

The Effectiveness of Online Teaching of Existential Consciousness Group Therapy on Loneliness, Fatigue Impact, and Lifestyle in Home Quarantine in Hemodialysis Patients

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Abstract

Objective: Hemodialysis patients suffer many problems including feelings of loneliness, fatigue, and low lifestyle quality. This study aimed to investigate the effectiveness of online existential consciousness therapy on these patients' loneliness, fatigue, and lifestyle.

Method: The research method was quasi-experimental with a pretest-posttest and follow-up design with a control group. The research population was all hemodialysis patients who were referred to the dialysis center of Nikan Hospital in Tehran. Using the convenience sampling method, 30 participants were selected as study samples. Research instruments for collecting data were the Rasel's Loneliness Questionnaire (1978), the Fick's Fatigue Impact Questionnaire (1944), and the Corona Virus Lifestyle Scale (Ali Akbari Dehkordi, et al., 2020). For the experimental group, ten 90-minutes sessions were performed through Sky-room.

Results: MANCOVA and ANCOVA showed that existential consciousness training reduced the feeling of loneliness in the sub-components of not having a close friend, lack of loneliness, and isolation, but was not effective in the sub-component of sociability. This intervention also reduced the fatigue in the cognitive and social components but did not affect the physical component. It was also effective on the happy lifestyle but did not affect the healthy lifestyle.

Conclusion: Existential consciousness therapy was effective in reducing the loneliness feeling, fatigue impact, and lifestyle changes of hemodialysis patients during home quarantine. Therefore, this method can be used as a new therapeutic approach to reduce the loneliness and fatigue impact caused by hemodialysis and change patients' lifestyles during quarantine in medical centers and psychological services.

Keywords: Existential Consciousness, Fatigue, Hemodialysis, Loneliness, Lifestyle.

Introduction

Chronic Renal Failure (CRF) refers to advanced and irreversible renal failure that is usually progressive (Cooper, 2017). Existing treatments for patients with chronic renal failure include hemodialysis, peritoneal dialysis, and kidney transplantation, among which hemodialysis is the most common replacement for kidney function (Pernido,

2011). The use of this method, despite increasing the patients' life expectancy, exposes them to a wide range of physical, psychological, and mental disorders and behavioral changes such as anxiety, depression, loneliness, isolation, fatigue (Kiani, Rafeipour, Mashaychk, Tajbaksh, & Pouyamanesh, 2020, Sondergaard, 2020), social and economic problems that affect their overall quality of life (Raeisi, Omrani, Seyedzadeh, Akbari Tavasoli, & Safari, 2013). On the other hand, dialysis patients, compared to other people, are more vulnerable to being infected by a mutated coronavirus due to im-

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munodeficiency (Bahat, Parmaksiz & Sert, 2020). According to the World Health Organization (WHO), the transmission of the COVID-19 virus is more severe in people with certain diseases. Therefore, the World Health Organization has proposed two ways to reduce transmission: lockdown and social distancing (Siga, Elso, Gil, Basile, Benegas, & Iballo, 2021). Because home quarantine and the recommendation for social isolation are associated with socio-psychosocial consequences, such as depression and anxiety (Liu, Yu, 2019), loneliness, decreased social support, decreased life expectancy (Shigemura, Ursano, Morganstein, Kurosava & Benedek, 2020), feelings of anxiety (Ison, 2020), and mental fatigue (Carey et al., 2020), psychological interventions are vital in the treatment of these patients. According to some studies, 85% of the factors affecting health are psychological (Aliakbari Dehkordi, Eisazadeh & Aghjanbaglu, 2020). With the emergence and prevalence of the Covid-19 virus, people's lifestyle (especially individuals with certain diseases) has changed unpredictably (Jones, 2020; Pan, 2020). Thus, the definition of lifestyle by the World Health Organization (2020) has attracted public attention again.

In this regard, attention to lifestyle change and its treatment benefits is essential (Monye & Bamidele, 2020). Many changes in lifestyle can not only reduce psychological problems but also enhance physical and mental health (Gibson, Mason & Stones, 2021; Muslim Nahi & Nawras, 2020). Training lifestyles promotion to patients is a good approach to provide them opportunities to learn about the diseases and adaptation mechanisms and increase their skills (Hernandez-Acevedo, 2021). Home quarantine changes the lifestyle of hemodialysis patients by reducing their activity and interaction with friends and relatives that causes the feeling of loneliness in them. Feeling of loneliness is one of the psychological and social problems in hemodialysis patients to

which less attention has been paid so far. Researchers believe that many factors, including depression and anxiety (Sundstrom et al., 2020), mental health status, poor family support, poor physical function (Lee, Lay, Mahmood, Graf & Hoppmann, 2020), unhealthy behaviors, and behaviors leading to increased morbidity are associated with feelings of loneliness (Field, Poling, Mines, Bendell & Veazey, 2020). Therefore, according to the research findings, loneliness is a cognitive factor that affects health and well-being and has both immediate and long-term consequences in the individual's mental health, especially in hemodialysis patients (Sundstrom et al., 2020).

Some researchers have shown that existential consciousness training can be effective in reducing feelings of loneliness (Yalom, 1980, quoted in Shariatmadar, 2014; Sadri Damirchi & Ramazani, 2016). In addition to loneliness, feeling fatigued, which is on the rise in home quarantine, is among the other psychological traumas of hemodialysis patients (Shigemura et al., 2020; Carey et al., 2020). The prevalence of fatigue in patients undergoing hemodialysis varies from 60 to 97%. Fatigue refers to the feeling of inability to perform physical activities. Disgust feelings, lethargy, impatience, and muscle aches are manifested in the person in difficult situations that require capabilities beyond the individual's ability (Benovic et al., 2020; Debnath, Rueda, Bansal, Sharma, & Lorenzo, 2021). More than 50% of patients with end-stage renal disease complain the persistent fatigue frequently (Kang & Chae, 2021). In these patients, due to chronic disease and the physical and mental complications of dialysis, chronic fatigue and low quality of life emerge, which disrupts their daily life (Aghakhani & Fooladi, 2020; Levkovich, 2021; Carey et al., 2020).

Some studies have found an association between feelings of loneliness (Gruber & Schwanda, 2021),

emotional, and psychological fatigue (Levkovich, 2021; Carey et al., 2020) with lifestyles and self-care behaviors in people with specific and chronic illnesses, i.e. the feeling of sadness and loneliness and the effects of fatigue are important factors in reducing patients' adherence to treatment, and hence, patients' non-participation in treatment increases their medical problems and endangers their health, and even leads to their premature death (Chan, 2018; Debnath et al., 2021).

As it was mentioned earlier, patients undergoing hemodialysis suffer psychological stresses. Therefore, it seems necessary for psychologists to pay special attention to the treatment of these patients. Existential consciousness therapy is one of the effective treatment methods in reducing feelings of loneliness, isolation, decreasing death anxiety (Case Medical Research, 2020), overcoming existential frustration (Moon-Gue, 2021), increasing life satisfaction (Alami, Bakhtiarpour, Asgari, & Seraj Khorrami, 2020), and mental well-being (Ahmadi, Itanlou, Rezaee, Hassani, & Mohammadian, 2019). Existential point of view emphasizes the client's responsibility for reviving the true self. (Diamond, 2018; Alami et al., 2020). According to Yalom (1980, quoted in Berra, 2019), human existential and psychological well-being depends on dealing honestly and sincerely.

For May (1958, quoted in John, 2021), everybody is responsible for what s/he is and what s/he is going to be. In this respect, May's view is similar to Carl Rogers' (Berra, 2019). From the perspective of existential pathology, existential conflict arises from the four primary concerns of death, freedom, loneliness, and meaninglessness (Yalom, 1980, quoted in Shariatmadar, 2014). Existential consciousness therapy is based on the premise that man takes precedence over his nature (John, 2021). Enhancing one's consciousness has always been known as the main approach to change in psycho-

therapy (Diamond, 2018).

Accordingly, reviewing studies suggests that the use of various psychological methods such as muscle relaxation (Basiri et al, 2014), collaborative care (Ashkari et al, 2016), training lifestyle promotion (Oshvandi et al, 2018), mindfulness, cognitive therapy (Li, Wong, & Kim, 2017; Yasaei et al, 2018), and music therapy (Case Medical Research, 2020) multimedia training (Aghakani and Fooladi, 2020) can solve the problems of this disease. Due to the severity of physical and psychological consequences of this problem among this group of patients and the effect of psychological disorders such as depression, loneliness, isolation, fatigue, and lifestyle in the onset of this problem and the necessity of serious attention to various low-risk and non-physical treatments, this study aimed to investigate the effectiveness of online existential consciousness group therapy on loneliness, fatigue impact, and lifestyle during home quarantine in patients as the experimental groups.

Method

The research method was quasi-experimental with a pretest-posttest-follow-up design and a control group. The statistical population of the study was all patients with chronic renal failure undergoing hemodialysis in the dialysis center of Nikan Hospital in Tehran in 2020. The inclusion criteria for the patients to participate in the study were: 1- Being at least 6 months under hemodialysis treatment and having an active file in the dialysis center (not being a guest patient or periodic dialysis patient), 2- Performing dialysis three times a week and 3 to 4 hours each time, 3- being at the age range of 30 to 70 years old, 4- Having at least a diploma degree, 5- Having consciousness and ability to communicate, 6- Not having a stressful experience for the last 6 months, and 7- Not having a history of hospitalization due to mental problems.

Exclusion criteria were: 1- Being a candidate for kidney transplantation, 2- lack of laptop, tablet, and smartphone, as well as not being familiar with Skyroom and WhatsApp networks, 3- Having severe psychological and cognitive problems according to the neurologist diagnosis (research colleague), 4- Being reluctant to continue cooperating in the study, 5- Death during the research.

At the beginning of the study, there were 17 participants in each group, and later from each experimental group, two people were excluded from the study because of death. Therefore, two persons were randomly removed from the control group to equalize the groups. As a result, the final sample was 30. All participants responded to the questionnaires in the pre-test phase. For the experimental group, existential consciousness therapy was provided in ten 45-minutes sessions twice a week for five weeks. The control group was placed on the waiting list without receiving any intervention. At the end of the sessions, two groups performed post-test separately. After two months, everybody responded to the questionnaires for the third time (follow-up phase). The collected data were analyzed through multivariate analysis of covariance using SPSS software.

Ethical Statement

Before starting the research, written consent was obtained from all participants through WhatsApp, and complete confidentiality, regarding test scores and other data obtained during the research, was considered. It was assured that no subjects got other treatment during the study and if any subject did not incline to continue attending the sessions, she/he was free to leave the research. Also, after completing the research, 10 training sessions recorded offline were presented to the control group in WhatsApp.

Research instruments

*Rasel Loneliness Questionnaire (UCLA)*¹. The Rasel Loneliness Questionnaire has 20 items which are scored based on a 4-point Likert scale, including Never (Score 1), Rarely (Score 2), Sometimes (Score 3), and Often (Score 4). The range scores of this test are from 20 to 80. The Scale was first developed by Rasel and Ferguson, and after three times editing, the final version was administered to four groups of students, nurses, teachers, and the elderly through various methods such as self-report and interviews. The alpha values ranged from 0.89 to 0.94. In the elderly, a retest was performed one year later and the test-retest correlation was obtained 0.73. Davarpanah (quoted in Aliakbar Dehkordi, 2014) translated this scale into Persian and reported a Cronbach's alpha coefficient of 0.78 for it. In addition, through factor analysis, four factors of isolation, sociability, having no close friend, and not having lonely feelings were extracted, which explained 44.2% of the variance of the final score as a whole.

Fatigue Impact Scale (FLA). This scale is used as a common and accurate test in research, institutes, and clinics on patients with multiple sclerosis (Jahson, 2008). It is also used in patients with stroke, poliomyelitis, chronic fatigue syndrome, lupus, and hepatitis (Mathiowetz, 2003; Salome, D'Eila, Franchini, Samtill, & Papolucil, 2019). FLA was first introduced by Feick in 1994 and ranges from never, low, middle, high, and very high. The lowest score for each question is zero and the highest is 4. The tool contains 40 items that assess the limitations of people's performance as the result of fatigue in three dimensions of cognitive (with 10 items related to concentration, memory, thinking, and organizing thoughts), physical (with 10 items reflecting motivation, effort, tolerance, and coordination), and social (with 20 items determining the effect of fatigue on isolation, excite-

1- University of California Los Angeles Scale

ment, work pressure, and taking on tasks). The highest score is 160, which indicates more fatigue. Content validity of the Persian version was 0.85 and reliability in the physical, cognitive, and social sections and the whole was 0.86, 0.78, 0.92, and 0.93, respectively (Heidari, Akbar Fahimi, Salehi & Nabavi, 2012).

Lifestyle Scale During COVID- 19 Disease Pandemic: This scale was developed, validated, and verified by Ali Akbari Dehkordi, Mohtashami, and Tadriz Tabrizi (2020). In this questionnaire, lifestyle features were considered based on theoretical studies and topics discussed in the World Health Organization (2020). Lifestyle at home quarantine was defined in terms of three components: 1- Happy lifestyle, 2- Healthy lifestyle, and 3- normal life-

style. The questionnaire was finally administered to 350 residents in Tehran online. Data were analyzed using Cronbach's alpha and exploratory factor analysis. The results of exploratory factor analysis indicated the existence of two factors of a healthy lifestyle and a happy lifestyle, which altogether explained 34.6% of the total variance. Also, the reliability coefficient of the questionnaire using Cronbach's alpha indicates the optimal reliability for the whole scale ($\alpha = 0.77$), healthy lifestyle factors ($\alpha = 0.73$), and happy lifestyle ($\alpha = 0.81$). This scale has 28 phrases that are answered based on a 5-point Likert scale criterion (0 for never, 1 for rarely, 2 for sometimes, 3 for often, and 4 for always). The range of scores on this scale in each factor is from 0 to 56.

Table 1: Existential Consciousness Group Therapy

Sessions	
1	Introducing and establishing a therapeutic relationship. Teaching the existential theory, asking members to talk about feelings of loneliness, the effect of their fatigue, and lifestyle during quarantine.
2	Focusing on self-awareness. Identifying the insulators of life familiarity with defenses. Familiarity with lifestyle and healthy and happy habits during the restrictive conditions of home quarantine.
3	Familiarity with misconceptions and wrong habits, loneliness, and isolation; mental fatigue, Teaching problem solving to change the lifestyle.
4	Explaining the existential concepts. Increasing self-awareness with the aim of reducing negative feelings of loneliness, fatigue, and changing unhappy and unhealthy lifestyle.
5	Increasing self-awareness on issues related to the natural dimension in order to reduce feelings of loneliness and isolation, using limbs and muscles to create a healthy lifestyle and reduce the feeling of fatigue.
6	According to quarantine conditions, increasing self-awareness in the social dimension.
7	Increasing self-awareness in loneliness and isolation feelings, fatigue and emptiness, and lifestyle in the psychological dimension.
8	Increasing self-awareness in loneliness and isolation feelings, fatigue and emptiness, and lifestyle in the spiritual dimension.
9	Harmony in four existential dimensions. Combine the experience of each dimension according to other dimensions
10	provide feedback Review and analysis the content of previous

Table 2. Descriptive table of demographic characteristics

		Percent		
		control	Experimental	Follow up
Gender	Female	33.3	33.3	33.3
	Male	66.7	66.7	66.7
Age	30-40	13.3	13.3	13.3
	41-50	40.0	13.3	13.3
	51-60	46.7	40.0	40.0
	61-70	0	33.3	33.3
	61.70	0	33.3	33.3
education	Diploma	26.7	26.7	26.7
	P .diploma &bachelor	73.3	33.3	33.3
	MA	0	26.7	13.3
	P.H.D	0	13.3	26.7
Employment status	Employee	53.3	33.3	40
	Freelance	40.0	26.7	20
	Housewife	6.7	6.7	13.3
	Retired	0	20.0	6.7
	Unemployed	0	13.3	20
marital status	Married	53.3	80.0	70
	Single	26.7	20.0	20
	Divorced	13.3	0	0
	Death of wife	6.7	0	10
Number of family members	2	13.3	13.3	10
	3	26.7	20.0	20
	4	40.0	20.0	40
	5	20.0	26.7	20
	>5	0	20.0	10
Stress	YES	0	0	0
	NO	100	100	100
Dialysis history	6 Month	0	13.3	10
	1 year	53.3	20.0	40
	2 year	46.7	40.0	10
	3 year	0	0	20
	4 year<	0	26.7	20
Kidney transplant	I had	13.3	6.7	6.7
	I did not have	86.7	93.3	93.3
Etiology	Diabetes	80.0	33.3	70
	blood pressure	20.0	53.3	20
	Other factors	0	13.3	10

Therapeutic protocol: Existential consciousness Intervention Protocol was designed based on common concepts in existential theorists, such as May,

Yalom, and Frankel, and the blind steps proposed by Dr. Shariatmadari in his book, "Existential consciousness in Group Therapy". It was administered

Table 3. Means, standard deviations (\pm),

	Groups	pretest	Posttest
Loneliness	control	55.40007.30753 \pm	54.6667 \pm 6.76827
	Experimental	68.40004.27284 \pm	70.0667 \pm 4.36654
	Follow up	68.26674.47958 \pm	68.33334.18614 \pm
Emotional fatigue	control	125.600011.89117 \pm	125.2000 \pm 11.63861
	Experimental Pre test	126.466710.82238 \pm	137.6000 \pm 9.62734
	Follow up	123.933310.98354 \pm	124.133310.74288 \pm
Control	control Pre test	85.133314.66710 \pm	84.7333 \pm 14.75256
	Experimental Pre test	127.466711.81927 \pm	141.4667 \pm 9.10939
	Follow up	127.333311.93235 \pm	127.333311.64760 \pm
Lifestyle	control Pre test	14.53332.03072 \pm	14.2000 \pm 2.14476
	Experimental Pre test	15.73331.90738 \pm	14.8000 \pm 1.85934
	Follow up	17.46672.69568 \pm	17.73332.46306 \pm
Social	control Pre test	13.46673.29213 \pm	13.0667 \pm 2.68506
	Experimental Pre test	16.86671.68466 \pm	19.2667 \pm 2.05171
	Follow up	16.80001.61245 \pm	16.80001.78085 \pm
Not close Friend	control Pre test	16.80002.62406 \pm	16.3333 \pm 2.22539
	Experimental Pre test	19.53332.44560 \pm	19.6000 \pm 2.41424
	Follow up	19.60002.29285 \pm	19.46672.23180 \pm
Seclusion	control Pre test	10.73332.08624 \pm	10.3333 \pm 2.05866
	Experimental Pre test	14.33331.54303 \pm	16.8000 \pm 2.33605
	Follow up	14.26671.62422 \pm	14.46671.59762 \pm
Not lonely	control Pre test	33.46674.79385 \pm	32.9333 \pm 4.93481
	Experimental Pre test	29.33332.16025 \pm	31.5333 \pm 2.32584
	Follow up	32.93333.15021 \pm	33.13333.44065 \pm
Cognitive	control Pre test	63.40008.01606 \pm	63.2000 \pm 7.99285
	Experimental Pre test	63.73335.82441 \pm	72.5333 \pm 5.08312
	Follow up	63.66675.56349 \pm	63.53335.33006 \pm
Sociability	control Pre test	28.73333.55501 \pm	28.5333 \pm 3.68136
	Experimental Pre test	30.73333.86313 \pm	31.1333 \pm 4.01545
	Follow up	30.80003.62925 \pm	30.86673.73911 \pm
Physical fatigue	control Pre test	45.46678.29687 \pm	45.3333 \pm 8.60786
	Experimental Pre test	54.73334.49550 \pm	60.1333 \pm 3.06749
	Follow up	54.86674.59606 \pm	54.53334.40562 \pm
Happiness	control Pre test	39.66677.36465 \pm	40.4667 \pm 7.36659
	Experimental Pre test	42.06677.44951 \pm	41.5333 \pm 7.27880
	Follow up	42.13337.35689 \pm	42.13337.56747 \pm
Healthy	control Pre test		
	Experimental Pre test		
	Follow up		

online in groups for ten 90-minute sessions twice a week in a Sky-room environment and was recorded offline in WhatsApp for the absent patients. This protocol was implemented by a pioneer researcher, who was an expert in this field and was supervised by the other researchers. At the same time, a group was formed in WhatsApp to answer participants'

groups (pre-test and post-test).

The results of inferential statistics analysis are shown in Table 4.

As can be seen in Table 4, the difference between the two groups in the dependent variables in all four tests is significant ($0.05 > 0.000$). In other words, group therapy was effective on feelings of loneli-

Table 4. Results of multivariate analysis of variance

Effect	Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Pillai's Trace	1.731	3.399	60	385.000	<0.05	.346
Wilks' Lambda	.025	6.904	60	345.609	<0.05	.522
Hotelling's Trace	13.165	15.666	60	357.000	<0.05	.725
Roy's Largest Root	11.300	72.507 ^c	12	77.000	<0.05	.919

questions and exchange their views.

Results

The results of demographic information are provided in Tables 2.

Table 3 presents descriptive statistics (mean and standard deviation) of research components and sub-components in experimental and control

ness, the fatigue impact, and lifestyle during home quarantine in patients undergoing hemodialysis.

As can be seen in Table 5, the difference between the two groups in the feeling of loneliness and its components (not having a close friend, isolation, and not feeling lonely) is significant ($0.05 > 0.000$) but it is not significant in the social component ($0.05 < 0.109$). The difference between the two

Table 5. Results of multivariate analysis of covariance to compare the mean scores

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	R ²
Loneliness	3049.467	5	762.011	26.258	<0.05	.610	.587
fatigue impact	1590.850	5	405.964	3.370	<0.05	.167	.118
Lifestyle	38274.467	5	8898.631	57.196	<0.05	.773	.759
Sociability	19.517	5	34.998	7.203	>0.05	.100	.258
Not close friend	390.000	5	83.138	16.161	<0.05	.490	.460
Isolation	136.667	5	35.964	6.368	<0.05	.275	.232
Not lonely	426.850	5	92.364	25.634	<0.05	.604	.581
Cognitive	153.250	5	36.631	2.776	<0.05	.142	.091
Social	931.517	5	204.251	4.956	<0.05	.228	.182
Physical fatigue	80.850	5	20.587	1.464	>0.05	.080	.025
Happy	2390.850	5	521.458	14.683	<0.05	.466	.435
Healthy	52.000	5	16.160	.295	>0.05	.017	-.041

groups due to fatigue impact and its components (cognitive and social) is significant ($0.05 > 0.008$) but not significant in the physical component ($0.05 < 0.210$). The difference between the two groups in lifestyle and the component of a happy lifestyle is significant ($0.05 > 0.000$) but in the component of a healthy lifestyle it is not significant ($0.05 < 0.914$).

Discussion and conclusion

This study aimed to examine the effectiveness of online existential consciousness group therapy on loneliness, fatigue impact, and lifestyle during home quarantine in patients undergoing hemodialysis. The results of variance analysis of scores showed that existential consciousness group therapy has been effective in reducing feelings of loneliness, fatigue impact, and lifestyle change in the patients undergoing hemodialysis. Regarding the feeling of loneliness, the findings showed that the training was effective in the feeling of total loneliness and the components of loneliness feeling, isolation, and not having a close friend in the dialysis patients and was not effective on the component of sociability. This finding is in line with previous similar studies (e.g., Sundstrom, et al, 2020; Tedadi Ajerlo & Sadri, 2020; Sadri Damirchi & Ramazani, 2016; Bahrani, 2016). Explaining the research finding, it can be said that with an increasing level of loneliness, self-care abilities in dialysis patients decrease (Hatami et al, 2018; Abedi, 2021). On the other hand, increasing these patients' awareness of their problems such as feeling lonely, is one of the main processes of change in existential consciousness therapy. Improving dialysis patients' awareness leads to promoting patients' choices to guide their lives (Ahmadi et al., 2019). According to Corey (2016), members in the group setting could have the opportunity to express their feelings of loneliness and isolation and their mental views about these feelings. In this approach, when the

dialysis patients are in a state of consciousness, they take responsibility for their negative emotions such as isolation and loneliness, not having a close friend, and not being social. As the dialysis patients share their experiences in group therapy and could have the opportunity to support each other and make new friends, the number of friends increases, and the feeling of isolation decreases. Also in this therapeutic approach, dialysis patients are trained to make meaningful relationships with others instead of isolating themselves.

One finding showed that existential consciousness training was not effective on the socialization component in the variable of loneliness. Since the variable of loneliness has not been evaluated in the previous studies, it is not possible to compare the consistency or non-consistency of this finding with other studies. In explaining this finding on the ineffectiveness of existential consciousness therapy, we can refer to assessing and structural understanding of this variable. Studies on the structural and extensive conceptualization of the components of this variable should be considered. Thus, different results are expected based on different dimensions of loneliness in each study. We can also point to the possibility of moderators in this relationship. Thus, moderators, such as the culture of the dialysis patients under study, age conditions, research time, geographical location, and finally, the culture of the region, may affect the significance of certain aspects of loneliness.

Another finding of the study showed that existential consciousness training is effective on the total fatigue impact, cognitive and social components, and is not effective on the physical component. Given that so far, no research has examined the effectiveness of existential consciousness training on the fatigue impact or its components, in this study we compare the results of research with other treatments. Regarding the reduction of fatigue in

the hemodialysis patients, many studies have been conducted, among which we can refer to some non-pharmacological interventions which were helpful in reducing the effects of fatigues of people under hemodialysis, such as care plan based on the Roy Adaptation Model (Asgarpoor, Amini, Zeraati, & Esmaeli, 2011). Relaxation (Basiri Moghadam et al., 2014), exercise, counseling, rehabilitation, and acupuncture participatory care model (Lashkari et al., 2016), laughter therapy (Shrifi et al., (2019). Explaining this finding, it can be said that the challenge in the physical dimension of existential consciousness is to overcome the elements and natural laws against accepting the constraints such as arising from the hemodialysis that natural laws create. Recognizing and accepting limitations such as fatigue from hemodialysis relieves stress (John, 2021). At this therapeutic approach, dialysis patients are able to experience their feelings in all aspects and levels of their existence, closely and without intermediaries, and release themselves from fatigue and find themselves at the peak of vitality (Van Dcurzen & Adams, 2016).

On the other hand, the finding showed that existential consciousness training had no significant effect on the physical subcomponent of fatigue. Explaining this finding, it can be said that one of the causes of fatigue in the physical dimension in patients undergoing hemodialysis is malnutrition. These patients have restrictions on diet and fluids (Churchill et al., quoted by Asadi, Rovani & Abbaszadeh, 2014). Since the participants in the study were not examined for malnutrition, and on the other hand, this therapy does not affect malnutrition, perhaps it was one of the reasons for the ineffectiveness of existential consciousness therapy on physical fatigue. In another explanation, it can be said that some studies have shown that there is a significant relationship between hemoglobin levels and the amount of physical fatigue in pa-

tients undergoing hemodialysis (Rejeh, Hearavi, Karamie, Bahrami, Racami & Tadriz Zots, 2015). In this study, patients' hemoglobin levels were not examined. Another factor that causes physical fatigue in these patients is the decrease in activity and mobility (Liu, 2006). In existential consciousness training, no tasks have been designed to increase physical activity and mobility. On the other hand, the duration of dialysis is a factor that is directly related to fatigue, especially in the physical dimension (Liu, 2006). In the present study, the duration of dialysis in patients was not examined, so these factors could also be other reasons for the ineffectiveness of existential consciousness therapy on physical fatigue. Another cause of physical fatigue in dialysis patients is anemia. Some studies have shown an association between anemia and fatigue in hemodialysis patients (Mollaoglu, 2009; Ejlali et al., 2019). In this study, the history of anemia was not considered, which could be another reason for the ineffectiveness of this therapeutic approach on physical fatigue.

Moreover, it was shown that existential consciousness training was effective on the happy component and not effective on the healthy component of the variable of lifestyle during quarantine. The result of the present study is consistent with the results of some other studies (Sorajjakool et al., 2008; Oshvandi et al., 2018). Explaining the significance of this training in a happy lifestyle, it can be said that spirituality has been considered as one of the effective factors in a happy lifestyle in hemodialysis patients. Researches have shown that spirituality and religious practices are effective in promoting mental health in hemodialysis patients (Jan-nati, Zati Rostami & Emami, 2017; Millan et al., 2018). Researchers believe that to deal with stress and anxiety caused by the disease, it is necessary to cope with it positively (Jones, 2020). Existential consciousness training is one of the effective treat-

ment strategies for a happy lifestyle (Ahmadi et al., 2019). In another explanation, it can be said that when hemodialysis patients find attention and presence in the natural dimension, they experience their feelings in all aspects and levels of their existence closely and without intermediaries and find themselves at the peak of vitality (John, 2021, quoted in May 1958; Millan et al., 2018; Oshvandi, et al., 2018; Jannati et al, 2017). This training, especially in the psychological dimension and making life happy during quarantine, has changed the hemodialysis patient's lifestyle and was therefore effective. In the explanation of any significance of this training on a healthy lifestyle, we can point to the physical limitations in hemodialysis patients. Also, due to the prevention of complications of renal failure and dietary restrictions, a significant change in nutrition cannot be expected in hemodialysis patients (AL-Kandar, Vidal & thomwar, 2008). The results of various studies confirm the results of this study (Kim & Yang, 2021; Haisum, Maqseed & Rubib, 2019).

The limited scope of this study to Hemodialysis Patients in Tehran, and not considering the patients' level of education and knowledge, age, occupation, marital status, previous experiences, emotional and psychological characteristics, and spiritual and religious backgrounds were the limitations that can affect their performance, interests, motivation, and effectiveness of treatment. Another limitation of this study is related to the sampling method that was convenience sampling, which limited the control over the representativeness of the samples. Therefore, in order to increase the generalizability of the results, it is recommended to conduct this in other provinces and regions with different cultures, other diseases such as cancer, diabetes, etc.

Also, due to the widespread prevalence of Covid-19 at the time of the study, pretest-posttest, follow-up, and treatment sessions were performed

virtually, thus only people who were familiar with cyberspace and the use of Skyroom and WhatsApp participated in the study. It is suggested that the package be taught to psychologists and counselors of health centers through specialized workshops so that they can take a practical step towards improving loneliness, fatigue, lifestyle, and other complications in hemodialysis patients by providing intervention to them. It is recommended this treatment be applied to other patients with chronic and progressive diseases as well.

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References

- Abadi,S.(2021).*The effect of loneliness on self-care in the elderly with dialysis*. National Conferences on Elderly Health.
- Aghakhani, N. & Fooladi.S.(2020). Multimedia training, a good method to reduce fatigue in patients undergoing hemodialysis. *Saudi Journal of Kidney Diseases and Transplantation*.31(2).571. DOI: 10.4103/1319-2442.284044
- Ahmadi, S., Iianlou, H., Razaee, M., Hassani, MB. & Mohammadian, D. (2019). Teaching existential consciousness on psychological well-being in Takestan Teachers. *Journal of Disability Studies.*, 9(122), 1-5.
- Alami, S., Bakhtiarpour. S., Asgari, P., & Seraj Khorrani, N. (2020). Comparison of the Effectiveness of Existential Group Therapy with Cognitive-Behavioral Group Therapy on Increasing Life Satisfaction among the Methadone Maintenance Patients. *Avicenna Journal of Neuro Psycho Physiology.*7(3).172- 177.
- Aliakbari Dehkordi ,M., Mohtashami,T , & Tadriz Tabrizi,M. (2020). Developing, validity and

- validated Lifestyle Scale During COVID-19 Disease Pandemic. *Quarterly Journal of Health Psychology*.9(1).33.161-177. 10.30473/HPJ.2020.53009.4819
- Aliakbari Dehkordi, M., Eisazadeh, F., & Aghjanbaglu, S. (2020). Psychological Consequences of Patients with Coronavirus (COVID- 19): A Qualitative Study. *Iranian Journal of Health Psychology*; 2 (2): 9-20.
- Aliakbari Dehkordi, M., Mohtashami, T., Peymanfar, E., & Borjali, A. (2014). The Comparison of Different Levels of Religious Attitude on Sense of Meaning, Loneliness and Happiness in Life of the Elderly Under Cover of Social Welfare Organization of Urmia City. *Salmand*,9(4).297-329.
- Al-Kandari, F., Victoria L. Vidal, V., & Thomas, D. (2008). Health-promoting lifestyle and body mass index among College of Nursing students in Kuwait: A correlational study. *Nursing & Health Sciences*. 10 (1)1 ,43 to 50. DOI: 10.1111/j.1442-2018.2007.00370.x
- Asadi, N., Royani, Z., & Abbaszadeh, A.(2014). A study of some fatigue-related factors based on unpleasant symptoms theory in Kerman-resident hemodialysis patients. *Modern Care, Scientific Quarterly of Birjand Nursing and Midwifery Faculty*. 11 (2):119-126.
- Asgarpoor, F., Amini,Z, Zeraati A, Esmaeli H.(2011). *The effect of a care plan based on the Roy Adaptation Model on level of Fatigue in hemodialysis patients* . Evidence -based care. 2011;1(1):77 -89.
- Ashkari F., Brazparandjani Sh., Latifi SM., Chahkhoei M., Khalili A., Paymard, A., Dehghani F., (2016). The effect of collaborative care model on the fatigue in patients undergoing maintenance hemodialysis: A randomized clinical trial.
- Bahat,K.A., Parmaksiz,E.,& Sert.S.(2020). The clinical characteristics and course of COVID-19 in hemodialysis patients. *Hemodialysis International*. 24 (4).534-540. DOI: 10.1111/hdi.12861
- Bahreni, N. (2016). Determining the effectiveness of cognitive-behavioral stress management on reducing anxiety and depression in dialysis patients. *World Conference on Psychology and Educational Sciences, Law and Social Sciences at the beginning of the third millennium*. <https://civilica.com/doc/517067>
- Banovic, I., Montreuil, L., Derrey-Bunel, M., Scrima, F., Savoye, G., Laurent Beaugerie, & Gay, M-c. (2020). Toward Further Understanding of Crohn's Disease-Related Fatigue: The Role of Depression and Emotional Processing. *Frontiers in Psychology*. 11. <https://doi.org/10.3389/fpsyg.2020.00703>
- Basiri Moghadam, M., Madadkar Dehkordi, SH., Mohammadpour, A., & Vaezi, A. (2014). Effect of Progressive Muscle Relaxation Technique on Fatigue in Patients Undergoing Hemodialysis. (2013). *Preventive Care in Nursing and Midwifery Journal (PCNM)*; 3(2), 24-32.
- Berra, L. (2019). Existential Depression: A Nonpathological and Philosophical-Existential Approach. *Journal of Humanistic Psychology* .002216781983474. DOI: 10.1177/0022167819834747.
- Carey, J., Pera, A., &, Balica, R. (2020). "Emotional Fatigue, Psychological Distress, and Clinically Significant Depression Associated with Being a COVID-19 Frontline Healthcare Worker," *Psychosociological Issues in Human Resource Management* 8(2): 27-36. doi:10.22381/PIHRM8220203
- Case Medical Research (2020). *Benson Relaxation Technique Combined with Music Therapy for Fatigue, Anxiety, and Depression in Hemodialysis Patient*. DOI: 10.31525/ct1-nct04299256.
- Chan, L. E. (2018). *Dietary Sodium and Blood Pressure Changes in Hemodialysis Patients Undergoing a Liberalized Renal Diet Intervention*. Master's thesis, Department of Family and Consumer Sciences ILLINOIS state University. <https://search.proquest.com/docview/2066781624>
- Cooper, S. D. (2017). *The Lived Experience of In-*

- Center Hemodialysis Patients Receiving Treatment in DeKalb County, Georgia.* doctoral dissertation. Walden University. College of Health Sciences. <https://search.proquest.com/docview/1944207502>
- Corey, G. (2016). *Theory and Practice of Group Counseling*. Pacific Grove, CA; Brooks/Cole.
- Debnath, S., Rueda, R., Bansal, Sh., Sharma, K., & Lorenzo, C. (2021). Assessment of fatigue in hemodialysis patients: Performance of the Brief Fatigue Inventory. *General Hospital Psychiatry*. 68 ,115 – 117. DOI:10.1016/j.genhosppsych.2020.08.006
- Diamond, S.A. (2018). Existential Therapy and Jungian Analysis: Toward an Existential Depth Psychology. *Journal of Humanistic Psychology*. on page 002216781880991. DOI: 10.1177/0022167818809915.
- Ejlali, F.R., Khazaei, M.R., Mostafavian, Z., & Jalil, M. (2019). The Effect of Discontinuation of Angiotensin-II Receptor Blocker on Therapeutic Effect of Synthetic Erythropoietin on Anemia Modification in Hemodialysis Patients. *The Horizon of Medical Sciences*. 25(3): 230-243
- Field, T., Poling, S., Mines, Sh., Bendell, D., & Veazey, C. (2020). Feeling Isolated and Lonely During Covid-19 Lockdown. *Archives of Health Science*. 1-9. DOI: 10.31829/2641-7456/ahs2020-4(1)-121.
- Fried, A. L., & Fisher, C.B. (2016). Moral stress and job burnout among frontline staff conducting clinical research on affective and anxiety disorders. *National Institutes of Health*. 47(3), 171 – 180. <https://doi.org/10.1037/pro0000060>
- Gibson, C.A., Mason, C., & Stones, J. (2021). Living Well with Lifestyle Medicine: A group consultation approach to delivering Lifestyle Medicine Intervention in Primary Care. *Lifestyle Medicine*. 2 (1). <https://doi.org/10.1002/lim2.19>
- Gruber, R., & Schwanda, M. (2021). Feeling fearful and lonely are indicative experiences of emotional distress for people with dementia. *Evidence Based Nursing*. 24(2). 50-51. DOI: 10.1136/ebnurs-2018-103003
- Haisum Maqsood, M., & Rubab, K. (2019). Quality of Life of Patients Using the Hemodialysis Reliable Outflow (HeRO) Graft in Hemodialysis. *Cureus*. 11(1): e3915. doi:10.7759/cureus.3915
- Hatami, A., Badrani, M.R., Mahnazadeh, M., & Hematipoor, A. (2018). Investigating the relationship between hope and feeling of loneliness with social support of hemodialysis patients in Shushtar city. *Fifth Student Research Congress in the southwestern region of the country*. <https://civilica.com/doc/858339>
- Heidari, M., Akbarfahimi, M., Salehi M., & Nabavi, S.M. (2012). Survey validity of translation for Persian and cultural adaptation of Fatigue Impact Scale (FIS) questionnaire in multiple sclerosis patients in Iran. *Journal of Modern Rehabilitation*. 6(3). 20-29.
- Hernandez-Acevedo, B. (2021). Nursing faculty integrate simulation instruction into their teaching practice: A phenomenological study. *Teaching and Learning in Nursing*. <https://doi.org/10.1016/j.teln.2021.03.003>
- Ison, M.G. (2020). Coronaviruses: HCoV, SARS-CoV, MERS-CoV, and COVID-19. *DeckerMed Anesthesiology*. DOI: 10.2310/anes.1422
- Jannati, Y., Zati Rostami, M., & Emami, S. (2017). Spirituality and Its Related Factors in Hemodialysis Patients. *Religion and Health*. 4(2). 12-19.
- John, M. (2021). The “existential” in existential psychotherapy: pressing issues of everyday life necessitate intuition informed practice. *Australian Psychologist*. 1 – 10. DOI: 10.1080/00050067.2021.1893602
- Johnson, S.L. (2008). The concept of fatigue in multiple sclerosis. *Journal of Neuroscience Nursing*. 40(2):72-77. DOI: 10.1097/01376517-200804000-00005
- Jones, J. (2020). COVID-19: lifestyle tips to stay healthy during the pandemic. *Madigan Army Medical Center*. <https://www.afllmc.af.mil/News/Article-Display/Article/2147181/staying-physically-activeduring->

- covid-19/.
- Kang,H.,&Chae,Y.(2021). Effects of Integrated Indirect Forest Experience on Emotion, Fatigue, Stress, and Immune Function in Hemodialysis Patients. *International Journal of Envir on mental Research and Public Health*.18(4).1701. DOI: 10.3390/ijerph18041701
- Kiani ,L., Rafeipoor,.A., Mashayekh ,M., Tajbaksh ,R.,& Pouyamanesh.J(2020). The Relationship between Resilience and Post Traumatic Growth in Patients on Hemodialysis. *Quarterly Journal of Health Psychology*.8(4).93-104
- Kim,S.,& Yang,J.(2021). An Alternative View of a Hemodialysis–Life Balance: Life Reorganization of Korean Patients Undergoing Hemodialysis. *Journal of Transcultural Nursing*.104365962098833. DOI:10.1177/1043659620988339
- Lashkari,M.,Serafi,M.R.,&Bleyard,M.R.(2016). The mediating role of perceived stress in the relationship between hardiness and quality of life in patients on hemodialysis. *Quarterly of Applied Psychology*.9(1).91-107.
- Lee,Y., Lay,J., Mahmood,A., Graf,P.,& Hoppmann,Ch. (2020). Loneliness and Social Engagement: The Unique Roles of State and Trait Loneliness for Daily Prosocial Behaviors. *Innovation in Aging*. 4 (1).627. <https://doi.org/10.1093/geroni/igaa057.2140>
- Levkovich,I.(2021). Coping Strategies and Their Impact on Emotional Distress and Fatigue Among Breast Cancer Survivors. *Cancer Journal* .27 (2),83-89. doi: 10.1097/PPO.0000000000000505
- Li, J., Wong,I.A.,& Kim,W.G.(2017). Does mindfulness reduce emotional exhaustion? A multilevel analysis of emotional labor among casino employees. *International Journal of Hospitality Management*. 64 .21 30. <https://doi.org/10.1016/j.ijhm.2017.03.008>
- Liu, HE.(2006). Fatigue and associated factors in hemodialysis patients in Taiwan. *Res Nurs Health*.;29(1):40-50. DOI: 10.1002/nur.20109
- Liu,X.,& Yu,K.(2019). Emotional stability and citizenship fatigue: The role of emotional exhaustion and job stressors. *Personality and Individual Differences*. 139, 254-262. <https://doi.org/10.1016/j.paid.2018.11.033>
- Mathiowetz,V.(2003). Test-Retest Reliability and Convergent Validity of the Fatigue Impact Scale for Persons with Multiple Sclerosis. *American Journal of Occupational Therapy*. 57 (4).389- 395.
- Millan, M. Nasimi,F.,Hafizi,I.,Gorbanzadeh,M.,&H osseni,Y.(2018). Association of Spiritual Health and Quality of Life in the Hemodialysis Patients Admitted in Shahid Motahari Hospital in Jahrom, Iran(2016). *Iran Journal of Nursing* .31(13).42-51.
- Mollaoglu,M.(2009). Fatigue in People Undergoing Hemodialysis. *Dialysis & Transplantation*.38(6). 216 – 220.DOI: 10.1002/dat.20330
- Monye,I.,& Bamidele,A.(2020). Strengthening immunity through healthy lifestyle practices: Recommendations for lifestyle interventions in the management of COVID□19. *Lifestyle Medicine*.1(1).<https://doi.org/10.1002/lim2.7>
- Moon-Gue ,Sh.(2021). Jaspers' Existential Philosophy and Philosophical Counseling to Overcome Existential Frustration. *Theology and Praxis*.73(2),439-471. DOI: 10.14387/jkspth.2021.73.439.
- Muslim Nahi, S.,& Nawras,A.Khudaeer.(2020). Prevalence of Lifestyle risk factors among a sample of Hypertensive Patients in Al-Hussain Teaching Hospital during 2016. University of Thi-Qar. *Journal of Medicine*.12(2), DOI: 10.32792/utq/utjmed/12/2/7
- Niihata,K., Fukuma,Sh., Akizawa,T.,& Fukuhara,Sh. (2017). Association of coping strategies with mortality and health-related quality of life in hemodialysis patients: *The Japan Dialysis Outcomes and Practice Patterns Study*. PLOS ONE ,12(7) 180498.DOI: 10.1371/journal.pone.0180498
- Gruber,R.,& Schwanda,M.(2021). Feeling fearful and lonely are indicative experiences of emotional distress for people with dementia. *Evidence Based Nursing*. 24(2). 50-51. DOI: 10.1136/

- ebnurs-2018-103003
- Oshvandi,Kh., Salavati,M., Ahmadi,F,& Soltanian,A. (2018). The Effect of Training on Hemodialysis Patients' Lifestyle Promotion. *Avicenna Journal of Nursing and Midwifery Care*.26 (3): 165-172
- Kim,S.,& Yang,J.(2021). An Alternative View of a Hemodialysis–Life Balance: Life Reorganization of Korean Patients Undergoing Hemodialysis. *Journal of Transcultural Nursing*.104365962098833. DOI:10.1177/1043659620988339
- Paen resketi;F. vahdat;Sh.,& hesam.S.(2019). Identifying Effective Factors on the Quality of Services Provided To Hemodialysis Patients in Iranian Hospitals.*Journal of Healthcare Management*.10(2).73-89.
- Pan, H. (2020). A Glimpse of University Students' Family Life amidst the COVID-19 Virus. *Journal of Loss and Trauma*. DOI:10.1080/15325024.2020.1750194
- Pernido,M.(2011). *Technical Problems in Patients on Hemodialysis*. Publisher: Intech
- Qom Univ Med Sci J;10(8):71-79.
- Raeisi,D., Omrani,H.R., Seyedzadeh,A., Akbari,R., Tavasoli,M.,&Safari-Faramani,R(2013).). Quality of life and it's determinant in hemodialysis patients in Kermanshah in 2010. *Journal of Kermanshah University of Medical Sciences*.16(8).772-778.
- Rejeh,N., Hearavi-Karimoo,M., Bahrami,T.,Raeesi,M.,&Tadrissi,D.(2015). The assessment of factors affecting fatigue in older people with hemodialysis. *Iranian Journal of Nursing Research*. 10(3),108-117.10(3),108-117
- Sadri Damirchi,E.,& Ramazani,SH.(2016). Effectiveness of Existential Therapy on Loneliness and Death Anxiety in the Elderly. *Journal of Aging Psychology*.2(1),1-12
- Salomè,A., D'Elia,T.S., Franchini,G. Santilli,V.,& Paolucci,T.(2019). Occupational Therapy in Fatigue Management in Multiple Sclerosis: An Umbrella Review. *Multiple Sclerosis International*.1-7. <https://doi.org/10.1155/2019/2027947>
- Shariatmadar, A. (2014). *Existential Consciousness*. Iran,Tehran,Danjeh.
- Sharifi, L. Fallahi Khoshknab, M., Rahgoi ,A., &Kavehei,B .(2019). Impact of laughter therapy on fatigue and depression in patients undergoing hemodialysis in Sowmehsara and Fouman in 2017. *Community Health journal*.13(2): 65-73
- Shigemura,J., Ursano,R.J., Morganstein,J.C., Kurosawa,M.,& Benedek,D.M.(2020). Public responses to the novel 2019 coronavirus (2019-nCoV) in Japan: Mental health consequences and target populations. *Psychiatry and Clinical Neurosciences*. 74(4).281-282. <https://doi.org/10.1111/pcn.12988>
- Siga,E.,Elso,W.,Gil,M., Basile,H., Benegas,M.,& Iballo,N.(2021). Reduced frequency hemodialysis in times of COVID-19: A prospective study in prevalent patient. *Hemodialysis International*. <https://doi.org/10.1111/hdi.12915>
- Sondergaard,H.(2020). Fatigue While Undergoing Long-Term Hemodialysis. *Clinical Journal of the American Society of Nephrology*. 15(11).1539 -1540. DOI: 10.2215/cjn.14870920
- Sorajjakool,S .,Aja,V., Beverly,Ch., Ramírez-Johnson,J.,&Art,E.(2008). Disconnection, Depression, and Spirituality: A Study of the Role of Spirituality and Meaning in the Lives of Individuals with Severe Depression. *Pastoral Psychology*, 56(5). 521- 532. DOI: 10.1007/s11089-008-0125-2
- Sundström,M., Blomqvist,K., &Edberg ,A-k.(2020). Being a volunteer encountering older people's loneliness and existential loneliness: alleviating loneliness for others and oneself. *Scandinavian Journal of Caring Sciences*. <https://doi.org/10.1111/scs.12869>
- Tedadi Ajerlo,H.,&Sadri,E.(2020). The effectiveness of acceptance and commitment (ACT) treatment on depression, life expectancy and happiness of dialysis patients. *Third National Conference on Psychology*,

Education and Lifestyle, Qazvin. <https://civilica.com/doc/1020912/>

Van Deurzen, E., & Adams, M. (2016). *Skills in Existential Counselling, & Psychotherapy*. A handbook of existential psychotherapy. London: Routledge.

World Health Organisation. *Rolling updates on coronavirus disease (COVID-19)*. Summary. WHO 2020. <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/events-as-they-happen>.

Yasaei sekeh, M., Shafiabadi, A., & Farzad, V. (2018). Effectiveness of Mindfulness-Based Cognitive Therapy (MBCT) on psychological well-being and Its Components in hemodialysis patients. *Scientific Journal of education Research*. 13(55). 149-162.

