

Research Article

Effect of Logotherapy to Control Depression of Drug Abuser in Kassi Kassi and Jumpandang Baru Health Center

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Abstract: The problem of drug abuse has a global impact because it has an impact on addiction and the difficulty of getting healing. Drug abuse carried out continuously by an individual will affect the function of thinking, feeling and behavior of the person who uses it. The aim of the study was to influence logotherapy to control depression in patients with drug abuse at the Kassi Kassi Health Center and Jumpandang Baru Health Center. Quasi experimental research design with pretest and posttest control group design. Population: all drug abuser patients at the Methadone Maintenance Therapy Program in Kassi Kassi Health Center and Jumpandang Baru Health Center were 40 respondents. The research instrument used the Beck Depression Inventory Scale II questionnaire. Univariate data analysis included the values of frequency, mean, \pm SD, and min-max values. Bivariate data analysis used paired t-test, paired t-test (independent t-test), and Mann-Whitney test. The results showed that there were differences in depression scores before and after administration of logotherapy in the intervention group because the p value was $0.001 < 0.05$. The results of the analysis also showed that there were differences in depression scores in the intervention group and the control group, because the value of p value in the first posttest score, the second posttest score, and the posttest mean score was $0.001 < 0.05$. Conclusion: There were significant differences in depression scores between the intervention group and the control group after the implementation of logotherapy. There were also significant differences in depression scores in the intervention group before and after the implementation of logotherapy. Thus, there is an effect of logotherapy to control depression in patients with drug abuse.

Keywords: Logotherapy, Depression, Drug Abuser, Addiction, Drugs.

INTRODUCTION

The problem of drug abuse has a global impact because it has an impact on addiction and the difficulty of getting healing (UNODC, 2015). In 2010, the prevalence of drug abuse amounted to 2.21% in the world, and increased in 2011 to 2.8% (UNODC, 2013). The initial benefits of drugs are being misused due to use outside the medically determined dose limit. Drug began to sell freely on the market and was used by the wider community without medical interests (Sholihah, 2015). In 2014, drug abuse in Indonesia had a prevalence of 17.2% (Ministry of Health, 2014). Then, the number of drug abusers in Indonesia increased in 2015 which was 26.3% (UNODC, 2015).

Health problems in drug users are often associated with an increased risk of other diseases such as HIV / AIDS, hepatitis, tuberculosis and cardiovascular disease, as well as mental or psychological disorders (UNODC, 2015). Drug abuse carried out continuously by an individual will affect the function of thinking, feeling and behavior of the person who uses it (Oreskovich *et al.*, 2015; Park *et al.*, 2016). The research report issued by the APA (American Psychology Association) states that symptoms in depression include sadness, depressed moods, lack of appetite and reduced weight, difficulty sleeping, changes in activity levels, loss of interest and pleasure in normal activities, loss of energy, feeling very tired, negative self-concept, blaming oneself, feeling useless and guilty, difficult to concentrate, often thinking about dying or suicide (Arzani, 2016; Zhang *et al.*, 2016).

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In patients who are drug users, depression can occur before individuals consume drugs, this is done as a way out of the problems that are considered best at that time (Danielsson *et al.*, 2016). Depression can also occur after patients use drugs, it is related to changes in psychological and physiological conditions of patients and also because of various problems that arise because of it, among others, caused by criticism of family, friends, society or failure to try to stop using drugs (Aviad *et al.*, 2015; Arzani, 2016; Asagba *et al.*, 2016; Barrett *et al.*, 2016; Danielsson *et al.*, 2016). Depression can also occur after patients use drugs, it is related to changes in psychological and physiological conditions of patients and also because of various problems that arise because of it, among others, caused by criticism of family, friends, society or failure to try to stop using drugs (Arzani, 2016; Khaledian *et al.*, 2016).

Psychotherapy that can be given to depressed patients is cognitive behavioral therapy (CBT) (Li *et al.*, 2015; Barrett *et al.*, 2016; Thompson, 2016; Mulia *et al.*, 2017), time-limited focused psychotherapy, interpersonal therapy (ITP), Behavioral therapy (BT), group therapy, psychoanalytic therapy, family therapy (Rahmawati, Arneliwati and Elita, 2015), supportive therapy, self-help groups (SHG), social skill training (SST) and logotherapy (Arzani, 2016; Asagba *et al.*, 2016; Khaledian *et al.*, 2016; Sutejo, 2017). Some studies on logotherapy are mostly done for the condition of patients with terminal illness, chronic disease conditions, grief, depression disorders, Post Trauma Syndrome Distress (PTSD), alcohol dependence, personality disorders, obsessive compulsive disorder and phobia (Sutejo, 2017).

Intervention efforts in controlling depression disorders experienced by patients who use drugs need to include psychosocial needs, spiritual guidance, or counseling (Bauer *et al.*, 2015). According to Kaplan and Saddock, one of the therapies that are most needed by patients with depression is logotherapy (Arzani, 2016). Logotherapy can see individuals clearly and holistically including self-image, self-confidence and individual ability to interpret life. The meaning of life is something that is considered important and valuable, and gives special value to someone (Aviad *et al.*, 2015). The meaning of life that is successfully fulfilled will cause the individual to feel life becomes more meaningful and valuable (Aviad *et al.*, 2015; Sutejo, 2017). According to Frankl, the meaning of life is something very objective because it is related to an individual's relationship with his experience in this world, which really exists and is experienced in his life (Smith, 2013; Aviad *et al.*, 2015; Sutejo, 2017).

The existence of an interactive relationship between drug abuse and depression, it is necessary to do a multisectoral approach in the treatment and prevention of depressive disorders in patients who use drugs to be able to improve the mental health of patients and reduce risky behavior (Oreskovich *et al.*, 2015, Li *et al.*, 2015). One of the primary health care units in Makassar City is the Kassi Kassi Health Center and the new Jumpandang Health Center. The new Kassi Kassi Community Health Center and Jumpandang Health Center have a Methadone Maintenance Therapy Program clinical service unit that can assess patients who use drugs. In Indonesia, intervention efforts in primary health services, have not used logotherapy to control depression in patients who use drugs (Sholihah, 2015; Sutejo, 2017). Thus, this study aims to determine the effect of logotherapy to control depression in patients with drug abuse at the Kassi Kassi Health Center and Jumpandang Baru Health Center.

METHODOLOGY

Design of Research

This study used a quasi experiment design with a pretest and posttest control group design. The study was conducted by the Kassi Kassi Health Center and Jumpandang Baru Health Center, Makassar City, South Sulawesi Province.

Population and Sample

The population in this study were all drug users in the Makassar City area. A sample of 40 respondents was selected by simple random sampling. The intervention group is a drug abuser patient at the Kassi Kassi Health Center Methadone Maintenance Therapy Program who will be given a logotherapy intervention, totaling 20 respondents. The control group is a drug abuser patient at the Jumpandang Baru Community Health Center Methadone Maintenance Therapy Program clinic who was not given Logotherapy, amounting to 20 people.

Data collection was carried out by researchers as observers. The provision of logotherapy was carried out by the clinic doctor of Kassi Kassi's Methadone Maintenance Therapy Program. Assistant therapist by clinical nurses Kassi Kassi Health Center Methadone Maintenance Therapy Program. Logotherapy is done 8 times, with a reflexive technique, with a frequency of 2 times per week, which is 25 minutes long, using a logotherapy module and evaluation book. The target of the intervention was a drug user at the Kassi Kassi Community Health Center. The study began with screening respondents, and asked respondents to sign the informed consent first. Furthermore, the first pretest was conducted and the following week a second pretest was performed to measure the depression scores of respondents using the Beck Depression Inventory (BDI) questionnaire. Then in the intervention group was given logotherapy, while the control group was not given

logotherapy. Then the first posttest was carried out and the next week the second posttest was conducted.

Data was processed using Stata 12 to analyze the effect of logotherapy to control depression in patients with drug abuse in the Kassi Kassi Health Center and Jumpandang Baru Health Center. Univariate analysis to

describe each variable measured in the study includes the value of frequency, mean, standard deviation, maximum and minimum values. Bivariate analysis using paired t test, unpaired t test, and Mann-Whitney test. If the p value is <0.05 (α), then there is a significant difference between the intervention group and the control group.

RESULTS

Table.1 Characteristics of Respondents by Age Group, Gender, Level of Education, Occupation and Marital Status in Intervention and Control Groups Before and After Intervention at Kassi Kassi and Jumpandang Baru Health Center

Characteristics	Before (Pretest) n=40								After (Posttest) n=40							
	Not Depression		Mild Depression		Moderate Depression		Total		Not Depression		Mild Depression		Moderate Depression		Total	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Age (years)																
Late teenagers (17-25)	0	0,00	1	2,50	3	7,50	4	10,00	1	2,50	1	2,50	2	5,00	4	10,00
Early adult (26-35)	1	2,50	10	25,00	11	27,50	22	55,00	14	35,00	5	12,50	3	7,50	22	55,00
Late adult (36-45)	1	2,50	7	17,50	4	10,00	12	30,00	4	10,00	2	5,00	6	15,00	12	30,00
Early elderly (46-55)	0	0,00	2	5,00	0	0,00	2	5,00	1	2,50	1	2,50	0	0,00	2	5,00
Gender																
Male	2	5,00	18	45,00	17	42,50	37	92,50	18	45,00	9	22,50	10	25,00	37	92,50
Female	0	0,00	2	5,00	1	2,50	3	7,50	2	5,00	0	0,00	1	2,50	3	7,50
Level of Education																
Basic level	0	0,00	1	2,50	1	2,50	2	5,00	1	2,50	0	0,00	1	2,50	2	5,00
Secondary level	2	5,00	11	27,50	16	40,00	29	72,50	15	37,50	4	10,00	10	25,00	29	72,50
Higher level	0	0,00	8	20,00	1	2,50	9	22,50	4	10,00	5	12,50	0	0,00	9	22,50
Occupation																
Does not work	0	0,00	7	17,50	7	17,50	14	35,00	8	20,00	1	2,50	5	12,50	14	35,00
Work	2	5,00	13	32,50	11	27,50	26	65,00	12	30,00	8	20,00	6	15,00	26	65,00
Marital status																
Single	1	2,50	6	15,00	6	15,00	13	32,50	8	20,00	3	7,50	2	5,00	13	32,50
Married	1	2,50	14	35,00	12	30,00	27	67,50	12	30,00	6	15,00	9	22,50	27	67,50

Based on table 1, it shows the characteristically crosstabulation of respondents before and after the administration of logotherapy to the level of depression of patients who use drugs. Respiratory depression categories were divided into 3 categories, namely no depression (score <9), mild depression (score 10-19), moderate depression (score > 20). Most of the highest respondents in the early adult age group (26-35) were 22 people (55%). which consisted of no depression 1 person (2.5%), mild depression 10 people (25%), and moderate depression 11 people (27.5%). Whereas after the intervention (posttest), there was an increase in respondents who were not depressed to 14 people (35%), mild depression decreased to 5 people (12.5%), and moderate depression also decreased to 3 people (7.5%).

Most of the respondents were 37 people (92.5%), consisting of no depression 2 people (5%), mild depression 18 people (45%), and moderate depression 17 people (42.5%) . While after the intervention (posttest), there was an increase in respondents who were not depressed to 18 people (45%), mild depression decreased to 9 people (22.5%), and moderate depression also decreased to 10 people

(25%). The highest educational background of respondents was at the secondary education level (high school) of 29 people (72.5%), which consisted of no depression 2 people (5%), mild depression 11 people (27.5%), and moderate depression 16 people (40%). While after the intervention (posttest), there was an increase in respondents who were not depressed to 15 people (37.5%), mild depression decreased to 4 people (10%), and moderate depression also decreased to 10 people (25%).

Most of the respondents were still productive at work, as many as 26 people (65%), which consisted of no depression 2 people (5%), mild depression 13 people (32.5%), and moderate depression 11 people (27.5%) . While after the intervention (posttest), there was an increase in respondents who were not depressed to 12 people (30%), mild depression decreased to 8 people (20%), and moderate depression also decreased to 6 people (15%). Most of the respondents had married status as many as 27 people (67.5%), consisting of not depressed 1 person (2.5%), mild depression 14 people (35%), and moderate depression 12 people (30%). Whereas after the intervention (posttest), there was an increase in respondents who were not depressed

to 12 people (30%), mild depression decreased to 6 people (15%), and moderate depression also decreased

to 9 people (22.5%).

Table.2 Differences in Scores of Depression before and After Logotherapy of Drug Abusers in Kassi Kassi and Jumpandang Baru Health Center

Score of Depression	Group	n	Mean	Min-Max	±SD	Normality test	P Value
First Pretest	Intervention	20	18,45	4 - 35	8,684	0,449	0,449
	Control	20	16,70	9 - 25	5,410	0,287	
Second Pretest	Intervention	20	20,80	6 - 33	7,592	0,449	0,782
	Control	20	20,25	13 - 28	4,563	0,449	
Mean Pretest	Intervention	20	19,62	5 - 34	7,789	0,960	0,569
	Control	20	18,47	13 - 26	4,423	0,082	
First Posttest	Intervention	20	2,50	1 - 5	1,277	0,001	0,001
	Control	20	20,35	9 - 30	4,934	0,001	
Second Posttest	Intervention	20	4,60	0 - 9	2,233	0,001	0,001
	Control	20	17,40	11 - 24	3,618	0,001	
Mean Posttest	Intervention	20	3,55	1 - 6,5	1,234	0,001	0,001
	Control	20	18,87	10 - 25,5	3,463	0,761	

Table 2 shows that the depression scores at the first pretest of the intervention group and the control group had not much different mean values of 18.45 and 16.70 respectively. Then at the second pretest the value of the depression score of the intervention group and the control group had a value that was not much different, which were 20.80 and 20.25 respectively. After obtaining each score on the first pretest and the second pretest, the mean pretest score of the intervention group and the control group obtained a mean score that was not much different, namely 19.62 and 18.47 before being given a logotherapy intervention. after logotherapy was given to the intervention group, it was found that the depression score in the first posttest of the intervention group decreased to 2.50, while the control group had a relatively high mean value of 20.35. Then the first posttest was carried out again, in the intervention group it was decreased to 4.60, while the control group had an average value that was still high at 17.40. After giving logotherapy, each score in the first posttest and the first posttest was found to be significantly different between the mean posttest score of the intervention group which had a low depression score average of 3.55, while the control group had a depression score average value. the high is 18.87.

Table 2 shows that after a normality test using Shapiro Wilk, the analysis showed that the depression scores of respondents before and after logotherapy (pretest and posttest) in the intervention group were normally distributed or equivalent to the p value of 0.960 and 0.766 > 0.05. Because the data are normally distributed, paired t tests are carried out, and the analysis results show that there are differences in depression scores before and after administration of logotherapy in the intervention group because the p value is 0.001 < 0.05, which means that H_0 is rejected. The results of the analysis showed that there were no differences in respondents' depression scores before and after logotherapy (pretest and posttest) in the control

group, because the p value was 0.662 > 0.05, which means that H_0 was accepted.

Based on table 2 shows that after a normality test using Kolmogorov-Smirnov, the results of analysis showed that the depression scores of respondents before (pretest) administration of logotherapy in the intervention group and the control group were normally distributed or equivalent, both first pretest scores, second pretest scores, or mean score pre, with p value of 0.449 > 0.05. Because the data are normally distributed, the unpaired t test is carried out, and the results of the analysis show that before (pretest) administration of logotherapy, there were no differences in depression scores in the intervention group and the control group, because the p value was at first pretest score (0.449), second pretest score (0.782), or the mean pretest score (0.569) > 0.05, which means that H_0 is accepted. Then the Mann Whitney test was carried out, and the results showed that after (posttest) the administration of logotherapy, there were differences in depression scores in the intervention group and the control group, because the p value in the first posttest score, second posttest score, and mean posttest score was 0.001 < 0, 05, which means H_0 is rejected. This shows that by giving logotherapy to the intervention group, it will give a significantly better change in the depression score than the control group that did not get logotherapy.

DISCUSSION

This study was conducted on 40 respondents of drug user patients who participated in the Methadone Maintenance Therapy Program at Kassi Kassi Health Center and Jumpandang Baru Health Center, Makassar City. After 8 times of logotherapy, it was found that the majority of drug users who were depressed had the characteristics of early adulthood (26-35 years), most drug users were male and had secondary education level (high school), some of them the number of respondents worked and was married. Also obtained were the results

of analysis that significant differences in depression scores between the intervention group and the control group after the implementation of logotherapy. It was also found that there were significant differences in depression scores in the intervention group before and after the implementation of logotherapy. Thus, it can be said that logotherapy is effectively and significantly influential for controlling depression in drug users.

The results of the analysis show that drug abuse patients are generally in the early adult age group (26-35 years). Early adult age groups (26-35 years) are transitional periods and individuals have the freedom to choose to be free from dependence on others and become more independent, determine their own way of life towards the situation and expectations of their social environment (Edlund *et al.*, 2015). An individual who is unable to adapt and face the life problems he experiences will experience stress (WHO, 2018), thus making wrong decisions and ending up in drug abuse. Drug abuse is generally caused by several factors, namely individual and environmental factors, and young to early adulthood is one of the causes of drug abuse (Park *et al.*, 2016).

Most drug users are male. The difference in characteristics, biological responses, social or cultural environment between men and women causes intrinsic vulnerability to using opportunities related to drug abuse (Secor *et al.*, 2016). In the community, there is a stigma against women who abuse drugs, supported by cultural norms and values, making it difficult for women to recognize drug abuse committed or leave home and family, and fear treatment. (Aviad *et al.*, 2015).

Most drug users have a secondary education level (High School). While respondents with a low level of education (Elementary School and Junior High School) have a very small amount of 5%, and there are also 22.5% of respondents with a higher education level (Graduate School). Drug abuse is generally caused by several factors, namely individual factors and the environment, and one of the individual factors is the level of education (Tran *et al.*, 2016). There are opportunities and infrastructure, emotional instability and mental weakness, and they are not ready to face any competition with other individuals (Zhang *et al.*, 2016).

Most of the respondents in the intervention group and the productive control group were at work. Based on data of UNODC (2013) stated that the prevalence of productive drug abusers worked as laborers, employees, or employers as much as 14.4% in mainland Europe in 2011, while those that did not work were 6.3%. In the community, working people also have a wider social environment, so the opportunity to abuse drugs is greater (Oreskovich *et al.*, 2015). Most of the respondents have married status, communication in marital relations is very important to resolve conflicts

that occur so as not to cause psychological problems and influence behavior so that it deviates from drug abuse (Rustyaningsih *et al.*, 2009).

The results showed that there were differences in depression scores before and after administration of logotherapy in the intervention group with p value $0.001 < 0.05$. Research by Maver & Hulirg (Maryatun, 2011) also found that administering logotherapy for 1 year could increase the meaningfulness of life of narcotic addict patients and reduce the rate of drug addiction from 45% to 11%. Sutejo (2017) also stated that there was an increase in the mean score of life before and after logotherapy in the intervention group, and there were significant differences with p-value = $0.001 < 0.05$, and logotherapy techniques based on the principle that human life has important meanings that must be achieved in life. Erlangga (2017) also showed effective logotherapy to increase receipt of broken home children in Demak Regency as evidenced by an increase in receipt of broken home children before and after being given logotherapy, with a significance value of $0.005 < 0.05$. Effective logotherapy techniques to increase acceptance of broken home children to give positive feelings, good communication, accept limitations that exist, and respect themselves.

After (posttest) administration of logotherapy, there were differences in depression scores in the intervention group and the control group, because the p value on the first posttest score, the second posttest score, and the mean posttest score was $0.001 < 0.05$. Although the two groups of respondents indicated an increase in the ability to interpret life, but the group given logotherapy was significantly higher than the control group who did not receive logotherapy. This is in line with research Arzani (2016) stated that there were significant differences in depression scores in the intervention group and the control group after being given logotherapy, with a p value of 0.001, and effective logotherapy to reduce depression in narcotics addicts in the city center of Ghorveh (Niko Salamat). According to Arzani (2016), drug dependence leads to depression, so the appropriate stage of care is needed for mental health disorders experienced by drug addicts, and the need to make policies related to it in the community, so logotherapy will help drug addicts achieve their meanings and responsibilities and achieve goals, which leads to a decrease in depression.

The success of the change level of depression in the intervention group after getting logotherapy was due to several factors, namely the emotional closeness between respondents and the courage to express their opinions and feelings in finding the meaning of life, as well as trust to clinic's doctor as a therapist, which gives rise to feelings of respect and the emergence of meaningful feelings (Arzani, 2016, Smith, 2013). Thus it can be said, drug user patients feel more meaningful and happy if they can be meaningful to others.

CONCLUSION

Based on the results of the analysis obtained, most drug users have early adult age characteristics (26-35 years), male sex, have secondary education (high school / vocational), have a working status, and have a married status. Puskesmas as primary health services need to provide depression treatment procedures for patients who use drugs. Logotherapy can be used as an alternative therapy to treat depression in drug-dependent patients. Giving treatment for depression recovery with logotherapy for drug abusers who are depressed, because logotherapy is effectively and significantly influential to control depression in drug users.

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