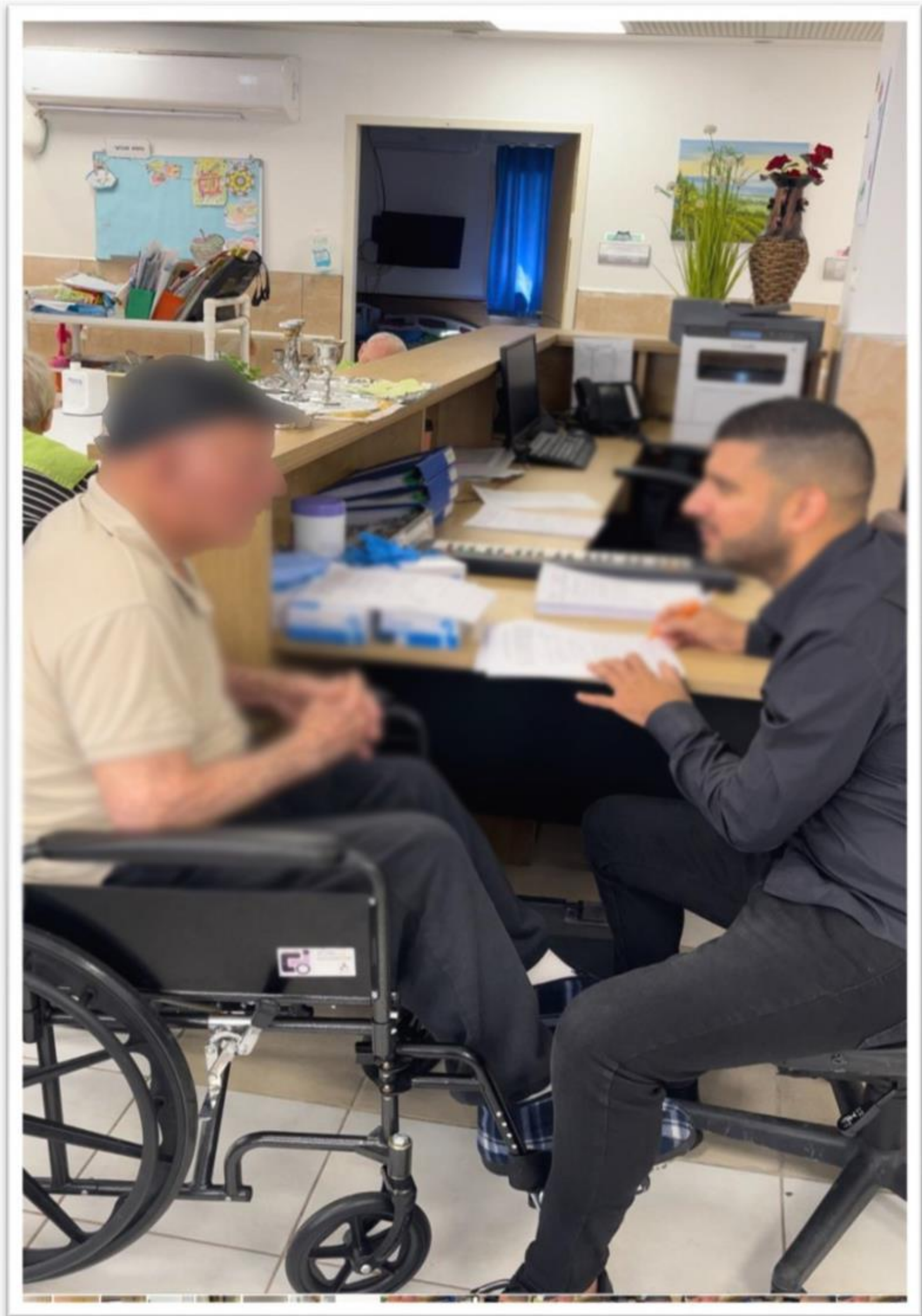

Figure 15-B: Intervention program for experimental group

Figure 15-C: Intervention program for experimental group

Figure 15-D: Intervention program for experimental group

Figure 15-E: Intervention program for experimental group

Figure 15-F: Intervention program for experimental group

Figure 15-G: Intervention program for experimental group

Figure 15-H: Intervention program for experimental group

Figure 15-I: Intervention program for experimental group

Figure 15-J: Intervention program for experimental group

Figure 15-K: Intervention program for experimental group

Figure 15-L: Intervention program for experimental group

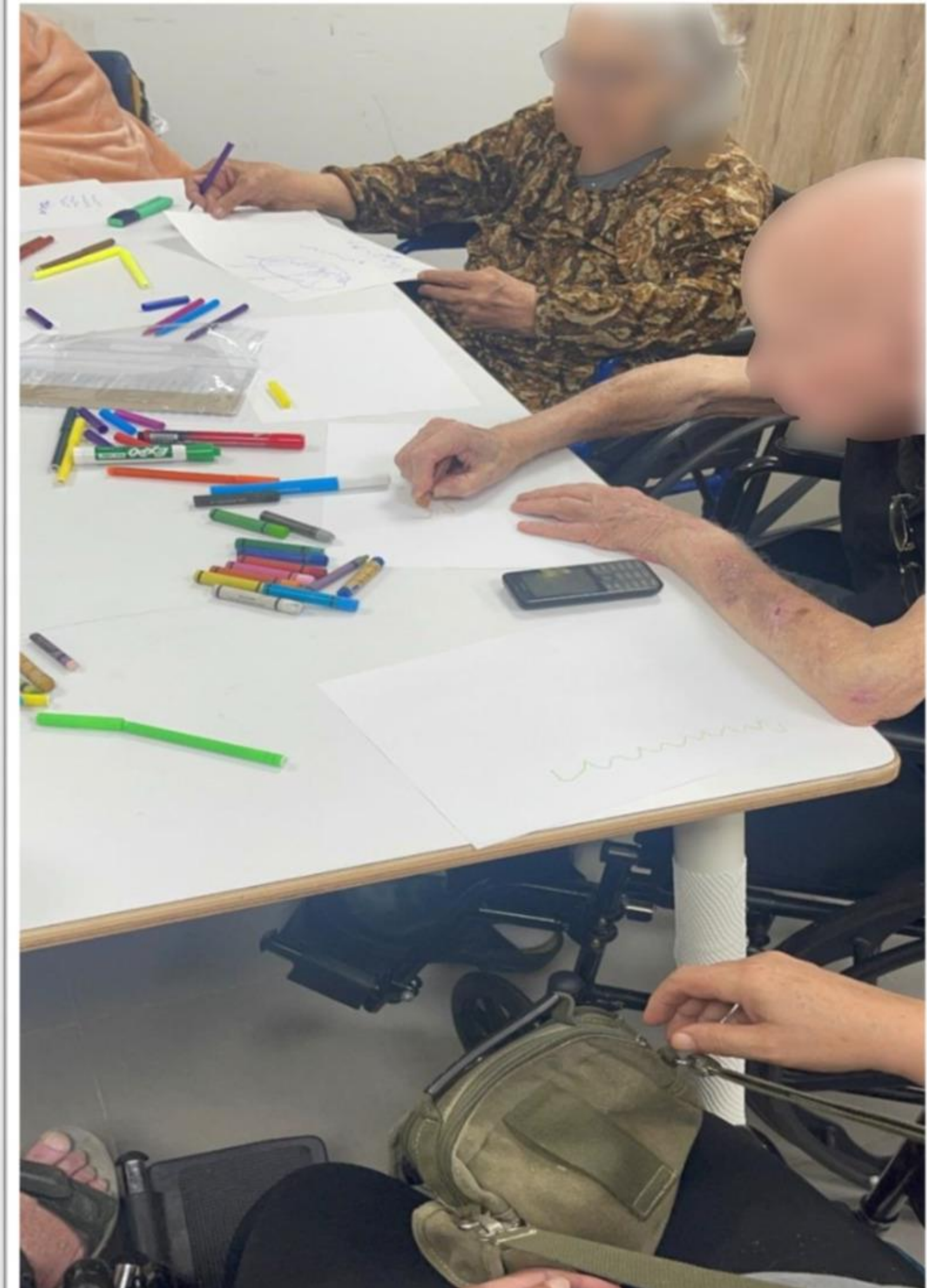

Figure 15-M: Intervention program for experimental group

Figure 15-N: Intervention program for experimental group

Figure 15-O: Intervention program for experimental group

Figure 15-P: Intervention program for experimental group

3.6 USUAL CARE AS AN INTERVENTION FOR CONTROL GROUP

Concerning the control group, the participants received the usual care provided in the residential care facilities. This care included social and psychology services (e.g., guidance and counseling by social workers), and occupational therapy (to enhance physical and cognitive abilities).

3.7 DATA COLLECTION PROCEDURES

In the beginning, the selected residential care facilities were contacted by the researcher who met the managers and explained the aims and intervention therapies related to this study. Then, a list of all registered older adults was provided to the researcher. Also, before the recruitment of older adults, they were informed of the purposes and implementation of the intervention program and they were contacted to obtain their agreement to engage in the study. Then, the participants signed the informed consent (Appendix E).

After that, a preliminary assessment was conducted on the sample consisting of 240 participants to evaluate the levels of depressive symptoms and QOL and to identify the eligible older adults. As a result, the questionnaires were distributed and the interview was performed by the investigator for the participants who had difficulty in writing. Then, these questionnaires were analyzed to identify older adults who experienced mild and moderate depressive symptoms and low QOL. Then, the eligible older adults who agreed to participate were distributed into two groups (experimental or control) according to their facilities. Once the eligible older adults were randomly distributed into two groups, the control and experimental groups were assembled. The experimental group provided written information about the time and sessions of the intervention.

Post-test was assessed using the same questionnaire at the end of all sessions after the intervention to evaluate the effect of drama therapy on the experimental group and usual care on the control group.

To prevent contamination between the control and experimental groups, this study was implemented in the following two phases:

- Phase I: The control group participated in the usual care that was provided by the residential care facilities. After completing the study, the investigator assessed the participants of the control group using the same questionnaire pre-intervention.
- Phase II: The experimental group received drama therapy. After completing the intervention, the participants in the experimental group were assessed using the same questionnaire as the control group pre-intervention.
- For ethical considerations, the control group was exposed to some sessions of drama therapy after completion of the study.

3.8 ETHICAL CONSIDERATIONS

The approval to conduct the current study was gained from the Institutional Review Board (IRB) at Arab American University in Palestine (Appendix F). Also, approval was obtained from the managers of selected residential care facilities (Appendix G). Written informed consent was gained from the participants. After acquiring permission, the study aims and intervention was discussed with the participants who were guaranteed confidentiality. Participation was voluntary, therefore, the participants could withdraw during any time of the study without any advantage or harm related to their participation. Also, the control group was exposed to some

sessions of drama therapy to avoid any discrimination. All the information was kept in a physically secured coded computerized file, where a password was used and kept with the researcher.

3.9 DATA ANALYSIS

The Statistical Package for the Social Sciences (SPSS) version 26 software was adopted for entering and analyzing the data. Data were analyzed using descriptive and inferential statistics, where descriptive statistics (e.g., number, frequency, mean, and standard deviation) were utilized to explain the sociodemographic variables of the subjects. Inferential statistics including Chi-square (X^2 and t-tests were utilized to examine differences between study groups and the effectiveness of independent variables on dep. Furthermore, for examining the homogeneity, Levene's test of equality of error variances was utilized. The level of significance was determined at a p-value of ≤ 0.05.

The pretest assessed the homogeneity of the sample characteristics between the control and experimental groups using t-tests and chi-squares. Additionally, the equality of error variances test of Levene's test was performed. Regarding demographic characteristics, the findings revealed that the Chi-squares showed no differences between both groups regarding sex ($X^2_{(158)} = 0.041$, $p > 0.05$), educational level ($X^2_{(158)} = 3.599$, $p > 0.05$), marital status ($X^2_{(158)} = 2.671$, $p > 0.05$), and number of chronic diseases ($X^2_{(158)} = 1.201$, $p > 0.05$). Also, the t-test demonstrated no significant differences in the mean of age ($t_{(158)} = -0.093$, $p > 0.05$) and monthly income ($t_{(158)}) = 0.754$, $p > 0.05$) (Table 2).

The independent sample t-tests examined differences in depressive symptoms and QOL between the two groups. Also, a paired-t-test was used to assess the

differences between the same group before and after intervention. The assumptions of normalcy were examined and found to be met. The homogeneity of variances between the two groups was assessed using Levine's test to validate the second assumption. There was no significant violation of the equal variance assumption, and there were no significant group variances in depressive symptoms and QOL according to the findings of Levene's tests ($F_{(158)} = 0.887$, $p > 0.05$; $F_{(158)} = 3.321$, $p > 0.05$), respectively. The third assumption of mutual exclusivity was satisfied, there were no differences between the two groups ($t_{(158)} = 1.701$, $p > 0.05$; $t_{(158)} = 0.353$, $p > 0.05$), respectively (Table 2).

Table 2: Comparison between study variables among control and experimental groups at pre-intervention (N= 160, Control n=80, Experimental n=80)

Characteristic	Categories	Control group n (%)	Experimental group n (%)	Chi-square	p-value
Sex	Male	35 (43.8)	31 (38.8)	0.041	0.841
	Female	45 (56.3)	49 (61.3)		
Educational level	Less than secondary	36 (45.0)	32 (39.2)	3.599	0.060
	Secondary and higher	44 (55.0)	48 (60.8)		
Marital status	Single	14 (17.5)	16 (20.3)	2.671	0.976
	Married	19 (23.8)	20 (25.3)		
	Divorce	16 (20.0)	14 (17.5)		
	Widow	31 (38.3)	30 (37.5)		
Number of chronic diseases	One disease	6 (7.5)	5 (6.2)	1.201	0.273
	More than one	74 (92.5)	75 (93.8)		
		Mean (SD)	Mean (SD)	t-test	p-value
Age/ Years		75.25 (7.90)	75.13 (8.03)	-0.093	0.926
Monthly income ($)		1395.5(654.83)	1465 (501.03)	0.754	0.452
Depressive symptoms		6.84 (1.55)	7.23 (1.41)	1.701	0.091
Quality of life		10.55(0.93)	10.29 (0.77)	-1.911	0.059

M: Mean; SD: Standard Deviation; N/n: number; %: percentage; $: Dollar
* p: significant at the ≤ 0.05 level

3.10 SUMMARY

A pre-posttest equivalent control group design was utilized to perform this study. The older adults in residential care facilities were randomly selected and assigned to control and experimental groups. A preliminary assessment was performed to recruit eligible participants. Both groups filled out the questionnaire involving depressive symptoms and QOL, in addition to demographic data. Dram therapy intervention was provided to the experimental group and included eight sessions, each session lasted from 3 to 4 hours, a total of 30 hours. While the control group received the usual care. After completing the intervention, both groups completed the same set of pre-test questionnaires.

SPSS version 26 was utilized for entry and analysis of the data. Descriptive and inferential statistics were used to analyze the data and examine the differences between the group's pre and post-intervention. The homogeneity of both groups was evaluated through the utilization of Levene's test of equality of error variances, chi-square analysis, and t-test. The $p \leq 0.05$ was considered as a level of significance.

Chapter Four

Results

This part presents the results of the study depending on the study questions and hypothesis. It involves an illustration of the participants' features and the study variables. The impact of the interventions on the control and experimental group's depressive symptoms and QOL.

4.1 STUDY PARTICIPANTS' CHARACTERISTICS

This study included a total of 160 older adults in residential care facilities. All of the participants completed the study. The results showed that the mean age of the participants was 75.19 years (SD= 8.08). More than half of the participants were females (58.8%) and 57.5% had secondary education or higher. Furthermore, more than one-third (38.1%) of the older adults were divorced. Most of the participants (93.1%) had more than one disease. The mean monthly income was 1407.13 $ (SD= 548.80) as indicated in Table 3.

Table 3: Demographic characteristics of the participants (N=160)

Characteristic	Categories	n	%
Sex	Male	66	41.2
	Female	94	58.8
Educational level	Less than secondary	68	42.5
	Secondary and higher	92	57.5
Marital status	Single	30	18.8
	Married	39	24.3
	Divorce	30	18.8
	Widow	61	38.1
Number of chronic diseases	One disease	11	6.9
	More than one	149	93.1
	Mean (SD)		
Age/years	75.19 (8.08)		
Monthly income ($)	1407.13 (548.80)		

M: Mean; SD: Standard Deviation; N/n: number; %: percentage; $: Dollar

4.2 RESEARCH HYPOTHESES

4.2.1 Study Hypothesis One:

The older adults in residential care facilities who engage in drama therapy will endorse minimizing depressive symptoms more than those who receive usual care.

As shown in Table 4, the total mean of depressive symptoms among the control group at pre-intervention was 6.84 (SD= 1.55), reflecting a mild level of depressive symptoms. While, the total mean of depressive symptoms at post-intervention was 6.78 (SD= 1.46), indicating a mild level of depressive symptoms. A paired t-test was utilized to examine the differences in mean depressive symptoms scores between the control group before and after intervention, the findings revealed that no significant difference between the control group at pre-post intervention ($t_{(79)} = 0.552$, $p > 0.05$).

Table 4: Comparison between control group in depressive symptoms at pre-post intervention: Paired t-test

Phase	Depressive symptoms				
	n	M (SD)	95% CI	Test statistics	
				t-test	p-value
Pre-intervention	80	6.84 (1.55)	-0.130- 0.230	0.552	0.582
Post-intervention	80	6.78 (1.46)			

M: Mean; SD: Standard Deviation
p-value: *significant at ≤ 0.05; ** Significant at ≤ 0.01
CI: Confidence Interval

Table 5 shows that the total mean of depressive symptoms among the experimental group at pre-intervention was 7.23 (SD= 1.41), reflecting a mild level of depressive symptoms. While, the total mean of depressive symptoms at post-intervention was 5.64 (SD= 1.58), indicating a mild level of depressive symptoms. A paired t-test was adopted to assess the differences in mean depressive symptoms scores

between the experimental group before and after intervention, the results revealed that there was a significant difference between the experimental group at pre-post intervention ($t_{(79)}$ =12.102, $p < 0.01$).

Table 5: Comparison between experimental group in depressive symptoms at pre-post intervention: Paired t-test

Phase	Depressive symptoms				
				Test statistics	
	n	M (SD)	95% CI	t-test	p-value
Pre-intervention	80	7.23 (1.41)	1.483-2.066	12.102	0.000**
Post-intervention	80	5.46 (1.58)			

M: Mean; SD: Standard Deviation
p-value: *significant at ≤ 0.05; ** Significant at ≤ 0.01
CI: Confidence Interval

An independent sample t-test was adopted to examine the difference in the mean depressive symptoms scores between the control and experimental groups at pre and post-intervention. The findings revealed that there was no significant difference in depressive symptoms mean scores between both groups at pre-intervention ($t_{(158)}$ =1.701, $p > 0.05$). In post-intervention, the mean score related to depressive symptoms in experimental group (M = 5.46, SD = 1.58) was lower than the mean score in control group (M = 6.78, SD = 1.46). Also, a significant difference in was showed in depressive symptoms mean scores between both groups at post-intervention ($t_{(158)}$ = -5.496, $p < 0.001$). This finding proves the first hypothesis that drama therapy minimized depressive symptoms more than usual care among older adults in residential care facilities (Table 6) and Figure 16.

Table 6: Comparison between control and experimental groups in depressive symptoms at pre-post intervention: Independent t-test

Phase and group	Depressive symptoms				
	n	M (SD)	95% CI	Test statistics	
				t-test	p-value
Pre-intervention:				1.701	0.091
Control group	80	6.84 (1.55)	-0.064 - 0.864		
Experimental group	80	7.23 (1.41)			
Post-intervention:				-5.496	0.000
Control group	80	6.78 (1.46)	-1.801- -0.849		
Experimental group	80	5.46 (1.58)			

M: Mean; SD: Standard Deviation
p-value: *significant at ≤ 0.05; ** Significant at ≤ 0.01
CI: Confidence Interval

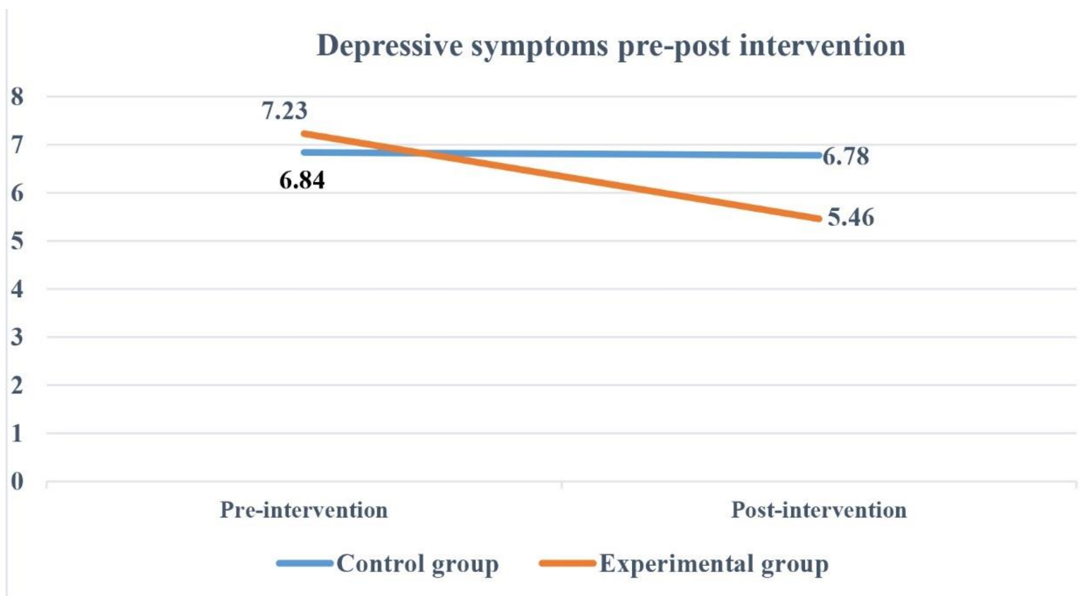

Figure 16: The mean scores of depressive symptoms pre-post intervention between the control and experimental groups

4.2.2 Study Hypothesis Two:
The older adults in residential care facilities who will engage in drama therapy will endorse improving their quality of life more than those who receive usual care.

Table 7 reveals that the total mean of QOL among the control group at pre-intervention was 10.55 (SD= 0.93), reflecting a poor level of QOL. While, the total mean of QOL at post-intervention was 10.63 (SD= 0.94), indicating a poor level of QOL. A paired t-test was adopted to assess the differences in the mean of QOL scores between the control group pre and post-intervention, the results revealed that there was a significant difference between the control group at pre-post intervention ($t_{(79)}$ = - 2.271, $p < 0.05$).

Table 7: Comparison between control group in quality of life at pre-post intervention: Paired t-test

Phase	Quality of life				
				Test statistics	
	n	M (SD)	95% CI	t-test	p-value
Pre-intervention	80	10.55(0.93)	-0.160- -0.010	-2.271	0.026*
Post-intervention	80	10.63 (0.94)			

M: Mean; SD: Standard Deviation
p-value: *significant at ≤ 0.05; ** Significant at ≤ 0.01
CI: Confidence Interval

As shown in Table 8, the total mean of QOL among the experimental group at pre-intervention was 10.29 (SD= 0.77), reflecting a poor level of QOL. While, the total mean of QOL at post-intervention was 12.64 (SD= 0.89), indicating a high level of QOL. A paired t-test was adopted to evaluate the differences in the mean of QOL scores between the experimental group before and after intervention, the findings showed that a significant difference was demonstrated between the control group before and after intervention ($t_{(79)}$ = -17.631, $p < 0.001$).

Table 8: Comparison between experimental group in quality of life at pre-post intervention: Paired t-test

Phase	Quality of Life				
				Test statistics	
	n	M (SD)	95% CI	t-test	p-value
Pre-intervention Post-intervention	80 80	10.29 (0.77) 12.64 (0.89)	-2.610- -2.081	-17.631	0.000**

M: Mean; SD: Standard Deviation
p-value: *significant at ≤ 0.05; ** Significant at ≤ 0.01
CI: Confidence Interval

Table 9 illustrates that no statistically significant difference was noticed in QOL between the control and experimental groups before intervention ($t_{(158)} = -1.911$, $p > 0.05$) using an independent t-test. In post-intervention, the mean score related to QOL in experimental group (M = 12.64, SD = 0.89) was higher than the mean score in control group (M = 10.63, SD = 0.94). Also, a statistically significant difference was found between the control and experimental groups in QOL at post-intervention ($t_{(158)} = 13.784$, $p < 0.001$). These findings indicated that drama therapy was more effective in improving QOL than the usual care, which accepted hypothesis two. Also, Figure 17 explains the QOL pre-post intervention among both groups.

Table 9: Comparison between control and experimental groups in quality of life at pre-post intervention: Independent t-test

Phase and group	Quality of Life				
				Test statistics	
	n	M (SD)	95% CI	t-test	p-value
Pre-intervention: Control group Experimental group	 80 80	 10.55(0.93) 10.29 (0.77)	 -0.525 - 0.008	-1.911	0.059
Post-intervention: Control group Experimental group	 80 80	 10.63 (0.94) 12.64 (0.89)	 1.715 - 2.288	13.784	0.000

M: Mean; SD: Standard Deviation

p-value: *significant at ≤ 0.05; ** Significant at ≤ 0.01

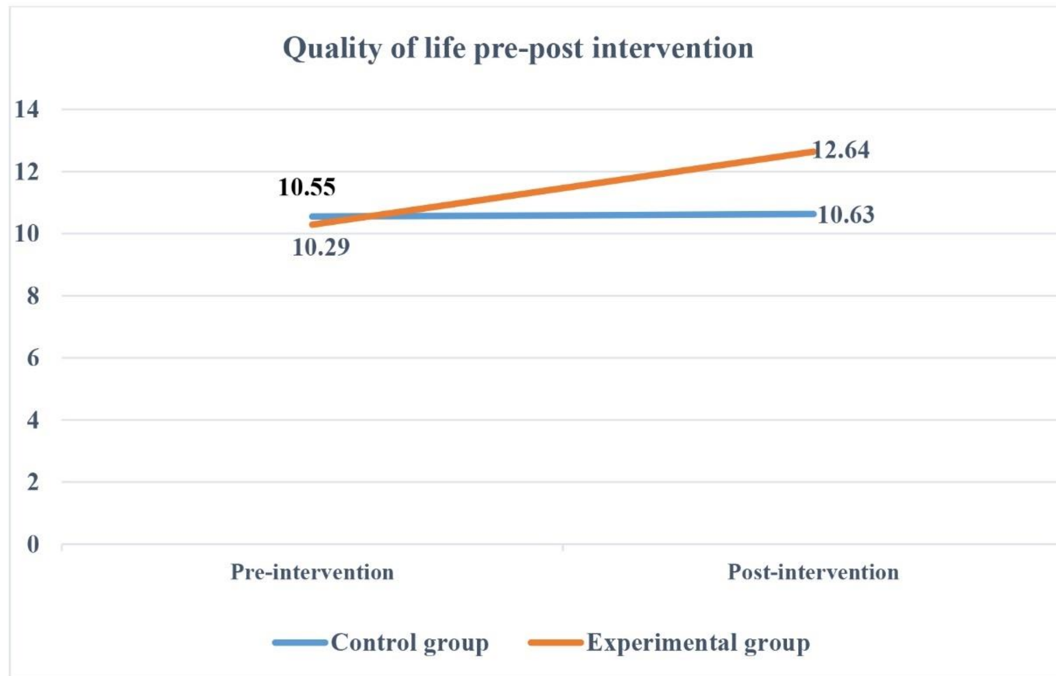

Figure 17: The mean scores of quality of life pre-post intervention between The control and experimental groups

As shown in Table 10, the total means of QOL subscales among the control group at pre-intervention varied between high and low. The subscales that revealed high means and levels of QOL were sensory abilities (M= 14.05, SD= 3.61), autonomy (M= 12.43, SD= 2.67), and activities (M= 12.58, SD= 1.94). While, the subscales that demonstrated low means and levels of QOL were social participation (M= 8.06, SD= 1.70), death and dying (M= 7.96, SD= 1.78), and intimacy (M= 8.20, SD= 1.63). Also, there was an improvement in post-intervention in the mean scores of the subscales that had low levels but still low, and the other subscales had high mean scores and high levels. A paired t-test was utilized to examine the differences in the mean of QOL subscales between the control group pre and post-intervention, the findings illustrated

that there were significant differences in the sensory abilities subscale ($t_{(79)} = - 2.396$, $p < 0.05$) and death and dying ($t_{(79)} = - 8.890$, $p < 0.001$).

Table 10: Comparison between control group in quality of life subscales at pre-post intervention: Paired t-test

Items	Sensory abilities				
				Test statistics	
	n	M (SD)	95% CI	t-test	p-value
Pre-intervention Post-intervention	80 80	14.05 (3.61) 14.42 (3.80)	-0.686- -0.063	-2.396	0.019*
	Autonomy				
Pre-intervention Post-intervention	80 80	12.43 (2.67) 12.31 (2.52)	-0.042- 0.292	1.485	0.141
	Activities				
Pre-intervention Post-intervention	80 80	12.58 (1.94) 12.42 (1.77)	-0.005- 0.330	1.928	0.057
	Social participation				
Pre-intervention Post-intervention	80 80	8.06 (1.70) 8.20 (1.75)	-0.278- 0.003	-1.948	0.055
	Death and dying				
Pre-intervention Post-intervention	80 80	7.96 (1.78) 10.75 (2.54)	-3.411- -2.163	-8.890	0.000**
	Intimacy				
Pre-intervention Post-intervention	80 80	8.20 (1.63) 8.35 (1.59)	-0.300-0.001	-1.982	0.053

M: Mean; SD: Standard Deviation
p-value: *significant at ≤ 0.05; ** Significant at ≤ 0.01
CI: Confidence Interval

Table 11 shows that the total means of QOL subscales among the experimental group at pre-intervention varied between high and low. The subscales that revealed high means and levels of QOL were sensory abilities (M= 13.15, SD= 3.05), autonomy (M= 12.11, SD= 1.75), and activities (M= 12.50, SD= 1.76). While, the subscales that showed low means and levels of QOL were social participation (M= 8.15, SD= 1.51), death and dying (M= 7.87, SD = 1.47), and intimacy (M= 7.96, SD= 1.73). Also, there

was an improvement in post-intervention in the mean scores of all subscales, however, the subscales that had low levels in pre-intervention still low, and the other subscales were still had high mean scores. A paired t-test was utilized to examine the differences in the mean of QOL subscales between the experimental group pre and post-intervention, the findings revealed significant differences existed in all subscales ($p < 0.001$).

Table 11: Comparison between experimental group in quality of life subscales at pre-post intervention: Paired t-test

Items	Sensory abilities				
				Test statistics	
	n	M (SD)	95% CI	t-test	p-value
Pre-intervention Post-intervention	80 80	13.15 (3.05) 15.85 (2.51)	-3.503 - -1.897	-6.699	0.000**
	Autonomy				
Pre-intervention Post-intervention	80 80	12.11 (1.75) 13.61 (1.94)	-2.027- -0.972	-5.659	0.000**
	Activities				
Pre-intervention Post-intervention	80 80	12.50 (1.76) 13.86 (1.59)	-1.940 - -0.784	-4.694	0.000**
	Social participation				
Pre-intervention Post-intervention	80 80	8.15 (1.51) 11.43 (1.97)	-3.818- -2.756	-12.315	0.000**
	Death and dying				
Pre-intervention Post-intervention	80 80	7.87 (1.47) 10.75 (2.54)	-3.555- -2.194	-8.409	0.000**
	Intimacy				
Pre-intervention Post-intervention	80 80	7.96 (1.73) 10.31 (2.31)	-2.987- -1.712	-7.338	0.000**

M: Mean; SD: Standard Deviation
p-value: *significant at ≤ 0.05; ** Significant at ≤ 0.01
CI: Confidence Interval

An independent sample t-test was utilized to assess the difference in the mean scores of the sensory abilities subscale of QOL between the control and experimental groups at pre and post-intervention. The findings revealed that there was no significant

difference in sensory abilities mean scores between both groups at pre-intervention ($t_{(158)} = -1.700$, $p > 0.05$). In post-intervention, the mean score related to the sensory abilities subscale in experimental group (M = 15.85, SD = 2.51) was higher than the mean score in control group (M = 14.43, SD = 3.80). Also, a significant difference was revealed in sensory abilities subscale mean scores between both groups at post-intervention ($t_{(158)} = 2.794$, $p < 0.01$) (Table 12).

Table 12: Comparison between control and experimental groups in sensory abilities subscale of quality of life at pre-post intervention: Independent t-test

Phase and group	Sensory abilities				
	n	M (SD)	95% CI	Test statistics	
				t-test	p-value
Pre-intervention:			-1.945- 0.145	-1.700	0.091
Control group	80	14.05 (3.31)			
Experimental group	80	13.15 (3.05)			
Post-intervention:			0.418- 2.432	2.794	0.006**
Control group	80	14.43 (3.80)			
Experimental group	80	15.85 (2.51)			

M: Mean; SD: Standard Deviation
p-value: *significant at ≤ 0.05; ** Significant at ≤ 0.01
CI: Confidence Interval

Table 13 represents the difference in the mean scores of the autonomy subscale of QOL between the control and experimental groups was assessed using an independent sample t-test pre and post-intervention. The findings revealed that there was no significant difference in autonomy mean scores between both groups at pre-intervention ($t_{(158)} = -0.910$, $p > 0.05$). In post-intervention, the mean score related to the autonomy subscale in experimental group (M = 13.61, SD = 1.941) was higher than the mean score in control group (M = 12.31, SD = 2.52). Also, a significant difference

was demonstrated in autonomy subscale mean scores between both groups at post-intervention ($t_{(158)} = 3.649$, $p < 0.001$).

Table 13: Comparison between control and experimental groups in autonomy subscale of quality of life at pre-post intervention: Independent t-test

Phase and group	Autonomy				
	n	M (SD)	95% CI	Test statistics	
				t-test	p-value
Pre-intervention:			-1.030- 0.380	-0.910	0.364
Control group	80	12.44 (2.67)			
Experimental group	80	12.11 (1.75)			
Post-intervention:			0.596- 2.004	3.649	0.000**
Control group	80	12.31 (2.52)			
Experimental group	80	13.61 (1.94)			

M: Mean; SD: Standard Deviation
p-value: *significant at ≤ 0.05; ** Significant at ≤ 0.01
CI: Confidence Interval

As shown in Table 14, an independent sample t-test was used to assess the difference in the mean scores of the activities subscale of QOL between the control and experimental groups at pre and post-intervention. The results showed that there was no significant difference in activities mean scores between both groups at pre-intervention ($t_{(158)} = -0.298$, $p > 0.05$). In post-intervention, the mean score related to the activities subscale in experimental group (M = 13.86, SD = 1.59) was higher than the mean score in control group (M = 12.43, SD = 1.77). Also, a significant difference was demonstrated in activities subscale mean scores between both groups at post-intervention ($t_{(158)} = 5.393$, $p < 0.001$).

Table 14: Comparison between control and experimental groups in activities subscale of quality of life at pre-post intervention: Independent t-test

Phase and group	Activities				
	n	M (SD)	95% CI	Test statistics	
				t-test	p-value
Pre-intervention:			-0.667- 0.492	-0.298	0.766
Control group	80	12.59 (1.94)			
Experimental group	80	12.50 (1.765)			
Post-intervention:			0.911- 1.967	5.393	0.000**
Control group	80	12.43 (1.77)			
Experimental group	80	13.86 (1.59)			

M: Mean; SD: Standard Deviation
p-value: *significant at ≤ 0.05; ** Significant at ≤ 0.01
CI: Confidence Interval

Table 15 shows that the findings revealed no statistically significant difference in social participation subscale between the control and experimental groups in pre-intervention ($t_{(158)} = 0.343$, $p > 0.05$). In post-intervention, the mean score related to the social participation subscale in experimental group (M = 11.44, SD = 1.98) was higher than the mean score in control group (M = 8.20, SD =1.75). On the other hand, a statistically significant difference was found between the control and experimental groups in social participation in post-intervention ($t_{(158)} = 10.950$, $p < 0.001$).

Table 15: Comparison between the control and experimental groups in social participation subscale of quality of life at pre-post intervention: Independent t-test

Phase and group	Social participation				
	n	M (SD)	95% CI	Test statistics	
				t-test	p-value
Pre-intervention:			-0.416- 0.591	0.343	0.732
Control group	80	8.06 (1.709)			
Experimental group	80	8.15 (1.510)			
Post-intervention:			2.654- 3.821	10.950	0.000**
Control group	80	8.20 (1.75)			
Experimental group	80	11.44 (1.98)			

M: Mean; SD: Standard Deviation
p-value: *significant at ≤ 0.05; ** Significant at ≤ 0.01
CI: Confidence Interval

An independent t-test was used to examine the difference in the mean scores of the death and dying subscale of QOL between the control and experimental groups at pre and post-intervention. The findings revealed that there was no significant difference in the death and dying subscale of QOL mean scores between both groups at pre-intervention ($t_{(158)} = -0.338$, $p > 0.05$). In post-intervention, the mean score related to the death and dying subscale in experimental group (M = 10.75, SD = 2.54) was higher than the mean score in control group (M = 8.10, SD = 1.68). Also, a significant difference was noticed in sensory abilities subscale mean scores between both groups at post-intervention ($t_{(158)} = 7.754$, $p < 0.001$) (Table 12).

Table 16: Comparison between the control and experimental groups in death and dying subscale of quality of life at pre-post intervention: Independent t-test

Phase and group	Death and dying				
	n	M (SD)	95% CI	Test statistics	
				t-test	p-value
Pre-intervention:			-0.599- 0.424	-0.338	0.736
Control group	80	7.96 (1.78)			
Experimental group	80	7.88 (1.47)			
Post-intervention:			1.975- 3.325	7.754	0.000**
Control group	80	8.10 (1.68)			
Experimental group	80	10.75 (2.54)			

M: Mean; SD: Standard Deviation
p-value: *significant at ≤ 0.05; ** Significant at ≤ 0.01
CI: Confidence Interval

Table 17 illustrates that the findings revealed no statistically significant difference in the intimacy subscale between the control and experimental groups in pre-intervention ($t_{(158)} = -0.890.343$, $p > 0.05$). In post-intervention, the mean score related to the social participation subscale in experimental group (M = 10.31, SD = 2.31) was higher than the mean score in control group (M = 8.35, SD = 1.59). On the other hand, a statistically significant difference was found between the control and experimental groups in social participation in post-intervention ($t_{(158)} = 6.249$, $p < 0.001$).

Table 17: Comparison between the control and experimental groups in intimacy subscale of quality of life at pre-post intervention: Independent t-test

Phase and group	Intimacy				
				Test statistics	
	n	M (SD)	95% CI	t-test	p-value
Pre-intervention:			-0.764 – 0.289	-0.890	0.375
Control group	80	8.20 (1.63)			
Experimental group	80	7.96 (1.73)			
Post-intervention:			1.342- 2.583	6.249	0.000**
Control group	80	8.35 (1.59)			
Experimental group	80	10.31 (2.31)			

M: Mean; SD: Standard Deviation
p-value: *significant at ≤ 0.05; ** Significant at ≤ 0.01
CI: Confidence Interval

4.3 SUMMARY

The findings revealed that the older adults in the control and experimental groups had mild depressive symptoms and low QOL before intervention (drama therapy and usual care). After the intervention, the experimental and control groups endorsed minimizing depressive symptoms and improvement of QOL, but the experimental groups had better results in comparison with the control group.

Significant differences were found in depressive symptoms and QOL between the two groups post-intervention ($p < 0.001$). The findings proved the effectiveness of drama therapy in minimizing depressive symptoms and improving QOL in comparison with usual care.

Chapter Five

Discussion

This chapter presents a discussion of the results, conclusion, strengths and limitations, implications, and recommendations.

5.1 DISCUSSION OF THE RESULTS

5.1.1 Effect of Drama Therapy on Depressive Symptoms among Older Adults in Residential Care Facilities

This study demonstrated This study hypothesized that older adults in residential care facilities would have reduced levels of depressive symptoms after attending eight sessions of drama therapy. The findings showed that drama therapy affected the lowering of depressive symptoms, which are similar to previous studies (Keisari & Palgi, 2017; Keisari et al., 2022; Lin et al., 2022). Drama therapy is effective in managing depressive symptoms (Armstrong et al., 2019; Jiang et al., 2023). It can alleviate the suppressed emotions of older adults and add bodily vitality while providing them the energy to share feelings with others (Keisar, 2021).

This study suggested that depressive symptoms were improved among older adults in post-intervention compared to pre-intervention in both groups. However, the experimental group had higher improvement in depressive symptoms compared to control group. This improvement could be related to application of various drama therapy strategies. Drama therapy takes a unique perspective by utilizing drama techniques, involving improvisations, role-playing, using puppets, story-telling, acting out stories, and theater games (Orkibi & Feniger-schaal, 2019). It is an active, empirical

form of creative therapy that can help a person obtain self-confidence and investigate new skills of problem-solving (Berghs et al., 2022; Orkibi & Feniger-schaal, 2019).

Older adults suffer from many changes that influence their psychological and mental health such as coping with chronic diseases, retirement, separation, and losing a significant person (Maresova et al., 2019; Reynolds et al., 2022). They can adapt to these changes in different ways, such as feelings of grief, loneliness, and isolation, which lead to depressive symptoms (Karantzas & Gillath, 2017). Thus, drama therapy integrates drama and psychotherapy techniques to provide older adults with new methods to express their thinking or feelings to adapt more effectively to emotional and behavioral problems (Harel & Keisari, 2023). The improvement in the experimental group may be related to activities that were provided in sessions based on participants' needs and interests. The drama therapist and investigator focused on the necessity of expressing participants' feelings (e.g., happiness, sadness, or anger), feelings awareness, and techniques of communication and dealing with these feelings. Additionally, the intervention focused on allowing participants to recognize the changes that happened previously and still take place and concentrated on the methods of positively perceiving and dealing with these changes and making them meaningful (Chang et al., 2019). It helped the participants remember and orient improper actions and issues that they could not talk about in front of each other (Chang et al., 2019). In this study, the drama therapist and investigator assessed the participants' needs and selected the best drama therapy approaches that could meet the older adults' needs.

This study found that drama therapy can be utilized as an outlet for older adults' thoughts and feelings and would result in positive health consequences because the

study participants after receiving the intervention sessions, the levels of their depressive symptoms decreased.

5.1.2 Effect of Drama Therapy on Quality of Life among Older Adults in Residential Care Facilities

This study revealed that older people suffer from low QOL due to many factors including loss of social interaction and relationships, loneliness, low financial outcome, retirement, and physical changes, which is congruent with previous studies (Herrera et al., 2021; Jemal et al., 2021; Liu et al., 2023; Siette et al., 2022). Additionally, this study hypothesized that older adults in residential care facilities would have good QOL after attending eight sessions of drama therapy. This study demonstrated that drama therapy enhanced QOL and its subscales among older adults in residential care facilities, it especially enhanced sensory abilities, activities, and autonomy. The study’s finding is congruent with previous studies, which showed that drama therapy enhanced QOL, interactions with others, and feelings of independence (Boersma et al., 2018; Keisari et al., 2022; Lin et al., 2022). The improvement of the participants in the measure of QOL is due to the investigator’s and drama therapist's focus on using activities in drama-based therapeutic sessions, as QOL is based on continuous achieving of ADL among older adults, which enhances their abilities to perform activities in all QOL domains and make productive activities, even this is at easiest level (Baraković et al., 2020; Phillips et al., 2013).

Drama therapy can take different forms based on participants' needs, abilities, interests, and management goals. It includes many techniques such as improvisations, theater games, storytelling, and acting out (Berghs et al., 2022; Martí-Vilar et al., 2023). Several drama therapists utilize text, performance, or rituals to improve the therapeutic

process. The theoretical basis of drama therapy assumes drama, psychotherapy, theater, play, and creative and interactive processes. Drama therapy can attain a wide range of older adults' needs including cognitive, emotional, and functional, which would enhance QOL (Keisari, 2021).

Overall, this study addressed the evident gap in the literature related to drama therapy and depressive symptoms and QOL among older people, and it suggested that drama therapy can be utilized as a novel method and supplement the treatment plan of this cohort group.

5.2 CONCLUSION

Overall, drama therapy is an effective method for minimizing depressive symptoms and enhancing QOL among older adults in residential care facilities. This study clarifies a gap in the management of mental health including depressive symptoms and QOL among older people in residential care facilities in Israel. Drama therapy that involves many activities and is consistent with a meticulous theoretical framework can be a significant facet as an adjunct to usual care to minimize depressive symptoms and improve QOL in older people in residential care facilities. It can serve as a helpful auxiliary approach to help older adults in residential care facilities improve their mental health and QOL.

5.3 STRENGTHS AND LIMITATIONS

There are limited studies about the utilization of drama therapy as psychotherapy for older adults in residential care facilities. The findings of this study Added to the body of knowledge regarding using drama therapy as a psychotherapy technique for managing psychological and mental health problems among older adults. The study's results provide basic material due to the mental health of older adults at a global level. It is one of the first studies conducted to minimize depressive symptoms and improve QOL among older people in residential care facilities in Israel and internationally. The results proved the effectiveness of drama therapy as a treatment strategy for depressive symptoms and QOL among older people. The design was experimental which can determine the cause and effect of the study variables. Also, the feasibility of participants and cooperativeness of residential care facilities managers to implement the intervention. However, there are some limitations including the structured self-reporting questionnaire used to collect data, where the responses were based on participants' beliefs and opinions. Also, the study included participants with mild and moderate depressive symptoms and excluded those with severe depressive symptoms.

5.4 IMPLICATIONS OF THE STUDY

Depressive symptoms and QOL are significant issues among older adults in residential care facilities. This study's findings revealed that drama therapy is effective in improving depressive symptoms and QOL. It provides infrastructure information about the effect of drama therapy which can be applied. This study provided implications for the significant results in nursing education, nursing practice, policy, and future research.

5.5 IMPLICATIONS FOR NURSING PRACTICE

Healthcare professionals including nurses in all healthcare institutions especially residential care facilities should develop management programs for older adults concentrated on the screening outcomes for depressive symptoms and QOL as an action in the care plan and develop proper interventions to deal with these issues. Also, they can use drama therapy as a psychotherapeutic intervention to minimize depressive symptoms and enhance QOL for older adults. Also, training workshops and programs should be held for healthcare professionals to integrate drama therapy into usual care and healthcare plans for older adults in residential care facilities. Moreover, continuous drama therapy courses should be held for older adults which focus on carrying out drama therapy activities to enhance their feelings of performance and achievement.

5.5.1 Implications for Nursing Education

Increasing awareness of nursing instructors and students in higher education institutions to drama therapy and its effectiveness on mental health. Integrating the drama therapy approach into the nursing curriculum would increase the proficiency of nursing students and significantly enhance nursing care, especially for older adults in residential care facilities. Incorporating drama therapy into nursing care plans enhances students' recognition of other supplementary methods with usual care. Also, drama therapy training workshops should be provided for nursing instructors and students to apply it in clinical courses.

5.5.2 Implications for Policy

Drama therapy was an effective approach to decrease depressive symptoms and improve QOL among older adults in residential care facilities. Therefore, health

policymakers can utilize this study's results to develop counselor services utilizing this psychotherapeutic method for older adults in residential care facilities. Policymakers can enhance the awareness of this therapeutic approach among the public and such therapy is suggested to be available at different healthcare institutions and implemented by professional therapists.

5.5.3 Implications for Future Research

Future studies are required concerning the application of drama therapy among older adults in residential care facilities to support the evidence provided here. Additionally, a study with mixed methods could be conducted to obtain older adults' experiences with drama therapy. Other studies could be performed to assess the impact of drama therapy on older adults experiencing severe depressive symptoms. Also, future research could measure the effect of drama therapy on other variables such as self-confidence, decision-making, self-esteem, and others.

5.6 RECOMMENDATIONS

The following recommendations were derived from the study:

- Integrate drama therapy as a part of the usual care that is provided to older adults in residential care facilities.
- Conduct periodic assessments for older adults in residential care facilities to receive advantage from drama therapy as an intervention.
- Develop a training program for healthcare professionals, especially nurses about integrating drama therapy into usual care for older adults.
- Provide therapeutic management to older adults in residential care facilities based on

the screening results for depressive symptoms and QOL and according to older adults' needs, skills, and interests.

- Incorporate drama therapy as a part of nursing care into the nursing curriculum in higher education institutions and conduct training courses on this therapeutic approach for undergraduate students.
- Future studies could be conducted on other samples of older adults to provide evidence on the effect of drama therapy on depressive symptoms and QOL.

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List of Appendices

APPENDIX A: ENGLISH VERSION OF THE QUESTIONNAIRE

Questionnaire: The Effect of Drama Therapy on Depressive Symptoms and Quality of Life among Older Adults in Residential Care Facilities

1- Socio-demographic data

- Sex : ☐ Male ☐ Female
- Age:--------
- Level of Education: ☐ Secondary and less ☐ Higher than secondary
- Marital Status: ☐ Single ☐ Married ☐ Divorce ☐ Widow
- Income/month:----------------------
- Number of chronic diseases: ☐ One ☐ More than one

2- The Geriatric Depression Scale

Choose the best answer for how you have felt over the past week:

Items	Yes	No
1. Are you basically satisfied with your life?		
2- Have you dropped many of your activities and interests?		
3- Do you feel that your life is empty?		
4- Do you often get bored?		
5- Are you in good spirits most of the time?		
6- Are you afraid that something bad is going to happen to you?		
7- Do you feel happy most of the time?		
8- Do you often feel helpless?		
9- Do you prefer to stay at home, rather than going out and doing new things?		
10- Do you feel you have more problems with memory than most?		
11- Do you think it is wonderful to be alive now?		

Items	Yes	No
12- Do you feel pretty worthless the way you are now?		
13- Do you feel full of energy?		
14- Do you feel that your situation is hopeless?		
15- Do you think that most people are better off than you are?		

3- World Health Organization Quality of life (WHOQOL-Old-BREF)

This questionnaire asks for your thoughts and feelings about certain aspects of your quality of life and addresses issues that may be important to you as an older member of society. Please answer all the questions. If you are unsure about which response to give to a question, please choose the one that appears most appropriate. This can often be your first response. Please keep in mind your standards, hopes, pleasures and concerns. We ask that you think about your life in the last two weeks.

Sensory Abilities

1- To what extent do impairments to your senses (e.g. hearing, vision, taste, smell, touch) affect your daily life? (QI)

1	2	**3**	4	5
Not at all	A little	A moderate amount	Very much	An extreme amount

2- To what extent does loss of, for example, hearing, vision, taste, smell or touch affect your ability to participate in activities? (Q2)

1	2	**3**	4	5
Not at all	A little	A moderate amount	Very much	An extreme amount

3- To what extent do problems with your sensory functioning (e.g. hearing, vision, taste, smell, touch) affect your ability to interact with others? (Q10)

1	2	**3**	4	5
Not at all	A little	Moderately amount	Mostly	Completely

4- How would you rate your sensory functioning (e.g. hearing, vision, taste, smell, touch)? (Q20)

1	2	**3**	4	5
Very poor	Poor	Neither poor nor good	Good	Very good

<u>Autonomy</u>

1- How much freedom do you have to make your own decisions? (Q3)

1	2	**3**	4	5
Not at all	A little	A moderate amount	Very much	An extreme amount

2- To what extent do you feel in control of your future? (Q4)

1	2	**3**	4	5
Not at all	Slightly	Moderately	Very much	Extremely

3- How much do you feel that the people around you are respectful of your freedom? (Q5)

1	2	**3**	4	5
Not at all	Slightly	Moderately	Very much	Extremely

4- To what extent are you able to do the things you'd like to do? (Q11)

1	2	**3**	4	5
Not at all	A little	Moderately amount	Mostly	Completely

<u>Past, present, and future activities</u>

1- To what extent are you satisfied with your opportunities to continue achieving in life? (Q12)

1	2	**3**	4	5
Not at all	A little	Moderately amount	Mostly	Completely

2- How much do you feel that you have received the recognition you deserve in life? (Q13)

1	2	**3**	4	5
Not at all	A little	Moderately amount	Mostly	Completely

3- How satisfied are you with what you have achieved in life? (Q15)

1	2	**3**	4	5
Very dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Very satisfied

4- How happy are you with the things you are able to look forward to? (Q19)

1	2	**3**	4	5
unhappy	Unhappy	Neither happy nor dissatisfied	Happy	Very happy

Social Participation

1- To what extent do you feel that you have enough to do each day? (Q14)

1	2	**3**	4	5
Not at all	A little	Moderately amount	Mostly	Completely

2- How satisfied are you with the way you use your time? (Q16)

1	2	**3**	4	5
Very dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Very satisfied

3- How satisfied are you with your level of activity? (Q17)

1	2	**3**	4	5
Very dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Very satisfied

4- How satisfied are you with your opportunity to participate in community activities? (Q18)

1	2	**3**	4	5
Very dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Very satisfied

Death and Dying

1- How concerned are you about the way in which you will die? (Q6)

1	2	**3**	4	5
Not at all	A little	A moderate amount	Very much	An extreme amount

2- How much are you afraid of not being able to control your death? (Q7)

1	2	**3**	4	5
Not at all	Slightly	Moderately	Very much	Extremely

3- How scared are you of dying? (Q8)

1	2	**3**	4	5
Not at all	Slightly	Moderately	Very much	Extremely

4- How much do you fear being in pain before you die? (Q9)

1	2	**3**	4	5
Not at all	A little	A moderate amount	Very much	An extreme amount

Intimacy

1- To what extent do you feel a sense of companionship in your life? (Q21)

1	2	**3**	4	5
Not at all	A little	A moderate amount	Very much	An extreme amount

2- To what extent do you experience love in your life? (Q22)

1	2	**3**	4	5
Not at all	A little	A moderate amount	Very much	An extreme amount

3- To what extent do you have opportunities to love? (Q23)

1	2	**3**	4	5
Not at all	A little	Moderately amount	Mostly	Completely

4- To what extent do you have opportunities to be loved? (Q24)

1	2	**3**	4	5
Not at all	A little	Moderately amount	Mostly	Completely

APPENDIX B: HEBREW VERSION OF THE QUESTIONNAIRE

שאלון: ההשפעה של דרמה תרפיה על סימפטומים דיכאוניים ועל איכות חיים בקרב מבוגרים במרכזי דיור

1- נתונים סוציו -דמוגרפים

- **מין : - זכר - נקבה**
- **גיל: ---------------**
- **רמה אקדמית: - תיכון או פחות - מעל תיכון**
- **מצב אישי: -רווק/ה -נשוי/נשואה -גרוש/ה -אלמן/ה**
- **הכנסה חודשית: ---------------**
- **מספר מחלות כרוניות: -אחת - יותר מאחת**

2– סולם רמות דיכאון בגריאטריה

בחר/י את התשובה הטובה ביותר לאיך הרגשת במהלך השבוע האחרון:

שאלה	כן	לא
1) האם אתה מרוצה באופן כללי מהחיים שלך?		
2) האם הפסקת הרבה מפעילויותיך ותחומי העניין שלך?		
3) האם אתה מרגיש שחייך ריקניים?		
4) האם אתה משועמם לעיתים קרובות?		
5) האם אתה במצב רוח טוב רוב הזמן?		
6) האם אתה פוחד שמשהו רע עומד לקרות לך?		
7) האם אתה מרגיש מאושר רוב הזמן?		
8) האם אתה מרגיש לעיתים קרובות חסר אונים?		
9) האם אתה מעדיף להישאר בבית מאשר לצאת ולעשות דברים חדשים?		
שאלה	כן	לא
10) האם מרגיש שיש לך יותר בעיות זיכרון מרוב האנשים?		
11) האם אתה חושב שזה נפלא להיות בחיים כרגע?		

12) האם אתה מרגיש חסר ערך במצבך הנוכחי?		
13) האם אתה מרגיש מלא באנרגיה?		
14) האם אתה מרגיש שמצבך חסר תקווה?		
15) האם אתה חושב שרוב האנשים במצב טוב ממך?		

3-ארגון הבריאות העולמי – שאלון איכות חיים (WHOQOL-

שאלון זה מבקש לבדוק את מחשבותיך ותחושותיך בנוגע להיבטים מסוימים של איכות החיים שלך, ועוסק בנושאים שעשויים להיות חשובים לך כאדם מבוגר בחברה. ענה/י בבקשה על כל השאלות. אם אינך בטוח/ה מהי התשובה לשאלה מסוימת, אנא בחר/י בתשובה שנראית המתאימה ביותר. לעיתים קרובות זו תהיה תשובתך הראשונה. אנא זכור/זכרי את הסטנדרטים, התקוות, ההנאות והדאגות שלך. אנו מבקשים שתתייחס/י לחייך בשבועיים האחרונים.

<u>יכולות חושיות</u>

1. **באיזו מידה פגיעה בחושים שלך (שמיעה, ראיה, טעם, ריח, מישוש) משפיעה על חיי היומיום שלך? (ש' 1)**

1	2	3	4	5
כלל לא	מעט	במידה מסוימת	הרבה	במידה רבה מאד

2. **באיזו מידה משפיע איבוד של, לדוגמא, שמיעה, ראיה, טעם, ריח, מישוש, על יכולתך להשתתף בפעילויות שונות? (ש' 2)**

1	2	3	4	5
כלל לא	מעט	במידה מסוימת	הרבה	במידה רבה מאד

3. **באיזו מידה בעיות בתפקוד החושי שלך (כגון שמיעה, ראיה, טעם, ריח, מישוש) משפיעות על היכולת שלך לתקשר עם אחרים? (ש' 10)**

1	2	3	4	5
כלל לא	מעט	במידה מסוימת	במידה רבה	לחלוטין

4. **איך היית מדרג/ת את התפקוד החושי שלך (למשל שמיעה, ראיה, טעם, ריח, מישוש)? (ש' 20)**

1	2	3	4	5
גרוע מאד	גרוע	לא רע ולא טוב	טוב	טוב מאד

אוטונומיה

1. **כמה חופש יש לך לקבל החלטות בעצמך? (ש' 3)**

1	2	3	4	5
כלל לא	מעט	במידה מסוימת	הרבה	הרבה מאד

2. **באיזו מידה את/ה מרגיש/ה שאת/ה שולט/ת בעתיד שלך? (ש' 4)**

1	2	3	4	5
כלל לא	מעט	במידה מסוימת	במידה רבה	במידה רבה מאד

3. **באיזו מידה את/ה מרגיש/ה שאנשים סביבך מכבדים את החופש שלך? (ש' 5)**

1	2	3	4	5
כלל לא	מעט	במידה מסוימת	במידה רבה	במידה רבה מאד

4. **באיזו מידה את/ה יכול/ה לעשות את הדברים שהיית רוצה לעשות? (ש' 11)**

1	2	3	4	5
כלל לא	מעט	במידה מסוימת	במידה רבה	לחלוטין

פעילויות בעבר, בהווה ובעתיד

1. **באיזו מידה את/ה שבע/ת רצון מהאפשרויות שלך להמשיך להגיע להישגים בחיים? (ש' 12)**

1	2	3	4	5
כלל לא	מעט	במידה מסוימת	במידה רבה	לחלוטין

2. **עד כמה את/ה מרגיש/ה שקיבלת את ההכרה המגיעה לך בחיים? (ש' 13)**

1	2	3	4	5
כלל לא	מעט	במידה מסוימת	במידה רבה	לחלוטין

3. **באיזו מידה את/ה מרוצה ממה שהשגת בחיים? (ש' 15)**

1	2	3	4	5
מאד בלתי מרוצה	בלתי מרוצה	לא מרוצה ולא בלתי מרוצה	מרוצה	מרוצה מאד

4. **עד כמה את/ה מרוצה מהדברים שאת/ה יכול/ה לצפות להם? (ש' 19)**

1	2	3	4	5
מאד בלתי מרוצה	בלתי מרוצה	לא מרוצה ולא בלתי מרוצה	מרוצה	מרוצה מאד

השתתפות חברתית

1. באיזו מידה את/ה מרגיש/ה שיש לך מספיק מה לעשות כל יום? (ש' 14)

1	2	3	4	5
כלל לא	מעט	במידה מסוימת	במידה רבה	לחלוטין

2. באיזו מידה את/ה מרגיש/ה שאת/ה מנצל/ת את הזמן שלך? (ש' 16)

1	2	3	4	5
מאד בלתי מרוצה	בלתי מרוצה	לא מרוצה ולא בלתי מרוצה	מרוצה	מרוצה מאד

3. באיזו מידה את/ה מרוצה מרמת הפעילות שלך? (ש' 17)

1	2	3	4	5
מאד בלתי מרוצה	בלתי מרוצה	לא מרוצה ולא בלתי מרוצה	מרוצה	מרוצה מאד

4. עד כמה את/ה מרוצה מהאפשרות שלך להשתתף בפעילות קהילתית? (ש' 18)

1	2	3	4	5
מאד בלתי מרוצה	בלתי מרוצה	לא מרוצה ולא בלתי מרוצה	מרוצה	מרוצה מאד

מוות וגסיסה

1. עד כמה את/ה מודאג/ת מהדרך שבה תמות/י? (ש' 6)

1	2	3	4	5
כלל לא	מעט	במידה מסוימת	מאד	במידה רבה ביותר

2. עד כמה את/ה חושש מכך שלא תוכל/י לשלוט במותך? (ש' 7)

1	2	3	4	5
כלל לא	מעט	במידה מסוימת	מאד	במידה רבה ביותר

3. עד כמה את/ה פוחד/ת למות? (ש' 8)

1	2	3	4	5
כלל לא	מעט	במידה מסוימת	מאד	במידה רבה ביותר

4. עד כמה את/ה חושש לסבול מכאבים לפני מותך? (ש' 9)

1	2	3	4	5
כלל לא	מעט	במידה מסוימת	מאד	במידה רבה ביותר

<u>אינטימיות</u>

1. באיזו מידה את/ה מרגיש/ה תחושת חברות בחייך? (ש' 21)

1	2	3	4	5
כלל לא	מעט	במידה מסוימת	הרבה	הרבה מאד

2. באיזו מידה את/ה חווה אהבה בחייך? (ש' 22)

1	2	3	4	5
כלל לא	מעט	במידה מסוימת	הרבה	הרבה מאד

3. באיזו מידה יש לך הזדמנויות לאהוב? (ש' 23)

1	2	3	4	5
כלל לא	מעט	במידה מסוימת	הרבה	הרבה מאד

4. באיזו מידה יש לך הזדמנויות להיות אהוב/ה? (ש' 24)

1	2	3	4	5
כלל לא	מעט	במידה מסוימת	הרבה	הרבה מאד

APPENDIX C: CONTENT VALIDITY INDEX (CVI) TO VALIDATE QUESTIONNAIRE TOOL

Letter Seeking Permission to Validate Questionnaire Tool

Dear Experts

I am a Ph.D. student at Arb American University at Palatine. I would like to conduct a dissertation entitled “Effect of Drama Therapy on Depressive Symptoms and Quality of Life among Older Adults in Residential Care Facilities". The purpose of this study is to evaluate the effect of drama therapy on depressive symptoms and quality of life among older adults in residential care facilities in Israel.

This tool is available in English language and for language issues and cultural factors, it is translated into Hebrew. English to Hebrew translation and backward translation into English was done. I would like to assess the content validity index (CVI) for the Hebrew version using a 4-point rating scale, whereas "1 = not relevant; 2= unable to assess relevance without item revision or the item is in need of such revision that it would no longer be relevant; 3= relevant but needs minor alteration; 4= very relevant and succinct.

If this is possible, please indicate so by replying to me through e-mail:

Sincerely,

Samer Sharkiya
Ph.D. Student

World Health Organization Quality of Life (WHOQOL-Old-BREF)

שאלה	1	2	3	4
1- באיזו מידה פגיעה בחושים שלך (שמיעה, ראיה, טעם, ריח, מישוש) משפיעה על חיי היומיום שלך?				
2-באיזו מידה משפיע איבוד של, לדוגמא, שמיעה, ראיה, טעם, ריח, מישוש, על יכולתך להשתתף בפעילויות שונות?				
3- באיזו מידה בעיות בתפקוד החושי שלך (כגון שמיעה, ראיה, טעם, ריח, מישוש) משפיעות על היכולת שלך לתקשר עם אחרים?				
4- איך היית מדרג/ת את התפקוד החושי שלך (למשל שמיעה, ראיה, טעם, ריח, מישוש)?				
5-כמה חופש יש לך לקבל החלטות בעצמך?				
6-באיזו מידה את/ה מרגיש/ה שאת/ה שולט/ת בעתיד שלך?				
7-באיזו מידה את/ה מרגיש/ה שאנשים סביבך מכבדים את החופש שלך?				
8-באיזו מידה את/ה יכול/ה לעשות את הדברים שהיית רוצה לעשות?				
9-באיזו מידה את/ה שבע/ת רצון מהאפשרויות שלך להמשיך להגיע להישגים בחיים?				
10-עד כמה את/ה מרגיש/ה שקיבלת את ההכרה המגיעה לך בחיים?				
11-באיזו מידה את/ה מרוצה ממה שהשגת בחיים?				
12-עד כמה את/ה מרוצה מהדברים שאת/ה יכול/ה לצפות להם?				
13-באיזו מידה את/ה מרגיש/ה שיש לך מספיק מה לעשות כל יום?				
14-באיזו מידה את/ה מרגיש/ה שאת/ה מנצל/ת את הזמן שלך?				
15-באיזו מידה את/ה מרוצה מרמת הפעילות שלך?				
16-עד כמה את/ה מרוצה מהאפשרות שלך להשתתף בפעילות קהילתית?				
17-עד כמה את/ה מודאג/ת מהדרך שבה תמות/י?				
18-עד כמה את/ה חושש מכך שלא תוכל/י לשלוט במותך?				
19-עד כמה את/ה פוחד/ת למות?				
20-עד כמה את/ה חושש לסבול מכאבים לפני מותך?				

21-באיזו מידה את/ה מרגיש/ה תחושת חברות בחייך?				
22-באיזו מידה את/ה חווה אהבה בחייך?				
23-באיזו מידה יש לך הזדמנויות לאהוב?				
24-באיזו מידה יש לך הזדמנויות להיות אהוב/ה?				

APPENDIX D: CONTENT VALIDITY INDEX (CVI) FOR DRAMA THERAPY INTERVENTION PROGRAM

Letter Seeking Permission to Drama Therapy Intervention Program

Dear Experts

I am a Ph.D. student at Arab American University at Palatine. I would like to conduct a dissertation entitled “Effect of Drama Therapy on Depressive Symptoms and Quality of Life among Older Adults in Residential Care Facilities". The purpose of this study is to evaluate the effect of drama therapy on depressive symptoms and quality of life among older adults in residential care facilities in Israel.

With the assistance of a drama therapist, we designed a dram therapy intervention program based on a previous study and we modified this program based on participants' needs, interests, and abilities, in additional to cultural background. I would like to assess the content validity index (CVI) for the intervention program using a 4-point rating scale, whereas "1 = not relevant; 2= unable to assess relevance without item revision or the item is in need of such revision that it would no longer be relevant; 3= relevant but needs minor alteration; 4= very relevant and succinct.

If this is possible, please indicate so by replying to me through e-mail:

Sincerely,

Samer Sharkiya
Ph.D. Student

Material	1	**2**	3	4
Content organization is clear, consistent, and appropriate.				
The intervention can attract users' attention.				
The intervention has interesting activities.				
The intervention has various cultural elements.				
The intervention is relevant for the target group.				
The intervention has appropriate and editable instructions.				
The intervention contains vocabularies that are suitable for learning.				
The intervention has activities that facilitate participants' interactions.				
The intervention can be used in various situations.				
The intervention is authentic.				

APPENDIX E: INFORMED CONSENT

האוניברסיטה הערבית-אמריקאית
הדיקן למחקר מדעי
ועדת האתיקה

الجامعـــة العربيـــة الأمريكيـــة
عمادة البحث العلمي
لجنة اخلاقيات البحث العلمي

הסכמה מדעת

המזכירות האקדמית – האוניברסיטה הערבית אמריקאית קוד מס' ....
המזכירות האקדמית – האוניברסיטה הערבית אמריקאית תאריך ....

אני, ... (שם המשתתף/ת / רשות) מסכים/ה בזאת לקחת חלק במחקר הקליני (ניסוי קליני/ שאלון מחקרי/תרופה ניסויית) המפורט להלן:

כותרת המחקר: השפעת דרמה תרפיה על תסמיני דיכאון ואיכות חיים בקרב מבוגרים המתגוררים בבתי אבות

שם התכנית: במסגרת תואר PhD בסיעוד באוניברסיטה הערבית-אמריקאית

שטיבו ומטרתו הוסברו לי ע"י **סאמר שרקיה** ותורגמו לאנגלית ע"י **סאמר שרקיה** כמיטב יכולתו.

קיבלתי הסבר לגבי טיבו של המחקר במונחים של מתודולוגיה, תופעות לוואי שליליות אפשריות וסיבוכים אפשריים (כמפורט בדף המידע למשתתף).
אחרי שנודע לי והבנתי את כל היתרונות והחסרונות האפשריים של מחקר זה, אני נותן/ת בזאת את הסכמתי מרצוני החופשי להשתתף במחקר הקליני המפורט לעיל.
אני מבין/ה כי באפשרותי להפסיק את השתתפותי במחקר בכל רגע נתון מבלי לפרט סיבה כלשהי.

תאריך: .... חתימת המשתתף/ת: ....

בנוכחות:

שם: .... תפקיד: .... חתימה: ....

(עד/ה לחתימת המשתתף/ת)

אני מאשר/ת כי הסברתי לפציינט את טיבו ומטרתו של המחקר הנזכר לעיל.

תאריך: .... חתימה: ....

(החוקר/ת האחראי/ת)

APPENDIX F: INSTITUTIONAL REVIEW BOARD (IRB) AT ARAB AMERICAN UNIVERSITY

Arab American University- Palestine
Deanship of Scientific Research
IRB committee
Tel: 04-241-8888, ext 1196
E-mail: irb.aaup@aaup.edu

الجامعة العربية الامريكية- فلسطين
عمادة البحث العلمي
لجنة أخلاقيات البحث العلمي
تلفون: ext 04-241-8888 1196
البريد الالكتروني: irb.aaup@aaup.edu

IRB Approval Letter

Study Title: The Effect of Drama Therapy on Depressive Symptoms and Quality of Life among Older Adults in Residential Care Facilities

Submitted by: Samer Hatem Sharkiya

Date received: 17th June 2023

Date reviewed: 24th June 2023

Date approved: 13th August 2023

Your Study titled " **The Effect of Drama Therapy on Depressive Symptoms and Quality of Life among Older Adults in Residential Care Facilities** " with archived number 2023/B/132/N was reviewed by the Arab American University IRB committee and was approved on the 13th August 2023.

Reham Khalaf-Nazzal, MD, PhD
IRB committee chairman
Arab American University of Palestine

General Conditions:

1. Valid for 1 year from the date of approval.
2. It is important to inform the committee with any modification of the approved study protocol.
3. The committee appreciates a copy of the research when accomplished.

لجنة أخلاقيات البحث العلمي في الجامعة العربية الامريكية

IRB at Arab American University

APPENDIX G: APPROVAL FROM RESIDENTIAL CARE FACILITIES

ארבל מרכז רפואי לסיעוד והחלמה רח' אלחנן 4 פתח תקוה ת.ד 92 מיקוד 910002 טלפון: 03-9321477 פקס. 03-9323277

זוכה פרס גליקמן תשס"ו מטעם אשל על מצויינות בטיפול קשישים

26.06.23

Approval to conduct a study as part of a doctoral dissertation in nursing

In honor of:
Sharkiya Samer
Ph.D Nursing Student
AAUP UNIVERSITY

We hereby declare our approval for you to carry out your study entitled "The Effect of Drama Therapy on Depressive Symptoms and Quality of Life among Older Adults in Residential Care Facilities" in our residential care center (Arbel Geriatric Center in Petah Tikva), taking into consideration the policies of the residential care facility toward safety and confidentiality rules of the target audience of residents.

Additionally, we authorize you to access the medical records and necessary data in our system of patients taking part in the study.

Best wishes,

Falah Dakka

Director of Arbel Geriatric Center – Petah Tikva

ארבל מרכז גריאטרי בע"מ
פלאח דקה - מנהל המוסד
מ.ר. 224228
RN-BSN-MHA

ארבל מרכז גריאטרי בע"מ
ח.פ. 510180300

Date: 25/6/23

Approval to conduct a study as part of a doctoral dissertation in nursing

In honor of:
Sharkiya Samer
Ph.D Nursing Student
AAUP UNIVERSITY

We hereby declare our approval for you to carry out your study entitled "The Effect of Drama Therapy on Depressive Symptoms and Quality of Life among Older Adults in Residential Care Facilities" in our residential care center (Ganei Gil Hzahav Hadera), taking into consideration the policies of the residential care facility toward safety and confidentiality rules of the target audience of residents.

Additionally, we authorize you to access the medical records and necessary data in our system of patients taking part in the study.

Best wishes,

Manager's Name Lilach Afuta

Manager's Signature ________ גני גיל הזהב חדרה שותפות 540278587

Date: 26/6/2023

Approval to conduct a study as part of a doctoral dissertation in nursing

In honor of:
Sharkiya Samer
Ph.D Nursing Student
AAUP UNIVERSITY

We hereby declare our approval for you to carry out your study entitled "The Effect of Drama Therapy on Depressive Symptoms and Quality of Life among Older Adults in Residential Care Facilities" in our residential care center (Recanati Nursing home in Petach Tikva), taking into consideration the policies of the residential care facility toward safety and confidentiality rules of the target audience of residents.

Additionally, we authorize you to access the medical records and necessary data in our system of patients taking part in the study.

Best wishes,

Dor Chemo

Director of Recanati Nursing home in Petach Tikva

דור חמו
מנהל בית אבות רקנאטי
קבוצת מוריה

א.נ.מ.נ. מוריה גיל הזהב
פתח תקווה בע״מ
ח.פ. 515153740

בית אבות לאנוסי משהד בישראל בע"מ

OLD AGE HOME ISRAEL MASHADI COMMUNITY LTD.

Date:26/06/2023

Approval to conduct a study as part of a doctoral dissertation in nursing

In honor of: Sharkiya Samer
Ph.D. Nursing Student
AAUP UNIVERSITY

We hereby declare our approval for you to carry out your study entitled "The Effect of Drama Therapy on Depressive Symptoms and Quality of Life among Older Adults in Residential Care Facilities" in our residential care center **OLD AGE HOME ISRAEL MASHADI COMMUNITY LTD**, taking into consideration the policies of the residential care facility toward safety and confidentiality rules of the target audience of residents.

Additionally, we authorize you to access the medical records and necessary data in our system of patients taking part in the study.

Best Regards,

Manager's Name: Effy Kelty

Manager's Signature ____________

אפי קלטי
בית אבות לאנוסי משהד בישראל
מנכ"ל

106 HANASI ST. HERZELUA PITUACH 4639407 הנשיא יצחק בן צבי 106, הרצליה פיתוח
EMAIL: KABALA@BETMASHAD.CO.IL TEL: 972-9-9519188 :טל
FAX: 972-9-9506215 :פקס

الملخص

الخلفية: العلاج بالدراما هو وسيلة علاجية فعالة لإدارة الصحة النفسية ونوعية الحياة. هناك دراسات محدودة تبحث في تأثير العلاج بالدراما على أعراض الاكتئاب ونوعية الحياة بين كبار السن على مستوى العالم وفي إسرائيل. ولذلك، تهدف هذه الدراسة إلى تقييم تأثير العلاج بالدراما على أعراض الاكتئاب ونوعية الحياة بين كبار السن في مرافق الرعاية السكنية في إسرائيل.

الطرق: تم استخدام تصميم المجموعة المكافئة قبل وبعد الاختبار، وتم اختيار 160 من كبار السن باستخدام طريقة عشوائية بسيطة من مرافق الرعاية السكنية في إسرائيل، حيث تم توزيعهم إلى مجموعة ضابطة (العدد = 80) ومجموعة تجريبية (العدد = 80). تلقت المجموعة التجريبية ثماني جلسات من العلاج الدرامي وتلقت المجموعة الضابطة الرعاية المعتادة. شمل استبيان التقير الذاتي مقياس اكتئاب الشيخوخة و مقياس منظمة الصحة العالمية لجودة الرعاية-المسنين-المختصر (**WHOQOL−OLD−BREF**).

النتائج: كشفت النتائج أن جميع المشاركين في كلا المجموعتين لديهم أعراض اكتئابية خفيفة (الضابطة **{**الوسط الحسابي= **6.84**، الإنحراف المعياري=**1.55}**) ؛ التجريبية **{**الوسط الحسابي = 7.23، الإنحراف المعياري=**1.41}**) ، وسوء نوعية الحياة (الضابطة **{**الوسط الحسابي= 10.55 ، الإنحراف المعياري=0.93**}**) ؛ التجريبية **{**الوسط الحسابي = 10.29، الإنحراف المعياري=0.77**}**) قبل التدخل ولم تكن هناك فروق بين المجموعتين. كانت هناك تحسنات في أعراض الاكتئاب (الضابطة **{** الوسط الحسابي= 6.78، الإنحراف المعياري = 1.46**}**) ؛ التجريبية **{** الوسط الحسابي = 5.46، الإنحراف المعياري=1.58**}**) ، ونوعية الحياة (الضابطة **{**الوسط الحسابي= 10.63 ، الإنحراف المعياري=0.94**}**) ؛ التجريبية **{**الوسط الحسابي = 12.64، الإنحراف المعياري=**0.89}**) بعد التدخل لكلتا المجموعتين. أيضًا، وقد وجدت فروق ذات دلالة إحصائية بين المجموعتين بعد التدخل في أعراض الاكتئاب ونوعية

الحياة (القيمة الإحتمالية **< 0.01**) ، مما يشير إلى أن المجموعة التجريبية حققت تحسنات أعلى في المتغيرات المذكورة أعلاه مقارنة بالمجموعة الضابطة.

الاستنتاجات: عموما، العلاج بالدراما هو وسيلة فعالة لتقليل أعراض الاكتئاب وتحسين نوعية الحياة بين كبار السن في مرافق الرعاية السكنية. يمكن أن يكون هذا العلاج مساعدًا للرعاية المعتادة لتقليل مستويات أعراض الاكتئاب وتحسين نوعية الحياة بين كبار السن.

الكلمات المفتاحية: أعراض الاكتئاب؛ العلاج بالدراما؛ جودة الحياة؛ مرافق الرعاية السكنية