1.Research

1.1. Model of the Research

Preliminary report of the project with reference number 2021-1-LT01-KA220-ADU-000028279, the short name of which is PABSEM, two groups formed by unbiased assignment were selected, one of them was used as the experimental group and the other as the control group. The method of taking measurements from both groups before and after the experiment was determined. In case of significant differences between pre-experimental measurements, precautions will be taken. The research, which was conducted to evaluate the effect of multitherapy applied to multimorbidities living in nursing homes, staying with families or living alone, on the level of Loneliness Syndrome and Psychological Well-being, will be conducted in a pre-designed quasi-experimental research type in two groups including the experimental and control groups. SPSS 25.0 statistical package program was used in the analysis of the quantitative data of the research, and Kolmogorov Smirnov test was used to decide on the statistical technique.

1.2. Sample

Research samples consist of multimorbids living in private nursing homes and multimorbids living in their own home or with their families in the Netherlands, Italy, Lithuania, Poland and Turkey. The data obtained within the scope of Protection of Personal Data will be kept confidential and pseudonyms will be used. The sample of the study was created with a paired design. Thirty multimorbid individuals who met the inclusion criteria of the study were assigned to the experimental and control groups. Fifteen volunteers from multimorbid individuals formed the experimental group and 15 volunteers formed the control group. The reason why the experimental and control groups were selected from different areas is to prevent the rate of affecting each other when they stay in the same place.

Statistician/ Econometrician Expert Registry Number: 48489

Criteria for inclusion in the research: Being able to communicate, volunteering to practice, not having a disease such as dementia, mental retardation or Alzheimer's.

Exclusion criteria from the study: Multimorbidities whose eligibility for inclusion criteria deteriorated during the study period and who want to leave the study will be excluded from the study. Information on gender, marital status, educational status and occupation of the individuals participating in the research is shown in Table 1.

Demographic sample information on volunteers

| | | | Group | | |
			Experiment	Control	Total
Gender	Woman	N	8	9	17
		%	53,33	60,0	56,95
	Man	N	7	6	13
		%	46,67	40,0	46,10
Marital	Maried	N	1	-	1
		%	6,67	-	3,34
	Divor/Widow	N	10	10	20
		%	66,67	66,67	66,67
	Single	N	4	5	9
		%	26,66	33,33	30,00
Edication	Primary	N	-	1	-
		%	-	6,67	3,34
	Middle	N	-	1	1
		%	-	6,67	3,34
	High School	N	5	2	7
		%	33,33	13,33	23,32
	University	N	9	12	21
		%	60,00	80,00	70,00
Profession	Teacher	N	3	1	4
		%	20,00	6,67	13,32
	Retired	N	7	10	17
		%	46,67	66,67	56,67
	Chef	N	-	1	1
		%	-	6,67	3,34
	Housewife	N	1	1	2
		%	6,67	6,67	6,67
	Other	N	4	2	6
		%	26,66	13,32	20,00
Total		N	15	15	30
		%	100,0	100,0	100,0

Table. 1

Statistician/ Econometrician Expert Registry Number: 48489

Yasemin TUR
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According to the findings in the table, 17 of the volunteers participating in the research were female and 13 were male. 8 females and 7 males in the experimental group, 9 females and 6 males in the control group. 3.34% of the volunteers are married, 66.67% are divorced or widowed, 30% are single. Most of the volunteers are university graduates and graduates, and the rate of university graduates is 70%. 56.67% of the volunteers are retired, 13.32% are teachers, 3034% are cooks, 6.67% have never worked and 20% are from different professions. Most of the experimental group and control group (17) are retired.

1.3. Data Collection Tools

The data in the study were obtained from Information Form (Annex-1), Informed Consent Form (Annex-2), Personal Information Form (Annex-3), Voluntary Feedback Form for Multitherapy Practices (Annex-4), Psychological Well-Being Scale (PWBS) (Annex) -5) and Loneliness Scale (LOSS) (Annex-6).

1.3.1. Personal Information Form

A personal information form was prepared in order to reach information about the multimorbidities participating in the study, including their family structure, age and gender, and whether they have health problems that would prevent them from taking an active role in participation, and their participation in social activities.

1.3.2 Feedback Form for Multitherapy Applications

In order to better understand the mood of multimorbidities, a form with open-ended questions was prepared.

1.3.3. Psychological Well-Being Scale (PWBS)

Psychological well-being has been defined as managing existential challenges in life (such as maintaining meaningful goals, personal development, and establishing quality relationships with others) (Keyes, Shmotkin, & Ryff, 2002). There are six dimensions in the psychological well-being model proposed by Ryff (1989). These; self-acceptance, positive relationships with others, autonomy, environmental control, life purpose, and personal growth.

Statistician/ Econometrician Expert Registry Number: 48489

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Key concepts related to psychological well-being, developmental theories that reveal the tasks and challenges in human development; It was obtained from clinical explanations revealing what self-actualization, maturation, full functionality or individualization are, and determinants of positive criteria of mental health (Ryff, Magee, Kling, & Wing, 1999). Psychological well-being theory is a combination of theories that examine the characteristics of people with positive functions (Özen, 2010). Roothman, Kirsten, and Wissing (2003) stated that psychological well-being can be conceptualized in relation to emotional, physical, cognitive, spiritual, personal and social processes. When the literature is examined, it is seen that there are a limited number of measurement tools related to psychological well-being. Although there are Psychological Well-Being Scales developed by Ryff (1989), Diener et al. (2009, 2010) explained the reasons for developing a new scale as follows: First, the scale they developed is shorter than the Psychological Well-Being Scales. Secondly, the scale includes some items that are not available in the existing Psychological Well-Being Scales, such as "connectedness and concern" and "optimism". The Psychological Well-Being Scale was developed by Diener et al. (2010) to measure socio-psychological well-being as a complement to existing measures of well-being. The items of the scale were created by taking into account the basic components of various well-being theories. The Psychological Well-Being Scale includes some items based on social relations such as having supportive and rewarding relationships, contributing to the happiness of others, and being respected by others. The scale also includes items based on having a purposeful and meaningful life, being interested in daily activities, and being busy with a job. The items are associated with self-esteem and optimism. Finally, there are items on the scale based on feeling capable and competent in activities that are important to the individual. The scale evaluates important elements of socio-psychological functions from one's own perspective. The aim of this study is to perform the adaptation, validity and reliability study of the Psychological Well-Being Scale developed by Diener et al. (2009, 2010) in a sample of university students. Psychological Well-Being Scale (PWBS) (PIO) was developed for the measurement of socio-Psychological Well-being as a complement to the existing well-being measurement tools with the studies of Diener et al. between 2009-2010.

The Psychological Well-Being Scale (PWBS) is a short scale consisting of eight items. The PWBS identifies important elements of individual functioning, from feelings of competence and positive relationships to having a purposeful and meaningful life.

Statistician/ Econometrician Expert Registry Number: 48489

Yasemin TUR
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Psychological Well-Being Scale (PWBS) items are answered in the range of 1-7, with the form of strongly disagree (1) to strongly agree (7). All items that make up the scale contain positive statements. The scores range from 8 points when answered as I strongly disagree with all items, and 56 points when answered as I strongly agree with all items. A high score indicates that the person has many psychological resources and strengths. As a result of the validity study carried out by Telef with the participation of university students, it was found that the PWBS contained a single factor and the total variance explained was 53%. The factor loads of the items of the scale vary between 0.65 and 0.77. The Cronbach alpha internal consistency coefficient of the PWBS was found to be 0.87. Although the scale does not provide different measures for each of the elements of Psychological Well-being, it provides a general perspective in terms of positive functions in areas related to different elements that we believe are important (Diener et al., 2010).
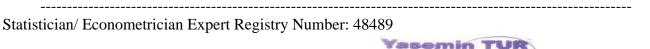
1.3.4. Loneliness Scale (LOSS)

The Loneliness Scale (LOSS) was developed by Russell, Peplau, and Ferguson in 1978, and was later revised by Russell, Peplau, and Cutrona in 1980. This developed scale was developed in order to determine how lonely people are. The scale consists of 20 items in total, 10 of which are reverse coded. Scale items are answered on a four-point Likert scale (1 = I have never experienced this situation; 4 = I experience this situation often).

10 items (1,4,5,6,9,10,15,16,19,20) indicate positive expressions showing satisfaction with social relationships, 10 items (2,3,7,8,11,12,13,14,17) ,18) include negative expressions showing dissatisfaction with social relations. The highest score obtained from the scale is 80, and the lowest score is 20. As the scores obtained from the scale increase, the Loneliness Syndrome levels of the individuals also increase.

In the reliability study of the original form of the scale, 0.89 correlation was found between the first form and the revised form. It was determined that the reliability coefficients of the scale's internal consistency and score invariance were sufficient.

Findings regarding the validity of the scale show that the scale significantly distinguishes between lonely and non-lonely subjects.

1.4. Data Collection

Multimorbid individuals forming the research area were informed about the purpose and requirements of the application and the criteria for inclusion in the research. An Informing Form (Annex-1) about the purpose of the research was given to 30 multimorbid individuals who met the research criteria and were willing to participate in the group work, and their written consent was obtained for their participation in study (Information Consent Annex 2).

A total of 50 people selected as the experimental group volunteered for the application. Among these volunteers, 15 multimorbid individuals who could regularly participate in weekly group therapy activities were included in the experimental group. Then, Personal Information Form (Annex-3), Loneliness Scale (LOSS) (Annex-6), Psychological Well-Being Scale (PWBS) (Annex-5) were applied to this group. Psychological Well-Being and Loneliness Syndrome scores were obtained before participating in the multitherapy group practices of the multimorbid individuals in the experimental group. In the group selected as the control group, the scales and personal information form were filled by 30 volunteers who met the research criteria. Among these individuals, 15 individuals with homogeneous characteristics with the experimental group characteristics were evaluated within the scope of the control group. Multitherapy group activities will be planned in line with the data obtained. The activities planned and organized according to the needs of the group will be implemented in 24 sessions, 2 sessions of 180 minutes per week.

During the multitherapy practices with the experimental group, no intervention will be made on the control group. After the 3-month study, the Psychological Well-Being (Annex-5), and Loneliness Syndrome (Annex-6) scales will be administered to the experimental and control groups as a post-test. The data obtained will be evaluated through the quantitative SPSS analysis program. In addition, written feedback will be received from the experimental group volunteers at the end of the Multitherapy sessions.

1.5. Analysis of Data

SPSS 25.0 statistical package program will be used in the analysis of the quantitative data of the research. The significance level will be taken as 0.05 in all analyzes. Before proceeding to the analysis, the normality of the data was tested with the Kolmogorov Smirnov test in order to decide on the statistical technique. In the analyzes performed separately on the data of the

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experimental and control groups, it was concluded that the data showed a normal distribution, since the p value was greater than 0.05 (See Table 2). Parametric tests were applied due to the normal distribution of the data.

Kolmogorov Smirnov Test Results

Practise	Group	Value	Sd	p
LOSS Pre Test	**Experiment**	0,208	1	0,125
	Control	0,172	1	0,174
LOSS PostTest	**Experiment**	-	-	-
	Control	-	-	-
PWBS Pre Test	**Experiment**	0,134	1	0,200
	Control	0,148	1	0,200
PWBS Post Test	**Experiment**	-	-	-
	Control	-	-	-

Table 2.

The "independent groups t-test" will be used to compare the pre-test and post-test mean scores of the experimental and control groups. In the comparison of the pretest and posttest mean scores of the experimental and control groups separately, the "dependent groups t-test" will be used. Apart from these, the mean standard deviation, frequency and percentage distributions will also be included in the calculation when describing the data.

2. FINDINGS

Under this heading, there is information about the quantitative findings to determine the effect of the Multitherapy group activity prepared for the nursing home residents participating in the research on Loneliness Syndrome and Psychological Well-Being, and the evaluation of the demographic characteristics of the volunteers.

2.1. Evaluation of Demographic Characteristics Between Groups

First of all, a chi-square analysis was used to determine whether a total of 30 multimorbid individuals in the multitherapy (15) and control (15) groups, who did not receive any intervention, differed in terms of some socio-demographic variables. According to the analysis made;

Ho: There is a statistically significant difference between the experimental and control groups.

H1:There isn't statistically significant difference between the experimental control groups.

Gender (X2=0.033, Sd=1, p>.05)

Marital status (X2=0.033, Sd=1, p>.05)

Education level (X2=0.088, Sd=1, p>.05)

Age (t=-1.809, p>.05)

No statistically significant difference was found between the experimental and control groups. (H1) Therefore, it can be said that the groups show a similar distribution in terms of some socio-demographic variables.

2.2. Comparison of the Pre-Test Scores of the Groups from the Scales

It was evaluated whether the multimorbid individuals in the experimental group participating in the multitherapy applications and the control group that received no intervention differed from each other in terms of the measurements evaluated in the research before the multitherapy group applications started. According to the analysis, the comparison of the Loneliness Syndrome level pretest scores of the experimental and control groups is presented in Table 3, and the comparison of the Psychological Well-Being level pretest scores is presented in Table 4.

Comparison of the mean scores of the experimental and control groups from the pre-test application of the Loneliness Scale

Pre-Test	Group	N	Avarage	SS	t	p
LOSS	**Experiment**	15	41,06	8,30	0,550	0,587
	Control	15	38,89	12,48		

Table 3.

According to the findings in the table, there is no significant difference between the experimental and control groups in terms of Loneliness Scale (LOSS) pre-test mean scores (t=0.550, p>0.05). According to this result, it can be said that the Loneliness Syndrome levels of the experimental and control groups before the Multitherapy group activity were similar.

Comparison of the scores of the experimental and control groups from the pre-test application of the Psychological Well-Being Scale (PWBS)

Pre-Test	Group	N	Avarage	SS	t	p
PWBS	**Experiment**	15	45,84	2,73	1,295	0,207
	Control	15	47,88	5,87		

Table 4.

According to the findings, there was no significant difference between the experimental and control groups in terms of the Psychological Well-Being Scale (PWBS) pre-test mean scores (t=-1.295, p>0.05). According to this result, it can be said that the psychological well-being levels of the experimental and control groups before the Multitherapy group activity were similar.

2.3. Findings Regarding Inter-Group and In-Group Comparisons

2.3.1. Findings Related to Loneliness Syndrome

Under this heading, there are the findings of the statistical analyzes made to determine the effect of the Multitherapy group activity in which the nursing home residents participated, on the Loneliness Syndrome.Loneliness Syndrome levels of multimorbids were determined by Loneliness Scale (LOSS). The findings under this title of the research;

- Is there a significant difference between the pretest and posttest total scores of the Loneliness Scale (LOSS) of the multimorbids in the experimental group participating in multitherapy practices?

- Is there a significant difference between the Loneliness Scale (LOSS) pre-test and post-test total scores of the multimorbids in the control group that did not receive any treatment?

Statistician/ Econometrician Expert Registry Number: 48489

Yasemin TUR
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- Is there a significant difference between the post-test total scores of the Loneliness Scale (LOSS) applied to the multimorbidity constituting the control and experimental group after multitherapy applications? It is an answer to the questions expressed in the form of.

2.3.1.1. Next Loneliness Scale Post-Test (LOSS) Applied to the Experimental Group

In this section, the comparison of the scores of the experimental group from the pre-test and post-test application of the Loneliness Scale (LOSS) will take place. According to the findings, it will be compared whether there is a significant difference between the average scores of the experimental group's Loneliness Scale (LOSS) pre-test ($\bar{X}$=41.07) and post-test. According to this result, it will be measured whether the multitherapy group effectiveness has a significant effect on reducing the level of Loneliness Syndrome in the experimental group.

2.3.1.2. Next Loneliness Scale Posttest (LOSS) to be Applied to the Control Group

In this section, the comparison of the Loneliness Scale (LOSS) pre-test and post-test scores of the control group will take place. According to the findings, it will be compared whether there is a significant difference between the average scores of the experimental group's Loneliness Scale (LOSS) pre-test ($\bar{X}$=38.88) and post-test. Accordingly, the change in the Loneliness Syndrome levels of the control group will be determined in the three-month period.

2.3.2. Findings Related to Psychological Well-Being

Under this heading, there will be findings to determine the effect of the Multitherapy group activity prepared for the volunteers participating in the research on Psychological Well-being. Psychological Well-being levels of multimorbids will be determined by Psychological Well-Being Scale (PWBS). The findings under this title of the research;

- Is there a significant difference between the Psychological Well-Being Scale (PWBS) pre-test and post-test total scores of the multimorbids in the experimental group participating in multitherapy practices?

- Is there a significant difference between the Psychological Well-Being Scale (PWBS) pre-test and post-test total scores of the multimorbids in the control group that did not receive any treatment?

- Is there a significant difference between the total scores of the Psychological Well-Being Scale (PWBS) post-test applied to the multimorbidity constituting the control and experimental groups before the multitherapy applications? It will be an answer to the questions expressed in the form of.

2.3.2.1. Comparison of the Scores of the Experimental Group from the Psychological Well-Being Scale (PWBS) Pretest and Posttest Application

In this section, the comparison of the scores of the experimental group from the pre-test and post-test of the Psychological Well-Being Scale (PWBS) will take place. According to the findings, it will be checked whether there is a significant difference between the psychological well-being scale (PWBS) pre-test ($\bar{X}$ =45.84) and post-test mean scores of the experimental group. According to this result, it will be determined whether the multitherapy group activity has a significant effect on increasing the level of Psychological Well-being in the experimental group.

2.3.2.2. Comparison of the Control Group's Scores from the Psychological Well-Being Scale (PWBS) Pre-test and Post-Test Application

In this section, the comparison of the scores of the control group from the pre-test and post-test of the Psychological Well-Being Scale (PWBS) will take place. According to the findings, it will be checked whether there is a significant difference between the mean scores of the Psychological Well-Being Scale (PWBS) pre-test ($\bar{X}$=47.94) and post-test applications in the control group. The change in the level of well-being of the control group in the last three months will be observed.

2.3.2.3. Comparison of Experimental and Control Groups Scores from Psychological Well-Being Scale (PWBS) Post-Test Application

In this section, the comparison of the scores of the experimental and control groups from the Psychological Well-Being Scale (PWBS) post-test application will take place.According to the findings, it will be checked whether there is a significant difference between the experimental and control groups in terms of the Psychological Well-Being Scale (PWBS) post-test mean scores. According to this result, it will be analyzed whether multitherapy group activity has a significant effect on increasing the level of Psychological Well-being.

Statistician/ Econometrician Expert Registry Number: 48489

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